BOOK OF PROCEEDINGS

10th Conference of the European Academy of Occupational Health Psychology

Edited by:

Aditya Jain
David Hollis
Nicholas Andreou
Flavia Wehrle

European Academy of Occupational Health Psychology
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PREFACE

The European Academy of Occupational Health Psychology in collaboration with the Division of Public and Organizational Health (POH), Institute of Social and Preventive Medicine, University of Zürich and Centre for Organizational and Occupational Sciences, ETH Zurich welcomes you to Zürich, the ‘cultural capital of Switzerland’ and to the Swiss Federal Institute of Technology - ETH Zürich that is playing host to its 10th conference.

The Academy’s first conference took place in 1999 to provide a new platform to promote the development of research, education and practice in the then emerging field of occupational health psychology. That inaugural event was held in Lund, Sweden. In the intervening years, conferences have been held successfully in Nottingham, England (2000), Barcelona, Spain (2001), Vienna, Austria (2002), Berlin, Germany (2003), Porto, Portugal (2004), Dublin, Ireland (2006), Valencia, Spain (2008) and, most recently, Rome, Italy (2010). We are delighted to have been able to organise this 10th Academy conference in Zürich and this has in no small part been possible due to the financial and practical support provided by our co-organiser and by our Swiss and international sponsors.

In our complex, fast changing service and knowledge society, health is strongly influenced by the continuously changing interaction between organizations and their employees. Occupational health psychology aims to improve this interaction and thus can simultaneously contribute to individual, organizational and public health. The conference will address how to balance interventions and outcomes on these levels and thus how to increase equal health opportunities in our society and showcase the contribution of occupational health psychology to individual, organizational & public health. It has a powerful and engaging schedule of keynote, oral and poster presentations as well as special sessions and workshops.

At each conference the Academy awards a lifetime Fellowship to an individual who, in the opinion of the Executive Committee, has made an exceptional contribution to the discipline of occupational health psychology. This year we are proud to welcome Professor Philip Dewe, Birkbeck College, Professor Sir Michael Marmot, University College London, and Professor Norbert Semmer, University of Bern into our College of Fellows.

On behalf of the Organising Committee, we would like to thank you for contributing to this conference. We hope it will meet your expectations and will stoke up your enthusiasm. We continue in our commitment to build a member’s Academy and will always welcome those who wish to be actively involved going forward. Finally, we would like to thank all of those who have given so generously of their time in helping to make this event a reality.

Georg F. Bauer
Conference Chair

Tom Cox
President, EAOHP
PROMOTING COMMITTEE

Tom Cox
President, EAOHP

Georg F. Bauer
Conference Chair

Felix Gutzwiller
Director, Institute of Social and Preventive Medicine (ISPM), University of Zurich

Theo Wehner
Director, Center for Organizational and Occupational Sciences, ETH Zurich

ORGANISING COMMITTEE

Nicholas Andreou, University of Nottingham, UK
Juliet Hassard, University of Nottingham, UK
Oliver Hämmig, University of Zurich/ETH Zurich, Switzerland
David Hollis, University of Nottingham, UK
Aditya Jain, Nottingham University Business School, UK
Greg Jenny, University of Zurich/ETH Zurich, Switzerland
Stavroula Leka, University of Nottingham, UK
Daniel Mari Ripa, University of Oviedo, Spain
Ruth Steiger, University of Zurich/ETH Zurich, Switzerland
Jessica Tang, University College London, UK
Flavia Wehrle, University of Zurich/ETH Zurich, Switzerland
SCIENTIFIC COMMITTEE

Peter Bamberger, Tel Aviv University, Israel
Georg F. Bauer, ETH Zurich/University of Zurich, Switzerland
Victor Catano, Saint Mary's University, Canada
Mark Cropley, University of Surrey, UK
Brigitta Danuser, Institute for Work and Health, Switzerland
Philip Dewe, Birkbeck College, University of London, UK
Anna-Liisa Elo, Finnish Institute of Occupational Health, Finland
Roxanne Gervais, Health and Safety Laboratory, UK
Sabir Giga, University of Bradford, UK
Birgit Greiner, University of Cork, Ireland
Gudela Grote, ETH Zurich, Switzerland
Aditya Jain, University of Nottingham Business School, UK
Greg Jenny, ETH Zurich/University of Zurich, Switzerland
Maria Karanika-Murray, Nottingham Trent University, UK
Peter Kelly, Health and Safety Executive, UK
Gail Kinman, University of Bedfordshire, UK
Anne Kouvonen, Queen's University Belfast, UK
Andrew Noblet, Deakin University, Australia
José Mª Peiró, University of Valencia, Spain
Norbert Semmer, University of Bern, Switzerland
Johannes Siegrist, University of Dusseldorf, Germany
Noreen Tehrani, Chartered occupational, counselling and health psychologist, UK
Eva Torkelson, Lund University, Sweden
Franziska Tschan, University of Neuchatel, Switzerland
Sturle Tvedt, Norwegian University of Science and Technology, Norway
Joanna Wieclaw, Centre for Community Health and Quality, Denmark
CONFERENCE SPONSORS AND PATRONS

The following have generously supported the 10th conference of the European Academy of Occupational Health Psychology

- Municipality of Zurich
- Canton of Zurich

ASA | SVV
Schweizerischer Versicherungsverband
Association Suisse d'Assurances
Associazione Svizzera d'Assicurazioni
Swiss Insurance Association

Gesundheitsförderung Schweiz
Promotion Santé Suisse
Promozione Salute Svizzera
Health Promotion Switzerland

Routledge
Taylor & Francis Group

Work & Stress
A journal of work, health and organisations
DELEGATE FACILITIES

Venue

The conference will be held at the Swiss Federal Institute of Technology - ETH Zurich. The venue is located right above the heart of Zurich, the 'Cultural Capital of Switzerland' and offers magnificent views of the city, lake Zurich and the Swiss alps. It is a 15 minute walk from the main train station and well connected by public transport.
Address: ETH Zurich, Rämistrasse 101, 8092 Zurich, Switzerland

Getting There

There are no parking opportunities at ETH Zurich. Please use public transport.

Take tram (tramway) numbers 6, 9 or 10 to the station 'ETH/Universitätsspital'. The 'Polybahn' (included in tram ticket) will also take you directly from Central to the ETH main building (conference venue). Tickets can be bought at every station (before entering the tram/train). Be aware that most machines will only accept coins. At larger stations (e.g., airport, main train station, Central), bills and cards are accepted as well.

From/to Zurich Airport: Buy a ticket for Zone 10 and 21 (24 Stunden, 1/1). It allows for unlimited travelling from/to the airport and within Zurich City for 24 hours by tram, train and public boat and costs 12.80 Swiss Francs. Tram no.10 will take you directly from the airport to the ETH main building (approx. 30 minutes).

Within Zurich City: Buy a ticket for Zone 10 only (24 Stunden, 1/1). It allows for unlimited travelling within Zurich City for 24 hours by tram, train and public boat. It costs 8.20 Swiss Francs.

Zürich Card: If you plan to visit museums or other sights during your stay in Zurich, consider the ZürichCard. It includes unlimited travelling within Zurich City for 24 or 72 hours (20 or 40 Swiss Francs respectively) by tram, train and public boat, free admission to all museums in Zurich as well as for other discounts (shopping and restaurants). Visit www.zuerich.com for details.

Internet access

There is wireless Internet available at ETH Zurich. Use the following information to log in:
User name: EAOHP2012
Password: zurich2012

Catering

Lunch is included in the delegate fee and refreshments will be available at no cost each morning and afternoon of the conference. Refreshments will also be available throughout the duration of the conference.

Exhibition stands

During the conference, you are invited to visit the exhibition stands located in the foyer. Books and journals relevant to occupational health psychology from Wiley-Blackwell, Taylor & Francis and Springer will be available.
Cloakroom

There is an attended cloakroom available (located in room HG F26.1 next to the conference office).

Presentations (Author Guidelines)

ORAL: Each presentation will last 15 minutes including time for questions. The session chair will introduce each presenter and ensure that presentations are kept to time. All oral presentations must be supported by Microsoft Power Point. Presentations should be on a USB stick and clearly labelled with (i) the name of the lead author, (ii) title of presentation and (iii) day, time and room number of the presentation. Please bring your presentation to the conference office (HG F26.3) prior to your presentation (for sessions in the morning at least half an hour prior to the first session, for sessions in the afternoon at the beginning of lunch break or the day before your presentation).

POSTER: The poster should not be more than AO size: 84cm (W) × 119cm (H) in portrait format. Authors for poster presentations should bring their posters to the conference venue on the day of the presentation. Tape will be provided. However, all authors are responsible for placing their own posters according to their assigned numbers.

Additional Information

SPORTS FACILITIES: Guestcards for the Academic Sports Association Zurich are available in the conference office for 10 Swiss Francs (cash only). It allows for unlimited access to the sports facilities at the ETH (open 06.30 through 21.45). Several exercise rooms, training sessions and courses (e.g. yoga, aerobic, Zumba; no prior registration necessary), relaxation rooms and more are included. Please bring sportswear and your own lock to use the lockers. For the detailed program visit www.asvz.ch or ask in the conference office.

EVENING RECEPTION - Welcome to Zurich: The evening reception will be held on Wednesday, April 11th from 18:30 – 21:00, at the ‘Dozentenfoyer’ of ETH Zurich. Included are great views over the city of Zurich. Take the elevator ‘Süd’ (outside the Audiomax) to the floor HG J and follow the signs. Please bring your name badge as there will be no access otherwise.

CONFERENCE DINNER - Zunfthaus Zur Meisen: The conference dinner has been organised at the historic Zunfthaus zur Meisen. A map is available on www.zunfthaus-zur-meisen.ch (‘Lageplan’). Between courses, Christian Zehnder, a Swiss vocalist, voice artist, yodeler and overtone singer will perform some of his most fascinating and creative pieces, accompanied by a violinist. Enjoy his unique mixture of alpine folk music, contemporary jazz tones and much more. For a sneak-peek visit www.zehndermusic.ch

Further assistance

Should you require any assistance during the conference, please don’t hesitate to visit the conference office (located in room HG F26.3 close to the Audiomax).
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<td><em>Foyer Audiomax</em></td>
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<td><strong>Opening Session</strong></td>
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<td><strong>EAOHP Fellowship address: Fair Society, Healthy Lives and the Role of Work</strong></td>
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<td>10:30 - 11:00</td>
<td><strong>Refreshments</strong></td>
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<td><em>Foyer Audiomax / Uhrenhalle</em></td>
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<td>11:00 - 12:30</td>
<td><strong>Symposium: Employee Reactions to Job Insecurity - A Look at Novel Individual and Organizational Moderators</strong></td>
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<td><strong>Symposium: New Insights on the Integration of Work and Personal Life - Latest Results from European Research</strong></td>
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<td>12:30 - 13:45</td>
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<td><strong>Symposium: Recent Advances in Research on Job Insecurity</strong></td>
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<td>Resilience and Wellbeing at Work</td>
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<td>- Measurement and tools in Occupational Health Psychology</td>
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<td>- Occupational Health Psychology Interventions in Practice</td>
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<td>EAOHP Business Meeting (open to all members)</td>
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<td>Routledge Keynote Address: Recovery From Work During Off-Job Time</td>
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<td>Work engagement, Commitment, and Performance I</td>
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<td>Mental Health and Wellbeing at the Workplace II</td>
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<td>15:00 - 17:00</td>
<td>Symposium: Employability and health and well-being</td>
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<td>Employee Motivation and Performance I</td>
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<td>Antecedents of stress and well-being III</td>
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<td>16:30 - 17:00</td>
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<td>17:00 - 18:30</td>
<td>Work engagement, Commitment, and Performance II</td>
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<td>Symposium: Workplace Incivility - Mechanisms, Context, and Third-Party</td>
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<td>Measurement and tools in Occupational Health Psychology</td>
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<td>Symposium: Context Matters - Coping, Recovery, and Change</td>
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<td>Symposium: Women who work: Choices, roles and abilities and their</td>
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<td>19:30 onwards</td>
<td>Conference Dinner: Zunfthaus zur Meisen</td>
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**13 April 2012**

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<td>Organisational Citizenship, Justice and Culture</td>
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<td>Symposium: Illegitimate Tasks as a Source of Stress</td>
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<td>Workplace Health Promotion I</td>
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<td>Burnout: Antecedents and Consequences III</td>
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</table>
10:15 - 11:00  Conference Keynote Address: Bridging Occupational, Organizational and Public Health - A Research-Practice Perspective  
HG F30: Audimax

11:00 - 11:30  Refreshments  
Foyer Audimax / Uhrenhalle

11:30 - 13:00  Occupational Health Psychology Policy and Practice  
HG F26.5

Symposium: Burnout - Antecedents in Portuguese nurses, teachers and police officers  
HG G26.1

Leadership and occupational health and safety  
HG E33.5

Symposium: Fostering employee well-being - The interplay between work and private life  
HG G26.5

Symposium: Researching organizational level health interventions – discussing different approaches  
HG F30: Audimax

13:00 - 14:15  Lunch and Poster Session  
Foyer Audimax / Uhrenhalle

  Poster Sessions:  Foyer EO Süd
  – Organisational culture, development and leadership
  – Employee motivation, satisfaction and performance
  – Work Engagement and resilience
  – Trauma, PTSD and Coping
  – Diversity and inequalities
  – The physical work environment and safety

14:15 - 15:45  Workplace Health Promotion II  
HG G26.5

Interventions in Occupational Health Psychology  
HG E33.1

Working hours and time pressure  
HG G26.1

The role of emotions in the workplace  
HG G26.3

Job insecurity and change  
HG E33.5

15:45 - 16:30  Awards and closing session  
HG F30: Audimax
DETAILED CONFERENCE PROGRAMME
### 11 April 2012

**Registration**  
8:00 - 9:00  
*Foyer Audiomax*

**Opening Session**  
9:00 - 9:45  
*HG F30: Audiomax*

- **Tom Cox**, President, European Academy of Occupational Health Psychology  
- **Georg Bauer**, Conference Chair, Head Division Public and Organizational Health University and ETH Zurich  
- **Felix Gutzwiller**, Director Institute of Social and Preventive Medicine, University of Zurich and Member of the Swiss Council of States  
- **Maggie Graf**, Head of Occupational Health Division, Swiss State Secretariat for Economic Affairs SECO

**EAOHP Fellowship address: Fair Society, Healthy Lives and the Role of Work**  
9:45-10:30  
*Audimax F30*  
Chair: Stavroula Leka

Fair Society, Healthy Lives and the Role of Work  
*Michael Marmot*

**Refreshments**  
10:30 - 11:00  
*Foyer Audiomax / Uhrenhalle*

**Symposium: Employee Reactions to Job Insecurity - A Look at Novel Individual and Organizational Moderators**  
11:00 - 12:30  
*HG F30: Audiomax*  
Chair: Hans De Witte

Employee Reactions to Job Insecurity: A Look at Novel Individual and Organizational Moderators  
*Hans De Witte, Tahira Probst*

Boundaryless Career Orientation and Reactions to Job Insecurity: Some Surprising Results  
*Tahira Probst*

Examining the effects of negative affectivity on self- and supervisor ratings of job stressors: The role of stressor observability.  
*Maike Debus, Cornelius J. König, Elena Pintarelli, Natascha Schüepp, Martin Kleinmann*

When personality matters: Honesty-Humility moderates the impact of job insecurity on counterproductive work behaviours.  
*Antonio Chirumbolo*

Do self-enhancing and affiliative humour buffer the health-impairing associations of job insecurity?  
*Anja Van den Broeck, Tinne Vander Elst, Hans De Witte*
The job insecure workforce - Is coping possible?  
*Anne Richter, Katharina Näswall, Magnus Sverke*

**Symposium: New Insights on the Integration of Work and Personal Life - Latest Results from European Research**

11:00 - 12:30  
HG F26.5  
Chair: Rebecca Brauchli

New Insights on the Integration of Work and Personal Life - Latest Results from European Research  
*Rebecca Brauchli, Maria Peeters, Jari Hakanen, Johanna Rantanen, Oliver Hämmig*

Work-home integration, work-related well-being and voluntary work  
*Rebecca Brauchli, Maria Peeters, Elianne van Steenbergen, Theo Wehner, Oliver Hämmig*

On the motivation to work until the retirement age: What is the role of work-family interference?  
*Maria Peeters, Elianne van Steenbergen*

Passion for work: How do work engagement and workaholism affect work-family balance over time?  
*Jari Hakanen, Maria Peeters*

Interplay between Work-Family Conflict and Enrichment in a Three-Wave Study  
*Johanna Rantanen, Saija Mauno, Ulla Kinnunen*

**Symposium: Recovery after Work - The Role of Psychological detachment in the recovery process**

11:00 - 12:30  
HG E33.1  
Chair: Mark Cropley

Recovery after Work: The Role of Psychological detachment in the recovery process  
*Mark Cropley*

Relationships between supervisor behaviour and employees' recovery during leisure time  
*Carmen Binnewies, Lena Herdt*

Need for recovery from work interacts with sleeping problems to predict long-term mental health  
*Leif Rydstedt, Jason Devereux*

A diary study on work pressure, rumination about work, and recovery  
*Fred Zijlstra, Alicia Walkowiak, Ute Hülsheger*

Investigating the relationship between work-related rumination, sleep quality and work-related fatigue  
*Dawn Questret, Mark Cropley*

Emotional Vs. Cognitive rumination: Are they differentially associated with Physical and Psychological health?  
*Jessica Lang, Thomas Kraus*
### Antecedents of stress and well-being: Cross national evidence

**11:00 - 12:30**  
HG G26.5

**Occupational Stress in Canadian College Staff**  
*Victor Catano*

Test of the Job Demand-Resource Model in China: When Demand and Resource are Qualitatively Similar  
*Cong Liu, Ying Liu, Scott Gebhardt, Chaoping Li*

**Psychosocial work environment in the educational sector in Norway**  
*Synne Bendal, Rolf Westgaard*  
*NTNU, Trondheim, Norway*

Explaining work engagement in Chilean public workers: The contribution of psychological empowerment in the motivational process  
*Marcela Quiñones, Hans De Witte, Anja Van Den Broeck*

Everything that's solid melts into air: Harmonization of job demands in a globalized economy  
*Beate Schulze*

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### Burnout: Antecedents and Consequences I

**11:00 - 12:30**  
HG G26.1

Job Burnout and Depression: Unraveling their Temporal Relationship and considering the Role of Physical Activity  
*Sharon Toker, Michal Biron*

Burnout and impaired executive control  
*Marlen Hupke, Klaus-Helmut Schmidt*

The Influence of Guilt on the Relationship Between Burnout and Psychosomatic Disorders  
*Pedro Gil-Monte, Hugo Figueiredo-Ferraz, Mary Sandra Carlotto*

Cross Cultural Comparison of Workplace Stress and Coping as predictors of Burnout Among Asian Nurses: A three Country Study  
*Hazel Melanie Ramos, Angeli Santos, Yunbo Pan, Siew Li Tan, Kok Chien Leong*

Burnout, workplace stressors and period of employment in a particular profession among Slovenian employees  
*Nataša Sedlar, Tatjana Novak, Lilijana Šprah*

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### Lunch and Poster Session

**12:30 - 13:45**  
Foyer Audimax / Uhrenhalle

**Poster Session: Antecedents of stress and well-being**  
**12:30 - 13:45**  
Foyer EO Süd
Perceived Organizational Support, Organizational Cynicism and Well-Being of Japanese Employees: Moderating Effect of Supervisor Support
Yoriko Matsuda, Rie Ishikawa

Experimental study on the relationship between organizational culture and affective well-being at work: Role of person-organization fit
Sónia P. Gonçalves, José Neves

Job demands-resources model in an Italian sample of academics
Paola Gatti, Lara Colombo, Tommaso Fabbri, Ylenia Curzi

Fit of Working Hours and Personal Needs of Physicians
Grit Tanner

The loss cycle of burnout: New evidences in Italian teachers
Lorenzo Avanzi, Cristian Balducci, Franco Fraccaroli

The moderating role of psychological detachment and recovery quality in a 12-hr shift roster.
Roman Prem, Christian Korunka, Bettina Kubicek

The participation and involvement of workers and workers’ representatives for safety at work (RLS) in the Italian credit sector
Fiorisa Lentisco, Ilaria Rossi, Pina Galzerano

Verification of a Predictive Model of Psychological Health at Work in Canada and France.
André Savoie, Jean-Sébastien Boudrias, Pascale Desrumaux, Patrick Gaudreau, Luc Brunet

Aging and occupational wellbeing: an exploratory study
Daniela Converso, Valentina Trotta, Sara Viotti

Understanding Changes in Team Member Stress over Time: A Laboratory Simulation
Clark Calabrese, Megan Dove-Steinkamp, Michelle Spina, Robert Henning

Relationship between stress coping strategies and absenteeism among middle level managers
Maja Meško

Consequences of work-family conflict for employee well being: A Cross National Comparison
Sumaiya Syed, René Schalk

Poster Session: Workplace health promotion
12:30 - 13:45 Foyer EO Süd

Sleep tonight, safe tomorrow: Sleep, fatigue and occupational safety
Jennifer H.K. Wong, Kevin Kelloway, Jane E. Mullen

“Call centre” or “call centres”? Similarities and differences in determinants of physical discomfort at work.
Simona Ricotta, Federica Emanuel, Lara Colombo, Chiara Ghislieri
Stress, Burnout and Emotional Disorders in Teachers and Students of Elementary and Secondary Education in Portugal
João Paulo Pereira, Soraia Soares, Marta Lamarão

Exercise Participation among Saturation Divers employed in Norway: a Focus Group Study
Yonne Tangelder, Andreas Møllerløkken

Type D personality, social inhibition and negative affectivity do not raise blood pressure levels in a cohort of factory employees
Stavros Gousopoulos, Athanasios Lagoudis, Christine Varvara, Panagiotis Stafylas

Poster Session: Work-Life Balance
12:30 - 13:45  Foyer EO Süd

The role of professional development to promote work engagement and work-family enrichment
Monica Molino, Chiara Ghislieri, Claudio G. Cortese

Exploring an expanded model of recovery experiences: Its impact on health and performance outcomes
Amanda MacDonald, Arla Day

Enhancing return to work from family leave with reference group method - project design and results from a pilot phase
Salla Toppinen-Tanner, Jukka Vuori, Aino Luotonen

Job stressors and their relations to work productivity loss and activity impairment: The moderating role of work-family conflict and enrichment
Sara Tement, Nataša Sedlar

Poster Session: Mental Health and Wellbeing
12:30 - 13:45  Foyer EO Süd

Humanitarian Relief Work and Trauma-Related Mental Illness
Ellen Connorton, Melissa Perry, David Hemenway, Matthew Miller

Well-being at workplace: the need for a psychological counselling service - an exploratory case study
Luísa Soares, Filipa Oliveira, Carla Lucas

To Investigate if Emotional Labour and Other Work Strains Impact on Physical and Mental Health
Alia Al Serkal

Involvement and emotional regulation in Oncology Health Professionals - Construction of an assessment tool –
Soraia Soares, João Paulo Pereira, Maria João Cunha
Karoshi and Its Environmental Characteristics
Fang-Tai Tseng, Ci-Rong Wu

Work Stress
Kanda Janyam

Perfectionism in the Workplace
Timur Ozbilir, Victor Catano, Arla Day, Lucie Kocum

Work and headache: A prospective study of psychological, social, and mechanical predictors of headache severity.
Jan Olav Christensen, Stein Knardahl

Occupational well-being of social workers who work with families and children
Andreas Baldschun

**Poster Session: Job Insecurity and Temporary Employment**
**12:30 - 13:45**  
**Foyer EO Süd**

Non Molto Bene: Job Insecurity and Accident Under-reporting in Italy
Tahira Probst, Claudio Barbaranelli, Laura Petitta

Employability and Individual Well-being In times of organizational change: Results from a Swedish study
Claudia Bernhard-Oettel, Gisela Jönsson, Katharina Näswall, Fredrik Movitz

Self-esteem and Occupational Self-efficacy as Mediators of the Association among Perceived Organizational Support, Work Engagement and Job Satisfaction: differences among temporary and permanent employees.
Cinzia Guarnaccia, Laura Salerno, Pietro Spata

Job satisfaction and academic precarious work: an Italian study
Margherita Zito, Monica Molino

Temporary workers: the role of Corporate Image on Work Engagement
Alba Civilleri, Dario Davì, Vincenzo Nuzzo

**ICG-OHP: Invited Session**
**12:30 - 13:45**  
**HG E33.5**

**Symposium: Psychology of workplace safety**
**13:45 - 15:15**  
**HG E33.1**  
Chair: Nick Turner and Stacey Conchie

Psychology of workplace safety
Nick Turner, Stacey Conchie, Kathryn Meams

Occupational stressors as antecedents of workplace accidents and injuries: The differential role of hindrance and challenge stressors
Sharon Clarke
Autonomy, Task Uncertainty, and Injuries: A Model using Meta-Ethnographic Data
Nick Turner, Gudela Grote, Jeremy Dawson, Paul Dueck, Krystal Caldwell

Role control, self-efficacy and engagement in safety
Stacey Conchie, Susannah Moon

Safety Communication at Olympic Park
Alistair Cheyne, Ruth Hartley, Aoife Finneran, Alistair Gibb

Implicit Risk and Implicit Trust amongst Construction Workers
Calvin Burns

Symposium: Recent Advances in Research on Job Insecurity
13:45 - 15:15  HG G26.5  Chair: Tahira Probst

Recent Advances in Research on Job Insecurity.
Tahira Probst, Hans De Witte

Job insecurity of advanced apprentices: A longitudinal study.
Thomas Seppelfricke, Thomas Staufenbiel

The cross-lagged relationship between job insecurity and voluntary and involuntary turnover.
Tinne Vander Elst, Nele De Cuyper, Hans De Witte

Do the benefits of work mediate the relationship between job insecurity and mental health?
Eva Selenko, Bernad Batinic

Job insecurity climate perceptions: Scale validation and a qualitative exploration.
Lena Låstad, Erik Berntson, Katharina Näswall, Magnus Sverke

Psychological contract breach or effort reward imbalance: examining the effects of job insecurity on innovative work behaviour.
Wendy Niesen, Hans De Witte, Adalgisa Battistelli

Symposium: New Trends in Recovery Research: Going Beyond the Role of Off-Job Activities (PART I)
13:45 - 15:15  HG F30: Audiomax  Chair: Despoina Xanthopoulou and Ana Isabel Sanz-Vergel

New Trends in Recovery Research: Going Beyond the Role of Off-Job Activities (PART I)
Despoina Xanthopoulou, Ana Isabel Sanz-Vergel

Impaired recovery as a mediator between time pressure and reduced performance: A three-wave longitudinal study
Cora Bobst, Maria Kottwitz, Nicola Jacobshagen, Wolfgang Kälin, Laurenz L Meier, Norbert K. Semmer

Social stressors at work and ruminative thoughts about the work situation and their effects on sleep quality
Diana Pereira, Achim Elfering
Recovering from Emotional Labour: A Daily Diary Study on the Role of Deep and Surface Acting
Despoina Xanthopoulou, Arnold B. Bakker, Wido G.M. Oerlemans, Maria Koszucka

Recovery fosters the interactions between job resources and hindering and challenging job demands
Anja Van den Broeck, Hans De Witte

Relax, take it easy: Does music facilitate cardiovascular recovery from stress?
Mirjam Radstaak, Sabine Geurts, Jos F. Brosschot, Michiel Kompier

### Burnout: Antecedents and Consequences II

13:45 - 15:15   HG G26.1

Leading on the highest competitive level without burning out - recovery buffer profiles among Olympic coaches and their association with burnout and positive health
Ulrica von Thiele Schwarz, Göran Kenttä

The Boudreau bibliography: A complete and valid source of burnout citations, 1957 to current
Robert Boudreau, Rylan Boudreau, Amanda Mauthe-Kaddoura

Burnout among a group of policemen: the role of fatigue and emotions in the work context
Beata A. Basinska, Izabela Wiciak, Anna M. Dāderman

When work demands lead to emotional exhaustion: The mediating effect of an accelerated pace of work
Matea Paškvan, Bettina Kubicek, Christian Korunka

Crossover of emotional exhaustion among dyads in dental work- The moderating roles of contact frequency, collaboration quality, and power imbalance
Jari Hakanen, Riku Perhoniemi

Job complexity mitigates the effect of emotional dissonance on employee burnout
Bettina Kubicek, Christian Korunka, Matea Paškvan

### Mental Health and Wellbeing at the Workplace I

13:45 - 15:15   HG E33.5

Integrative approach to burnout: how to combine physiological, subjective and cognitive clues? A field experiment based on somatic markers hypothesis.
Vincent Grosjean, Marc Mouze-Amady, Julie Fluhr, Olivier Remy, Isabelle Titon

Workers' mental health is poorer if they lack recognition in the workplace
Annalisa Casini, Els Clays, Isabelle Godin, France Kittel

Organizational Culture and Health Status of Full Time Professors from Mexican Public Universities
Veronika Sieglin

Relation between job strain, bullying and depression
Heidi Janssens, Els Clays, Bart De Clercq, France Kittel, Annalisa Casini, Lutgard Braeckman, Dirk De Bacquer
**STRESSLESS** - Improving Educators' Resilience to Stress

*Mette Christensen*

First line Managers' Work Conditions and Health

*Daniel Lundqvist, Cathrine Reineholm, Maria Gustavsson, Kerstin Ekberg*

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Career resilience and networking in relation to well-being: The mediating role of perceived employability.

*Dorien Vanhercke, Nele De Cuyper, Hans De Witte*

Job-Related Resources, Demands, and Work-to-Family Conflict: A Test of the Stress of Higher Status Hypothesis

*Scott Schieman, Marisa Young*

The influence of decision latitude on health indicators under high work intensity

*Stephan Hinrichs, Erich Latniak*

Work engagement, boredom and burnout - the role of personality and need satisfaction at work

*Coralia Sulea, Ilona van Beek, Paul Sarbescu, Delia Virga, Wilmar Schaufeli*

Multilevel relationships between shared resources and employees’ health using the job demands-resources framework

*Désirée Füllemann, Rebecca Brauchli, Gregor Jenny, Georg Bauer*

Costs and benefits of dealing with others: Interpersonal demands and support when working with mentally challenged persons

*Anna F. Schewe, Günter W. Maier*

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New Trends in Recovery Research: Going Beyond the Role of Off-Job Activities (PART II)

*Ana Isabel Sanz-Vergel, Despoina Xanthopoulou*
Exploring relationships between job demands, job resources, and recovery opportunities: A longitudinal study
Alfredo Rodríguez-Muñoz, Ana Isabel Sanz-Vergel, Evangelia Demerouti, Arnold B. Bakker

Recovery at Home and Performance at Work: A Diary Study on Self-Family Facilitation
Felieke E. Volman, Arnold B. Bakker, Despoina Xanthopoulou

Does person-activity fit matter for daily recovery from work?: A DRM study on the role of extraversion in the relationship between daily off-job activities and daily recovery from work.
Wido G.M. Oerlemans, Arnold B. Bakker, Nadia Rida

Daily Crossover of Work Detachment: The Role of Humor and Vigor
Ana Isabel Sanz-Vergel, Alfredo Rodríguez-Muñoz, Evangelia Demerouti, Arnold B. Bakker

Everything at the proper time at the right place! How boundary management strategies contribute to employees' recovery during leisure time
Carmen Binnewies, Verena C. Hahn, Sascha Haun

Symposium: Evaluation of a multi-level Stress management Project in the Field - Evaluation approach and key results
15:45 - 17:15 HG G26.5
Chair: Gregor Jenny

Evaluation of a multi-level Stress management Project in the Field: Evaluation approach and key results
Gregor Jenny, Georg Bauer, Rebecca Brauchli, Lukas Weber, Nina Hottinger

Joining forces to tackle workplace stress – the project initiators' point of view
Lukas Weber

The company-specific Development Process of a large Scale Stressmanagement Project: Perspectives from the Field
Nina Hottinger

Models and Criteria for the Evaluation of complex Interventions in Organisations
Georg Bauer, Gregor Jenny

Ratio between job resources and job demands as an integrated measure predicting employees' health
Rebecca Brauchli, Gregor Jenny, Désirée Füllemann, Georg Bauer

Quantative and qualitative Evaluation Results of a large Scale Stressmanagement Project in Business Companies
Gregor Jenny, Rebecca Brauchli, Alice Inauen, Désirée Füllemann, Georg Bauer

Antecedents of stress and well-being I
15:45 - 17:15 HG E33.5

Work and Health - A study with Junior members of staff
Eva Bamberg, Jennifer Grimme, Anja Wode

Work related stress risk in health
Elvira Micali
Self-reported and observer-assessed emotion work and level of depressive symptoms in eldercare workers
Louise Meinertz Jakobsen, Anette Fauerskov Bruus Jørgensen, Birgit Greiner, Birgit Aust, Karen Albertsen, Reiner Rugulies

Stressors associated with the transition of new health graduates into the workplace
Arlene Walker, Lisa Pang, Christie Fullarton, Mellissa Yong

Psychosocial challenges in the Home Care Services. A qualitative study of Home Care Workers' perceptions of past and present work situation.
Gunn Robstad Andersen, Rolf Westgaard

Patterns of job-related affective well-being across 10 years: Latent transition analysis
Anne Mäkikangas, Esko Leskinen, Taru Feldt, Ulla Kinnunen

Interpersonal relationships
15:45 - 17:15 HG G26.3

Interpersonal relationships in schools: Association of pupil problem behaviour with teachers' absence due to illness
Jenni Ervasti\textsuperscript{1}, Mika Kivimäki, Riikka Puusniekka, Pauliina Luopa, Jaana Pentti, Sakari Suominen, Jussi Vahtera, Marianna Virtanen

Cross-cultural adjustment, Social Support, and Wellbeing Among Internationally Relocated Expatriate Spouses
Hazel Melanie Ramos, Anisa Rae Haddad

Don't Be Mean to the Leaders: A Global Look at Good Narcissism, Bad Narcissism and Workplace Incivility
Alex Milam, Coralia Sulea, Rubina Hanif

Improving worker well-being and performance in the healthcare sector through relational coordination: A service quality chain approach
Alexandra Budjanovcanin, David Guest

Gender Differences and Predictors of Workplace Deviance Behaviour: The Role of Job Stress, Job Satisfaction and Personality on Interpersonal and Organisational Deviance
Angeli Santos, Anita Liz Eger

Workplace Social Capital and Depressive Symptoms in Belgian Companies: a Multilevel Analysis
Bart De Clercq, Els Clays, Heidi Janssens, Dirk De Bacquier, Annalisa Casini, France Kittel\textsuperscript{2}, Lutgart Braeckman

Workshop: Presenteeism- A Research and Practice Agenda
15:45 - 17:15 HG E33.1 Chair: Gary Johns, Vishwanath Baba & Louise Tourigny

Presenteeism: A Research and Practice Agenda
Gary Johns, Vishwanath Baba, Louise Tourigny
Symposium: Making the evidence work: Development of a Leadership and Worker Involvement Toolkit for Industry
17:15 - 18:30  HG F30: Audiomax  Chair: Jennifer Lunt

Making the evidence work: Development of a Leadership and Worker Involvement Toolkit for Industry
Jennifer Lunt, Jane Hopkinson, Victoria Bennett

Creating the Foundations: Synthesising Scientific Literature and Industry Experience
Jennifer Lunt, Simon Bates, Gordon Crick

Translating the Evidence Base into a User-Centred Toolkit: Process and Evaluation
Nikki Bell, Jane Hopkinson

Developing Health and Safety Diagnostic Tool: Gateway Measure for the Toolkit
Victoria Bennett, Nikki Bell, Jennifer Lunt, Jennifer Webster, Andrew Weyman

Reflective Practice: Perceived Impact and Lessons Learnt
Jonathan Bohm, Jennifer Webster, Jennifer Lunt

Symposium: Evaluation of positive interventions at work and their effects on employee health and well-being
17:15 - 18:30  HG G26.5  Chair: Alexandra Michel and Annekatrin Hoppe

Evaluation of positive interventions at work and their effects on employee health and well-being
Alexandra Michel, Annekatrin Hoppe

Organizational-level stress management intervention program for immigrant workers in low-skilled jobs: what works?
Christine Busch, Julia Clasen, Julia Vowinkel, Eva Winkler

Effects of a Coaching Program for High School Students' Well-being and School Achievement
Alexandra Michel, Teresa Kunz, Ulrike Grassinger

Looking at the bright side of work: A day level positive psychology intervention for administrative staff
Annekatrin Hoppe, M. Gloria González-Morales, Alexandra Michel, Deirdre O'Shea, Anna Steidle

Do interventions to reduce work-life-conflict work? An online self-coaching study
Miriam Rexroth, Stephanie Tremmel, Alexandra Michel

Antecedents of stress and well-being II
17:15 - 18:30  HG E33.5

Psychosocial characteristics at work as risk factors for long-term cause-specific sick leave
Els Clays, Annalisa Casini, France Kittel, Isabelle Godin, Heidi Janssens, Bart De Clercq, Lutgert Braeckman, Dirk De Bacquer
Stress and Job Performance: The Moderating Role of Presenteeism
Louise Tourigny, Vishwanath Baba, Dilek Zamantili Nayir

A correlational study between the perception of organizational culture and well-being at work
Sónia P. Gonçalves, José Neves

The evaluation of work stress through an integrated approach: the role of organizational and individual variables
Alessandra Falco, Laura Dal Corso, Luca Kravina, Stefano Bortolato, Nicola De Carlo

Job Satisfaction Mediates the Relation between Working Conditions and Work-related Substance Use: A Swiss National Study
Ilana Berlowitz, Simone Grebner

**Occupational Health Psychology and Corporate Social Responsibility**

17:15 - 18:30  **HG G26.1**

Engaging identity during change: A longitudinal study on resources, commitment and adaptivity
Machteld van den Heuvel, Evangelia Demerouti, Arnold B. Bakker

What do companies tell us about their occupational health and safety practices: An analysis of 100 FT 500 company corporate social responsibility reports
Nicholas Andreou, Stavroula Leka, Aditya Jain, Daniel Mari Ripa

Core Values that simultaneously support Health, Safety and Well-being at Work and Organisational Development
Gerard Zwetsloot, Arjella van Scheppingen, Ellen Bos, Anja Dijkman, Annick Starren

Corporate Social Responsibility instruments and tools to measure psychosocial health and Occupational Health and Safety at work
Daniel Mari Ripa, Aditya Jain, Juan Herrero Olaizola, Stavroula Leka

**Job Satisfaction and Wellbeing I**

17:15 - 18:30  **HG G26.3**

Using the Job Demands-Resources Model to Predict Health and Job Satisfaction in New Graduate Nurses.
Heather Laschinger, Joan Finegan, Piotr Wilk

Work-related health attributions as a mediator of the effect of work climate on subsequent employee attitudes and behavioural intentions
Katharina Näswall, Sara Goransson, Magnus Sverke

Does job satisfaction predict early return to work after cardiac intervention?
Elena Fiabane, Reiner Rugulies, Giuseppe Calsamiglia, Stefano M. Candura, Ines Giorgi, Francesco Scafa, Piergiorgio Argentero

Work-related and psychological determinants of job satisfaction among hospital professionals: a structural approach
Ingrid Gilles, Isabelle Peytremann-Bridevaux, Bernard Bumand
The Role of Character Strengths-Related Person-Job Fit for Positive Experiences at Work and Calling

*Claudia Harzer, Willibald Ruch*

**Evening Reception**

18:30 - 20:30 Dozentenfoyer

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**12 April 2012**

**Registration**

8:00 - 8:30  
*Foyer Audiomax*

**Resilience and Wellbeing at Work**

8:30 - 10:15  
*HG F30: Audiomax*

*Work demands and impact on life satisfaction in emergency medical service: humour as solution?*  
*Anneli Droste, Gérard Näring*

*Socio-psychological determinants of self-protective behaviour of medical personnel at early stages of professional activity*  
*Natalia Vasilyeva, Marina Petrash*

*A resilience intervention on burnout, patient safety and intention to leave among Dutch medical residents*  
*Roosmarijn M.C. Schelvis, Ellen H. Bos, Noortje M. Wiezer*

*May the force be with you: A multilevel approach on resources that enhance team resilience*  
*Alma M. Rodríguez-Sánchez, María Vera, Marisa Salanova*

*Emotional labour and wellbeing in nurses: testing the triple match principle*  
*Gail Kinman*

**Workplace Violence, Bullying and Harassment**

8:30 - 10:15  
*HG E33.1*

*Violence at work: 'Normalised' among a sample of those working with vulnerable young people in the UK*  
*Hilary McDermott, Kelma Leavesley, Fehmidah Munir*

*Horizontal Bullying Against Nursing Students: A Turkish Experience*  
*Serap Palaz*

*Non-transitory nature of mobbing: Ours workers tutelage*  
*Fernando Cecchini*

*INAS CISL, Roma, Italy*
Acts of offensive behaviour and risk of long-term sickness absence in the Danish elder-care services: a prospective analysis of register-based outcomes  
**Annie Hogh, Thomas Clausen, Vilhelm Borg**

Peculiarities of stress and bullying at workplace  
**Silvia Punzi, Giovanna Castellini, Maria Grazia Cassitto, Giuseppe Leocata, Giovanni Costa**

Course of PTSD symptoms following workplace robbery: the role of gender and age in a sample of bank employees  
**Giuseppe Paolo Fichera, Luca Neri, Marina Musti, Maurizio Coggiola, Dario Russignaga, Giovanni Costa**

Transformational Leadership and workplace bullying: The moderating role of interactional intraunit justice climate.  
**Jordi Escartín, Javier Martín-Peña, Álvaro Rodriguez-Carballeira, Juana Gómez-Benito**

### Employee Retention and Sickness Absence  
**8:30 - 10:15  HG G26.5**

Identifying line manager behaviours for effective return to work following sick leave  
**Fehmidah Munir, Joanna Yarker, Ben Hicks, Emma Donaldson-Feilder**

The development of a return-to-work self-management tool for employees affected by cancer  
**Fehmidah Munir, Katryna Kalawsky, Deborah Wallis, Emma Donaldson-Feilder**

Psychological Stress in the Workplace and Presenteeism Propensity A Test of the Effort-Reward Imbalance Model  
**Gneviève Jourdain, Michel Vézina**

The prospective relation between presenteeism and different types of sickness absence  
**Heidi Janssens, Els Clays, Annalisa Casini, France Kittel, Bart De Clercq, Lutgard Braeckman, Dirk De Bacquer**

The attendance dynamics of UK employees: A longitudinal study into the health consequences of presenteeism and absenteeism of public and private sector employees  
**Alison Collins, Susan Cartwright**

History of sick leave and vocational situation - the role of job-to-job mobility  
**Karín Nordström, Kerstin Ekberg, Tomas Hemminsgsson, Gun Johansson**

Fatigue in workaholism climates in the workplace: The moderating roles of supervisor support and proactive health behaviours  
**Lindsey Graham, Timothy Bauerle, Vicki Magley**

### Individual differences: Personality and coping  
**8:30 - 10:15  HG F26.5**

The role of self-efficacy, self-esteem, intrinsic and extrinsic motivation, and locus of control in the stress-coping process: Evidence from the innovation context  
**Diana Krause**
Direct and indirect effects of coping, neuroticism and support on officer well-being and job satisfaction in a British police force
**Angeli Santos, Phil Leather, Sally Zhou**

A longitudinal examination of the relationship between workaholism and job-related and general psychological wellbeing: It is working excessively, rather than working compulsively, that counts
**Cristian Balducci, Monica Cecchin, Franco Fraccaroli, Wilm Schaufeli**

Finding the perfect balance: The mediating role of work-life balance in the relationship between perfectionism at strain
**Nikola Hartling, Arla Day**

Early emotional experiences and work stress coping patterns
**Paul Kasyanik, Maria Galimzyanova, Elena Romanova**

Stabilised and Resigned Forms of Life Satisfaction and Their Implications for Positive and Negative Affect
**Christian Ehrlich**

Career success; protean career attitude and the mediating role of career self-management behaviours
**David Hollis, Sam Aryee**

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**Work-life balance and work-family conflict I**

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<th>Speaker(s)</th>
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<tr>
<td>8:30 - 10:15</td>
<td>HG E33.5</td>
<td>Claudia Schusterschitz, Alexander Haggag, Willi Geser</td>
<td>Working Moms - Living on the Bright or on the Dark Side of Life?</td>
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<td>Maria Therese Jensen, Torbjørn Rundmo</td>
<td>Always going somewhere - never being anywhere: The impact of occupational travel and other organisational stress variables on work-family conflict and burnout.</td>
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<td>Christoph Nohe, Karlheinz Sonntag</td>
<td>The Role of Negative and Positive Affectivity in the Relationship Between Work-Family Conflict and Well-Being: A Diary Study</td>
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<td>Janet Barnes-Farrell, Andrea Bizarro, Jared Quinn, Richard Fortinsky, Dana Farr, Martin Chemiack</td>
<td>Understanding the burden of care: Impact of child and adult care responsibilities on multiple indicators of work and personal well-being for male and female manufacturing employees.</td>
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<td>Margot P. van der Doef, Jos F. Brosschot</td>
<td>Work-family conflict and subjective health complaints: the role of rumination and work-family facilitation</td>
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<td>Nina Schimi, Barbara Pangert, Heinz Schüpbach</td>
<td>The weekly assessment of Work-life balance and Wellbeing – Is there an intervention effect of diary studies?</td>
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# Taylor & Francis Keynote Address: Work engagement: A useful construct for research and practice?

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<td>10:15 - 11:00</td>
<td>HG F30: Audiomax</td>
<td>Gail Kinman</td>
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Work engagement: A useful construct for research and practice?<br>
*Wilmar Schaufeli*

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## Refreshments

<table>
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<th>Time</th>
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<tr>
<td>11:00 - 11:30</td>
<td>Foyer Audiomax / Uhrenhalle</td>
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## Job Satisfaction and Wellbeing II

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<td>11:30 - 13:00</td>
<td>HG E33.5</td>
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A cross-cultural study of leadership and organizational factors predicting well-being - China and Sweden<br>
*Tuija Muhonen, Sandra Jönsson*

A 10-year follow-up study on the relationships between vigor, task resources, and life satisfaction<br>
*Auli Airila, Jari Hakanen, Anne Punakallio, Sirpa Lusa, Ritva Luukkonen*

Balancing flexibility and stability at work - prospective management of individual resources<br>
*Carolina Bahamondes Pavez, Nina Schiml, Heinz Schüpbach*

Association between HSE ‘Indicator Tool’ and health in different work related-stress assessments<br>
*Paolo Campanini, Paul Maurice Conway, Giuseppe Paolo Fichera, Silvia Punzi, Donatella Camerino, Luca Neri, Giovanni Costa*

Well-being of financial workers from the time of economic rise to the global economic crisis<br>
*Marija Molan*

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## Symposium: Occupational Health & Safety Management in European Enterprises: What drives and hinders action?

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<td>11:30 - 13:00</td>
<td>HG E33.1</td>
<td>Stavroula Leka and Sergio Lavicoli</td>
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Occupational Health & Safety Management in European Enterprises: What drives and hinders action?<br>
*Stavroula Leka*

The views of EU managers on drivers and barriers to psychosocial risk management: A secondary analysis of ESENER data<br>
*Stavroula Leka, Aditya Jain*

Factors influencing the implementation of occupational safety and health measures in European small and medium sized enterprises<br>
*Susan Cowan, Stavroula Leka, Aditya Jain, Jennie Guise*
Does the added value of employer and employee information on risk awareness differ in the explanation of the management of ‘hard’ OSH risks as compared to ‘soft’ psychosocial risks?

Irene Houtman, Marianne van Zwieten

The psychosocial risks’ management in European organizations: Towards a continuous monitoring system
Diana Gagliardi, Giuliana Buresti, Cristina Di Tecco, Marco Mirabile, Matteo Ronchetti, Sergio Iavicoli

Symposium: Seeking for and dealing with changes and transitions in working life
11:30 - 13:00 HG F30: Audiomax Chair: Katriina Salmela-Aro

Seeking for and dealing with changes and transitions in working life
Katriina Salmela-Aro, Bettina Wiese

Changes in personal work goals in relation to the psychosocial work environment: A two-year follow up study
Katriina Hyvönen, Taru Feldt, Ulla Kinnunen, Asko Tolvanen

The Role of Traditional Gender Role Ideology for Self-Efficacy and Well-Being During Occupational Transitions
David Weiss, Bettina Wiese, Alexandra Freund

Stay at home or go back to work? Pregnant women's work-return plans
Anne Tzschach, Bettina Wiese, Thorana Grether

Promoting career preparedness and intrinsic work-goal motivation: RCT intervention
Katriina Salmela-Aro, Pertti Mutanen, Jukka Vuori

Do work ability and job involvement channel later personal goals in retirement? An 11-year follow-up study
Taru Feldt, Katriina Hyvönen, Terhi Oja-Lipasti, Ulla Kinnunen, Katriina Salmela-Aro

Work-life balance and work-family conflict I
11:30 - 13:00 HG G26.3

Family or Work? - An Unsolvable Conflict Resulting in Maternal Depression?
Alexander Haggag, Willi Geser, Claudia Schusterschitz

Working on-call and its impact on work-family-conflict and well-being
Monika Keller, Niklas Friedrich, Tim Vahle-Hinz, Eva Bamberg, Jan Dettmers

The interactive effect of work-family conflict and enrichment on work-related outcomes
Sara Tement, Christian Korunka

Effects of work-life conflict on job outcomes and the moderating role of recovery
Silke Weisweiler, Katharina Hoerner

Work-linked academic couples: work-life balance or conflict?
Gail Kinman
How I manage home and work together: occupational demands, engagement, and work-family conflict among nurses
Ewa Wilczek-Rużycka, Beata A. Basinska, Anna M. Dąderman

Gender and Diversity
11:30 - 13:00  HG G26.1
Growing old, getting grumpy? A meta-analysis about the relationship of age and work-related strain
Markus Thielgen, Cornelia Rauschenbach, Stefan Krumm, Guido Hertel

Gender Perceptions of Factors Affecting the Career Advancement of Females in a Manufacturing Company
Nicolene Barkhuizen, Karel Stanz, Mumtaz Hajee-Osman

Employee Perceptions of Factors that Influence Effective Work Relationships in a Cultural Diverse Work Context
Nicolene Barkhuizen, Brenda Nyama

Modelling psychosocial processes of gender-related diversity in psychosomatic health using the 4th European Working Condition Survey
Juliet Hassard, Stavroula Leka, Tom Cox, Amanda Griffiths

Different manifestations of psychosocial work environment in men and women in the manufacturing industry in Sweden
Maria Nordin, Malin Bolin

The role of organization for understanding sector differences in women working conditions in Sweden.
Malin Bolin, Maria Nordin

Workshop: Developing a Research Community Focusing on Civility and Respect at Work
11:30 - 13:00  HG G26.5  Chair: Michael P. Leiter
Developing a Research Community Focusing on Civility and Respect at Work
Michael P. Leiter

Lunch and Poster Session
13:00 - 14:15  Foyer Audiomax / Uhrenhalle

Poster Session: Interpersonal Relationships
13:00 - 14:15  Foyer EO Süd
Differential effects of social resources on younger and older manufacturing workers’ well-being: A longitudinal analysis
*Zhuo Chen, Janet Barnes-Farrell, Lindsey Graham, Nicholas Warren, Vicki Magley, Martin Cherniack*

Perspective Taking and Empathy as Antecedents of Task and Relational Conflict
*Kate Calnan, Debra Gilin-Oore*

Nurses-physicians relationship and turnover intention from unit: a multilevel analysis
*Maura Galletta, Igor Portoghese, Adalgisa Battistelli, Michael P Leiter*

Interpersonal Conflict at Work and Psychological and Physical Well-Being: The Moderating Effect of Depression
*Laurenz L. Meier, Norbert K. Semmer, Sven Gross*

### Poster Session: Workplace Violence Bullying and Harassment
**13:00 - 14:15**  
**Foyer EO Süd**

Influence of mobbing on the individual's emotional impairment and its consequences  
*Hugo Figueiredo-Ferraz, Pedro Gil-Monte*

The relationship between workplace bullying and psychological strain: Physiological activation as a key factor  
*Bernardo Moreno-Jiménez, Alfredo Rodríguez-Muñoz, Ynomig Moreno, Luis Manuel Blanco*

Bullying: Intervening to create mentally healthy communities in the 21st century  
*Elizabete Borges, Pedro Melo*

Violence and quality of life in the workplace: a model of intervention programme in nursing  
*Elizabete Borges, Teresa Rodrigues Ferreira*

The caregivers also suffer: Suffering Child Nurses  
*Elizabete Borges*

Enacted Aggression and Perpetrator Outcomes: The Moderating Role of Procedural Justice  
*Ashley Leopold, Lori Francis, E. Kevin Kelloway*

A longitudinal examination of the predictors of enacted supervisor-, coworker-, and client-targeted aggression for men and women.  
*Lori Francis, Aaron C.H. Schat, Kevin Kelloway, Ashley Leopold*

The Perpetrator, the Victim and the Bystander: An investigation of peer support during bullying instances in the workplace  
*Dr. Caroline Murphy*

Violence and aggression against the police: Perceived coping ability as a buffer of the relationship between workplace violence and strain  
*Sonja Mueller*

### Poster Session: Burnout
**13:00 - 14:15**  
**Foyer EO Süd**

A Predictive Model relating Work Stressors, Burnout and Ill-health of Accountants in South Africa  
*Monica Smith, Nicolene Barkhuizen*
Burnout among Slovenian employees: a meta-analytic review of related variables
*Nataša Sedlar, Tatjana Novak, Lilijana Šprah*

The influence of burnout in aggressive behaviour among Portuguese Police officers
*Cristina Queiros, Antonio Leitão da Silva, Isabel Teixeira*

Sensation Seeking and burnout levels among Portuguese Police officers
*Mariana Kaiseler, Cristina Queiros, Alexandre Costa Vieira*

Interpersonal Conflict-Handling Behaviour and Burn-out of Russian School-Teachers
*Dmitry Kashirsky, Natalia Sabelnikova, Margarita Savysheva*

Burnout and Peculiarities of Value-Meaning Systems of Employees of Search and Rescue Teams
*Anna Ovchinnikova, Natalia Sabelnikova, Dmitry Kashirsky*

The influence of job satisfaction in Portuguese nurses’ burnout
*Sofia Dias, Mary Sandra Carlotto, Cristina Queiros*

The influence of work-home interaction on burnout among Portuguese Police officers
*Cristina Queiros, Ana Monica Pereira, Joao Ramada Martins*

**Poster Session: Measurement and tools in Occupational Health Psychology**
13:00 - 14:15   *Foyer EO Süd*

The Spanish Burnout Inventory (SBI)
*Pedro Gil-Monte, Hugo Figueiredo-Ferraz*

Validation of a tool for assessing psychosocial risk in the construction industry in Italy
*Monica Ghelli, Rosina Bentivenga, Giovanni Carapella, Rossella Martino, Patrizia Deitinger*

An observational instrument to assess working conditions within residential eldercare
*Anette Fauerskov Bruus Jørgensen, Louise Meinertz Jakobsen, Birgit Greiner, Reiner Rugulies*

Extending Sonnentag & Fritz’s (2007) Recovery Experience Questionnaire (REQ): A Validation Study
*Philippa Bell, David Morrison*

Core dimensions of a burnout scale: Psychometric properties and a cross cultural validation study
*Paul Sarbescu, Delia Virga, Coralia Sulea, Ilona van Beek, Wilmar Schaufeli*

Need Satisfaction at Work - Scale Validation on a Romanian student sample
*Coralia Sulea, Ilona van Beek, Delia Virga, Paul Sarbescu, Wilmar Schaufeli*

Type D personality in Greek employees: somatization, cardiovascular events and healthcare resource use
*Athanasios Lagoudis, Christine Varvara, Panagiotis Stafylas, Stavros Gousopoulos*
Poster Session: Occupational Health Psychology Interventions in Practice
13:00 - 14:15  Foyer EO Süd

Work (dis)Ability and Age: Trends and Perspectives from the Industry
Cláudia Fernandes, Anabela Pereira, Carlos Silva

Data-based Dissemination of Worksite Tobacco Prevention - Experiences from the Canton of Zurich
Susanne Hoffmann, Désirée Füllemann, Georg Bauer

Nicolene Barkhuizen

Quality of stress management interventions
Dorota Molek-Winiarska

Organizational behaviour management (OBM) as an intervention in occupational health psychology
Susanne Tafvelin, Ulrica von Thiele Schwarz, Henna Hasson, Stefan Holmström, Lars Häsänen

Mental Health and psychosocial interventions: the dynamics of recognition in work teams
Ofelia Petric Tatu

The DISCovery method: A participatory action approach for diagnosis, implementation, and evaluation of workplace interventions
Irene Niks, Jan de Jonge, Josette Gevers, Irene Houtman, Ellen Spoor

Psychosocial risks prevention at work: a model of analysis for psychosocial preventive practices
Sabrina Rouat, Ofelia Petric Tatu, Yves Grasset

EAOHP Business Meeting (open to all members)
13:00 - 14:15  HG F30: Audiomax

Routledge Keynote Address: Recovery from Work During Off-Job Time
14:15 - 15:00  HG F30: Audiomax  Chair: Georg Bauer

Recovery From Work During Off-Job Time
Sabine Geurts

Work engagement, Commitment, and Performance I
15:00 - 16:30  HG F30: Audiomax

Work engagement among mountain instructors: Identification of potential long term consequences
Hilary McDermott, Fehmidah Munir
Effects of violence on engagement in a sample of penitentiary system's employees
Heriberto Valdez Bonilla

Social context and its influence on organisational commitment
Katarina Babnik, Boštjan Bajec

Leadership and affectivity: Moderating effects on work engagement
Paola Gatti, Manuela Tartari

The Relations between Challenge/Hindrance Stressor and Job Dedication: A Qualitative and Quantitative Study
Cong Liu, Ying Liu, Greg Moise, Lisa Paik

Lean Job Design and Performance: The Mediating Role of Well-Being
Sarah-Jane Cullinane, Janine Bosak, Patrick Flood, Evangelia Demerouti

Mental Health and Wellbeing at the Workplace II
15:00 - 16:30 HG E33.5

The development and evaluation of a novel, web-based workplace intervention to increase organisational capability and support for employees with mental health problems.
Kathryn von Treuer, Marita McCabe, Matthew Fuller-Tyszkiewicz, Simon Moss

The European perspective on prevention of psychosocial risks and mental health promotion at work
Julia Flintrop, Zinta Podniece, Malgorzata Milczarek

Psychological and social work factors and mental health: a prospective study of Norwegian employees
Live Bakke Finne, Jan Olav Christensen, Stein Knardahl

Boosting the Cognitive Capacity and Mental Health of Working Australians
Catherine Borness, Judith Proudfoot, Susan Miller, Michael Valenzuela

Anxiety and perceived well-being of workers
Marija Molan, Gregor Molan

Symposium: Employability and health and well-being
15:00 - 16:30 HG F26.5 Chair: Nele De Cuyper

Employability and health and well-being
Nele De Cuyper, Anneleen Forrier, Erik Berntson, Claudia Bernhard-Oettel

A three sample study on temporary work and its effect on well-being through job insecurity and perceived employability
Anne Richter, Saija Mauno, Anne Mäkikangas, Ulla Kinnunen, Nele De Cuyper, Claudia Bernhard-Oettel

Training that promotes employability: Temporary and permanent workers' engagement and affective commitment
Maria José Chambel, Filipa Castanheira, Filipa Sobral
The association between health and employability - is health a prerequisite for feeling employable?

*Erik Berntson, Katharina Näswall, Magnus Sverke, Claudia Bernhard-Oettel*

How job seekers’ age and health moderate the impact of perceived employability, employment commitment and financial hardship on search intensity and wage flexibility

*An De Coen, Anneleen Forner, Nele De Cuyper*

**Employee Motivation and Performance I**

15:00 - 16:30  **HG G26.3**

Measuring Individual Work Performance: Identifying and Selecting Indicators

*Linda Koopmans, Claire Bernaards, Vincent Hildebrandt, Henrica De Vet, Allard Van der Beek*

The Role of Job Demands and Resources on Absenteeism, Engagement and Health of Portuguese Workers

*Daniela Sousa, João Paulo Pereira, Maria João Cunha, Ludovina Azevedo, Pedro Lopes*

Why would you work in childcare? Exploring the experiences that influence motivation and turnover amongst the early childhood workforce.

*Prudence Millear, Karen Thorpe*

Factors Relating to Organisational Energy

*Rowenna Cuff, Nicolle Barkhuizen*

**Antecedents of stress and well-being III**

15:00 - 16:30  **HG G26.1**

Changes in acceleration-related challenge and hindrance demands affect employee well-being

*Christian Korunka, Bettina Kubicek, Matea Paškvan*

Exploring the Contribution of Work and Non-Work Sources of Social Support to Employee Well-being: A Mixed Methods Case Study

*Tina Kowalski*

Is there a need to use instruments for assessing work stress which are adapted to the contexts under investigation? The case of call-centre workers.

*Paul Maurice Conway, Paolo Campanini, Donatella Camerino, Silvia Punzi, Giuseppe Paolo Fichera, Laura Francioli, Luca Neri, Giovanni Costa*

The Relationship Between Exercise and Well-being: The Mediating Role of Energy

*Scott Ryan, Megan Dove-Steinkamp, Robert Henning, Pouran Faghri, Martin Cherniack, CPH-NEW Research Team*

modeling the relationship between team performance and stress over time: a laboratory simulation

*Megan Dove-Steinkamp, Clark Calabrese, Michelle Spina, Scott Ryan*
Welcome and developments in OHP practitioner training: Psychosocial risk management-eTraining  
*Stavroula Leka*

Introduction to joint session and presentations  
*Peter Kelly*

How to build theory-practice balance in post-graduate training for psychologists?  
*Anna-Liisa Elo, Ulla Kinnunen, Risto Puutio*

OHP practitioner training: Key issues for the way forward  
*Susan Cowan, Jennie Guise*

OHP practitioner training in Norway: Key issues for the way forward  
*Linn Iren Vestly Bergh*

OHP practitioner training in the UK  
*Myanna Duncan*

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### Refreshments
16:30 - 17:00  
Foyer Audiomax / Uhrenhalle

### Work engagement, Commitment, and Performance II
17:00 - 18:30  
HG F30: Audiomax

A mixed methods study of organizational socialization, employee well-being and patient care in the UK healthcare sector  
*Chris Woodrow, David Guest*

State work engagement: The interplay of organizational resources and job stressors  
*Sarah Turgut, Alexandra Michel, Karlheinz Sonntag*

The Importance of Transformational Leadership on Teacher’s Affective Commitment and Turnover: The Mediating Role of Well-Being  
*Fátima Ernesto, Maria José Chambel*

Work Engagement Among Factory Workers: The Moderating Role of Career Growth Perception  
*Marshall Valencia*

The effect of personal resources on work engagement and health among psychotherapists. A longitudinal study  
*Dorota Reis, Annekatrin Hoppe*

Heavy work investment and adult attachment: Are workaholism and work engagement associated with different attachment styles?  
*Ilona van Beek, Toon Taris, Wilmar Schaufeli*
Symposium: Workplace Incivility - Mechanisms, Context, and Third-Party Effects
17:00 - 18:30  HG E33.1  Chair: Sandy Hershcovis

Workplace Incivility: Mechanisms, Context, and Third-Party Effects
Sandy Hershcovis

From Insult to Injury: What Underlies the Harm of Incivility?
Dana Kabat-Farr, Lisa Marchiondo, Lilia Cortina

When Aggression is Normalized: Effects on Individual and Organizational Well-being
Jenna Shapiro, Zandra Zweber, Vicki Magley

Observer Reactions towards Perpetrators and Targets of Incivility
Sandy Hershcovis, Tara Reich, Amy Christie

Disrespect at Work, Distress at Home: Work-to-Family Spillover Effects of Incivility
Lisa Marchiondo, Lilia Cortina, Gwenith Fisher

Measurement and tools in Occupational Health Psychology
17:00 - 18:30  HG F26.5

VARP: a model for assessing the risk of work-related stress: tools and application.
Patrizia Deitinger, Christian Nardella, Antonio Aiello

Studying what actually stresses people with a grounded theory approach
Anders Hytter

Assessing and managing work-related stress through an integrated platform: A validated and easy to use methodology for organisations
Marco Mirabile, Tiziana Castaldi, Diana Gagliardi, Benedetta Persechino, Matteo Ronchetti, Sara Vitali, Sergio Iavicoli

Accident risk at work: Using the O*NET database to construct a unidimensional factor of occupational risk for workplace accidents
Timothy Bauerle, Vicki Magley

Can Senior Charge Nurses reliably report their clinical practice?
Martyn Jones, Janice Rattray, Debbie Baldie

Risk management from incident reporting to criticalities detection: a methodological proposal. A case study
Andreina Bruno, Fabrizio Bracco, Dimitri Sossai

Employee Motivation and Performance II
17:00 - 18:30  HG G26.1

The Performance-Enhancing Effect of Challenge Stressors is Mediated by Self-Esteem: A Multi-Source Study
Pascale S. Widmer, Nicole Aebischer, Silja Genoud, Dianne H. Gardner, Norbert K. Semmer
Authentic Leadership, Performance and Job Satisfaction: The Mediating Role of Empowerment
_Carol A. Wong, Heather Laschinger_

When boredom strikes and engagement flourishes! An explanation of the relation between employee well-being and job performance
_Gaby Reijseger, Maria Peeters, Wilmar Schaufeli, Toon Taris_

Does Being Good Make the Performance at Work? The Role of Character Strengths for Task Performance, Job Dedication, Interpersonal Facilitation, and Organizational Support
_Cludia Harzer, Willibald Ruch_

What we can learn from Neuroscience for the workplace design for (older) knowledge workers
_Hermann Sinz_

Employees Change Competence - a result of learning experiences from organizational change
_María Melén Fäl dt_

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**Symposium: Context Matters - Coping, Recovery, and Change**
**17:00 - 18:30**  
HG G26.3  
Chair: Arla Day

Context Matters: Coping, Recovery, and Change
_Arla Day_

Questioning the role of context, organizational level, and sex in preferred stress coping styles and links to health
_Context Matters: Coping, recovery, & change Questioning the role of context, organizational level, and sex in preferred stress coping styles and links to health_
_Catherine Loughlin, Laura Rudy_

Is a Change as Good as a Rest? Investigating Part-Time Reserve Service as a Method of Stress Recovery
_Patrick Horsman, E. Kevin Kelloway_

Increasing and maintaining recovery experiences through an organizational intervention
_Arla Day, Sonya Stevens_

Anticipating Change: Identifying Workplace Environments where Civility and Incivility are out of Balance
_Michael P. Leiter, Heather Spence Laschinger, Arla Day, Debra Gilin-Oore_

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**Symposium: Women who work: Choices, roles and abilities and their impact on mental health and well-being**
**17:00 - 18:30**  
HG G26.5  
Chair: Prudence Millear

Women who work: Choices, roles and abilities and their impact on mental health and well-being
_Prudence Millear, Roxane Gervais_
To work or not to work: Changes in the intentions to return to work amongst first-time mothers

Wendy Boyd, Prudence Millear, Karen Thorpe, Sue Walker

Menstrual symptoms as a stressor: a diary assessment

Roxane Gervais, G. Robert J. Hockey

The relevance of the menopause to the occupational safety and health of women workers

Roxane Gervais, Prudence Millear, Jennifer Webster

Age and experience: A comparison of work and family demands across the lifespan amongst Australian employees and European women

Prudence Millear, Roxane Gervais

Conference Dinner: Zunfthaus zur Meisen
19:30 onwards

13 April 2012
Registration
8:00 - 8:30  Foyer Audiomax

Organisational Citizenship, Justice and Culture
8:30 - 10:15  HG F30: Audiomax

Relationship of Cultural Values to Counterproductive Work Behaviour: The Mediating Role of Job Stress

Chuchai Smithikrai

When supervisor’s unfairness counters organizational justice: a case of experienced threat during organizational change

Satu Koivisto, Jukka Lipponen

Changes in the Department of Veterans Affairs (VA): Employees' Perspective

Nancy J. Yanchus, Katerine Osatuke, Michael P. Leiter, Sue Dyrenforth

Civility Respect and Engagement at Work (CREW) in the USA Veterans Affairs: Predictors of Successful Outcomes

Katerine Osatuke, Sarah Judkins, Michael P. Leiter, Sue Dyrenforth

Who does and who does not show the negative effects of informational injustice?

Constanze Eib, Claudia Bernhard-Oettel, Magnus Sverke

Organizational Justice and Civility Norms: A Multiple Mediation Model

Zandra Zweber, Vicki Magley, CPH-NEW Research Team

Symposium: Illegitimate Tasks as a Source of Stress
8:30 - 10:15  HG E33.1  Chair: Nicola Jacobshagen
Illegitimate Tasks as a Source of Stress

Nicola Jacobshagen

Medical doctors do not experience illegitimate tasks - or do they?

Nicola Jacobshagen, Norbert K. Semmer

Daily Self-Esteem and Illegitimate Tasks: A Diary Study among Office Employees.

Ivana Igic, Samuel Ryser

The role of illegitimate tasks on sleep quality and physical strains in a longitudinal working sample

Cornelia Salathé, Markus Melloh

Do illegitimate tasks impair detachment from work? A multilevel analysis.

Maria Kottwitz, Cora Bobst

Illegitimate tasks and work engagement: The influence of professional identity

Ella Apostel, Conny Antoni

Illegitimate tasks among local government managers - an organizational approach.

Lisa Björk, Eva Bejerot

Safety Climate and Safety Culture

8:30 - 10:15  HG G26.1

Does safety climate predict safety performance in Italy?

Claudio Barbaranelli, Tahira Probst, Valerio Ghezzi, Laura Petitta

Exploring the psychological contract of safety and safety related outcomes

Arlene Walker, Dante Oberin

The influence of Safety Climate on Occupational Accident and Injury rates - Systematic review of the scientific evidence

Sara Leitao-Alexandre, Birgit Greiner

Using more learning potential in learning from incidents processes

Linda Drupsteen, J. Groeneweg, Gerard Zwetsloot

Safety Performance Factors: A Qualitative Approach

Ceri Jones

Workplace Health Promotion I

8:30 - 10:15  HG F26.5

Workplace behaviour and its relationship with work-related musculoskeletal disorders in catering industry: a qualitative study

Yan Wen Xu, Andy Cheng

Classification of Health/Safety Issues/Concerns and Solutions Identified by Participatory Design Teams

Scott Ryan, Megan Dove-Steinkamp, Suzanne Nobrega, Lize Tibiriçá, Michelle Robertson, Robert Henning, CPH-NEW Research Team
Workplace meetings as a distinct workplace health promotion arena: a structured observational study
Caroline Bergman, Lotta Dellve, Katrin Skagert

Development of a Toolkit for Integrating Occupational Health and Safety and Worksite Health Promotion
Andrea Bizarro, Megan Dove-Steinkamp, Nicole Johnson, Scott Ryan, Michelle Robertson, Robert Henning

Promotion of mental health in academic context
Elizabete Borges, Carlos Sequeira, Clemente Sousa

A holistic health concept for the Cockpit Assembly at the Volkswagen plant Wolfsburg
Johanna Waschitzki, Sebastian Neveling, Barbara Deml

Health promotion in the workplace: qualitative discursive analysis of an influenza prevention campaign
Jennie Guise, Susan Cowan

**Burnout: Antecedents and Consequences III**

**8:30 - 10:15**

**HG E33.5**

It's hard not being pessimistic when you're burned out and stressed!
Daniel Herres, Vicki Magley, Benjamin Walsh, Curtis Walker

Perceived social support moderates the mediating effect of job burnout on the relationship between secondary traumatic stress and work engagement
Ewelina Smoktunowicz, Roman Cieslak, Charles C. Benight

Examining the effects of workaholism climate on employee fatigue.
Anna Young, Tim Baurle, Vicki Magley

New approaches about Burnout
João Paulo Pereira, Maria João Cunha, João Pereira, Marta Lamarão

Model for early assessment of burn out syndrome in health care employees
Drozdstoj Stoyanov, Ralitsa Raycheva, Donka Dimitrova

Prevention of anxiety, depression and burnout during medical residency training - The experts' opinion
Gertrude Hamader, Elisabeth Noehammer

**Conference Keynote Address: Bridging Occupational, Organizational and Public Health - A Research-Practice Perspective**

**10:15 - 11:00**

**HG F30: Audiomax**

Chair: Birgit Greiner

Bridging Occupational, Organizational and Public Health - A Research-Practice Perspective
Georg Bauer

**Refreshments**

**11:00 - 11:30**

Foyer Audiomax / Uhrenhalle
**Occupational Health Psychology Policy and Practice**

**11:30 - 13:00**  
HG F26.5  
Chair: Stavroula Leka

- WHO Healthy Workplaces Framework  
  *Evelyn Kortum*

- ILO Initiatives and Tools to manage psychosocial risk and work-related stress  
  *Valentina Forastieri*

- The public health perspective: Useful for occupational health psychology research and practice?  
  *Birgit Greiner*

- Development and implementation of policies for the management of psychosocial risks: Exploring the role of stakeholders and the translation of policy into practice in Europe  
  *Aditya Jain, Stavroula Leka, Tom Cox*

**Symposium: Burnout - Antecedents in Portuguese nurses, teachers and police officers**

**11:30 - 13:00**  
HG G26.1  
Chair: Cristina Queiros

- Burnout: antecedents in Portuguese nurses, teachers and police officers  
  *Cristina Queiros*

- The influence of social support in female Portuguese teacher's burnout  
  *Cristina Queiros, Mariana Kaiseler, Antonio Jose Marques*

- The influence of engagement in Portuguese nurses’ burnout  
  *Sofia Dias, Cristina Queiros, Mary Sandra Carlotto*

- Burnout predictors: the role of work stress sources  
  *Sonia Pedroso Gonçalves*

- Stress, coping and engagement among Portuguese police recruits  
  *Mariana Kaiseler, Cristina Queiros, Fernando Passos, Joana Brites Rosa*

**Leadership and occupational health and safety**

**11:30 - 13:00**  
HG E33.5

- The relationship between servant leadership and job satisfaction: the moderating effect of organizational justice  
  *Juana Patlan-Perez, Edgar Martinez-Torres*

- Handling negative media focus in hospitals: Organisational quagmire increases personification processes and personal consequences  
  *Maria Wilmar, Lotta Dellite, Christian Jacobsson, Gunnar Ahlborg*

- Leading and organising for health and productivity (LOHP)  
  *Kerstin Ekberg, Maria Gustavsson, Daniel Lundqvist, Cathrine Reineholm, Anna-Carin Fagerlind, Nadine Karlsson, Jörgen Eklund*

- Leadership style and Mobbing among Teachers in Nursing Schools  
  *Shajen Simonet-Shirwan, Elisabeth Noehammer*
Leader Behaviours Predict Employee Well-being: A Swiss National Study
Simone Grebner, Vanessa Alvarado

Symposium: Fostering employee well-being - The interplay between work and private life
11:30 - 13:00  HG G26.5  Chair: Verena Hahn

Fostering employee well-being: The interplay between work and private life
Verena C. Hahn, Carmen Binnewies

The role of partners for employees' psychological detachment from work and well-being
Verena C. Hahn, Christian Dormann

Daily achievements and sleep
Céline Mühlethaler, Diana Pereira, Sven Gross, Laurenz L. Meier, Norbert K. Semmer

Balancing work and life in highly demanding jobs - the role of leadership as a buffer
Christine Syrek, Ella Apostel, Conny Antoni

How general and domain-specific self-efficacy beliefs develop during mother’s return to work: A longitudinal approach
Thorana Grether, Bettina Wiese

Symposium: Researching organizational level health interventions – discussing different approaches
11:30 - 13:00  HG F30: Audiomax  Chair: Georg Bauer

Researching organizational level health interventions – discussing different approaches
Georg Bauer, Gregor Jenny

Systemic organizational health development: a model focusing on individual and organizational health capacities
Gregor Jenny, Susanne Hoffmann, A. Blum-Rüegg, K. Lehmann, Georg Bauer

Towards healthy organizational change: Presenting a model for improving health and well-being in today’s organizations
Karina Nielsen

Evaluation of Positive Organizations through the HERO Model
Marisa Salanova

HealthWatch – A web-based method to promote organizational health; optimize work ability, efficiency and job satisfaction and prevent presenteeism and absenteeism.
Dan Hasson, Karin Villaume, Ulrica Schwarz, Hugo Westerlund, Henna Hasson

Lunch and Poster Session
13:00 - 14:15  Foyer Audiomax / Uhrenhalle

Poster Session: Organisational culture, development and leadership
13:00 - 14:15  Foyer EO Süd
Employees’ extra effort, and transformational leadership: The role of procedural and distributive justice
Silvano Kobald, Diana Krause

Organisational Health Development – Capacity Building as a Key Mechanism
Susanne Hoffmann, Gregor Jenny, Georg Bauer

Leadership and followership: which perspectives for well-being?
Manuela Tartari, Chiara Ghisleri, Claudio G. Cortese

Time in the workplace: Is it too much or too few resources to use our time that is problematic?
Prudence Millear

Health-related leadership behaviour in un- and semiskilled culturally diverse workforces - an empirical study
Eva Winkler, Christine Busch

**Poster Session: Employee motivation, satisfaction and performance**
13:00 - 14:15 Foyer EO Süd

How the personality of the leader influences organization culture
Dulce Pacheco, Luisa Soares

Psychological burden at work among plant workers in Japan: Moderating role of organizational climate
Ryo Misawa, Kunihide Sasou

Job demands and job resources as predictors of dispositional employability in a mining company
Estee Roodt, Nicolene Barkhuizen

Ethical Organisational Culture as a Context for Managers' Personal Work Goals
Mari Huhtala, Taru Feldt, Katriina Hyvönen, Saija Mauno

The Development of the Field of Organisational Energy: An Illustrative Timeline
Rowenna Cuff, Nicolene Barkhuizen

Experiences of Training and Occupational Commitment in UK Student Nurses
Andrew Clements, Gail Kinman, Andrew Guppy

**Poster Session: Work Engagement and resilience**
13:00 - 14:15 Foyer EO Süd

Stability and change in work engagement and job resources
Piia Seppälä, Jari Hakanen, Saija Mauno, Riku Perhoniemi, Asko Tolvanen, Wilmar Schaufeli

The study of job-resilience and team-resilience in the nurse teams.
Azusa Kikuchi, Hiroyuki Yamaguchi

The relationship between 'stress of options', decision latitude and work engagement among employees working in knowledge intensive business sector
Birgit Lehner, Julia Jung, Elke Driller, Holger Pfaff
How can employees overcome job demands? The mitigating role of recovery experiences in the health impairment process  
**Bernardo Moreno-Jiménez, Ana Isabel Sanz-Vergel, Eva Garrosa, Isabel Carmona**

Engagement and patterns related to work among Russian university staff: the moderating role of emotional intelligence  
**Regina Berezovskaya, Alexandra Kirillova**

The prediction of job performance and job related well-being using the Generalised PsyCap scale  
**Jacqueline Thomas, David Morrison**

A qualitative analysis of psychosocial risk factors affecting employment trajectories of breast cancer survivors  
**Lucie Kocum, Catherine Loughlin, Lynne Robinson**

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**Poster Session: Trauma, PTSD and Coping**  
13:00 - 14:15  
**Foyer EO Süd**

Exploratory survey of organizational constrictions in Italy  
**Michela Bonafede, Patrizia Deitinger, Alberto Scarselli, Alessandro Marinaccio, Sergio Iavicoli**

Coping strategies and psychopathological distress among people exposed to mobbing in a central area of Italy: some correlations  
**Enzo Cordaro, Michela Bonafede, Laura Marrucci, Angelina Conte, Patrizia Deitinger, Roberto Rossi**

Civil pilots' repression/anxiety trait is related to their stress reaction, coping behaviour and job performance  
**Chian-Fang G. Cherng, Jian Shiu**

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**Poster Session: Diversity and inequalities**  
13:00 - 14:15  
**Foyer EO Süd**

Psychosocial exposures at work and self-reported health in Europe: are there differences according to occupational categories?  
**Stefanie Schütte, Jean-François Chastang, Agnès Parent-Thirion, Greet Vermeylen, Isabelle Niedhammer**

Associations between adverse working-conditions, blood-pressure, and hypertension among low qualified workers in Germany  
**Julia Clasen, Nathalie Teclia, Christine Busch, Julia Vowinkel, Eva Winkler**

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**Poster Session: The physical work environment and safety**  
13:00 - 14:15  
**Foyer EO Süd**

Characterisation of the occupational thermal environment of operating rooms  
**Alberto Miguel, Nelson Rodrigues, Senhorinha Teixeira, Jose Teixeira, Ricardo Oliveira**
Influence of organizational learning implementation in the Occupational Health and Safety culture
Laura Tkatšova

Perceived Risk and Employees' and Supervisors' Participation on Work Safety
Stephan Hinrichs, Markus Hackenfort, Hans-Peter Musahl

Workplace Health Promotion II
14:15 - 15:45 HG G26.5

Health promotion and well-being in the workplace: Presentation of a program for evaluation and intervention in psychosocial risks
João Paulo Pereira, Maria João Cunha

The impact of shift work and organisational climate on health
Kathryn von Treuer, Matthew Fuller-Tyszkiewicz

Stress in Australian Dairy Farmers: Effort-Reward Imbalance is associated with morning cortisol and salivary immunoglobulin A concentrations
Bradley Wright, Lauren Bathman

Stochastic Resonance Training Reduces Musculoskeletal Symptoms in Hospital Employees: A Randomized Controlled Trial
Achim Elfering, Simone Baur, Lukas Stöcklin, Volker Schade, Christian Burger, Lorenz Radlinger

Job characteristics and Obesity in a sample of the Irish General Population
Vera JC Mc Carthy, Birgit Greiner

Adopting international frameworks and standards on Psychosocial Risk Management to the Petroleum Industry
Linn Iren Vestly Bergh

Interventions in Occupational Health Psychology
14:15 - 15:45 HG E33.1

Do-it-yourself: An individual positive psychology intervention promoting positive emotions, self-efficacy, and engagement at work
Else Ouweneel, Pascale Le Blanc, Wilmar Schaufeli

Promoting mental health in transcultural organisations: Introducing an organisational intervention model
Claude-Hélène Mayer

Stress Management Maturity Concept - a model for successful interventions in work systems
Christine Ipsen

Results of the DIRECT-project: A workplace intervention study to increase job resources and recovery opportunities to improve employee health, well-being, and performance in nursing homes
Jan de Jonge, Ellen Spoor, Josette Gevers, Jan Hamers

Initiatives for supporting employee well-being during major downsizing
Paullina Mattila-Holappa, Krista Pahkin
Working hours and time pressure
14:15 - 15:45  HG G26.1
Towards an understanding of the factors which underlie the success of 'on-call working': Why is it ok for some, but impossibly difficult for others? 
*Fiona Earle, Tracey Reid, Peter Clough*

Examining the Psychophysiological impact of on-call working: A pilot study
*Tracey Reid, Fiona Earle, Rebecca Vince*

The association between frequent difficult deadlines at work and sleep quality. A longitudinal study among Danish knowledge workers
*Reiner Rugulies, Marie H.T. Martin, Anne Helene Garde, Roger Persson, Karen Albertsen*

The impact of the European Working Time Directive on surgeons' work life balance, patient care and surgical training in the UK
*Jessica Tang, Alexander Harris, Stavroula Leka, Roger Kneebone*

The role of emotions in the workplace
14:15 - 15:45  HG G26.3
The role of negative affectivity in the evaluation of work stress: an empirical survey
*Damiano Girardi, Alessandra Falco, Annamaria Di Sipio, Alessandro De Carlo, Alessandra Piccirelli*

Appreciation and subjectively perceived performance: The mediating role of goal attainment and resentments
*Rabea Krings, Nicola Jacobshagen, Céline Mühlthaler, Joelle Witmer, Norbert K. Semmer*

To Investigate the Impact of Gender and Culture on the Expectations of Emotional Labour, Work Stressors, Psychological and Physical well-being.
*Alia Al Serkal*

Stress and Emotions during a Simulated Resuscitation: Time Course, Gender Differences, and Associations with Performance
*Norbert K. Semmer, Sabina Hunziker, Cora Bobst, Franziska Tschan, Stephan U. Marsch*

Job insecurity and change
14:15 - 15:45  HG E33.5
Control in the Face of Uncertainty: How the Sense of Personal Control Buffers the Effects of Job Insecurity
*Paul Glavin, Scott Schieman*

Does General Well-Being Explain the Relationship between Job Insecurity and Work Attitudes?
*Barbara Stiglbauer, Eva Selenko, Bernad Batinic*
Changes in Community Pharmacy: The Impact on Stress and Errors in Pharmacists.
Sheena Johnson, Elinor O'Connor, Sally Jacobs, Karen Hassell, Darren Ashcroft

The nonlinear relation between perceived employability and emotional exhaustion
Ellen Peeters, Nele De Cuyper, Hans De Witte

Awards and closing session
15:45 - 16:30 HG F30: Audiomax
KEYNOTE PRESENTATIONS
Abstract:

The Whitehall Studies of work, stress and health among British civil servants provide evidence for a causal relationship between employment and working conditions and health. Importantly, in the Whitehall Studies we observed not only that people at the bottom of the occupational hierarchy had shorter lives and more disability than those at the top, but there was a social gradient: the lower the status the higher the risk. This applied to people who were not poor. A wide body of research points to the importance of control over life circumstances and full opportunities for social participation as being fundamental human needs that underlie the social gradient in health.

Reviews of the evidence on employment and health, carried out as part of the WHO Commission on Social Determinants of Health (2005-2008) and the Marmot Review in England (both chaired by MM) explore the theoretical and empirical basis for understanding employment and working conditions as key social determinants of health. Being in good employment is protective of health. Conversely, unemployment and poor quality employment contribute to poor health. Getting people into work is of critical importance for reducing health inequalities. However jobs need to be sustainable and offer a minimum level of quality, to include not only a decent living wage, but also opportunities for in-work
development, the flexibility to enable people to balance work and family life, and protection from adverse working conditions that can damage health.

Macroeconomic conditions and political decisions that drive and respond to changes in the economy have direct influences on employment and working conditions. Employment and working conditions that have adverse effects on health and health equity can be ameliorated by strategic policies and interventions that take into account the conditions in which people are born, grow, live work and age.

Taylor & Francis Keynote Address: Work engagement: A useful construct for research and practice?
Wilmar Schaufeli
Utrecht University, Utrecht, The Netherlands

Wilm B. Schaufeli is full professor of Work and Organizational Psychology at Utrecht University, The Netherlands, and visiting professor at Loughborough Business School, UK, and Jaume I University, Castellon, Spain. He has published over three-hundred-fifty articles and chapters, and (co-)authored or (co-)edited over twenty books (see: www.schaufeli.com). Initially, his research interest was on job stress and burnout, but in the last decade he shifted towards positive occupational health psychology, including work engagement. Professor Schaufeli is a fellow of the European Academy of Occupational Health Psychology, a licensed occupational health psychologist, and also works part-time as an organizational consultant.

Abstract:

Instead of presenting a state-of-the art overview of academic research findings regarding work engagement I will discuss work engagement from a scholarly as well as a practical point of view. The reason is that I’m both an active academic researcher as well as a senior consultant. In the former role I try to understand work engagement as a psychological phenomenon and communicate research findings to the scientific audience. In the latter role I assess work engagement in organizations – including its antecedents and consequences – and try to increase it by implementing interventions. Through the years, I came to see that the scientific and practical approach to work engagement – although not mutually exclusive – are difficult to combine. Yet, this is not impossible. Because I strongly believe that the future of occupational health psychology critically depends on its capability to integrate research and practice, I want to elaborate on work
engagement as a concept that may play the role as linking pin between academia and organizational life. More specifically, I will address five issues.

First a brief history of work engagement is presented that shows that the emergence of work engagement in academia is intertwined with the rise, since the turn of the century, of Positive Psychology. In contrast, employee engagement – as it is usually labeled in business contexts – emerged as a result of the increasing importance of human capital and motivation in modern organizations since the 1990s.

Secondly, the conceptualization and measurement of engagement in academia and in business is discussed. It appears that researchers define engagement – by and large – as a multidimensional psychological state that entails a behavioural-energetic (vigor), an emotional (dedication), and a cognitive (absorption) component. The most often used measurement instrument is the Utrecht Work Engagement Scale that has good psychometric properties and is available in over 20 languages. In contrast, most consulting companies conceive engagement in terms of (affective and continuance) commitment to the organization and extra-role behaviour ('going the extra mile'). Various proprietary survey tools are used that usually include these two dimensions.

Thirdly, an overview is presented of the results of academic research as well as research of major consulting companies ('What do we know?'). The former identified various antecedents, mostly referring to resourceful jobs, as well as individual and organizational consequences of work engagement. Moreover, various theoretical approaches have been proposed to explain work engagement, which focus, for instance, on affective shift, emotional contagion, intrinsic motivation, and job- and personal resources. Consultancy firms have identified a set of 'key-drivers' of engagement, and by carrying out so-called 'linkage studies' they have shown that engagement is related to various indicators of business success. It seems that the results of academic and consultancy research only partly overlap.

Fourthly, a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is presented of both academic research on work engagement as well as of research of consultancy firms. The aim of this SWOT-analysis is to draw up a common research agenda in which the strengths and weaknesses as well as the threats and opportunities of both types of research compensate each other.

Finally, a joint research agenda ('Where do we go?') is presented in which academic and consultancy researchers could (and should) participate. It includes conceptual (e.g., different types and levels of engagement), theoretical (e.g., the application of various frameworks), methodological (e.g. diary and multi-level studies), and practical (e.g. individual-, team-, and organizational interventions) issues. Also, based on my own experience, institutional collaboration is discussed between scientists and practitioners in studying and improving work engagement.
Routledge Keynote Address: Recovery From Work During Off-Job Time
Sabine Geurts
Radboud University, Nijmegen, The Netherlands

Sabine Geurts is a full professor of work and organizational psychology at the Radboud University Nijmegen in The Netherlands. After she finished her education in work & organizational psychology, neuropsychology and rehabilitation, she obtained her PhD for her thesis on workplace absenteeism in 1994. Since 2010 she leads the research group work, stress and health (jointly with prof. Michiel Kompier) as well as the one-year master’s degree programme ‘Work, Organization & Health’. Her research interests included effort, stress, recovery, exercise and sports, and work-home interaction. She developed the Survey Work-home Interaction Nijmegen (SWING) which is currently used in various countries. She has also published about workplace absenteeism, turnover and work disability and currently serves as a Consulting Editor for the journal Work & Stress.

Abstract:

Research in the field of occupational health psychology has well established that stressful work is associated with adverse health. Results from a recent European Working Conditions Survey revealed that a quarter of the European workers indicate that their health is at risk because of their work, which manifests primarily in stress-related and musculoskeletal symptoms. In modern working life, characterized by a 24-hour economy, swift developments in information-communication technology and a rapidly changing nature of work, we can expect job demands to further intensify, evening work and weekend work to increase, and boundaries between work and private life to evaporate. As stressful work will be an inescapable aspect of modern working life, recovering from it will be one of the main future challenges. Hence, recovery from work as a preventive or protective mechanism in the work-stress-health relationship deserves special research attention.

In my contribution, I will address contemporary research on work, stress and recovery with the aim to answer the following questions: (1) What is recovery from work (stress) and why is incomplete recovery a health risk; and (2) What hampers and what facilitates the recovery process?

What is recovery from work (stress) and why is incomplete recovery a health risk?
The crucial role of recovery from work can be understood from the perspective of Effort-Recovery Theory (Meijman & Mulder, 1998). Its core assumption is that
working has benefits in terms of productivity, but is also unavoidably associated with short-term psychophysiological costs or load effects (e.g. fatigue) that result from the activation of psychophysiological systems during working. To wear off these negative after-effects of working, individuals require a period of recuperation during which these psychophysiological systems are not longer activated and return to pre-demand or pre-stressor levels. This process of psychophysiological ‘unwinding’ is called recovery. McEwen’s (1998) Allostatic Load Theory accentuates the importance of day-to-day recovery for protecting long-term health. Its core assumption is that daily incomplete psychophysiological recovery will result in ‘allostatic load’ that in due course will manifest in chronic health problems, such as sleeping problems, burnout, and cardiovascular disease.

What hampers and what facilitates the recovery process?
Long-term health problems can be prevented by sufficient recovery opportunities during working time (i.e. internal recovery) as well as during off-job time (i.e. external recovery). Recovery possibilities during working time are provided by adequate work- and resting schedules and by well-designed ‘healthy jobs’. These jobs offer sufficient levels of job control, job variety and job support that allow workers to regulate their task demands, to align their task demands to their current need for recovery and to prevent intensive load effects at the end of the working day.

Conference Chair Keynote Address: Bridging Occupational, Organizational and Public Health - A Research-Practice Perspective
Georg Bauer¹,²
¹Institute of Social and Preventive Medicine University of Zurich ²Center for Organizational and Occupational Sciences, Zurich, Switzerland

After his medical degree, Georg Bauer completed his studies of community health sciences with a Master and Doctor of Public Health degree at the School of Public Health in Berkley, California. His earlier research was in community-based and internet-based health promotion research and health indicator development. For the last 15 years his focus has been on occupational and organizational health research from a salutogenic perspective. Based on the concept of organizational health development, he has conducted several intervention, dissemination and evaluation studies and regularly consults companies in this area. Currently he heads the Division Public and Organizational Health of the Institute of Social and Preventive Medicine, University of Zurich and the Center for Organizational and Occupational Sciences, ETH Zurich.
Abstract:

Taking up the conference theme, the contribution of OHP to individual, organizational and public health could be increased by a systematic bridging and integration of these levels of analysis and action. Based on the research agenda of the Division Public and Organizational Health of the University and ETH Zurich, the presentation will make several proposals in that regard.

First, a common conceptualization of health is proposed. The Health Development Model (Bauer et al. 2006) contributes pathogenesis and salutogenesis as two distinct analytical perspective of on-going reproduction of physical, mental and social health in interaction with our socio-ecological environment. Integrating this model with the Job-Demands-Resources Model (Backer & Demerouti 2007) allows studying the interrelated pathogenic path from job demands to negative health and the salutogenic path from job resources to positive health – beyond a mental health perspective.

Second, the concept of “organisational health development” (OHD) as a natural process in organisations is introduced (Bauer & Jenny 2012, forthcoming). It is defined as on-going reproduction and the targeted improvement of health in organisations as social systems, based on the interaction of individual and organisational capacities. This conceptualization shifts attention from the occupational to the organizational level and suggests decision makers of organizations as primary actors of organizational health. For practical purposes, the related OHD model is filled with organization-specific data – resulting in a practitioners’ cockpit guiding a health-oriented discourse and actions in organizations.

From a research perspective, the OHD model allows to study how individual capacities (competence, motivation, identity) and organizational capacities (structure, strategy, culture) contribute to both job demands and resources and thus pathogenic and salutogenic health development in organizations. Further, it guides a theory driven implementation and evaluation of interventions to build up these individual and organizational capacities.

Third, complexity of analysing occupational and organizational health could be reduced by calculating a ratio of diverse job resources/demands, resulting in an organizational health index that can be related to both individual and organizational health outcomes such as performance.

Fourth, this index can be applied to public health, moving beyond disease disparities as indicator of inequalities of health. Instead, social gradients of the job resource/demand ratio as well as of both negative and positive health could be studied within and across organizations, and even on the population level. Such broad, socially stratified organizational health data could strengthen the support of occupational and organizational health interventions as a key public health strategy.
WORKSHOPS
Ethics, Empathy and Employment
Noreen Tehrani
Noreen Tehrani Associates Ltd, London, UK

This workshop deals with workplace ethics and wellbeing. Workers faced with situations which abuse their values, beliefs or the wellbeing of their colleagues or where they fail to act or defend their beliefs are likely to experience feelings of intense psychological discomfort and physiological arousal. This dissonant state can be observed in employees, who regard themselves as fundamentally honest, but face or are confronted with the unethical behaviours of their organisation or colleagues. A number of studies have provided evidence of the emotional and physical pain experienced by workers who breach their empathetic bond with others by lying, deceiving, faking emotions or being hypocritical.

Organisations are naturally interested in the way unethical behaviours can affect their financial status or corporate image, however, organisations spend much less time considering how individual or corporate behaviours can affect the health and wellbeing of employees and other stakeholders. Much of the research into health and safety in organisations has focussed on measuring the incidence of psychological stress and stress related illness and identifying those factors or stressors most implicated in these negative outcomes. If unethical behaviour includes placing employees in situations where they face; unreasonable pressures, physical risks, violence, harassment, tedious, boring or demeaning work, with a lack of support and poor communication it is clear that many organisations are unethical places in which to work.

The workshop will be interactive and involve:
- A brief presentation looking at the development of empathy and its importance in the maintaining and supporting ethical behaviours in the workplace
- An exploration of the effects of a range of unethical behaviours showing how these behaviours have impacted targets, observers, families and friends.
- An opportunity to complete a new survey of unethical behaviours and wellbeing
- Discussion on how organisations could become more empathetic and ethical

Presenteeism: A Research and Practice Agenda
Gary Johns¹, Vishwanath Baba², Louise Tourigny³
¹Concordia University, Montreal, Quebec, Canada, ²McMaster University, Hamilton, Ontario, Canada, ³University of Wisconsin-Whitewater, Whitewater, Wisconsin, USA

Presenteeism is defined as the act of attending work when one is ill (Aronsson, Gustafsson, & Dallner, 2000). As such, it suggests a performance state somewhere between sickness absenteeism and full work engagement. Presenteeism has important implications for both employees and employing organizations. For example, the behaviour can exacerbate existing medical
conditions, and in the aggregate, it appears to contribute to much more productivity loss than absenteeism. Despite this, presenteeism has not received enough attention from occupational health psychologists, who are very well equipped to make important contributions in this area. The purpose of this workshop is to introduce participants to the concept of presenteeism or build on their current understanding and enable them to develop actionable plans for research or practice concerning presenteeism. After a brief introduction covering the emergence of the construct, salient research findings, and problems in the area, small learning teams based on common interests will design a research model, a study, or guidelines for practice centered on presenteeism. The workshop presenters will circulate among the teams during their interaction. Finally, each team will present its output to the assembled workshop to receive additional feedback. It is envisioned that research or practice alliances may emerge from this interactive workshop.

The workshop will begin with a brief (20 minute) introduction to presenteeism by Gary Johns. This introduction will explain how interest in presenteeism emerged and discuss two streams of presenteeism research. One of these, based in the occupational health and management disciplines, attempts to uncover the psychosocial factors that explain why people attend work when ill. The other, grounded in occupational medicine, associates various medical conditions with productivity loss when present. Findings from both streams of research will be summarized (Johns, 2010; 2011). Then, limitations of extant research will be discussed. These include inadequate theory, conflation of the act with its consequences, inadequate conceptions of productivity loss and its measurement, and common method variance (Brooks, Hagen, Sathyanarayanan, Schultz, & Edington, 2010; Johns, in press; Zhang, Gignac, Beaton, Tang, & Anis, 2010). Participants will be urged to treat these limitations as opportunities to improve research designs or practice guidelines. General discussion will ensue (10 minutes).

Following the introduction, learning teams will be formed based on common interests. The goal for each team is to produce a theoretical model, a research design, or integrated ideas relevant to practice (30 minutes). Examples might include a study incorporating presenteeism into an existing research stream in occupational health psychology; a model specifying the sort of person x situation interactions that might predict presenteeism; a study probing the various consequences of presenteeism for the presentee, coworkers, and the organization; practice guidelines incorporating presenteeism into policy concerning absenteeism, including advice for supervisors; a model elucidating the choice between presenteeism and absenteeism; a real-time diary study of presence versus absence. Learning team accomplishments will then be shared and discussed with the larger group (30 minutes).

Material and references pertaining to presenteeism, related concepts, pertinent research methods, and the integration of research and practice will be distributed to participants.
Developing a Research Community Focusing on Civility and Respect at Work
Michael P. Leiter
Acadia University, Wolfville, NS, Canada

The past decade has seen an expansion in research and concept development on relationships among members of workgroups. This work has considered the dark side, including bullying, mobbing, abuse, and aggression among employees. It has also considered the bright side of supportive relationships, including friendship and community.

The objective of this workshop is to create a forum for research on workplace incivility and civility as a dimension of occupational health psychology across cultures. On the surface, civility is a culturally defined construct. What is considered to be polite versus rude reflects across national cultures. Additionally, these norms vary across organizations and across workgroups within organizations. Despite these variations in the form of civility, a central construct of the field is that civility, whatever its form, plays an important role in engaging employees with their work and their workplaces. Similarly, incivility, whatever its form, plays an important role in alienating employees from one another and encouraging them to withdraw from their work and workplaces. Both these compelling qualities make workplace civility an important issue for organizational health psychology.

An interactive element of the workshop will consider differences across cultures in the expression of civility and incivility. Working from established measures of civility and incivility, such as the Workplace Incivility Scale and the CREW civility scale (Osatuke et al, 2009), participants will consider the extent to which these items would require modification in content as well as translation to convey parallel constructs within the national and organizational cultures with which they conduct research.
Since the initial publication of Greenhalgh & Rosenblatt’s (1984) seminal article on job insecurity, hundreds of studies have documented the pervasive, consistent, and significant ways that job insecurity affects the attitudes, behaviours, health, and well-being of today’s employees. In the first meta-analysis of these studies, Sverke, Hellgren, and Näswall (2002) found that job insecurity was negatively correlated with job satisfaction, job involvement, organizational commitment, trust, physical health, mental health and job performance; and positively related to turnover intentions.

While the main effects of job insecurity are well-documented, less is known about individual and organizational variables that may serve to exacerbate or attenuate employee reactions to job insecurity. Such research is critical, because job insecurity appears to be a phenomenon that employees will contend with for the foreseeable future. Therefore, the set of papers in this symposium brings together researchers from numerous countries to present their latest findings on this issue.

In the first paper, Probst presents some counterintuitive data suggesting that individuals with a boundaryless career orientation (i.e., those who desire mobility across organizations) report more negative reactions to the perception of job insecurity.

The second paper by Debus et al. examines the extent to which stressor observability moderates the impact that negative affectivity has on both self- and supervisor-reported job stressors.

In the third paper, Chirumbolo charts new territory by demonstrating that employees who are higher in humility and honesty engage in fewer counterproductive work behaviours in response to job insecurity relative to their counterparts who score lower on honest-humility.

The fourth paper by Van den Broeck et al. suggests that employee humour (particularly affiliative humour) can buffer the negative effects of job insecurity on burnout.

Finally, the last paper by Richter et al. examines an important question, namely whether individual moderators (e.g., coping) or organizational moderators (e.g., support) have stronger effects on the relationship between job insecurity and its outcomes.

Together, these papers examine novel moderators and break new ground for future research on this important topic.
Although early findings were mixed, a growing number of studies on temporary employees have found that these individuals often have fewer negative reactions to job insecurity (e.g., De Cuyper & De Witte 2006, 2007; De Cuyper, et al., 2010). One explanation has been that perhaps temporary employees have less expectation of or desire for job security, i.e., these employees have a fundamentally different psychological contract with their employer.

Whereas the traditional psychological contract involved an implicit exchange of hard work and loyalty in return for job security and continued employment, the contemporary contract suggests that employees need to be loyal to themselves, their work, and their profession. At their foundation, contemporary contracts involve an exchange of hard work and effort for marketable job skills that position employees in today’s competitive work environment. In particular, the boundaryless career involves a career that “transcends the boundary of a single employer” (Granrose & Baccili, 2006, p. 164), derives meaning external to any given employer (Arthur & Rousseau, 1996), and is based on individual career goals rather than specific organizational goals. Although some researchers argue that there are positive organizational and individual benefits from such contemporary contracts (e.g., Pittinsky & Shih, 2004), it remains an empirical question as to whether contemporary employees actually accept these new contracts. Further, while the concepts of boundaryless career orientation and other contemporary psychological contracts have been discussed for decades (e.g., Arthur, 1994; Hall, 1976), it is only recently that an empirically validated measure of the boundaryless career orientation was developed (Briscoe et al., 2006). Thus, the purpose of the current research was to test the hypothesis that employees with a boundaryless orientation (specifically, a preference for organizational mobility) would be less adversely affected by the experience of job insecurity.

Using data from 1071 classified staff and administrative/professional employees at a large public university in the United States, we found (as expected) that job insecurity was related to lower levels of trust in management, work engagement, organizational commitment, and life satisfaction; more negative perceptions of employer psychological contract fulfilment; and, greater turnover intentions. However, contrary to expectations, these relationships were exacerbated (not attenuated) when employees indicated a preference for organizational mobility (i.e., when they held boundaryless career orientations), even after controlling for employability. These somewhat surprising results are discussed in light of organizational trends toward contemporary psychological contracts.
Paper 2: Examining the effects of negative affectivity on self- and supervisor ratings of job stressors: The role of stressor observability
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Based on the literature on negative affectivity (NA) and empirical findings that NA causes incumbents to overreport job stressors, the authors proposed that this effect may also generalize to supervisor reports.

Taking into account research on rating inaccuracy, it was further argued that stressor observability is a crucial boundary condition for the impact of NA on both self- and supervisor-reported job stressors. Hence, it was hypothesized that the impact of NA on both self- and supervisor-reported job stressors would increase as stressor observability would decrease.

Hypotheses were tested by comparing job insecurity and time pressure, which were proposed and empirically shown (by means of a pre-test) to significantly differ in their degree of observability.

Structural-equation modeling with data from 260 incumbent-supervisor dyads revealed supporting results for supervisor ratings: Only the difficult-to-observe job-insecurity ratings were significantly affected by supervisor NA, whereas this effect was non-significant for the easy-to-observe time pressure. In the case of incumbent ratings, both stressor ratings were significantly and equally affected by incumbent NA.

The results show that supervisor ratings can also be affected by NA and that the impact of NA is not universal (at least for supervisor ratings), but differs by stimulus observability. Practically, this study makes clear in which cases supervisor ratings are a useful alternative to incumbent self-reports.

Paper 3: When personality matters: Honesty-Humility moderates the impact of job insecurity on counterproductive work behaviours
Antonio Chirumbolo
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The detrimental effects of job insecurity on individual and organizational well-being are well documented in the recent literature (Sverke & Hellgren, 2002). Job insecurity as a stressor is generally associated with an higher presence of negative attitudes towards the organization (De Witte, 2005; Chen and Chang, 2008; Sverke, Hellgren & Naswall, 2002).
In this paper, the buffering role of Honesty-Humility personality trait was investigated. It was assumed that Honesty-Humility would function as a psychological moderator of the job insecurity impact on counterproductive work behaviours (CWBs). Honesty-Humility is the so called sixth factor of personality in the HEXACO taxonomy: Honesty-Humility, Emotionality E×traversi on, Agreeableness, Conscientiousness, Openness (see Ashton & Lee, 2007) and refers to dimensions of sincerity (i.e. tendency to be genuine in interpersonal relations), fairness (i.e. tendency to avoid fraud and corruption), greed avoidance (i.e. tendency to be uninterested in possessing wealth, luxury goods, and signs of high social status), and modesty (i.e. tendency to be modest and unassuming) (Lee & Ashton, 2004). In general, individuals high in Honesty-Humility tend to describe themselves as more sincere, loyal, generous, altruistic, honest, faithful, helpful, undeceptive and so on. On the other hand, individuals low in Honesty-Humility tend to depict themselves as more egoistic, hypocritical, lying, presumptuous, haughty, deceitful, devious, greedy, crafty, cunning, pretentious and so on.

It was expected that job insecurity would affect CWBs more strongly among individuals with low Honesty-Humility. Participants were 203 workers (94 men and 109 women, one missing) who were administered a self-reported questionnaire containing measures of job insecurity, CWBs and an adjective list tapping the six factors of the Hexaco model of personality. Results confirmed that job insecurity was positively related to CWBs whereas Honesty-Humility and Openness were negatively associated to them.

Regression moderation analysis confirmed the initial hypothesis, indicating that Honesty-Humility moderated the job insecurity-CWBs relationship, even after controlling for gender, age, type of contract and the other HEXACO personality traits. At higher levels of job insecurity, individuals with higher (vs. lower) Honesty-Humility reported less (vs. more) counterproductive work behaviours.

**Paper 4: Do self-enhancing and affiliative humor buffer the health-impairing associations of job insecurity?**

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Job insecurity has become one of the most demanding characteristics. It is defined as the (worries related to the) perceived threat of losing one’s current job. It causes impaired health and well-being (Cheng & Chan, 2008). To overcome these adverse effects, workers may rely on personal resources, such as humor.

Traditionally, humor is considered an important asset for individuals to thrive (e.g. Freud, 1960). Recently, particularly self enhancing (i.e., the tendency to have a personal humorous outlook) and affiliative (i.e., amusing others to facilitate social relationships) are appointed as important personal resources, also in the work context (Martin et al., 2003; Van den Broeck et al. in press). These humor types
may increase well-being directly and indirectly by assisting workers in dealing effectively with the environment (Cooper, 2008).

Based on the Conservation of Resources Theory (Hobfoll, 2002) and the Superiority Theory (Cooper, 2008) we examined whether self-enhancing and affiliative humor may buffer the adverse relations of job insecurity.

Results in a large sample of Flemish employees (N = 1201) confirm that self-enhancing and affiliative humor yield direct health-enhancing relations. No interaction among self-enhancing humor and job insecurity was found. In line with the expectations, affiliative humor attenuated the positive relation of job insecurity with burnout: For workers holding high levels of affiliative humour job insecurity was less detrimental. As affiliative humour is a social type of humour (Martin et al., 2003), multilevel data are currently being collected to further examine this interaction to include the team level.

**Paper 5: The job insecure workforce- Is coping possible?**

Anne Richter, Katharina Näswall, Magnus Sverke  
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Job insecurity has been a persistent and stable work stressor that employees have to handle in today's constantly changing work environment. Additionally the last decades have been characterized by changes in the nature of work, such as work becoming more mentally and emotionally demanding for employees.

Research on job insecurity has shown that job insecurity is a stressor that both individuals as well as organizations should take seriously as it has been associated with both individual as well as organizational consequences. However differences and variations in the association between job insecurity and these outcomes have been found.

This study aims at investigating inter-individual differences in the job insecurity-outcome relationship further. First, individual factors represented by coping styles are tested for their effect on the job insecurity-outcome relationship. Second, factors that can be influenced by the organization such as participation and social support are tested. The aim is to determine if it is individual or organizational factors that have a stronger buffering effect on the relation of job insecurity and its outcomes. A sample of Swedish accountants is tested, where data has been collected in autumn 2009.
Symposium title: The Psychology of workplace safety
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Industrial tradition and a heritage of occupational psychology research has frequently approached workplace safety with a “blame the injured” orientation, focusing on individual differences and turning a blind eye to potential psychosocial influences on workplace injuries and employee safety performance (Nichols, 1997). However, a growing body of research has begun to recognize that broader organizational practices and other psychosocial features of work systems can affect employee safety. For example, high-quality leadership, motivating work design, and an active safety climate, are potential psychosocial determinants of greater safety (Barling & Frone, 2004). This approach accentuates the important role that organizational interventions can play in promoting safety, such as training supervisory behaviours to enhance employee well-being, redesigning work, and using commitment-oriented human resource practices effectively. The proposed symposium captures the state-of-play in this broad research area and highlights promising avenues for research.

The five presentations come from international academics who conduct research in this area. Each of the five presentations (15 minutes each) provides an overview of the research topic and highlights conclusions that can be drawn from existing research. The presenters are active researchers in occupational health psychology and play leadership roles in promoting workplace safety research. After the presentations, there will be 15 minutes remaining: in which a discussant will identify common themes across the presentations and generate audience discussion. The five presentations collectively highlight the importance of constructing psychologically resourceful environments for promoting safety in the face of a range of job demands.

Paper 1 uses meta-analysis to examine the relationships among job demands (challenge vs. hindrance stressors) on different measures of safety performance (accidents, near-misses, compliance, and participation).

Paper 2 examines the effects of autonomy on injuries under different levels of uncertainty.

Paper 3 examines the effects of role control on supervisors’ engagement in safety.

Paper 4 focuses on effective safety communication in complex environments and Paper 5 concludes by taking the symposium beyond explicit measures of safety-related variables to consider the role of implicit measures of attitudes and risk perceptions.
Paper 1: Occupational stressors as antecedents of workplace accidents and injuries: The differential role of hindrance and challenge stressors
Sharon Clarke
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Although it has long been recognized that working under stressful conditions leads to an increased likelihood of occupational injuries, much of the research has focused on well-being and health, rather than safety.

This study examined the influence of stressors on workplace safety through the lens of Lazarus’ transactional stress theory (Lazarus & Folkman, 1984). Central to this theory is the idea of cognitive appraisal, which involves an evaluative perception that one’s well-being is implicated in a person-environment transaction (for better or worse). A key conceptual difference is captured in terms of the evaluative perception as potentially threatening or challenging, as those stressors which are perceived to offer challenge present the opportunity for the individual to accrue personal resources. While individual differences will influence how stressors are perceived, it has been argued that within an occupational context, a common understanding of sources of pressure will lead to consistency across individuals (Cavanaugh et al., 2000). Hindrance stressors are appraised as threatening and unmanageable, and so may be viewed as obstacles to personal growth, whereas challenge stressors are appraised as challenging and manageable, and so may be viewed as opportunities for development. Differential effects of these two types of stressor would be expected in relation to work-related attitudes, affective responses and work performance.

The current study presents a quantitative review of the relationship between these different types of stressor and safety outcomes. It was hypothesized that hindrance stressors have negative effects on both safety compliance and safety participation, while challenge stressors have positive effects.

The hypotheses relating to hindrance stressors were supported, suggesting that hindrance stressors lead to a reduction in both compliance with safety rules and participation in safety. Hindrance stressors were also associated with higher levels of occupational injuries and near-misses. However, the hypotheses related to challenge stressors were not supported. Challenge stressors had a non-significant, near-zero association with safety compliance, and a significant negative association with safety participation. Challenge stressors were associated with higher levels of near-misses, but had no relationship with occupational injuries. These findings suggest that the motivational effects of challenge stressors are insufficient to ‘cancel out’ the negative effects of these stressors in terms of anxiety and strain.
The literature on work and organizational design stresses the importance of providing autonomy to employees at the operational level to increase performance. In contrast, the general tenet of managing safety (an important aspect of performance) tends to restrict employee autonomy to reduce the chance of ‘human error’. Empirical studies, however, show inconsistent effects in both these areas.

In the case of the relationship between autonomy and safety, investigators report a negative relationship (e.g., Saari & Lathela, 1978), a positive one (e.g. Parker et al., 2001), and sometimes none at all (e.g., Cohen & Ledford, 1994). With respect to performance in general, Wall et al. (2002) suggest a potential explanation for these inconsistent findings. They argued that the degree of operational uncertainty has to be considered as a moderator between autonomy and performance. Autonomy promotes performance under more uncertain operational conditions, but has little or no impact where work procedures and requirements are more certain and predictable.

In line with this argument, we propose that the relationship between autonomy and safety can be better understood when uncertainty is considered as a moderator. The relevance of uncertainty in understanding the relationship between autonomy and safety can be illustrated by looking at the effects of safety rules as either mechanisms of centralized control or heuristics for flexible action (e.g., Hale & Swuste, 1998). It can be argued that under conditions of low operational uncertainty, developing rules to manage known and predictable risks is both feasible and effective, with the insistence that employees follow these rules, constraining their autonomy but promoting safety. Given that rules effectively specify best practice, employees may hamper safety by enacting autonomy in the form of rule-breaking. Conversely, in situations in which uncertainty is high, sensible and comprehensive rules are difficult to formulate and more reliance must be placed on individuals to use their initiative, thus affording them the opportunity (autonomy) to do so. Absence of freedom to interpret the incomplete rules in the light of circumstances would impede safety.

These predictions were partially supported using data from the Workplace Ethnography Project (Hodson, 2008), which measured autonomy, task uncertainty, and frequency of work injuries from 148 work groups across different occupations. Results showed that under conditions of low uncertainty and high autonomy, the likelihood of frequent workplace injuries was the highest.
Paper 3: Role control, self-efficacy and engagement in safety
Stacey Conchie, Susannah Moon
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Having control in one’s role has been shown to facilitate both general and safety-specific task behaviours. However, this finding is not universal, with some evidence suggesting that the positive effects of role control are dependent upon the qualities of the individual.

In this study we explore the possibility that an individual’s self-efficacy (i.e., personal belief, or confidence, that they can change another’s safety behaviours) impacts the positive effect of role control on safety leadership behaviour. Specifically, we argue that those with high self-efficacy regard role control as a positive personal challenge, and that this leads to increased engagement in safety-specific behaviours.

We therefore predict that an increase in role control will increase positive leadership behaviours (transformational) and reduce negative leadership behaviours (passive), and that the strength of these relationships will be stronger for those with high levels of self-efficacy.

Survey data from 80 supervisors in the construction industry supported our first proposal. Leaders reporting more role control (opportunity to contribute to risk-reduction methods and autonomy in their supervisory style) were regarded as more transformational and less passive. However, contrary to our prediction, we found no significant moderating effect of self-efficacy in the relationships between role control and passive leadership, and found an effect opposite to that predicted for transformational leadership. Specifically, involvement in risk reduction methods increased transformational leadership in those with low levels of self-efficacy, and had no significant effect on those with high levels of self-efficacy.

These results suggest that efforts should be made to increases supervisors’ perceptions of control in how they lead on safety as this increases effective leadership and reduces supervisors’ avoidance of safety. At the very least, efforts should be made to involve supervisors in risk-reduction methods (e.g., contributing to method-statements) because this is effective for promoting engagement in safety among those whom may be assumed to be least likely to engage: those with low self-efficacy.

Paper 4: Safety Communication at Olympic Park
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Despite continuing efforts to reduce deaths, injuries and ill health, the construction industry continues to have high rates of fatal and major injuries. Linkages between
safety programs and the actual state of safety have been studied extensively, but typically focus on programmes run by single organisations.

The London 2012 Olympic and Paralympic Games construction project offered a unique opportunity to investigate the impact of safety initiatives and communication across a range of organisations working side by side. A basic Communication-Human Information Processing (C-HIP) model (Conzola & Wogalter, 2001) was used as a basis for evaluating the efficacy of health and safety communications within and between organisations. Within this model safety communication must pass through a number of stages to successfully impact on behaviour.

Data were collected using a number of techniques, including: interviews, focus groups, analysis of paperwork, and observations of safety meetings. This revealed a client and project management system which aims to facilitate communication and safe practice. Collaborative communication was found; contractors learn from each other and knowledge is transferred both within Olympic Park and to other projects managed by the same contractors elsewhere. Numerous sources and channels of communication were identified, some of which appear novel, and it was possible to track safety messages through various layers of management.

The impact on workers was complex, but there is some evidence that workers changed their behaviour, not just while working on Olympic Park but also once they leave. Good practice was also transferred across contractor organisations. There is potential for the construction industry to apply the processes developed on Olympic park to other large multi-contractor operations.

**Paper 5: Implicit Risk and Implicit Trust amongst Construction Workers**

Calvin Burns  
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Trust has long been known to affect whether a risk is accepted. This effect is wide ranging from individual acceptance of personal risks (e.g. medical procedures) to societal acceptance of risks with global implications (e.g. nuclear power). When people lack personal knowledge about a hazard, trust is an important predictor of risk estimates and risk acceptance.

There is growing interest among researchers about the role of trust in occupational risk perception and risk-taking. For example, in a study of construction workers, Conchie and Burns (2009) found that the UK’s HSE and Safety Managers were the most trusted sources of occupational risk information and were also the most influential sources in shaping workers' risk-related behavioural intentions. The psychometric paradigm has been very useful for showing that different people perceive hazards differently.

This research though is limited to explicit attitude measures (questionnaires) which require people to consciously consider and state their attitude to attitude objects.
Implicit attitude measures are being used increasingly in social cognition research. These measures can offer new insights into safety-related attitude formation and change. Implicit measures assess attitudes that individuals may not be consciously aware that they hold and are less susceptible to response biases. Implicit attitude measures rarely correlate with explicit attitude measures (e.g. Fazio et al., 1995) and are thought to influence spontaneous behaviours or behaviours that individuals do not try to consciously control (Fazio, 1990). Burns et al. (2006) used explicit and implicit measures to investigate trust at a UK gas plant. They found that workers expressed high levels of explicit trust for workmates, supervisor and senior management (measured by a questionnaire) but only expressed implicit trust for workmates (measured by a computerized priming task). Consistent with findings reported in the implicit attitude literature, no correlation was observed between the explicit and implicit measures of trust.

This paper extends that research by investigating implicit attitudes about risk and trust amongst construction workers in order to gain new insights into the role of trust in occupational risk perception and risk-taking behaviour.
Symposium title: New Insights on the Integration of Work and Personal Life – Latest Results from European Research
Rebecca Brauchli¹, Maria Peeters², Jari Hakanen³, Johanna Rantanen⁴, Oliver Hämmig¹
¹University/ETH Zurich, Zurich, Switzerland, ²Utrecht University, Utrecht, The Netherlands, ³Finnish Institute of Occupational Health, Helsinki, Finland, ⁴University of Jyväskylä, Jyväskylä, Finland

The aim of this symposium is to give a broad overview on the current European research (Finland, the Netherlands and Switzerland) on the interaction of work and personal life. We will introduce innovative topics integrating both negative and positive aspects of the work-home interface and show also results from studies with elaborated longitudinal research designs.

In the first two contributions new topics, namely the relation between work-home interference and voluntary work as well as early retirement will be uncovered: Brauchli et al. reveal in their cross-sectional study insights on the interplay of work-home integration, work-related well-being and voluntary work. Preliminary results show that home-to-work integration is related to engagement and burnout. Moreover, engagement is positively, whereas burnout is negatively related to work-to-home integration. Finally, work-to-home integration is positively related to voluntary work. In their cross-sectional study, Peeters et al. examine the role of the work-home interface in the decision of older workers to work until their pension age (as opposed to quitting the workforce prematurely). Results indicate a positive relationship between work-family enrichment, employability perceptions and intentions to work until retirement age.

Using longitudinal approaches, contributions 3 and 4 are concerned with the interaction of work-family conflict and enrichment over time: Hakanen et al. investigate consequences of work engagement and workaholism for work-family balance. Results show that work engagement and work-family enrichment mutually predict each other over time. Workaholism predicts work-family conflict whereas work-family conflict does not impact on future workaholism. Moreover, work engagement negatively influences work-family conflict over time. The longitudinal study by Rantanen et al. is concerned with the interplay between work-family conflict and enrichment in a three-wave study investigating the stability of conflict and enrichment. Preliminary results show that work-family conflict is relatively stable, whereas work-family enrichment tends to increase over time. More sophisticated analyses will reveal how conflict and enrichment are related and be combined by person to form distinct trajectories of conflict and enrichment experiences over time.
Paper 1: Work-home integration, work-related well-being and voluntary work
Rebecca Brauchli\textsuperscript{1}, Maria Peeters\textsuperscript{2}, Elianne van Steenbergen\textsuperscript{2}, Theo Wehner\textsuperscript{3}, Oliver Hämmig\textsuperscript{1}
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Introduction: Research on the work-home interface generally focuses on two life domains: paid work on the one hand and family on the other. Thus, it commonly disregards other life domains which can definitively also contribute to employees’ health and well-being – such as leisure or voluntary work. Moreover, even though the idea of mutually enriching, instead of only conflicting life domains, has gained great popularity in recent years, many studies have focused either on conflict or enrichment instead of integrating them.

Aim: In this study we investigate the interplay of work-home integration (indicated by the difference between work-home enrichment (WHE) and work-home conflict (WHC), work-related well-being (work engagement and burnout) as well as voluntary work as a special activity beyond paid, family or home work: We predict the following chain from home-to-work integration to engagement / burnout, to work-to-home integration, and finally to voluntary work.

Methods: To collect data, a survey with a self-developed, fully standardized questionnaire has been conducted within four industrial companies in Switzerland based on a total sample of 2014 employees across all hierarchical positions. To create an integrated measure of WHE and WHC we calculate a difference score for both directions: work-to-home integration (WHE – WHC) and home-to-work integration (HWE – HWC). Using structural equation modelling (SEM) we will investigate the interplay between these integrated measures, employees’ well-being and voluntary work.

Results: Preliminary results from SEM show that home-to-work integration is related to engagement (γ = .23; p<.001) and to burnout (γ = -.18; p<.001). Moreover, engagement is positively related to work-to-home integration (γ = .14; p<.001), whereas burnout is negatively related to work-to-home integration (γ = -.45; p<.001). Finally, work-to-home integration is positively related to voluntary work (γ = .18; p<.001).

Conclusion: Overall, first results are promising: It seems that the more successfully employees integrate home life into work (indicated by a combination of high HWE and low HWC) the better is their work-related well-being (higher engagement and lower burnout). Second, the better employees are feeling at work the better they seem to be able to integrate their work with their home life (indicated by a combination of high WHE and low WHC) and, in its consequence, the more frequently they are volunteering. However, we could not detect a close circle since voluntary work is not related to the integration of home and work.
Paper 2: On the motivation to work until the retirement age: What is the role of work-family interference?

Maria Peeters, Elianne van Steenbergen

Utrecht University, Utrecht, The Netherlands

Nowadays, workers in the European Union are confronted with an increase in the legal retirement age. Therefore, it is more and more important to understand what older employees need and value in order to keep them motivated and healthy at work until their pension age (as opposed to quitting the workforce prematurely). Recently, it has been demonstrated that employees’ perception about their employability is a significant predictor of their intention to work until the retirement age. In order to improve the employability of (older) employees, we argue that more insight is needed in employees’ needs and values in this stage of their life and career. To date, most attention has been paid to factors at the organizational level (such as career management) or at the task level (such as learning value of the job) as possible precursors of employability. We argue however, that the ease with which one can balance the work role with one’s family roles can also make workers feel more or less employable in the final stage of their careers. For instance, employees suffering from high levels of work-family conflict will probably have lower employability perceptions and also lower intentions to work until retirement age than employees who perceive that their work enriches their family life.

In this study, among 324 employees who were 45 years and older working at different faculties of a Dutch University, the central aim was to examine the relationships between work-family interference, employability and the motivation to work until the retirement age. We have investigated to what extent different dimensions of the work-family interference, (conflict and facilitation dimensions from work-to-family as well as from family-to-work) are related to workers’ employability perceptions and to their intention to work until the retirement age. In line with our expectations, results showed that employability is a significant predictor of the intention to work until retirement age. Moreover, our results indicated that work-family conflict as well as work-family facilitation are important antecedents of one’s motivation to work longer. A main conclusion of this study is that investing in employees’ work-family balance is not only relevant for young parents, but also for older workers. When older workers experience a good balance between work and family roles, their perception of employability is higher which makes it more likely that they will work until the legal retirement age.
Paper 3: Passion for work: How do work engagement and workaholism affect work-family balance over time?
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Introduction: Work engagement and workaholism represent two forms of passion for work that may have different consequences for the work-family balance. Previous studies have generally shown that workaholism is related to work-family conflict (WF-), whereas the relationship between work engagement and the work-family interface has appeared to be more inconsistent. Work engagement has been positively related to work-family enrichment (WF+), but depending on the study, has been related either positively or negatively to WF-. Longitudinal studies focusing simultaneously on both work engagement and workaholism and their associations with WF+ and WF- are lacking.

Objectives: Our aim was to test (1) whether work engagement and WF+ mutually predict each other over time ('the gain cycle' hypothesis) and similarly (2) whether workaholism and WF- predict each other over time ('the loss cycle' hypothesis), and (3) whether work engagement is also related to WF- and workaholism to WF+.

Methods: To test the study hypotheses, we used a seven-year three-wave full panel design and SEM, with 1598 Finnish dentists as subjects. Work engagement was measured using the Finnish version of UWES-17, and workaholism was measured with the working excessively scale of the brief DUWAS.

Results: As expected, work engagement and WF+ positively and reciprocally predicted each other between T1 and T2, and between T2 and T3. In addition, workaholism predicted WF- from both T1 to T2, and T2 to T3. However, WF- did not impact on future workaholism. Moreover, work engagement negatively influenced WF- from both T1 to T2 and T2 to T3.

Conclusions: This study showed strong support for work engagement's positive impact on work-family balance. Not only did we find positive gain cycles between work engagement and WF+ over time, but contrary to the study by Halbesleben et al. (2009) we also found that the positive state of work engagement may even decrease experiences of WF-. In contrast, workaholism increased the likelihood of WF- in the future. Thus, although both engaged employees and workaholics considerably invest their resources in work, they represent different forms of passion for work. Work engagement seems to be a state that energizes and builds resources that also spill over into family life, whereas workaholism is about constantly working excessively and using up energies at the expense of family life.
Paper 4: The Interplay between Work-Family Conflict and Enrichment in a Three-Wave Study
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Aim: Due to a scarcity of longitudinal studies and the fact that positive interaction between work and family life has been neglected in the work-family research before the 21st century, little is known about how work-family conflict and enrichment are related over time. The present study aims to shed light on this issue.

Method: The interplay between work-to-family conflict (WFC) and work-to-family enrichment (WFE) will be investigated in a sample of Finnish university workers (n = 728, 66% female) with three measurement points over three years, that is, a one-year time lag between each measurement point. The data will be analyzed from both variable- and person-oriented approaches. With a variable-oriented approach and structural equation modelling (SEM) we will investigate the rank-order stability of WFC and WFE, and more importantly, the possible cross-lagged effects between WFC and WFE over time. With a person-oriented approach and latent profile analysis (LPA) we will explore what kinds of possible latent trajectories of WFC and WFE (i.e. homogeneous groups identified at a person level) there exist, which might differ from each other in terms of mean-level stability and change in WFC and WFE over the three measurement points.

Preliminary results: Correlations for WFC and WFE show that the rank-order stability is high across time with auto-correlations ranging between .75 (one-year time lag) and .70 (three-year time lag) for WFC, and from .73 (one-year time lag) to .65 (three-year time lag) for WFE. In addition, WFC is negatively related to WFE within as well as across the three measurement points with cross-lagged correlations ranging from -.24 to -.28. Repeated measures analyses of variance in turn show that in WFC there is no significant mean-level change across three years (means lie around 3.5 with a scale from 1 to 7) but WFE seems to increase statistically significantly over time (mean at Time 1 is 4.0 and at Time 3 it is 4.4).

Conclusion: Altogether, our preliminary results show that especially WFC is relatively stable at least within three years when analyzed by using a variable-oriented approach (correlative analysis for rank-order stability and repeated measures analysis of variance for mean-level stability). However, the mean-level of WFE tends to increase over time. Our more sophisticated analyses (SEM and LPA) will reveal how WFC and WFE are related and be combined by person to form distinct trajectories of WFC and WFE experiences over time.
Symposium title: Recent Advances in Research on Job Insecurity
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Despite the fact that hundreds of studies have documented the consistent and significant ways that job insecurity affects the attitudes, behaviours, health, and well-being of today’s employees, such studies have only scratched the surface and much still remains that is unknown regarding this pervasive workplace phenomenon. Therefore, the purpose of this symposium is to bring together leading researchers in this area to share their latest research advances on the topic of job insecurity.

The first paper in the session by Seppelfricke & Staufenbiel addresses the important issue of job insecurity among the newest workforce entrants, i.e., young professionals and apprentices. Such research is vital, since unemployment and underemployment levels tend to be higher among youth workers.

The second paper by Vander Elst et al. presents a rare look at 3-wave longitudinal data demonstrating how the effects of job insecurity unfold over time. Moreover, these data investigate the relationship between job insecurity and actual voluntary and involuntary turnover (rather than just turnover intentions).

The third paper by Selenko & Batinic tests the proposition that perceived deprivation of the latent benefits of work (specifically, financial deprivation) accounts for variation in employee mental health outcomes in response to job insecurity.

The fourth paper by Låstad et al. breaks new ground by developing a measure of job insecurity climate, i.e., shared perceptions regarding job insecurity within an organization. Although others have proposed that job insecurity could be meaningfully conceptualized as an organizational-level variable, this is the first attempt to develop a measure to test this proposition.

Finally, the last paper by Niesen et al. test competing theoretical explanations for the effects of job insecurity on work behaviour. Specifically, they investigated whether Effort-Reward Imbalance or Psychological Contract Breach best explains the observed relationship between job insecurity and its effects on innovative employee behaviour.

Together, these innovative studies break new ground by: a) utilizing increasingly methodologically rigorous research designs; b) increasing our understanding of the theoretical underpinnings of the job insecurity phenomenon; and c) improving the sophistication of the measurement of the job insecurity construct.
Paper 1: Job insecurity of advanced apprentices: A longitudinal study
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Due to the fact that present employment forms are more and more diverse, several authors have investigated more group specific job insecurity than in prior studies. For example, Klandermans, Klein Hesselink & van Vuuren (2010) reported a higher severity of job loss for permanent contractors and entrepreneurs in comparison with agency workers and temporaries. Whereas there are various studies investigating the job insecurity of jobholders with a long tenure, only a few look at job insecurity among young professionals or adolescents who are in apprenticeships.

Our study focuses on the antecedents and consequences of apprentices' job insecurity in Germany (n=392). The range of vocational jobs comprised different careers, such as industrial clerks, motorcar mechanics, wholesalers and medical assistants. The study took place at two measurement times: the first one twelve months and the second one three months before the school leaving examination. Job insecurity was measured with an instrument that distinguishes between quantitative and qualitative job insecurity as well as cognitive and affective job insecurity.

Confirmatory factor analysis of the job insecurity measure revealed the best fit for a two-factor model that differentiates between a cognitive and an affective component. In cross-lagged panel analyses occupational self-efficacy turned out to be the best predictor of cognitive job insecurity whereas affective job insecurity was best predicted by employability. Unexpectedly, job insecurity was better predicted by job satisfaction than vice versa. Altogether the results of the study confirmed job insecurity to be an important workplace stressor even for young adolescents.

Paper 2: The cross-lagged relationship between job insecurity and voluntary and involuntary turnover
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Hypotheses: Job insecurity is the perceived threat of losing one’s current job. It may be experienced as a breach of the relational psychological contract. It may violate the mutual expectations about the exchange between security provided by the employer and effort and loyalty displayed by the employee. We may therefore expect job insecure employees to repair the balance by decreasing their loyalty and thus leaving the organisation. In our first hypothesis, we predict job insecurity to lead to future actual voluntary turnover.

In our second hypothesis, we predict job insecurity to precede future dismissal (i.e., actual involuntary turnover). As a consequence of the experienced breach of the psychological contract and to restore the balance, insecure employees may also decrease their efforts at work. They may, for example, become less productive and make mistakes, or even show destructive behaviours. This may increase their
changes to be laid off. In the second hypothesis, we therefore predict job insecurity to lead to future actual involuntary turnover or dismissal. This study is innovative as most studies investigate the relationship between job insecurity and turnover intentions, instead of actual turnover.

Methods: This study was based on three-wave longitudinal data of employees, who filled out an online-questionnaire between June 2009 and December 2010, with a time lag of six months between the measurements. After the second measurement, we had full information for 1332 employees regarding job insecurity at Time 1 and (voluntary and involuntary) turnover at Time 2. After the third measurement, we received complete data of 713 employees for job insecurity at Time 2 and turnover at Time 3. This allowed us to test the hypotheses three times (job insecurity T1 → turnover T2; job insecurity T1 → turnover T3; job insecurity T2 → turnover T2). Logistic regression analyses, in which we controlled for several work-related characteristics, were conducted to test the hypotheses.

Results and conclusion: Preliminary analyses showed that job insecurity at Time 1 significantly preceded both voluntary and involuntary turnover at Time 2. The results of the other tests were similar. This study showed that insecure employees will leave the organisation more often than more secure employees. Furthermore, the perception of job insecurity was positively related to future dismissal.

Paper 3: Do the benefits of work mediate the relationship between job insecurity and mental health?
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Introduction: The presented study tests whether the negative effect of job insecurity on mental health can be explained by a threat to the resources of work. In line with the conservation of resources theory (Hobfoll, 1989), we argue that employment is a resource that is threatened by job insecurity. More specifically, according to latent deprivation theory (Jahoda, 1982), employment provides specific latent and manifest functions, which are beneficial for mental health. In consonance with these two theories we propose that job insecurity poses a threat to employment and the associated latent and manifest benefits, which might explain part of its negative effect on mental health.

Method: In order to test this assumption, German employees (nT1 = 294, nT2 = 236) rated their job insecurity, their access to the benefits of work and their mental health in a two wave study. 51% of the respondents were women, on average 36.73 years of age (SD = 10.08). As for education, 27.5 % reported less than a high-school diploma, 26.2% reported a high school diploma and 46.3% reported more than a high school diploma as their highest education. For the statistical analysis, cross-sectional and cross-lagged multiple mediation analyses were used. Results: Cross-sectional multiple mediation analyses showed that the negative relation between job insecurity and psychological health was partly due to a
perceived lack of the financial benefits of work at both time points, as well as
timestep at T2. Conducting the multiple mediation analysis over time revealed
that job insecurity at time 1 predicted a change in mental health at time 2 and that
this change was partly mediated by the financial benefits of work.

Discussion: The study provides some empirical support for the proposition that job
insecurity would reflect in a threat to the benefits of work. Persons who perceived
their job to be more insecure also perceived worse access to the financial benefits
of work, which explained part of their worse health, also over time. Other than
expected, there was only weak support for the mediation through the latent
benefits. Taken together, the findings inform us about the potential and limitations
of the latent deprivation concept for the explanation of the relationship between job
insecurity and mental health.

Paper 4: Job insecurity climate perceptions: Scale validation and a
qualitative exploration
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Background: Job insecurity is a modern work stressor negatively affecting work
attitudes, wellbeing and the health of employees worldwide. It has mainly been
investigated as an individual level phenomenon, but drawing on the theoretical
framework of social cognitive theory, it could be argued that job insecurity is also a
social phenomenon. Behavioural, cognitive or other person-related factors as well
as contextual factors interact in a reciprocal relationship, and shape individuals’
perceptions and interpretations of organizational events. Shared perceptions of job
insecurity could be referred to as a job insecurity climate (Sora, Caballer, Peiró, &
De Witte, 2009). However, it is not yet clear how job insecurity climate should be
conceptualized. The multiple operationalizations of climate constructs found in
organizational research, along with methodological concerns, motivates a study on
the concept of job insecurity climate.

Aims:
(1) A qualitative exploration of the job insecurity climate construct
(2) A validation study of a newly developed measure of the job insecurity
climate

Methods: Interviews were conducted with job insecure informants and informants
working in organizations undergoing organizational change and who could be
expected to experience some degree of job insecurity. Their participation was
secured through snowball sampling, and a thematic analysis was conducted on the
transcribed interviews. Further, questionnaire items for measuring job insecurity
climate were developed, and data is currently being collected. The data collection
will be finalised late November 2011.

Results/relevance: Preliminary results of the interview study gave an indication of
how the job insecurity climate construct can be conceptualized. The thematic
analysis revealed that the whole organization needs not be the social unit of a
climate. The job insecure climate could rather be ascribed to specific groups; like
for instance a group of professionals (e.g. computer technicians), a demographic group (e.g. female doctoral students), or a geographically defined unit (e.g. a branch office of a company). Depending on the focus of the study, the job insecurity climate could be conceptualized either as a psychological climate or as an organizational climate. The validation of the questionnaire items will contribute further to our understanding of the job insecurity climate construct.

**Paper 5: Psychological contract breach or effort reward imbalance: examining the effects of job insecurity on innovative work behaviour.**

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Several studies show that job insecurity is related to strain and ill-health as well as impaired work-related attitudes and behaviour (for a meta-analysis, see: Cheng & Chan, 2008). Despite the growing pressure on organizations to remain innovative in order to survive, the impact of job insecurity on innovation processes in organizations has yet to be investigated. In this paper, we argue that psychological contract theory (Rousseau, 1995) and the ERI-model (Siegrist, 2000) present relevant insights that could explain the relationship between job insecurity on innovation processes in organizations.

According to psychological contract theory, in a relational psychological contract, job security is included as a basic promise made by the employer. When an employee with a relational psychological contract experiences job insecurity, he/she will perceive a violation of the psychological contract (Sverke et al., 2004). As a consequence, employees will decrease behaviours that are not formally required (McLean, Parks & Kiddler, 1994). This will lead to a reduction in innovative behaviour, as part of organizational citizenship behaviours (Ramamoorthy et al., 2005). Also the effort reward imbalance model predicts a negative effect of job insecurity on innovative behaviour: when efforts are not fairly rewarded (e.g. when workers are insecure about their job), employees will not be willing to reciprocate with discretionary behaviours, like innovative behaviour, that go beyond contractually determined in-role behaviours (Janssen, 2000). Both theories lead us to expect psychological contract and effort reward imbalance as (negative) mediators between job insecurity and innovative behaviours. These associations were tested through survey research in a Belgian organization (n = 204).

Regression analysis showed no direct effect from job insecurity to innovative work behaviour. However, both psychological contract breach and effort reward imbalance were found to function as a mediator. Contrary to our expectations, both intervening variables were positively related to innovative work behaviour. Possible explanations for this positive pathway and future research will be discussed during our presentation.
Symposium title: New Trends in Recovery Research: Going Beyond the Role of Off-Job Activities (PART I)
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Recovery is the process during which the energy resources that have been used up during work are refilled, and employees’ functional system returns to baseline. The significance of the research on recovery lies to the fact that lack of recovery is detrimental for employee well-being and performance. Inadequate or incomplete recovery may result in fatigue accumulation, and consequently in physical and psychological complaints that may prevent employees from reaching performance standards. In contrast, successful recovery was found to relate positively to work engagement and proactive behaviour. Recovery occurs when employees take a rest from their work-related demands and replenish their resource reservoir. In this context, the majority of previous empirical studies were mainly interested in the type of activities people engage in during off-job hours, and whether these facilitate the recovery process.

Despite the fact that job demands and the related effort expenditure play a central role in the recovery process, the empirical evidence linking demanding situations at work and recovery is limited. Thus, the main aim of the present symposium is to go beyond the role of off-job activities, and to put emphasis on the different roles that job demands play in the recovery process. More specifically, this symposium includes five papers that study the recovery process as a function of demanding working conditions.

The first contribution by Bobst and her colleagues concerns a three-wave study that shows that impaired recovery fully mediates the relationship between time pressure and job performance.

In the second contribution, Pereira and Elfering present a diary study on the impact of social stressors at work on rumination, and consequently on sleep quality.

The third contribution by Xanthopoulou and her colleagues focuses on the differential effects of deep and surface acting in the relationship between emotionally demanding situations at work and recovery at home on a daily basis.

In the fourth contribution, Van den Broeck conceptualizes recovery as a factor that interacts with job demands (hindrances and challenges) and job resources in determining employee well-being.

Finally, Radstaak and her colleagues present an experimental study on how listening to music after a stressful task may promote cardiovascular recovery by decreasing rumination and arousal and by increasing positive affect.
Paper 1: Impaired Recovery as a Mediator Between Time Pressure and Reduced Performance: A Three-wave Longitudinal Study
Cora Bobst\textsuperscript{1}, Maria Kottwitz\textsuperscript{1}, Nicola Jacobshagen\textsuperscript{1}, Wolfgang Kälin\textsuperscript{1}, Laurenz L Meier\textsuperscript{1,2}, Norbert Semmer\textsuperscript{1}
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Our paper tries to improve the understanding of how high demands may contribute to lower performance over time by investigating impaired recovery as a mediator. High demands imply high effort and should increase the need for recovery. At the same time, however, high demands may induce preservative cognitions (rumination) with regard to stress-related issues, thus impairing recovery. If recovery is impaired, maintaining performance is only possible at the expense of additional effort; however such extra effort cannot be kept up indefinitely, resulting in decreased work performance in the long run. We therefore assumed impaired recovery to be the central link between high time pressure and reduced performance at work.

The study was conducted in three organizations and included three waves, with a time lag of 6 months each. From 176 participants participating at the first, 172 also participated at the second, and 169 at the third wave. Seven participants dropped out because they left the organization. Participants’ age ranged from 16 to 62 years (M=40.2; SD=1.6), 61% were male. Time pressure was assessed with the pertinent scale from the ISTA (Semmer, Zapf, & Dunckel 1995), impaired recovery with the “cognitive irritation” scale (Mohr et al. 2006), which measures ruminative thoughts about work-related problems, and reduced performance with a scale constructed by the authors (Jacobshagen & Semmer, 2005). In addition, we assessed recovery with four Kunin items asking about recovery after work, overnight, on non-working days, and during holidays (Grebner & Semmer, 2005). Data were analyzed with multiple regression analyses, controlling for age, gender, and neuroticism (Borkenau & Ostendorfer, 1993). Time pressure at t1 predicted reduced performance at t3 ($\beta=.154$, $p<.05$), controlling for reduced performance at t1. This association was completely mediated by both recovery measures at t2 when analyzed separately (cognitive irritation: $\beta=.189$, $p<.05$; recovery: $\beta=-.186$, $p<.05$). Averaged over the three waves, cognitive irritation and recovery were correlated at $r = -.421$ ($p<.001$). Running a stepwise multiple regression analysis with cognitive irritation and recovery resulted in the inclusion of recovery only. Results indicate that time pressure leads to reduced recovery six month later, and this in turn predicts reduced performance one year later. Moreover, this study shows that assessing recovery with Kunin-items is a viable option.

Paper 2: Social Stressors at Work and Ruminative Thoughts About the Work Situation and Their Effects on Sleep Quality
Diana Pereira, Achim Elfering
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The aim of the current diary field study was to investigate the impact of social stressors at work on ruminative thoughts, and their effects on sleep quality.
parameters. As a central phase of recovery, sleep is extremely important in preventing long-term negative effects of stress on health. However, considering the psychobiological activation as a response to work stressors, social stressors at work are incommensurate with the deactivation that is a main characteristic of sleep, causing impaired sleep quality. Components of the psychological activation are ruminative thoughts about the stressful conditions. By prolonging physiological and psychological reaction to work stressors, ruminative thoughts are believed to cause decreasing sleep quality. Based on these assumptions, we expect a positive relationship between social stressors at work and ruminative thoughts. Furthermore we expect that social stressors at work are negatively associated to sleep quality. In a last step, we expect ruminative thoughts to mediate the relation between social stressors at work and sleep quality.

The sample consisted of 60 healthy working adults, employed in various jobs. The study took place over two weeks. Social stressors at work and ruminative thoughts were assessed daily by self-reported questionnaires. Furthermore, participants wore ambulatory actigraphs, assessing physical activity levels on every single minute. Using computer algorithm defined thresholds of activity, sleep quality parameters, e.g. sleep awakenings, were estimated. Multilevel regression analyses were used to predict ruminative thoughts and sleep quality. Age and sex were used as control variables. Results from multilevel regression analysis revealed social stressors at work to predict less sleep quality. Furthermore social stressors at work predicted more ruminative thoughts after work. Ruminative thoughts, however, did not significantly mediate the relationship between social stressors at work and sleep quality. Our results show that social stressors at work impede recovery from work by inhibiting psychobiological systems to turn to the baseline. This in turn leads to lower sleep quality.

Paper 3: Recovering from Emotional Labour: A Daily Diary Study on the Role of Deep and Surface Acting
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Emotional labour refers to emotionally charged tasks that individuals must perform during their work. Recovery is the process during which employees restore the energetic resources that have been used up during work. Inability to recover successfully is detrimental for employee well-being, particularly in emotionally demanding occupations. This study investigated the psychological mechanisms that explain the recovery process of employees, whose job is characterized by strong display rules (i.e. norms that guide employees’ emotional expressions). We examined the role of two regulation strategies used during work: deep acting (i.e. the active attempt to feel the required emotions), and surface acting (i.e. the expression of required emotions without changing the inner feelings). It was
expected that the two regulation strategies will have differential effects on employee well-being at work and on recovery after work. It was hypothesized that surface acting would relate mainly to high levels of exhaustion at work and, consequently, to a high need for recovery. In turn, high need for recovery was predicted to impede the recovery process after work, and to be related to low relaxation and low vigor at bedtime. In contrast, deep acting was hypothesized to mainly relate to high levels of flow during work, and in turn to low need for recovery. Consequently, low need for recovery was expected to relate to higher levels of relaxation and vigor before going to bed.

A diary study was conducted among 34 Polish and 16 Dutch emotional labour employees. Participants filled out first a survey and then a diary for five consecutive workdays, twice per day: after work and before going to sleep. Multilevel analyses showed that employees’ generalized perceptions of display rules related positively to day-levels of surface but not deep acting. Furthermore, surface acting had a positive indirect effect on the need for recovery through exhaustion that in turn, related negatively to relaxation after work and vigor before going to bed. In contrast, daily flow mediated the relationship between deep acting and need for recovery: deep acting related to higher flow, which in turn related to lower need for recovery. Next, need for recovery mediated the relationship between flow on the one hand, and relaxation and vigor on the other hand. These results emphasize the significance of deep and surface acting in explaining recovery after emotion work, and suggest that deep acting is a more beneficial strategy for daily employee well-being.

Paper 4: Recovery Foster s the Interactions Between Job Resources and Hindering and Challenging Job Demands
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Evidence for the buffering role of job resources in the relation between job demands and burnout in the JD-R remains inconsistent (Hu, Schaufeli, & Taris, 2011). This hints at additional moderators. Recovery experiences during off-work time (Sonnentag & Geurts, 2009) may constitute a personal resource that allows workers to make full use of the potential job resources. Following the Conservation of Resources Theory (Hobfoll, 2001), recovery may replenish workers’ personal resources, which in turn aid in developing or using job resources. In turn, this makes individuals highly capable of dealing with stressful situations.

However, not all types of recovery (Sonnentag & Geurts, 2009) may play this role for different types of job demands. Recently job demands have been differentiated into hindrances and challenges (Van den Broeck et al., 2010). Job hindrances are hard to overcome and require a ‘flying’ coping style. Job challenges equally tap into employees’ energy, but are conquerable; a ‘fighting’ coping style may thus be most appropriate. Following the principle of family-work facilitation (Edwards & Rothbard, 2000), it is hypothesized that detachment (i.e., ‘switching off’) helps in coping with
job hindrances, while control (i.e., self-determination during off-job time) facilitates dealing with job challenges.

Cross-sectional results among a heterogeneous sample of Belgian employees (n = 150) provided support for the hypothesized effects. Results showed that only for detached workers, job resources (e.g., skill utilisation) attenuate the positive relation between role conflict (i.e. a hindrance) and exhaustion, while only workers experiencing control benefit from job resources in dealing with workload (i.e. a challenge).

**Paper 5: Relax, Take it Easy: Does Music Facilitate Cardiovascular Recovery from Stress?**

Mirjam Radstaak, Sabine Geurts, Jos F. Brosschot, Michiel Kompier

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This study examined the role of music in cardiovascular recovery after stress exposure. We hypothesized that listening to music after having conducted a stressful task would promote cardiovascular recovery by decreasing rumination about the stressful event, by increasing positive affect and by decreasing arousal.

A few weeks before the start of the experimental study, we asked participants to mention specific music tracks that made them happy and music tracks that made them calm. In the experimental study (with a between-subjects design), stress was elicited by exposing participants (n = 120) to a mental arithmetic task with harassment. After the stress task, participants listened either to self-chosen music that made them happy (condition 1), self-chosen music that made them calm (condition 2), or an auditory stimuli (condition 3). In an additional control condition (condition 4), participants were not exposed to any auditory stimuli and were instructed to relax. During the entire experiment (baseline period, stress period and recovery period), heart rate, heart rate variability and systolic and diastolic blood pressure levels were measured continuously. The results of this experimental study will be presented and discussed.
Symposium title: Recovery after Work: The Role of Psychological detachment in the recovery process
Mark Cropley
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It is well documented that working in a demanding environment can increase the risk for the development of poor health and well-being. There are many contributing factors; however, one significant mechanism that appears to underlie the relationship between work and ill health is inadequate recovery from work demands. The recovery process after work is important for regaining mental and physical capacity lost as a result of the work experience. Efforts during work, mental or physical, lead to psychological or physiological load reactions or strain, and these can be experienced as fatigue, discomfort, physiological arousal or stress. Once work has been completed, and the individual is no longer exposed to the demands of work, load reactions reverse, thus allowing the opportunity for recovery. For optimal recovery, individuals must also cognitively and emotionally detach from work.

This symposium will present and discuss five individual but interrelated studies that have examined the process of psychological unwinding from work. Each paper uses a different methodology.

The first paper (Binnewies & Herdt), reports the findings of a study that tested the relationship between supervisors’ emotional support, creative work-family conflict and boundary setting at home and employee recovery, and shows a direct link between employees psychological detachment, relaxation and their boundary setting at home. Reporting on the results of a longitudinal study, Rydstedt & Devereux (paper 2), discuss the importance of ‘need for recovery from work’ on general health in a sample of 2222 British workers. Need for recovery, and sleep assessed at baseline was found to significantly impact mental health 1.5 years later.

Utilizing a multilevel analysis methodology, Zijlstra and colleagues, (paper 3) report the results of a 14-day diary study conducted in the Netherlands that showed high work pressure to be associated with higher levels of work-related rumination. Workers reporting greater rumination during non-work time also reported poorer sleep quality and recovery from work. The fourth paper (Querstret & Cropley) presents the findings of a web-survey of 719 adult workers that examined the relationship between work-related rumination (affective and problem solving), sleep quality and work-related fatigue.

Finally, Lang & Kraus discuss different types of ruminative thinking within a sample of 197 supervisors from a medium-sized company in Germany. Their findings suggest that continuing to think about work-related issues during leisure time, either in a productive or emotional way, appears to impede the recovery process and is associated with poorer psychological and somatic health.
Paper 1: Relationships between supervisor behaviour and employees’ recovery during leisure time
Carmen Binnewies, Lena Herdt
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Over the last years, research has showed that employees’ recovery during leisure time is important for employees’ well-being and performance. Although research acknowledged the important role of recovery, until today research on the predictors of recovery, particularly on organizational predictors is scarce. The goal of the current study was to examine the relationship between supervisor behaviour and employees’ recovery during leisure time, as supervisors have already been identified to play a key role for employees’ work-related well-being.

Building on prior work examining the influence of supervisor behaviour on work-family conflict, we focused on four different leadership behaviours: a) emotional support regarding work-family issues, b) creative work-family management (e.g., finding individual family-friendly work-time arrangements), c) setting high performance expectations, and d) setting boundaries between work and private life at home (e.g., not working whilst at home). We expected positive relationships between supervisors’ emotional support, creative work-family conflict and boundary setting at home and employees’ recovery (psychological detachment, relaxation, control over leisure time, and boundary strength at home). For setting performance expectations, we expected a curvilinear relationship meaning that we expected a medium level of performance expectations to be most beneficial for employees’ recovery.

We tested our hypotheses in a sample of 90 matched supervisor-employee dyads from diverse occupations. Most of them worked in a health insurance company. The level of performance expectations and supervisors’ boundary strength at home were assessed from the supervisor. The levels of emotional support and creative work-family management as well as employees’ recovery were assessed from the employee.

Results showed that high levels of creative work-family management were associated with increased levels of psychological detachment and relaxation. Supervisors’ boundary setting at home was positively related to employees’ boundary setting at home. Concerning supervisors’ performance expectations, we found support for curvilinear relationships with psychological detachment and relaxation (i.e., a medium level of performance expectations were most beneficial). Surprisingly, supervisors’ emotional support showed no relationships with employee recovery. In sum, our study shows that supervisor behaviour is directly linked to employees’ recovery during leisure time, namely to psychological detachment, relaxation and their boundary setting at home.
Paper 2: Need for recovery from work interacts with sleeping problems to predict long-term mental health
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Objectives: Recovery has been defined as “the post-stress rest period that provides information about the degree to which the reactivity in the physiological and psychological parameters measured persists after the stressor has ended”. It has been suggested that the speed and completeness of recovery may affect health. Subjective need for recovery from work has been suggested as a possible early precursor of more severe work-related exhaustion. A sustained process of incomplete recovery from work has been found to be associated with secretion of stress hormones and self-reported health complaints. The objective of this study was to analyze the long-term impact of need for recovery from work, sleeping problems and their interaction on mental health.

Method: The sample consisted of 2222 British wage earners (38% females, 62% males; mean age 42.3 years at baseline) from a wide range of professions that had completed the actual measures in two sets of surveys on working conditions and health with an interval of about 1.5 years. The Need for Recovery from Work Scale, sleeping problems at baseline were used as independent variables. Mental health -up. The independent variables were dichotomized and factorial ANCOVA was used for the statistical analysis, with baseline GHQ12 as a covariate to control for baseline mental health.

Results: As expected, the covariate had a strong impact on mental health at the follow up (F=232.1; p<.001). Baseline subjective Need for Recovery from Work (F=14.59; p<.001) and perceived sleep problems (F=18.70; p<.001), as well as their interaction (F=4.30; p<.05) was also shown to significantly impact on later mental health (GHQ12).

Conclusions: The findings in the present study add to the assumption that impaired recovery from work may play a crucial role in long-term mental health problems in the working population, in particular when coinciding with sleep disturbances. Increased efficiency and profitability have become essential business drivers for many organizations facing a slow economic recovery. Work pressure is therefore likely to increase in the workplace. The resulting risk associated with impaired recovery on work related mental health should be monitored in the workplace.
Paper 3: A diary study on work pressure, rumination about work, and recovery
Fred Zijlstra, Alicia Walkowiak, Ute Hülsheger
Maastricht University, Maastricht, The Netherlands

Experiencing work pressure can lead to a reduction of well-being and health complaints. In the literature several definitions of work pressure have been used. The aim of the present study was to give a clear conceptualization of work pressure and to test whether work pressure influences levels of work rumination, recovery and sleep quality.

Seventy-six participants took part in a diary study and answered questions about work pressure, rumination, sleep, and recovery for 14 days.

Results of multilevel analyses revealed that work pressure indeed had a negative influence on recovery and sleep quality. People who experienced high work pressure ruminated more about their work than people who did not experience work pressure. This difference was more pronounced during the weekend. These results confirm that people who experience high work pressure are more preoccupied with their job: They worry more about their work and this is related to lower recovery and lower sleep quality. This implies that work pressure has a strong cognitive component and that it is not only restricted to the working hours; especially people with high work pressure ruminate about their work during non work time, and they report lower levels of sleep quality and recovery.

Paper 4: Investigating the relationship between work-related rumination, sleep quality and work-related fatigue
Dawn Questret, Mark Cropley
University of Surrey, Guildford, UK

Objective: This study investigated the relationship between work-related rumination, sleep quality and work-related fatigue. Two types of work-related rumination were of interest - affective rumination (negatively valenced, focussed on past events and relationship issues) and problem-solving pondering (positively valenced and focussed on future events). Likewise, two types of work-related fatigue were differentiated - chronic (persistent), and acute (short-term). The following hypotheses were tested: affective rumination would be associated with increased fatigue; problem-solving pondering would be associated with decreased fatigue; detachment from work would be associated with decreased fatigue; and poor sleep quality would be associated with increased fatigue. Furthermore, the mediating effect of work-related rumination on the relationship between sleep quality and fatigue was tested.

Method: An on-line survey study was completed by a heterogeneous sample of 719 adult workers in diverse occupations. In addition to measures of rumination, sleep quality and fatigue, measures were also included for other factors which
could affect fatigue, including: job demands, job control, and opportunities for recovery.

Results: Affective rumination was the strongest predictor of both fatigue outcomes, accounting for 8.8% of the unique variance in chronic work-related fatigue and 3% of the unique variance in acute work-related fatigue. Job demands was only predictive for acute work-related fatigue; however, job control was significantly negatively related to both fatigue outcomes. Problem-solving pondering and recovery opportunities were significant predictors of decreased chronic and acute work-related fatigue. Poor sleep quality was predictive of higher levels of acute and chronic work-related fatigue. Detachment was only significantly negatively predictive for acute work-related fatigue. Affective rumination mediated the relationship between sleep quality and both fatigue outcomes, but problem-solving pondering did not.

Conclusion: Work-related affective rumination appears detrimental to an individual's ability to recover from work, whereas problem-solving pondering does not. In the context of identifying mechanisms by which demands at work are translated into ill-health, this appears to be a significant finding; and suggest that it is the type of work-related rumination, not rumination per se, that is important. Strategies to help affective ruminators engage in a more problem-solving focused rumination style could be very effective in reducing work-related fatigue.

Jessica Lang, Thomas Kraus
RWTH Aachen University, Aachen, Germany

In the process of recovery from work, rumination is considered as an important intervening variable regarding potential effects on physical and psychological health. Ruminating about work is supposed to uphold the physiological activation and therefore leading to long term health impairments.

Both moderating (e.g., Brosschot et al, 2006) and mediating (e.g., Özlem & Ethan, 2008) effects on recovery are being discussed in the literature. Additionally, experimental research has shown that some forms of rumination (e.g., cognitive, self-distanced thinking about problems) would not impede the (physiological) recovery process thus leading to better health related outcomes.

To replicate the findings in an applied setting the present study surveyed 197 supervisors from a medium-sized company (mean age = 45.7; SD = 9.06). Participants filled out a questionnaire covering work-related stress and rumination as well as measures for psychological and psychosomatic health. Job stress was measured by a job intensity measure (Richter, et al., 2002). Detachment, affective rumination and problem solving pondering were assessed with a measure by Cropley et al. (in press). Somatization and Depression were assessed with the
respective German subscales of the Patient Health Questionnaire (PHQ, Löwe et al., 2002). Emotional Exhaustion was measured by the German version of the subscale from the Maslach Burnout Inventory (Büssing & Perrar, 1992).

Results indicate that even though the relationship between affective rumination and emotional and somatic health impairments was positive, there was also a considerable positive effect of problem solving pondering on all these health impairments. Only detachment showed a negative association with the assessed psychological ill health measures. Additionally, mediating and moderating effects of rumination are discussed.

Findings suggest that continuing to think about work-related issues during leisure time either in a productive or emotional way seems to impede the recovery process and is associated with poorer psychological and somatic health. Future research should consider if potential differential effects of the distinct rumination activities occur over an extended period of time.
Symposium title: New Trends in Recovery Research: Going Beyond the Role of Off-Job Activities (PART II)
Ana Isabel Sanz-Vergel\textsuperscript{1}, Despoina Xanthopoulou\textsuperscript{2}
\textsuperscript{1}IE University, Segovia, Spain, \textsuperscript{2}University of Crete, Rethymno, Greece

Recovery refers to the process during which the energy resources that have been used up during work are refilled, and employees’ functional systems return to baseline. Recovery usually occurs when employees take a rest from their work-related demands in order to replenish their resource reservoir. In this context, the majority of previous empirical studies on recovery were mainly interested on the type of activities people engage in during off-job hours, and whether these activities facilitate the recovery process. Recently, scholars have emphasized that studies focusing solely on the role of off-job activities explain only a small amount of variance in recovery, while they often result in inconsistent findings. These conclusions suggest that it is not only the off-job activities that explain the recovery process. Rather, the degree to which someone feels recovered depends on the psychological experience underlying this process. This suggests that there are contextual, as well as personal factors that are complimentary to the study of off-job activities, and may add to our understanding of the mechanisms that impede or facilitate recovery.

Following this recent trend in recovery research, this symposium goes beyond the role of off-job activities and focuses on factors that facilitate the balance between work and non-work. More specifically, the studies included in this symposium investigate work and personal characteristics that facilitate recovery, the contagion of recovery among couples during off-job time, as well as strategies that may facilitate the balance between work and private life.

In the first study, Rodríguez-Muñoz and his colleagues examine the longitudinal relationships between job demands, job resources and recovery opportunities.

In the second contribution, Volman and her colleagues examine how the combination between daily off-job activities and the degree to which people want to engage in these activities facilitates or impedes recovery and job performance.

In the third contribution, Oerlemans and his colleagues use a daily reconstruction method to analyze the role of extraversion in the relationship between time expended on off-job activities and daily recovery from work.

The fourth contribution by Sanz-Vergel and her colleagues examines the daily crossover of psychological detachment from work in a sample of dual earner couples.

Finally, the fifth study by Binnewies and her colleagues focuses on specific strategies that may help employees to manage boundaries between work and non-work domains in an attempt to foster recovery.
Paper 1: Exploring Relationships Between Job demands, Job resources, and Recovery Opportunities: A Longitudinal Study
Alfredo Rodríguez-Muñoz¹, Ana Isabel Sanz-Vergel², Evangelia Demerouti³, Arnold B. Bakker⁴
¹Complutense University of Madrid, Madrid, Spain, ²IE University, Segovia, Spain, ³Eindhoven University of Technology, Eindhoven, The Netherlands, ⁴Erasmus University Rotterdam, Rotterdam, The Netherlands

Recovery has become a hot topic in the field of organizational psychology during the last years with several cross-sectional and diary studies examining factors that hinder or promote opportunities to recover. However, the existing studies showed some limitations. On the one hand, those with cross-sectional designs do not provide enough information about the process of recovery, that is, about what happens before and after recovery takes place. On the other hand, diary studies analyze short-term processes, or in other words, variations at the within-person level. Nowadays, studies focusing on the long term relationships between job factors and recovery are still lacking. Thus, the aim of the present study was to explore longitudinal relationships between job demands (i.e. cognitive demands and workload), job resources (i.e. feedback and autonomy), and recovery opportunities.

Based on the Job Demands-Resources model and Conservation of Resources theory, we hypothesized reciprocal relationships between the above-mentioned variables. Recovery is considered as a way of replenishing the internal resources lost during the work day. Thus, recovered employees will be able to successfully cope with job demands, which also may be used to activate or create job resources. Consequently, this will facilitate more recovery opportunities. The sample was composed of 502 employees from a large chemical processing company in the Netherlands, and we used a time lag of one year. Results of structural equation modeling analyses supported our hypotheses. Specifically, it was found that T1 workload was negatively related and autonomy positively related to T2 recovery opportunities. Additionally, T1 recovery opportunities had a negative effect on T2 workload and positive effects on autonomy and feedback. Overall, these findings suggest the presence of a positive upward spiral between job demands, job resources, and recovery opportunities.

Paper 2: Recovery at Home and Performance at Work: A Diary Study on Self-Family Facilitation
Felieke E. Volman¹, Arnold B. Bakker², Despoina Xanthopoulou³
¹Eindhoven University of Technology, Eindhoven, The Netherlands, ²Erasmus University Rotterdam, Rotterdam, The Netherlands, ³University of Crete, Rethymno, Greece

In order to better understand the conditions under which off-job activities facilitate the recovery process, the present diary study examined the role of a person’s daily “wants” in the interplay between time off and on the job. We focused on three off-job activity categories: work-related, household, and physical activities. We
hypothesized that people, who spend off-job time on an activity they want to engage in, are more likely to recharge their batteries and gain resources. Specifically, we examined how daily off-job (work-related, physical, household) activities, in combination with the degree to which people want to engage in these activities relate to self-family facilitation (i.e. the extent to which engagement in one’s personal interests yields gains that enhance functioning in the family domain). Further, we hypothesized that self-family facilitation relates positively to psychological detachment from work and consequently, to recovery the next morning. Finally, we expected that recovery relates positively to daily job performance.

Sixty-five Dutch employees filled in first a general questionnaire and then a diary booklet over five consecutive workdays. The diaries had to be filled out three times a day (in the morning, before leaving the workplace, and before going to bed). Multilevel analyses revealed that engaging in work-related activities hinders self-family facilitation and psychological detachment. Engaging in physical activities during the evening hours increases the extent to which the self facilitates the family domain. Importantly, household activities were found to enhance self-family facilitation only on days that people want to engage in such activities. Spending time on household activities hinders psychological detachment only on days that people do not want to spend time on these activities. In addition, results showed that self-family facilitation and psychological detachment relates to better recovery the next morning. Finally, feeling recovered in the morning was beneficial for task performance during work on that day. These findings emphasize the role of “wants” in the degree to which off-job activities lead to recovery. On days individuals are able to spend time on activities they want to engage in, they experience higher self-family facilitation, and in turn are more likely to switch off from their work. On days when there is a discrepancy between the things people do and the things people actually want to do, people are more likely to think about their work. Furthermore, the results highlight the importance of keeping a balance between the self and the family, since this balance facilitates recovery and enhances performance on a day-to-day basis.

Wido G.M. Oerlemans, Arnold B. Bakker, Nadia Rida
Erasmus University Rotterdam, Rotterdam, The Netherlands

Based on the situational congruence model, this study examines the role of extraversion in the relationship between spending time on five different types of off-job activities and daily recovery from work (i.e. happiness during off-job activities and recovery at bedtime). A day reconstruction method was used to accurately examine time spent on off-job activities, happiness during off-job activities, and daily recovery from work before bedtime. In total, 641 operable diaries were completed by 228 employees, generating 6,385 reported off-job activities and happiness scores over the course of – on average - three workdays. The results
show higher happiness during off-job activities results in higher recovery from work at bedtime. Moreover, highly extraverted employees derive greater happiness from social and physical activities during off-job time, whereas deriving less happiness from low effort activities and work-related activities, as compared with their low extraverted counterparts. In addition, high extraverts felt less recovered before bedtime as compared with their low extravert counterparts when spending time on work-related activities and household duties. The study extends work on the situational congruence model by demonstrating that engaging in trait-congruent activities are positively related to daily recovery from work. It appears that personality plays a decisive role in the kind of off-job activities that contribute most to our daily recovery from work.

**Paper 4: Daily Crossover of Work Detachment: The Role of Humor and Vigor**

Ana Isabel Sanz-Vergel¹, Alfredo Rodríguez-Muñoz², Evangelia Demerouti³, Arnold B. Bakker⁴

¹IE University, Segovia, Spain, ²Complutense University of Madrid, Madrid, Spain, ³Eindhoven University of Technology, Eindhoven, The Netherlands, ⁴Erasmus University Rotterdam, Rotterdam, The Netherlands

Experiences lived both in the work and non-work domains can affect not only employees’ own well-being but also their partner's. This inter-individual transmission, known as crossover, has been studied in relation to several phenomena such as work engagement, feelings of exhaustion, and life satisfaction. As recovery takes place in the non-work domain it makes sense to involve other members of the family such as the partner. In the present study, we focus on psychological detachment from work, which represents the sense of being away from the work situation, not only physically but also mentally. Achieving this mental disconnection daily in the home domain may be partly dependent on the partner, making it more or less difficult for the employee to forget about job tasks (e.g., if your partner is continuously talking to you about work issues in the evening, it is less likely that you focus on other activities).

Therefore, we examined the daily crossover of psychological detachment from work among couples using the actor-partner interdependence model to analyze the diary data. We hypothesized that higher levels of work detachment of one member of the couple would be related to higher levels of work detachment of the partner, because the partners stimulate each other to forget about work and to be psychologically present at home. Moreover, given that previous studies have shown that personal characteristics such as sense of humor may facilitate the recovery process, we explored affiliative humor as a possible facilitator of daily work detachment. Finally, we included vigor (i.e., physical strength, cognitive liveliness and emotional energy) to explore under which conditions it is easier to detach from work.

The sample was composed of dual earner couples from different professional backgrounds. The partners filled out a general questionnaire and after that, they completed daily questionnaires two times a day, during five consecutive working
days (Monday-Friday). Note that the partners filled in the daily diaries on the same
days. Results from multilevel analyses largely support our main hypothesis,
showing crossover of daily work detachment between partners. Regarding
conditions facilitating recovery, we found that the affiliative humour of the partner
and employees’ own emotional energy facilitate daily work detachment. This study
showed that it is promising to follow partners daily so that we can uncover the way
that crossover occurs and the conditions that facilitate it.

**Paper 5: Everything at the proper time at the right place!**

**How boundary management strategies contribute to employees’ recovery
during leisure time**

Carmen Binnewies, Verena C. Hahn, Sascha Haun

*University of Mainz, Mainz, Germany*

Flexible work time arrangements and new technologies (such as smartphones or
tablet PCs) enable more and more employees to adapt their work habits to their
needs and to work whenever and wherever they like, 24 hours, seven days a week
(Park, Fritz, & Jex, 2011; Sonnentag, Binnewies, & Mojza, 2010). However, this
flexibility comes at the cost of increased self-management demands to structure
and organize one’s work and to set boundaries between work and private life (e.g.,
Bulger, Matthews, & Hoffman, 2007). If employees are incapable of setting
boundaries between work and private life they may feel on duty all the time and
their recovery during leisure time may suffer. The goal of our research was to
examine which boundary management tactics, i.e. deliberate strategies to set
boundaries between work and private life foster employees’ recovery and well-
being. We based our research on the qualitative work of Kreiner, Hollensbe and
Specifically, Kreiner et al. (2009) distinguish between temporal strategies (e.g.,
setting (non) working times), physical strategies (e.g., only working at a specific
place such as the office), communicative strategies (e.g., telling coworkers when
and how one should (not) be contacted outside work) and behavioural strategies
(e.g., using technologies such as a phone answering machine).

After the development and expert validation of items to assess the four categories
of boundary management strategies, we tested and calibrated our new measure in
three samples: a) a sample of 210 doctoral students and lecturers from German
universities, b) a sample of 450 faculty members from German universities, and c)
a sample of 230 German employees from diverse occupations. Results showed
support for a multi-factorial model of boundary management strategies involving
the dimensions of temporal, physical, communicative, and behavioural strategies.
In addition, we could also confirm the predictive validity of our newly developed
measure as all dimensions of boundary management strategies were related to
increased recovery (psychological detachment, relaxation, and control over leisure
time) as well as well-being indicators (reduced emotional exhaustion, work-family
conflict). In sum, our research contributes to our knowledge on how employees can
foster their recovery and well-being by using specific strategies to set boundaries
between work and private life.
Symposium title: Evaluation of a multi-level Stress management Project in the Field: Evaluation approach and key results
Gregor Jenny\textsuperscript{1}, Georg Bauer\textsuperscript{1}, Rebecca Brauchli\textsuperscript{1}, Lukas Weber\textsuperscript{2}, Nina Hottinger\textsuperscript{3}
\textsuperscript{1}Division Public and Organizational Health, ETH/University of Zurich, Zuerich, Switzerland, \textsuperscript{2}Health Promotion Switzerland, Berne, Switzerland, \textsuperscript{3}nhconsulting, Zuerich, Switzerland

The project SWiNG was initiated by Health Promotion Switzerland and the Swiss Insurance Association to assess the effectiveness and financial benefits of workplace health promotion. From 2008 to 2011, 8 pilot companies with a total of 5000 employees implemented a multi-level stress management program with the help of three consultancy agencies. The program consisted of employee surveys, stress management courses, leadership training and participatory workshops at the team level. Evaluation of the project involved two research institutes who were commissioned to evaluate the intervention process and its results from both a health and economic perspective.

This symposium will gather evaluation from researchers, a consultant and the official project manager, who will present and critically discuss their perspectives and stakes in the project:

- The official project manager (Paper 1) will outline the goals, strategies and expectations of the project initiators and describe the project's architecture and the developed tools.
- The consultant (Paper 2) will describe the intervention process in detail, presenting the case of a company that mounts and services power plants worldwide. She will demonstrate how the initial project architecture was transformed into a company-specific, adaptive development process in a self-organized way.
- The evaluation researchers (Paper 3 to 5) will show key results and how they structured the great amount of data generated in the intervention process, grounding their research on an organisational health development model that incorporates a business management model and the generic Job-Demands-Resources model.

This symposium will reflect on how to handle the considerable complexity of such intervention processes in organisations. It shows a way of structuring and assessing the process and its results, producing generalisable evidence on the effectiveness of programs implemented in the field. It also takes into account the dynamics of social systems such as business companies and how to arrange multiple stakeholders’ goals involved in such projects.
Paper 1: Joining forces to tackle workplace stress – the project initiators’ point of view
Lukas Weber
Health Promotion Switzerland, Berne, Switzerland

Health Promotion Switzerland and the Swiss Insurance Association initiated and co-financed a leading pilot project named SWiNG (a German acronym for stress management: effects and benefits of workplace health promotion). For both organizations, mental health and stress intervention programmes (focusing on workplace health promotion), the establishment of scientifically validated tools for reducing the impacts of stress and the diffusion of stress prevention measures are strategic priorities.

Therefore, the goals of SWiNG were defined on three levels:
- implementation of stress prevention measures on organization level in eight Swiss companies
- scientific evaluation of the impact and economic benefits of the stress prevention programme
- building knowledge and experiences to promote effective stress prevention measures in Swiss companies

Between 2008 and 2011, stress prevention measures were implemented and evaluated in eight well-known large enterprises in Switzerland, with a combined total of over 5000 employees. Support was provided by consultancies who specialised in workplace health promotion.

Health Promotion Switzerland provided the management of the whole project organization including the implementation in the companies and the coordination with the evaluation research. Additionally, cooperation during the development of different stress prevention tools was provided. The project manager will demonstrate how the results of the project will be used to promote stress prevention in Swiss companies, e.g. the online stress survey instrument S-Tool.

Paper 2: The company-specific Development Process of a large Scale Stress management Project: Perspectives from the Field
Nina Hottinger
nhconsulting, Zuerich, Switzerland

From 2008 to 2011 three consultancy agencies implemented a stress management program (‘SWiNG’) in 8 pilot companies with a total of 5000 employees. The program consisted of employee surveys, stress management courses, leadership training and participatory workshops.

One of the consultants will describe the process and outcomes of the implementation of the project in the field service department of the Alstom Group (transport, power and grid sectors). The Field Service Department has 500
specialised employees, originating from 15 different nations, who are sent to work in different locations throughout the world and in a variety of different cultures and environments. Field workers often experience stressful situations and therefore require a high level of resilience to stress and skills tailored to the particular situation and stressors encountered in different working locations.

With the help of the 12 success factors of Gerhardt and Frey (2006), the consultant will demonstrate how the initial project architecture was transformed into a company-specific, adaptive development process in a self-organized way. She will describe the challenges (different working situations experienced by field workers, resistance among the management to the project examining leadership issues, cut backs and restructuring) and success factors (awareness raising of nearly all employees regarding stress and its effects, the implementation of health promotion into the managerial system of the unit, ongoing sessions of leadership inputs for managers, regular reflection of employees needs and wellbeing in teams) of the project implemented in such an international working organization facing the worldwide economic downturn. SWiNG started as a stress project and is now an integrated part of the organisational development.

**Paper 3: Models and Criteria for the Evaluation of complex Interventions in Organisations**

Georg Bauer, Gregor Jenny  
Division Public and Organizational Health, ETH/University of Zurich, Zuerich, Switzerland

The project SWiNG was initiated by Health Promotion Switzerland and the Swiss Insurance Association to assess the effectiveness and financial benefits of workplace health promotion. From 2008 to 2011 three consultancy agencies implemented a stress management program in 8 pilot companies with a total of 5000 employees. The program consisted of employee surveys, stress management courses, leadership trainings and participatory workshops. Evaluation of the project involved two research institutes who were commissioned to evaluate the intervention process and its results from both a health and economic perspective.

To structure the considerable amount of information generated in these eight company-specific intervention processes, the evaluation based its work on the Organisational Health Development (OHD) Model (Bauer & Jenny, 2012). The OHD model combines the generic EUHPID Health Development Model (Bauer et al, 2006) with the New Management Model of St. Gallen (Rüegg-Stürm, 2003), which is committed to structuration theory, a systemic viewpoint and organisational ethics. Evaluation further applied the RE-AIM-criteria (Glasgow et. al, 2003), assessing Adoption and Reach of the program, its Implementation quality, and finally its Effectiveness and Maintenance.
During this project, innumerable interactions between a dozen consultants and a multitude of company members took place. These interactions gradually shaped the companies’ mindmaps for organisational health development and led to adapted and specific intervention paths. First, for intervention research, we can learn from this self-organization between consultants and clients. Secondly, for evaluation research, we learn how such adaptive processes can be structured and assessed with organisational models and generic criteria.

**Paper 4: Ratio between job resources and job demands as an integrated measure predicting employees’ health**

Rebecca Brauchli, Gregor Jenny, Désirée Füllemann, Georg Bauer

*Division Public and Organizational Health, ETH/University of Zurich, Zuerich, Switzerland*

The job-demands resources model is a heuristic model that specifies how employees’ health may be produced by two specific sets of working conditions. The first set concerns job demands with a negative impact on health, whereas the second set refers to job resources which are supposed to be the positive counterpart of demands and beneficially influences health. In this study, we propose an integrated measure of health-relevant work characteristics (i.e. demands and resources): a ratio calculated dividing the factor score of resources by the factor score of demands. Our aim was (1) to explain the theoretical and empirical basis of this ratio as well as (2) to test its cross-sectional relationship to health (i.e. positive health, negative health, health and work performance and absence duration) and (3) the predictive value of this measure over time.

Using data of two waves of a longitudinal study conducted within 8 medium- and large-scale companies in Switzerland (n(t1) = 3414, n(t2) = 3085) we tested the hypotheses with heat maps, regression analyses and, moreover, to evaluate longitudinal effects a cross lagged panel design. Resources were measured using validated scales of; social support, appreciation, holistic tasks and job control, demands by time pressure, work interruptions, uncertainty at work and qualitative overload, positive health by job satisfaction, affective commitment and enthusiasm, negative health by sleeping disorders, exhaustion and psychosomatic disorders, and health and work performance by the health and work performance questionnaire.

Preliminary results indicate that there are several arguments to use the ratio between resources and demands as an integrated measure explaining employees’ health. First, heat maps show the same values of resources and demands (i.e. low-low, intermediate-intermediate or high-high) goes more or less along with the same degrees of health outcomes, whereas an asymmetrical combination (i.e. low-high or high-low) is related to different levels of health outcomes. Second, further analyses indicate that the ratio is strongly associated with health, cross-sectionally as well as over time. This study showed support for the use of a ratio between job resources and job demands explaining a broad range of work-related health outcomes. Not only is this ratio associated with employees’ health, it seems to be
additionally able to predict health over time. Thus this ratio seems to be a useful, easy-to-communicate and easily accessible overall-measure or indicator for work characteristics relevant for employees’ health for researchers as well as for practitioners.

Paper 5: Quantitative and qualitative Evaluation Results of a large Scale Stress management Project in Business Companies
Gregor Jenny, Rebecca Brauchli, Alice Inauen, Désirée Füllemann, Georg Bauer
Division Public and Organizational Health, ETH/University of Zurich, Zuerich, Switzerland

From 2008 to 2011 three consultancy agencies implemented a stress management program (‘SWiNG’) in 8 pilot companies with a total of 5000 employees. The program consisted of employee surveys, stress management courses, leadership training and participatory workshops. Evaluation of the project involved two research institutes who were commissioned to evaluate the intervention process and its results from both a health and economic perspective.

Evaluation was based on the Organisational Health Development (OHD) Model (Bauer & Jenny, 2012) and the RE-AIM criteria (Glasgow et. al, 2003), assessing Adoption and Reach of the program, its Implementation quality, and finally its Effectiveness and Maintenance. To evaluate the implementation quality of the project, 12 qualitative success factors of change processes were utilised (Gerkhardt & Frey, 2006). Additionally, participant appraisal of stress management courses and leadership trainings were quantitatively measured, assessing perceived coherence, fit and efficacy. Evaluation of effectiveness and maintenance was based on a quantitative ratio of job resources and demands and qualitative categories of individual and organisational health capacities. A lack of control groups, meant an adaptive study design was chosen, applying a scale on retrospective impact assessment to longitudinal analysis.

A quarter of the employees retrospectively attested the program’s impact. For this group, longitudinal analysis revealed significant change in their ratio of job resources and demands. Yet process evaluation showed that impact is only generated when participants sense that the program fits the company and when they feel its efficacy. Further, not only individual participation but also the participation rate in business units added to the programs impact, which underlines that impact is generated through dynamic interaction within teams and units. SWiNG demonstrated how an initial project design was transformed into a company-specific development processes in a self-organized way and showed that this fit between company and project design is essential for its impact. This also reflects the reality of all interventions in complex social systems targeting individual and organisational level change. Thus, for evaluation research, we showed one way of producing evidence with an organisational model and set of criteria for process and outcome evaluation.
Jennifer Lunt, Jane Hopkinson, Victoria Bennett
Health and Safety Laboratory, Buxton, Derbyshire, UK

The symposium will profile:
1. The process underpinning development of a leadership and worker involvement toolkit for improving health and safety performance in construction small and medium-sized enterprises (SMEs) including development of a health and safety diagnostic tool for assessing cultural maturity;
2. Underpinning the evidence base derived from literature and industry practitioner practices;
3. Associated process evaluation and perceptions of benefits, and
4. The potential benefit of the tool and lessons learnt in toolkit development and partnership working between occupational health psychologists, inspectors and industry practitioners.

Occupational health psychologists from the Health and Safety Laboratory (HSL) (an agency of the Health and Safety Executive; HSE) have worked with HSE inspectors and industry practitioners from leading construction companies to develop a leadership and worker involvement toolkit for the UK construction industry. Launched during March 2011, this web-based toolkit aims to improve health and safety performance within small and medium sized enterprises in the sector by using leadership and worker involvement techniques to engender behaviour change at individual and organisational levels. The work was undertaken on behalf of the HSE. Practitioners represented nine national and multinational construction companies and three consultancies with a track record or working in behavioural safety within the sector. Toolkit production had to overcome industry characteristics such as a transient and diverse workforce, complex working conditions and extensive supply chains.

Through this symposium we aim to demonstrate how we have combined the contemporary evidence base on behaviour change with industry experiences gathered from qualitative investigation, and accommodate work place influences to produce an approach that is both useable and scientifically grounded. Symposium presentations will map toolkit development. The first profiles the evidence synthesis that produced the model upon which the toolkit is based. This combines a literature review with a qualitative investigation of industry practices. In the second we explain the process by which we fleshed out the toolkit content, translated it into a user-centred website, and associated process evaluation such as needs analysis and user trials. Associated usability testing implies that the approach should be applicable to organisations of any size. The third paper describes how we developed a ‘health and safety diagnostic tool’ to enable intervention tailored to safety cultural maturity levels. In the final presentation the toolkit’s significance and benefits is explained from the perspective of a Health and Safety Inspector. Lessons learnt will also be included. We hope to convey how we have translated
theory into practice in a way that adds real value to usual risk management approaches in an industry typified by high rates of accidents and ill health.

Jennifer Lunt¹, Simon Bates¹, Gordon Crick²
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Background: To provide a model for guiding toolkit development, this first phase sought to establish (a) current behaviour change practices used within UK construction and (b) contrast those with the contemporary evidence base on behaviour change as applied to the workplace.

Methods: A combined methods approach was used comprising a literature review utilising a systematic methodology and a qualitative investigation of actual practices. A purposive sample of eight senior industry practitioners representing eight major UK construction companies and three consultants was drawn from an industry forum established by the HSE. Semi-structured interviews were conducted and analysed using thematic and content analysis to identify practices and trends.

Findings: To optimise workplace relevance contemporary health psychology behaviour change evidence (e.g. Michie et al, 2005; Abraham & Michie, 2008) was supplemented with evidence on worker involvement, safety culture and situational awareness. A key finding was that a reduction in worker risk taking behaviour was most likely if ‘top down’ culture change and health and safety management system improvements are combined with individually targeted behavioural approaches. Qualitative findings reinforced this conclusion and identified strategies for managing challenges due to industry complexity, such as consolidating supply chains and managing programs on a construction project-by-project basis.

Discussion: Key attributes of the overarching model produced to guide subsequent toolkit design encompassed; motivating management (through business, moral and legal incentives); diagnosis and assessment; systems integration, health and safety leadership, workforce motivation, instigation (skills and implementation) and change maintenance.

Nikki Bell, Jane Hopkinson
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Background and Methods: This paper presents the process for developing a web-based Leadership and Worker Engagement (LWE) toolkit for leaders of small and medium-sized construction enterprises (SMEs). The model developed in phase 1 provided an evidence framework for determining the type of leadership and worker involvement strategies that were necessary for achieving change and when they
apply. Feedback from leaders used in phase 1 was used to specify strategies further. Templates were produced for fleshing out toolkit content. This user-focused approach prevented software development potentially taking precedence over the needs of SME leaders. As examples of process evaluation, qualitative approaches via user-needs workshops, user trials and usability testing were followed. Semi-structured interviews were used to collate in-depth feedback from participants. Seventeen companies participated, 13 of which were SMEs.

Results: End users consider the toolkit to be effective for reducing risk-taking behaviour. The added value dimension was considered to be its prescriptive nature with simple tools and techniques provided. Users felt that a balance had been struck between providing the necessary guidance and tools whilst not being overwhelming.

Conclusions: Results support the utility of the toolkit as a means of cascading best practice in LWE to construction SMEs wanting to improve health and safety. A user-led approach has ensured that SMEs can make sense of the content and take away simple strategies to engender sustained behaviour change.

**Paper 3: Developing a Health and Safety Diagnostic Tool: A Gateway Measure for the Toolkit.**

Victoria Bennett¹, Nikki Bell¹, Jennifer Lunt¹, Jennifer Webster¹, Andrew Weyman²

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Background: This paper profiles the development and testing of a web-based health and safety diagnostic tool (HSDT) intended to enable organisations to assess their level of safety culture maturity, and to implement solutions tailored to maturity. Its psychometric properties were examined to ensure content validity and reliability.

Method: A mixed methods design was used. A model for structuring measure design was produced from reviewing health and safety (H&S) culture maturity literature. Content was developed through consultation with researchers and industry professionals. Subject matter experts commented on the tool’s content validity. Two rounds of test-retest reliability and internal consistency testing were conducted using a standardised format.

Results: A combination of Fleming’s (2001) Safety Culture Maturity Model and Westrum’s Typology (2006) of Organisational Communication provided the basis for developing the tool. Six elements were identified to capture safety culture maturity. Cultural maturity was operationalised along five stages, from reactive to proactive. Solutions to enable progression were also generated. 135 organisations took part in validity and reliability testing. Experts considered the HSDT to be a good indicator of H&S culture maturity. Revisions were made to improve the clarity and progression through the tool. The first round of testing revealed two elements needing additional work. Following the second round of testing all elements met the acceptable standard of reliability.
Conclusions: General feedback suggested that the HSDT provides a quick and simple means for organisations to gauge their level of H&S culture maturity, helping them to introduce changes that suit the organisation’s level of cultural readiness.

**Different manifestations of psychosocial work environment in men and women in the manufacturing industry in Sweden**
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Background: In order to prevent serious illnesses to arise from work exposure, it is important to understand their precursors and how they affect men and women. The most common reasons for sick leave from work today are stress-related and the perception of an inadequate psychosocial work environment is a common stressor. How is this perceived by men and women? Are the effects of the psychosocial work environment manifested differently in the different sexes?

Methods: The longitudinal Work Lipids and Fibrinogen (WOLF) Northern Sweden cohort was used for the purposes in this study. The WOLF study aims at investigating the effect of work and lifestyle on health. The Northern Sweden WOLF cohort contains mostly manufacturing industries which provide male dominated work environments. Out of the 1427 manufacturing participants that participated both in 2000-2003 (T1) and 2009 (T2), 1,220 were men and 207 women. The study took on a holistic approach studying the interaction between sex and many psychosocial work environment variables in various health conditions. The interaction analyses and post hoc testing were performed with logistic regression analyses.

Results: The psychosocial work factors demand, role conflict and psychosocial climate gave rise to different types of ill-health in men and women. After confounding control, women with high demands (OR 7.42; 95% CI 1.57-33.42) and poor psychosocial climate (OR 5.98; 95% CI 1.16-30.82) had a higher risk of neck-shoulder pain, whereas high demands (OR 2.26; 95% CI 1.37-3.74) gave rise to work overcommitment and role conflict (OR 1.37; 95% CI 1.18-2.95) to fatigue in men.

Conclusions: In a male dominated, manufacturing environment, women’s reactions to poor psychosocial work environment seem to manifest itself in bodily pain. Men on the other hand seem to react with psychological reactions such as work overcommitment and fatigue. From a preventive point of view, it is important to understand that different symptoms in men and women may be a response to the same exposure. This may be extra important when working in environments with unequal gender distribution.
Being healthy is of core interest not only for the individual, but also for organizations and societies. The scope of this symposium is to present and discuss organizational, group and individual level interventions that aim to improve employee well-being. We build on Positive Psychology which intends “…to catalyze a change in the focus of psychology from pre-occupation only with repairing the worst things in life to also building positive qualities” (Seligman & Csikszentmihalyi, 2000, p.5). Although earlier research has shown positive effects of positive interventions on individuals’ well-being (e.g. Lyubomirsky, Sheldon, & Schkade, 2006; Seligman, Steen, Park, & Peterson), to date research has hardly focuse d on evaluating effects of positive work-related interventions. We define work-related interventions in a broader context by referring to work within an organization as well as to work in terms of studying at a high school or university.

The benefits of work-related interventions are twofold: First, they can be integrated into the work day and therefore reduce time-conflicts for the participants and, second, they allow access to groups which often refrain from participating in health promoting programs such as low-skilled immigrant workers or high school students.

The four papers to be presented in this symposium examine effects of different positive interventions aiming to improve participants’ well-being. The findings of the studies will stimulate the discussion around the quality and benefit of positive interventions in different contexts (i.e. at work, at the university, at high schools), for different groups (i.e., low skilled immigrant workers, administrative staff, students), and at different levels (i.e., organization, group, individual).

In the first paper, Busch, Clasen, Vowinkel and Winkler discuss effects of an organizational-level stress management intervention program for low-skilled jobs, for supervisors, for management and worksite health promotion experts.

Second, Michel, Kunz and Grassinger present their study evaluating effects of a cognitive-behavioural, solution-focused coaching group program for high school students.

Turning now from the organizational and group level to the individual, Hoppe, González-Morales, Michel, O’Shea and Steidle present effects of short positive work-related interventions which employees pursue on a daily basis at work.

Finally, Rexroth, Tremmel and Michel evaluate how online-based self-coaching interventions help students to reduce their work-life conflict.
Paper 1: Organizational-level stress management intervention program for immigrant workers in low-skilled jobs: what works?
Christine Busch, Julia Clasen, Julia Vowinkel, Eva Winkler
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The development and evaluation of organizational-level stress management intervention programs has proved to be challenging for researchers and practitioners. This applies in particular for interventions with workers in low-skilled jobs, who are often immigrants. In Germany immigrants in low-skilled jobs are mainly Eastern Europeans and Turks. First generation immigrants are at particular risk in terms of their health, e.g. they often work in jobs below their professional qualification and they have lower wages than German workers. Although the amount of immigrants increases in Europe and low-qualified workers are at particular risk in terms of their health, intervention programs for this target group are lacking. Therefore, an organizational-level stress management intervention program (i.e. ReSuDi) was developed and evaluated. The project is funded by the German Federal Ministry of Education and Research (2009-2012).

The intervention program is an organizational-level stress management intervention, which was developed with and for prevention providers, like health insurances. It covers a peer-mentoring program for workers in low-skilled jobs, an intervention program for supervisors and for management and worksite health promotion (WHP) experts of the company. The peer-mentors are volunteers and elected by their colleagues. They should represent the cultural and gender diversity of the workforce. The elected peer-mentors learn to mind stress situations, active listening, conflict moderation and problem solving. The intervention program for supervisors deals with health-promotive leadership behaviour and participative work design, in particular. The management and WHP experts are concerned with developing strategies to guarantee the sustainability of the ReSuDi intervention. The evaluation uses a mixed-method control group research design with two stages of evaluation.

In the first stage, the program was carried out in three German companies (n= 320, 50% immigrants, 42 % first generation immigrants) of different industries. On the basis of the results of the first stage the whole program was revised for the second stage of evaluation and carried out in two companies. In this contribution, results of the first stage are presented. 24 peer-mentors and 35 supervisors participated. Critical success factors were identified. As we know from other intervention studies the maturity of the company concerning WHP is one of the most important success factors. For the success of the ReSuDi intervention program, the role of peer-mentors must be clarified and accepted in the company. Further team sessions for participative work design must be set up on a regular basis.
Nowadays, not only employees but also high school students already feel the pressure to achieve optimal results in order to be competitive in the employment market. As a result, increasing psychosomatic and mental complaints are reported for adolescents. The aim of this study was to develop and evaluate a 6-week cognitive-behavioural, solution-focused coaching group program for German high school students. We draw upon prior research by Green, Grant and Rynsaardt (2007) who have shown positive effects of a coaching program for high school students in Australia. Our group coaching program aims to facilitate positive individual development and to promote goal achievement and well-being. The program consists of six modules in 90 minutes: (1) my present life, (2) my future life, (3) my dreams and goals, (4) my goal attainment process, (5) my resources and (6) my personal successes. In each module students learn and apply strategies which should facilitate the goal attainment process. Thereby, resources are built and positive development processes are promoted. Moreover, options to master challenges on the goal attainment are discussed. To test the efficacy of the program we conducted two studies.

Our first study was a waiting-control-group field experiment with a longitudinal design. Results revealed that the coaching group significantly improves positive affectivity, life satisfaction, self-rated school achievement and goal attainment compared to the waiting-control group. Our second study took the specifics of the German school system into account and compared coaching-program effects for students of different types of high schools (middle school and academic high school). In addition, to both replicate and extend our first study we evaluated coaching effects not only on life satisfaction, positive affectivity, self-rated school achievement and goal attainment but also on coping and hope to attain goals.

Results showed that students of different school types benefitted from the coaching program. Moreover, positive coaching effects on life satisfaction, coping, hope to attain goals, self-rated school achievement and goal attainment could be shown for both school types. Coaching effects on positive affectivity were only found for academic high school students. Our results show that a 6-week long cognitive-behavioural, solution-focused coaching group program for high schools is an effective and efficient way to support students in their goal attainment, and thereby even promote their well-being. For future research we recommend to adapt the program to other focus groups such as trainees, job seekers or young professionals and evaluate its effects in other contexts.
Positive psychology aims to build personal resources and positive qualities in life (Seligman & Csikszentmihalyi, 2000). Occupational health psychologists have recently followed this approach in taking a more resource-oriented perspective when studying the effect of work experiences on employee well-being. A core element of positive psychology is positive thinking which comprises the capitalisation or savoring of positive events. The aim of this study is to show how day-level interventions on the capitalisation of positive events at work foster employee well-being.

We used a randomized controlled design with one placebo and two intervention groups. They were organized as follows: (1) “Three positive things”: Participants were asked to relive three positive things they had experienced at work; (2) “Act of Kindness”: Participants were asked to relive an act of kindness they had done for another person at work, and (3) “Placebo”: Participants were asked to think of their main activity at work. Twenty administrative employees of three universities in Germany, Ireland and Canada were randomly assigned to each group (n=60). For one week they received a text message after their workday to remind them of their activity. All participants answered a questionnaire prior to and one week after the intervention that measured well-being variables such as recovery from work and work engagement, as well as personal resources variables such as optimism and ability to savor. The majority of employees were female, were 36 years old on average and worked full time with fixed working hours.

ANOVA's with repeated measures across the three groups showed no direct effects of time, that is, the interventions did not generally lead to better well-being or better personal resources at time 2. However, when stratifying the sample into low and high at risk groups according to work-related stressors, we find marginal moderating effects of the intervention conditions on work engagement and personal resources for the high at risk group, that is, both interventions buffer the negative effect of work-related stressors on well-being and personal resources. We will discuss how the interventions need to be refined to have a stronger impact on employee well-being and how more sensitive measures could capture the effects more appropriately. Possibly, positive psychology interventions are more helpful for employees in high strain jobs than for employees in low strain jobs such as administrative work. This supports the restoration and conversation assumption that positive psychology interventions rather help restoring depleted resources than enlarging psychological resources.
Conflicts between work and private life have been studied extensively over the last decades. While research has primarily focused on antecedents and outcomes of Work-Life-Conflicts (WLC), to the best of our knowledge there are only a few studies that examine whether WLC can be reduced through interventions. The aim of this study is to address this gap by developing an online-based self-coaching intervention that enables participants to cope with WLC. For students the boarders between life domains are often more permeable than for most employees. Therefore segmenting life domains and detachment from studying becomes particularly difficult. Based on the Job-Demand-Resources-Model (Bakker & Demerouti, 2007) interventions should reduce work family conflict directly and enhance resources (time management and segmentation skills) to buffer negative effects of WLC. In addition, this should lead to improved well-being.

The study was conducted as an intervention-control-group field experiment. Two self-coaching interventions were designed to enhance (1) time management or (2) skills to segment between different life domains. In addition, we conducted a placebo intervention. Participants were randomly assigned to the study conditions. They received emails with coaching instructions at three points of time. We collected data right before the first intervention, one week after and three weeks after the last intervention. Altogether, 131 respondents completed all three questionnaires.

ANOVA with repeated measures showed direct effects of time, that is, participants significantly reduced their WLC and emotional exhaustion and increased their life satisfaction and detachment from studying. Furthermore, time management and segmentation improved. Analyses of time x treatment interactions revealed no significant effects, that is, also the placebo group shows positive effects. Our study demonstrated that coaching influences WLC. In line with the Job-Demand-Resource-Model results underline the benefit of resource building through coaching by showing positive effects on well-being. Against expectations, we found no interactions between time x treatment group. As positive placebo effects are not unusual further research should consider a control group without any intervention. In addition, working samples should be included in future studies to examine if online self-coaching is also effective for persons with less permeable boarders between life domains.
Symposium title: Occupational Health & Safety Management in European Enterprises: What drives and hinders action?
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This symposium focuses on occupational health and safety management and in particular considers drivers and barriers to enterprise engagement and action. Data on OSH management in general and psychosocial risk management in particular is scarce, especially from the manager and employee perspectives. Data from EU-OSHA’s ESENER which is a large enterprise survey conducted in 2009 in 27 EU member states, as well as in Croatia, Turkey, Norway and Switzerland, has been used for a number of secondary analyses that will be presented in five presentations and will be considered in relation to other available data.

The first presentation will focus on the views of European managers on drivers and barriers to psychosocial risk management. Presentation 2 will consider what influences the implementation of occupational safety and health measures in European small and medium sized enterprises in particular as they represent a priority group where action is lacking. It will also use data from the ESENER manager dataset.

The third presentation will go a step further as it will take into account both manager and employee representative responses to ESENER to comparatively analyse them and consider whether their perspectives provide a different picture in relation to ‘hard’ OSH risks as compared to ‘soft’ psychosocial risks.

The final presentation will take a more critical approach to the data provided by ESENER and will focus on the Italian situation as an example. It will discuss what kind of further progress is needed in gathering data and information to better support the related policy implementation process. Focusing on ESENER results for Italy, the contribution of the survey to the process of implementation of policies to promote the assessment and management of psychosocial risks at Italian level will be considered and conclusions will be drawn. The presentations will be followed by a short discussion.

Paper 1: The views of EU managers on drivers and barriers to psychosocial risk management: A secondary analysis of ESENER data
Stavroula Leka\textsuperscript{1}, Aditya Jain\textsuperscript{2}
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Data from the European Survey of Enterprises on New and Emerging Risks (ESENER) was used to explore the views of European enterprise managers on the management of psychosocial risks. EU-OSHA’s ESENER is a large enterprise survey conducted in 2009 in 27 EU member states, as well as in Croatia, Turkey, Norway and Switzerland. Logistic regression was used to conduct secondary
analysis of the data to identify key drivers, barriers and needs of European enterprises for the management of psychosocial risks in the workplace.

A key finding of this study is that those enterprises that reported a higher implementation of OSH management practices, also engaged more in psychosocial risk management. Employee requests and absenteeism were identified as key drivers. For ad hoc measures the business case seems to have a stronger effect as shown by reported drivers related to a decline in productivity, absenteeism and client requests or employer image. Finally fulfilment of legal obligations was identified as a driver and more so for bullying and harassment. Lack of technical support and guidance was the main barrier for the implementation of psychological risk management identified followed by lack of resources in relation to having procedures and measures to deal with psychosocial risks. No differences were found in analyses carried out by country, sector and enterprise size.

What is interesting to note is the finding that sensitivity of the issue of psychosocial risks was consistently associated with the implementation of procedures and measures to deal with work-related stress, bullying and harassment and violence. It appears that those enterprises that report a higher level of activity in the area of psychosocial risk management appear to be more aware of the sensitivity of psychosocial risks. Implemented procedures and measures may lead to an increased awareness in this area. This does not make their management impossible but since the issue is sensitive, those enterprises that implement good practice would still need continuous support. Special tools and expertise would be necessary for all enterprises in addition to awareness raising for those enterprises that report less practice in this area.

In addition, lack of resources was also found to be associated with the implementation of ad hoc measures to deal with psychosocial risks. This highlights the fact that psychosocial risk management interventions are not resource intensive and can be implemented even when resources are lacking.

It is important to note that enterprises report that they need support in all stages of the psychosocial risk management process, from preventive measures, to risk assessment to implementing interventions. This raises a question in relation to the quality of OSH services provision in this area. In addition, in certain countries, those enterprises that already use OSH service providers to deal with psychosocial risks report higher needs than those that do not. This is an interesting finding and could point out either to the fact that raised awareness creates additional need for support or that the available support does not meet enterprise needs in this area. It is important that country specific findings are considered in the context of OSH service provision in those countries, and in relation to the need for competence development of OSH service providers in psychosocial risk management.
Paper 2: Factors influencing the implementation of occupational safety and health measures in European small and medium sized enterprises.
Susan Cowan¹, Stavroula Leka², Aditya Jain³, Jennie Guise¹
Working Well Together, Edinburgh, UK, ²University of Nottingham, Nottingham, UK, ³Nottingham University Business School, Nottingham, UK
This study examines factors influencing the implementation of Occupational Safety and Health (OSH) management measures in European small and medium-sized enterprises (SMEs). The following research questions were used to guide the study.
1. What are the main OSH concerns that relate to the implementation of OSH management measures in SMEs?
2. What are the key drivers for the implementation of OSH management measures in SMEs?
3. What are the main barriers to the implementation of OSH management measures in SMEs?
Data on 23,428 SMEs across 31 European countries were extracted from the EU-OSHA European Survey of Enterprises on New and Emerging Risks dataset. Manager’s survey responses were analysed to determine their OSH concerns, and the drivers and barriers influencing implementation of OSH management measures.
The analysis comprised three stages. First, bivariate correlations were calculated to examine potential associations between OSH concerns, barriers and drivers and level of OSH management activity. Second, logistic regression was used to identify those drivers and barriers significantly impacting upon the probability of the existence of high levels of OSH management activity. To enable the full logistic regression to be computed, only enterprises for which there was a complete set of the variables of interest were included at this stage of the analysis.
A number of OSH concerns, barriers and drivers were significantly associated with implementation of higher numbers of OSH management measures. In conclusion, the implications of the results for OSH management practice in SMEs will be discussed.

Paper 3: Does the added value of employer and employee information on risk awareness differ in the explanation of the management of ‘hard’ OSH risks as compared to ‘soft’ psychosocial risks?
Irene Houtman, Marianne van Zwieten
TNO, Hoofddorp, The Netherlands
Intervention research has gained a lot of importance within the area of ‘work & health’. Apart from considering the (cost-) effectiveness of interventions, some OSH research has been directed to understanding what makes employers or organizations active in risk management. This research aims to add to this body of
knowledge and aims to explore the importance of combined employer and employee information when considering either traditional and more ‘objective’ OSH risks and more ‘subjective’ psychosocial risks. The general assumption is that the added value of risk awareness of employees or employee representatives, next to the awareness of the employer is larger for the ‘soft’ psychosocial risk management.

Data from the European Survey of Enterprises on New and Emerging Risks (ESENER) were used on answers to mirror questions on risk awareness and risk management (i.e. exactly the same question was posed to, and answered by both the employer and employee representative within the same establishment). ESENER is a large enterprise survey conducted in 2009 in 27 EU member states, as well as in Croatia, Turkey, Norway and Switzerland. In 7226 establishments both employer and employee representatives were interviewed. The analyses took place with SPSS using polynomial regression with response surface analysis (Shanock et al, 2010).

Large differences appeared to exist in the variance of the mirror questions on awareness to explain the degree in which risk management activities had been taken, with much more variance in awareness to explain risk management in the case of psychosocial risk management as compared to more traditional ‘hard’ OSH risk management.

The implications of these findings for the importance of ‘social dialogue’ in OSH management is discussed.

Paper 4: The psychosocial risks’ management in European organizations: towards a continuous monitoring system
Diana Gagliardi, Giuliana Buresti, Cristina Di Tecco, Marco Mirabile, Matteo Ronchetti, Sergio Iavicoli
INAIL, Rome, Italy

Introduction: Across the European Union (EU) psychosocial risks have been identified as an emerging risk and a top priority and, moreover, as a key challenge in modern occupational safety and health management. Accordingly, in recent years, a policies’ implementation process has been started, at the European and national level, to promote the adoption of procedures and measures for dealing with psychosocial risks in organizations. To support the continuous improvement of these policies, an effective monitoring of their results and impacts is needed. To this aim, starting from the analysis of information already provided by the ESENER survey on the state of the art on procedures and measures adopted at the organizational level to deal with psychosocial risks, this study wants to investigate the information made available from this survey and what kind of further progress is needed in gathering data and information to better support the related policies’ implementation process. Focusing on the ESENER’s results for Italy, our analysis has been carried out by exploring the effectiveness of the survey’s contribution to
the process of implementation of policies to promote the assessment and management of psychosocial risks at Italian level.

Methodology: Qualitative and quantitative analyses were carried out considering, among the others, the following criteria:

- the significance and representativeness of the information provided by the ESENER Survey respect to the size and features of the considered organizations' sample;
- the reliability of the information, taking into account that the information gathering is based on a self-report system and that the answers are sensitive to the interviewees subjective perception of the presence and relevance of the psychosocial risks in the establishments;
- the capacity of the Survey to provide information to evaluate the effectiveness of national policies in promoting the management of psychosocial risks by removing existing barriers and by strengthening the highlighted drivers;
- the capacity of the Survey to provide an effective overview of psychosocial risk management processes in organizations, in terms of models adopted, methods implemented to assess psychosocial risks and work-related stress, interventions and practices put in place, presence of monitoring and continuous evaluating systems and procedures and results obtained.

Results: Even though the ESENER survey provides some relevant information useful to build up a European overview on the psychosocial risks management policies’ impact, our analysis shows that, at present, these information is not clear enough to allow the impact assessment and, consequently, the improvement of policies’ at the level of single national context.

Conclusion: Our analysis seem to suggest the need for the creation of a structured monitoring system based on the combination of data systematically gathered by national statistics (such as, accidents, insurance data, etc...) with the information provided by companies through a permanent and structured system of data retrieval.
Symposium title: Seeking for and dealing with changes and transitions in working life
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Employees do not only react and adapt to changes in their work environments but they also proactively engage in creating work situations that fit their attitudes and needs. The interplay of reacting to and producing changes on one side and person characteristics on the other side becomes particularly apparent during career-related transitions.

The present symposium brings together researchers from Germany, Finland, and Switzerland and summarizes research based on multiple methods (longitudinal field research, lab and intervention studies) to deepen our understanding of motivational processes that are relevant when facing and seeking changes across different career phases.

Hyvönen et al. will start by presenting recent findings of a two-year follow-up study with young Finnish managers making their early career transition. Their findings emphasize that facing a decrease in rewards at work fuels the motivation to engage in job-related change activities.

Second, Weiss and colleagues’ talk brings to the fore that career transitions represent a specifically difficult challenge for those who prefer certainty. In a series of experimental and longitudinal studies conducted in Switzerland, they show that the endorsement of traditional gender ideology is beneficial for women low in openness in terms of preserving self-efficacy beliefs and well-being during times of change.

Third, Tzschach and colleagues present data from a project conducted in Germany and Switzerland that focuses on pregnant women’s work-return plans. Their findings emphasize the importance of attitudes, norms and perceived control for these plans.

Next, Salmela-Aro and co-workers report findings from an in-company control-group training study that successfully increased both career preparedness and intrinsic work-motivation among experienced Finnish employees.

Finally, based on data from an 11-year follow-up study with Finnish managers, Feldt and her colleagues demonstrate that job-related ability and involvement in the active working years predict interest and engagement in self-development when being retired.
Paper 1: Changes in personal work goals in relation to the psychosocial work environment: A two-year follow up study
Katriina Hyvönen¹, Taru Feldt¹, Ulla Kinnunen², Asko Tolvanen¹
¹University of Jyväskylä, Jyväskylä, Finland, ²University of Tampere, Tampere, Finland

Associations between changes in the psychosocial work environment and changes in personal work goals were investigated in a two-wave, two-year longitudinal study. The psychosocial work environment was studied within the context of the Effort–Reward Imbalance model (Siegrist, 1996).

The participants consisted of 423 young Finnish managers. Their most important personal work goals were categorized into seven content categories of competence, progression, well-being, job change, job security, organization, and finance at both measurement times. There were differences, especially in changes in the career opportunities factor of reward, between participants whose goals changed during the study. First, those who became engaged in job change goals also reported a decrease in rewards between T1 and T2, whereas participants who became engaged in competence or organizational goals also reported an increase in rewards over time. Second, participants who disengaged from job change goals reported an increase in reward and a reduction in effort–reward imbalance. Finally, a reduction in rewards and an increase in effort–reward imbalance were accompanied by disengagement from job security goals. The study highlights the central role of psychosocial factors, and in particular the reward factor of career opportunities, in goal pursuit. These results can have implications for the occupational well-being of employees.

Paper 2: The Role of Traditional Gender Role Ideology for Self-Efficacy and Well-Being During Occupational Transitions
David Weiss¹, Bettina Wiese², Alexandra Freund¹
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In the present research we hypothesized that the endorsement of traditional gender ideology might be beneficial for women low in openness in order to cope with challenging transitions.

In the first experiment (n = 61; 20-30 years) we predicted and found that under conditions of transitional uncertainty a stronger endorsement of traditional gender ideology was associated with increased perceptions of self-efficacy among women with a strong orientation towards certainty. Study 2 tested whether endorsing traditional gender ideology might help female students low in openness to maintain a sense of self-efficacy when graduating from high school (n = 513, 64.1% female; 17-22 years). Study 3 (n = 294; 20-53 years) tested the same model for women during the transition from parental leave to re-entry into work life. For both studies, latent growth analyses showed that endorsing traditional gender ideology contributed to self-efficacy among women (but not men) with low levels of openness. Moreover, an increase in self-efficacy contributed positively to women’s
subjective well-being. The discussion focuses on the psychological function of gender role ideology in the context of challenging occupational transitions.

Paper 3: Stay at home or go back to work? Pregnant women’s work-return plans
Anne Tzschach¹, Bettina Wiese¹, Thorana Grether²
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Having children has a major influence on women’s participation in the workforce. Most mothers take a leave from paid work after childbirth. It is a challenging task for them to decide when to return to paid work and to decide on their preferred future working hours. In the present study, we investigate these plans based on the theory of planned behaviour (Ajzen, 1985). More precisely, we expect these plans to be associated with personal attitudes (here: work/family involvement, mother-child ideology), perceived behavioural control (here: work-family self-efficacy beliefs) and social norms (here: beliefs about social environment’s views on one’s work-return behaviour).

Our analyses are based on data from 326 pregnant women from Switzerland and Germany who are taking part in an ongoing larger longitudinal project on expectant parents’ family and career plans. All of the participants were employed at the first measurement point. With regard to personal attitudes, first analyses showed that work involvement, as expected, is negatively associated with planned leave length and positively associated with planned working hours. In contrast, high family involvement is associated with longer leave plans and shorter future working hours. In the same vein, mother-child ideology is accompanied by longer planned leave length and a preference for fewer working hours. Self-efficacy beliefs concerning work and family demands are associated with work-return plans as well: The higher a woman’s self-efficacy beliefs, the earlier she plans to return to paid work. Finally, there is evidence that work-return plans are associated with perceptions of important others’ views on adequate post-birth workforce participation.

To explore whether and why actual work return behaviour corresponds with or deviates from the respective plans during pregnancy, we will also present first analyses from the second measurement point which takes place six months after childbirth.

Paper 4: Promoting career preparedness and intrinsic work-goal motivation: RCT intervention
Katariina Salmela-Aro¹, Pertti Mutanen², Jukka Vuori²
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We examined the role of an in-company training program aimed at enhancing employees’ intrinsic work-goal motivation by increasing their career preparedness in a randomized field experimental study.
The program activities were implemented using an organization-level two-trainer model with trainers from the human resources management and occupational health services. Within-organizations randomly assigned field experimental study (RCT) investigated the impact of the intervention on immediate career preparedness and both immediate and follow-up intrinsic work-goal motivation.

A total of 718 eligible individuals filled in and returned the questionnaire in 17 organizations and became voluntary participants. The respondents were randomly assigned to either intervention (n= 369) or control groups (n= 349). Those in the intervention group were invited to group intervention workshops, whereas the control group received printed material covering the information content of the intervention. The participants filled in the work-goal questionnaires before intervention, after the week-long intervention and seven months later. In addition they filled in a career preparedness scale before and after the intervention. The results showed that the intervention increased career preparedness which in turn was related to intrinsic work-goal motivation and increased intrinsic work-goal motivation at the follow-up.

Paper 5: Do work ability and job involvement channel later personal goals in retirement? An 11-year follow-up study
Taru Feldt1, Katriona Hyvönen1, Terhi Oja-Lipasti1, Ulla Kinnunen2, Katariina Salmela-Aro3
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The present study investigates the role of work ability and job involvement in personal life goals later in retirement. The study is based on longitudinal research on Finnish employees working in managerial positions. At the study baseline (in 1996), 120 employed managers responded to a questionnaire regarding their work ability and job involvement, and 11 years later (in 2007) when they were retired, to an open-ended question regarding their personal goals. The retired participants were 58–76 years old (M = 66 years) and they had been retired for 1–10 years (M = 4.3 years, SD = 2.9). On the basis of the participants’ responses to the open-ended question, six main content categories of personal goals were formed. The personal goals focused on 1) hobbies and leisure time, 2) social relationships, 3) health and well-being, 4) housing and finance, 5) self-development and ideology, and 6) other activities.

The managers with better work ability and job involvement at the baseline of the study had fewer personal goals related to health and well-being later in retirement. In addition, better work ability also predicted more personal goals related to self-development and ideology views. The preceding work ability and job involvement seem to channel personal goal pursuit in retirement. Thus, sustaining employees’ work ability and job involvement during their working career is not only essential for developing employees’ ability to cope with work demands but also for their functional capacity in their later stages of life, such as in retirement.
Symposium title: Employability and health and well-being
Nele De Cuyper\textsuperscript{1}, Anneleen Forrier\textsuperscript{1,3}, Erik Berntson\textsuperscript{2}, Claudia Bernhard-Oettel\textsuperscript{2}
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This symposium brings together four papers on the topic of employability and employees’ health and well-being. Employability is defined broadly as the individual’s likelihood of obtaining and maintaining a job. Employability may take the form of individual competences (e.g., Van der Heijde & Van der Heijde, 2006), dispositions (e.g., Fugate & Kinicki, 2009), employability-enhancing activities (e.g., Van Dam, 2004) or perceptions of employment opportunities (i.e., perceived employability; e.g., Bernston, Sverke, & Marklund, 2006). Common to these approaches is the idea that employability provides the workers with a sense of control over his/her job and career. Control, in turn, is known to relate positively to health and well-being. The aim in this symposium is to probe the relationship between employability and health and well-being in more detail.

Paper 1 and paper 2 investigate employability in relation to well-being among different groups. In particular, Richter, Mauno, Mäkikangas, Kinnunen, De Cuyper and Bernhard-Oettel (Paper 1) test the assumption that perceived employability relates to well-being and moreover, that it carries the relationship between occupational group with clearly different career profiles (i.e., nurses, academics and temporary agency workers) and well-being. Chambel, Castanheira and Sobral (Paper 2) continue along these lines by demonstrating a relationship between employability-enhancing training and well-being in samples of temporary and permanent workers.

Paper 3 and 4 take a different route in that they question the role of health and well-being as an outcome variable. More specifically, Berntson, Näswall, Sverke, and Bernhard-Oettel (Paper 3) argue and demonstrate that possible reversed causation should be accounted for, so that well-being causes employees to feel more employable. De Coen, Forrier, and De Cuyper advance health as a possible moderator of the relationship between perceived employability on the one hand and job search intensity and wage flexibility on the other hand.

Paper 1: A three sample study on temporary work and its effect on well-being through job insecurity and perceived employability
Anne Richter\textsuperscript{1}, Saija Mauno\textsuperscript{2}, Anne Mäkikangas\textsuperscript{2}, Ulla Kinnunen\textsuperscript{3}, Nele De Cuyper\textsuperscript{4}, Claudia Bernhard-Oettel\textsuperscript{1}
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Today temporary employment is used frequently by organizations in order to keep organizations competitive by minimizing costs. This has been associated with increased risk for psychological distress, occupational injuries, and fatigue for the work force. However, there is also a great amount of controversy in evaluating the
effects of temporary employment. Therefore, the aim of this study was to investigate three different groups of temporary employees – academics, nurses, temporary agency workers – and their well-being (vigour and somatic health symptoms) through two kinds of mechanisms – job insecurity and perceived employability. It was expected that these three groups of employees utilize their temporary contracts for different purposes and therefore follow different career patterns (protean, traditional and trapped career). Empirically, the study was conducted in Finland where the use of temporary contracts is above the European average. 919 university employees, 241 nurses and 212 temporary agency workers were studied.

Results showed that nurses reported the least job insecurity, whereas both university and agency employees were higher in job insecurity. Moreover nurses reported higher employability than both university and agency employees, who did not differ in their employability perception. It was shown that both job insecurity and employability functioned as intermediating variables between the career paths and the experience of vigor. However, we did not find that university employees benefited most from low job insecurity and high employability and therefore experienced the highest vigor. It was the nurses that showed this pattern in this study. Both university and agency employees experienced more job insecurity and lower employability and this had an effect on their experience of vigor. Regarding somatic symptoms as an outcome, it was not the agency workers but the nurses who experienced the most somatic symptoms and this was majorly channelled through the job insecurity experience from the two mediators tested here. Both university and agency workers were lower and not so affected by somatic ill-health.

To conclude this study shows the differences of job insecurity and employability between the different occupational groups. In addition the carrier function of job insecurity and employability on the three types of career pattern outcomes is potentially different.

Paper 2: Training that promotes employability: Temporary and permanent workers’ engagement and affective commitment
Maria José Chambel, Filipa Castanheira, Filipa Sobral
University of Lisbon, Lisbon, Portugal

Independently of workers’ status, training investment relates positively with their psychological states. With the investment in training, the organization signals its support towards worker’s needs and he or she reciprocates with a high motivation to perform tasks and to an emotional liaison toward the organization. With a sample of 1206 Portuguese contact centre workers – 528 temporary agency and 678 permanents – we tested with multiple group analysis whether workers’ status moderates the relationship (a) between training that promotes employability and engagement and (b) between engagement and affective commitment. We confirmed that in both temporary and permanent samples training that promotes employability related positively with employees’ engagement and affective commitment and, more interestingly, engagement mediated the relationship
between training and affective commitment. An important implication from this research is that training is an organizational investment with a return from temporary workers. Developmental opportunities, while important to all employees, related to higher levels of temporary workers’ engagement and, consequently, to higher commitment towards the organization.

Paper 3: The association between health and employability – is health a prerequisite for feeling employable?

Erik Berntson, Katharina Näswall, Magnus Sverke, Claudia Bernhard-Oettel

Stockholm University, Stockholm, Sweden

The trend of individualization and flexibility in our contemporary labour market implies that feeling employable has become more important. Instead of staying within one organization for their entire working life career, people to a greater extent change employers and occupations, voluntarily as well as involuntarily, during a lifetime. As a consequence, people are more bound to engage in employability enhancing activities. It has been found in previous research that being and feeling employable is associated with better health and well-being. However, it is important to investigate if people with better health and well-being also have better opportunities for finding new employment. Previous research has argued in favour for a “healthy worker effect”, i.e. that people with better health have better chances of getting employment and entering the labour market. In addition, once inside the labour market, dual labour market theory suggests that people in the center of the labour market have more opportunities for advancement. Thus, the purpose of the present study is to investigate if employees’ health and well-being is associated with subsequent employability.

Survey data was used in order to answer the research question. Data was collected in 2005 and 2006 by Statistics Sweden by means of a questionnaire and a telephone interview using a representative sample of employed individuals between the ages of 26-51 years. After listwise deletion 1753 respondents constituted the effective sample. Employability was measured in 2005 and 2006 while mental well-being and background variables (age, gender and education) were measured in 2005. Data was analyzed with hierarchical regression analysis. Preliminary results indicated a positive association between mental well-being and subsequent employability, when controlling for gender, age, education as well as previous employability levels.

The results suggest that people with better self-reported mental well-being also reported higher levels of employability in a one-year follow-up questionnaire. Hence, being and feeling employable is not only associated with better health and well-being. Rather, employees reporting better health and well-being seem to believe that they are able to find new employment. These findings have implications for management, as it may help us understand why and how people act in organizations. If people with lower self-reported health also think they have difficulties finding new employment, it may imply that those individuals stay within
one organization as long as possible, whether they want to or not, which may in turn be associated with more negative attitudes and lowered productivity.

**Paper 4: How job seekers’ age and health moderate the impact of perceived employability, employment commitment and financial hardship on search intensity and wage flexibility**

An De Coen, Anneleen Forrier, Nele De Cuyper

K.U.Leuven, Leuven, Belgium

In the job search literature, studies traditionally include employment commitment and financial hardship when predicting search behaviour. Besides these two factors, this study also includes perceived employability to predict job seekers’ search intensity and wage flexibility. While search intensity is one of the most often studied job search dimensions, wage flexibility has only recently been introduced in the psychological job search literature. This study explores the moderating effect of age and health. First, it is highly relevant to examine whether age plays a role. Several empirical studies on job search focus exclusively on graduates or exclude job seekers aged 55 or older from the sample. However, from a societal perspective, it is important to know whether age differences exist with respect to search behaviour since employment opportunities decrease with age and search behaviour is an important predictor of finding employment. Second, since aging implies changes in biological, psychological and social functioning, age-related differences are complex to interpret. Since individuals’ health is closely related to their age, we include health instead of age in a second model. In doing so, we investigate whether health accounts for age-related differences in relationships between job search predictors, namely perceived employability, employment commitment, and financial hardship, and aspects of job search, i.e. search intensity and wage flexibility.

We performed structural equation modeling on a sample of 176 Belgian job seekers to test the hypothesized model for each moderator separately. Job seekers’ age turned out to moderate the relationship between perceived employability and both search intensity and wage flexibility. While perceived employability positively affected search intensity and wage flexibility for older job seekers, we found negative relationships for younger job seekers. For employment commitment and financial hardship, we do not find any interaction effects with age. Employment commitment relates positively to search intensity and wage flexibility, whereas financial hardship relates negatively to wage flexibility, irrespective of age. Concerning health, we find interaction effects with employment commitment and financial hardship, but not with perceived employability. The positive relationship between employment commitment and wage flexibility is stronger for those in good health. Furthermore, the negative relationship between financial hardship and wage flexibility gets weaker as job seekers’ health increases. So, while age moderates the impact of perceived employability on search intensity and wage flexibility, job seekers’ health moderates the effects of employment commitment and financial hardship on wage flexibility. We will discuss the implications for theory, practice and future research.
Symposium title: Workplace Incivility: Mechanisms, Context, and Third-Party Effects
Sandy Hershcovis
University of Manitoba, Winnipeg, Canada

Workplace incivility, defined as low intensity deviant behaviour with ambiguous intent to harm the target (Andersson & Pearson, 1999), has significant negative effects on victims (Cortina, Magley, Williams, & Langhout, 2001). Though considerable research has demonstrated the harmful effects of incivility and aggression (see Hershcovis, 2011), we know little about the mechanisms, contextual moderators, or the outcomes for third-parties (e.g., coworkers, family). This symposium brings together four studies that examine these important relationships.

Kabat-Farr, Marchiondo, and Cortina examine how target emotional reactions and appraisals of incivility influence health-related and attitudinal outcomes for victims. In two studies, Kabat-Farr et al. show that both emotions and cognitive appraisals influence the relationship between incivility and adverse health and attitudinal effects for both male and female victims. This research is important because it begins to explain why victims react so negatively to seemingly minor negative behaviours.

Shapiro, Zweber, and Magley begin to consider the context in which aggressive behaviour occurs. This research examines the extent to which normalization buffers the negative consequences of aggression for victims. With one exception, they find that the negative effects of aggression persist even when aggressive behaviour is considered normal. This is an important finding because it shows that the negative effects on victims persist even in work contexts that seem to condone or normalize an aggressive climate.

Hershcovis, Reich, and Christie examine how observers react towards perpetrators and targets after witnessing a supervisor mistreat a target. Findings show that observers become angry towards the supervisor, which in turn leads positive reactions towards the target and negative reactions towards the perpetrator. These findings are important because they demonstrate that observers may help victims of incivility cope, and may serve as a social deterrent for perpetrators.

Finally, Marchiondo, Cortina, and Fisher examine whether a victim’s experience of incivility leads to work-to-family interference, and to negative health consequences for the target’s spouse. Preliminary findings support these hypotheses. These findings are important because they show that incivility extends beyond the target to negatively influence domains outside of the work context.

Collectively, these studies demonstrate the important negative influences of incivility on targets through negative appraisals and emotions, the persistence of these negative consequences despite buffering contextual influences, and the reach of these negative behaviours on coworkers and family members. After the
presentations, there will be time for audience engagement and discussion of these important findings.

**Paper 1: From Insult to Injury: What Underlies the Harm of Incivility?**
Dana Kabat-Farr, Lisa Marchiondo, Lilia Cortina
*University of Michigan, Michigan, USA*

Women are scarce in the upper echelons of organizations. One possible reason may be the frequent disrespect they face as they progress up the male-dominated business ladder (e.g., Cortina, 2008). This disrespect often takes subtle forms (e.g., incivility, exclusion), but the consequences are anything but subtle: past research has found that negative interpersonal work experiences can undercut employee work and well-being (e.g., Cortina, Magley, Williams, & Langhout, 2001; Pearson, Andersson, & Porath, 2000). Questions remain as to how incivility affects outcomes. We aim to answer the following question: What are the pathways through which negative social experiences translate into negative outcomes?

We focus on women’s workplace encounters with low-level hostilities, or incivility, considering why and how incivility links to negative outcomes, factoring in such constructs as emotion and appraisal. This project proposes a comprehensive model through which negative interpersonal experiences affect women's emotional, professional, and personal lives. Although incivility is a low-level injustice, we expect it to trigger significant emotional reactions, linking to negative outcomes for the individual woman (e.g., psychological distress, decreased empowerment) and her organization (e.g., increased absenteeism, turnover intentions). These emotional reactions may also vary on appraisal of the experience (positive, negative, or neutral).

We test this model with survey data from two samples: working women in Michigan (n = 419) and U.S. working adults (n = 479). The second sample contains both women and men (as a comparison group), enabling tests of potential gender differences in emotional reactions and appraisal. Preliminary findings suggest that both emotion and appraisal are important mechanisms for men and women following incivility. Interestingly, we find a story of gender similarities rather than gender differences in types of emotion and appraisal responses. In sum, this project attempts to “unpack” the ways in which interpersonal experiences in organizations undermine women’s (and men’s) success and satisfaction, informing academic theory and workplace intervention.

**Paper 2: When Aggression is Normalized: Effects on Individual and Organizational Well-being**
Jenna Shapiro, Zandra Zweber, Vicki Magley
*University of Connecticut, Connecticut, USA*

Research documents the detrimental effects of workplace aggression (Bowling & Beehr, 2006). What happens, though, when workplace aggression becomes so pervasive that it is no longer even recognized for what it is? We argue that such
normalization—defined as a reduction in awareness of aggression—may buffer the negative consequences of workplace aggression (H1) and augment the likelihood of future perpetration (H2). Specifically, frequent exposure to workplace violence may lead to desensitization of future hostile events, as has been meta-analytically supported with video game violence research (Anderson et al., 2010). This normalization might act as a protective mechanism so targets are not as negatively affected by their own aggressive experiences. Hence,

**Hypothesis 1:** Normalization will moderate the relationship between workplace aggression and job satisfaction, job performance, turnover and stress; negative consequences of aggression will be attenuated at higher levels of normalization.

Normalization of aggression may also increase the likelihood of individual engagement in perpetration behaviours. Carnagey et al. (2007) theorize that real-life violence desensitization may reduce victim sympathy, increase violence normalization beliefs, and increase behavioural outcomes such as higher likelihood of initiating aggression and more persistence in aggressing. Those who normalize workplace aggression experiences are more likely to react with additional aggression, akin to the incivility spiral (Andersson & Pearson, 1999). Therefore,

**Hypothesis 2:** Normalization will moderate the relationship between experienced aggression and perpetration of aggression; perpetration will be accelerated at higher levels of normalization.

Data were collected from 528 full-time employees using a snowball technique in which psychology students forwarded an online survey to friends or family members.

Hypotheses were tested via hierarchical linear regression analyses, in which curvilinear interactions were additionally examined to make certain that curvilinearity was not mistaken for a moderation (Ganzach, 1997) and to take into account the fact that effects might only be found at high levels of experienced aggression (i.e., where greatest normalization is most likely). Due to high multicollinearity between aggression experiences and perpetration, Hypothesis 2 could not be tested. Normalization did buffer the negative impact of aggression experiences on general stress, although only when those experiences were of high frequency. Normalization did not have an effect on the other workplace outcomes, suggesting that, regardless of the level of normalization, aggressive behaviours negatively affect individuals at work.

**Paper 3: Observer Reactions towards Perpetrators and Targets of Incivility**

Sandy Hershcovis¹, Tara Reich², Amy Christie³

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Though research has examined the consequences of incivility (Cortina, Magley, Williams, & Langhout, 2011), few studies have investigated observers’ reactions of
incivility towards perpetrators and targets. Observer reactions have implications for how third parties interact with members of the aggression dyad. Drawing on affective events theory (Weiss & Cropanzano, 1996), we posit that observers of incivility will experience anger towards the perpetrator, which will lead to negative attitudes, deviant intentions, and fewer helping intentions toward the perpetrator, and positive attitudes, fewer deviant intentions, and helping intentions toward the target. However, we anticipate that the level of anger may differ depending on whether the perpetrator is a supervisor or a subordinate.

We conducted two experiments in which participants witnessed either a neutral or an uncivil interaction between a supervisor and a subordinate. In both studies, hired actors played the role of the supervisor and subordinate. We filmed two versions (neutral versus uncivil) of a 3 minute video depicting a supervisor and subordinate discussing a project. The only difference between videos was actor intonation, body language, and facial expressions (e.g., the uncivil video included derogatory tone and body language; the neutral video did not).

Study 1 compared incivility from supervisors towards subordinates to a neutral condition in which the same interaction occurred in a neutral manner. Participants were 225 part-time employees. We used Hayes and Preacher (2011) mediation macro to test our hypotheses, all of which were supported. For example, the indirect effect of perpetrator anger (B = .16) in the incivility to perpetrator attitude relationship excluded zero in the 95% bootstrap confidence interval (.06, .29). Similarly, the indirect effect of perpetrator negative affect (B = -.15) in the incivility and target attitude relationship excluded zero (-.28, -.05).

Study 2 compares supervisor mistreatment towards subordinates to subordinate mistreatment towards supervisors. We posit that because supervisors have the formal authority to punish employees, observers will be less angry when supervisors mistreat subordinates than when subordinates mistreat supervisors. We are currently collecting data from a sample of part-time employees. Results and implications from both studies will be presented and discussed.

Paper 4: Disrespect at Work, Distress at Home: Work-to-Family Spillover Effects of Incivility
Lisa Marchiondo, Lilia Cortina, Gwenith Fisher
University of Michigan, Ann Arbor, Michigan, USA

The psychology and organizational behaviour literatures are replete with studies demonstrating workplace incivility’s negative implications for employee well-being. As employees’ experiences of workplace incivility increase, so do their negative work-related, mental health, and physical outcomes. Work-related outcomes include; job dissatisfaction, lower job commitment, and higher job stress, burnout, and turnover. Psychological outcomes include; negative mood, anxiety, and even depression (Andersson & Pearson, 1999; Cortina et al., 2001; Lim, Cortina, & Magley, 2008; Porath & Erez, 2007).
However, little research has addressed the potential impact of workplace incivility on employees' family lives. In this study, we show how experiences of incivility on the job predict work/family conflict (specifically, work-to-family interference). That is, we demonstrate how negative outcomes of workplace incivility are not constrained to the job site, instead "spilling over" to affect the target's life outside of work. As a ramification of this work-to-family spill-over, we also consider negative mental health effects for the target's spouse or partner.

We use data from a large, nationally-representative longitudinal study of working adults in the U.S. age 51 and older (the Health and Retirement Study). The psychosocial questionnaire – the HRS section in which our measures reside – began in 2006 and was administered to the same respondents in 2010, allowing us to examine the spillover effects of unfair work experiences across time. Self-reported variables under study include incivility at work (e.g., being ignored or not taken seriously) and work-to-family interference (“job worries or problems distract me when I am not at work”). Partner-reported variables include life satisfaction (“I am satisfied with my life”), anger (“I fly off the handle”), anxiety (“I have fear of the worst happening”), and hopelessness (“The future seems hopeless to me”). We control for partners' reports of their own workplace incivility, as well as their pessimism, gender, age, education, and wealth.

Preliminary analyses support our hypothesis that workplace incivility interferes with employees' family lives (i.e., work-to-family interference). Using dyadic analysis, we will test the proposition that uncivil experiences undermine multiple facets of employees' partners' psychological well-being as well.

Given the prevalence of insidious mistreatment in organizations, it is important to examine whether its negative effects diffuse beyond individual targets. We will discuss practical implications of our findings, including the potential to improve workplace climate via interventions targeted toward reducing unfair treatment.
There has been an increased interest in employee functioning at work, in terms of how employees are affected by organizational social environment, as well as the extent to which employees can cope with, or recover from, workplace demands (e.g., Sonnentag et al., 2010). Although we know a lot about workplace stress (e.g., Kelloway & Day, 2005) and its antecedents, more recent attention has been directed at how we deal with workplace stressors. Along with the copious amounts of coping research (Carver, Scheier, & Weintraub, 1989; Dewe & Trenberth, 2004), much work has demonstrated the positive effects that recovery experiences have on employee well-being (e.g., Sonnentag & Fritz, 2005). However, it has been suggested that expanding the conceptualization of recovery and coping would be beneficial for individuals and organizations. Moreover, there have been repeated calls to study the effectiveness of workplace interventions on improving employee health (e.g., NIOSH, 1999).

The four papers in this symposium deal with how individuals cope with stress, recover from stress, and change as result of workplace practices and interventions designed to improve well-being. This symposium involves individual-level functioning and behaviours at work in terms of employee recovery, coping, and social interactions at work. In the first presentation, Kelloway and Horsman take a unique perspective on recovery by studying recovery in a sample of people who hold two jobs. They examine whether experiences in one job allows the employee to recover from the stress experienced from the other job: That is, can work experiences (in a second job) be a form of recovery? Day and Stevens also study recovery, using a wait-list control design to examine the pattern of recovery experiences over time. They assess the extent to which recovery can be increased by an intervention designed to improve work-life balance and reduce stress, and the extent to which these changes are maintained over a 4-8 month period. Loughlin and Rudy examine stress coping styles and health, while disentangling the effects of sex, organizational level, and context. Finally, as part of a large workplace environment intervention study, Leiter et al. examine the extent to which change in incivility behaviours can be predicted based on the social interactions in a work context. These four studies are discussed in terms of context, novel approaches of studying employee health and wellness, and the impact of interventions and workplace factors on employee health and well-being.

Paper 1: Is a Change as Good as a Rest? Investigating Part-Time Reserve Service as a Method of Stress Recovery
Patrick Horsman, Kevin Kelloway
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There is widespread belief that working longer hours is detrimental to physical and psychological wellbeing (e.g., Ettner & Grzywacz, 2001) and the available data
substantiate this perception. For example, longer work hours are associated with outcomes such as employee stress (e.g., Park, Kim, Chung & Hispana, 2001), accidents (Trimpop, Kirkaldy, Anthensau & Cooper, 2000), lifestyle behaviours (Sparks, Cooper, Fried & Shirom, 1997) and work–family functioning (Ng & Feldman, 2008). By extrapolation, it follows that working two jobs would negatively affect individual well-being as it, by definition, involves working longer hours each week. However, this simplistic prediction does not consider the nature of the work or the characteristics of the working environment.

In the current study, we examine the possibility that part-time employment in the Canadian Forces Reserves offers the opportunity to recover from stress experienced in full-time civilian employment. This is consistent with the notion of reserve service as a form of respite (Etzion, Eden, and Lapidot, 1998), although to date, this hypothesis has only been examined for extended periods of service. In contrast, Canadian Reservists serve part-time (training one evening a week and one weekend a month), while simultaneously holding full-time civilian employment.

Based on a sample of 331 Reservists who held full-time civilian employment, the purpose of this study was to ask A) How stressors from the civilian and Reserve job interact in predicting mental health and organizational outcomes; and B) If Reserve Service can act as a form of recovery experiences; and if so, whether or not those experiences can buffer the impact of stressors experienced in the civilian job. Results of a latent variable structural model indicated that [a] the effects of stressors remain within job in predicting job satisfaction and turnover; [b] stressors in both occupations predicted strain, [c] that recovery experienced during Reserve employment has a direct impact on strain symptoms; and [d] that these recovery experiences also moderate the relationship between conflict in the civilian workplace and strain.

Results of the study suggest that part-time Reserve service offers distinct stressors but also the possibility of recovery from stress experienced in full-time employment. Study implications, limitations and directions for future research are discussed.

Paper 2: Increasing and maintaining recovery experiences through an organizational intervention
Arla Day¹, Sonya Stevens¹,²
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Overview: The impact of recovery experiences on employee health and well-being has been well-documented (e.g., Kühnel, et al., 2009; Sonnentag & Fritz, 2007; Sonnentag et al., 2010). Engaging in recovery activities during non-work time can help employees escape from job demands and restore and accumulate resources (e.g., energy, mood; Sonnentag, 2001). Despite these positive findings, we have little evidence showing the extent to which recovery experiences can be increased and maintained using an employee coaching intervention. Our preliminary work
has showed that compared to a control group, employees in a job stress and work-life balance intervention (ABLE: Achieving Balance in Life & Employment) had a significant increase in several recovery experiences (i.e., psychological detachment, relaxation, control, social affiliation, physical activity, and hope/optimism). Therefore, we extend this work by using a control wait-list design to examine the long-term pattern of recovery results over a 13-month period.

Method: ABLE is a phone-based coaching program and is designed to help employees manage stress and balance their work and life activities. Participants discussed their progress with a coach on a weekly basis, and they were encouraged to implement recovery activities into their daily lives. Participants completed 4 surveys over a 13-month period before and after the intervention. Participants were assigned either to the Time 1 intervention group or to the control group (which then became the Time 2 intervention group). Participants completed an expanded Recovery Experiences Questionnaire (Sonnentag & Fritz, 2005; Stevens, 2010), to measure 7 components of recovery, as well as measures of strain and well-being.

Results: We used repeated measures ANOVAs to compare changes in recovery across the 13 months for the two groups. With a few exceptions (e.g., physical recovery experiences), the pattern of results were as expected: Compared to the control group, recovery experiences increased for participants in the Time 1 intervention group, and these increases tended to be maintained 4 and 8 months later. Recovery experiences increased for participants in the Time 2 intervention group, and these changes were maintained 4 months after completion of the ABLE session.

Implications and conclusions: This study extends past research by examining an expanded conceptualization of recovery and looking at the ability of ABLE to increase and maintain recovery experiences. The study makes a significant contribution to the literature, and the results provide practical implications for organizations that are concerned about employee recovery experiences and health.

Paper 3: Questioning the role of context, organizational level, and sex in preferred stress coping styles and links to health
Catherine Loughlin, Laura Rudy
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Researchers consider ‘status’ the single most important determinant of health (Borg & Kristensen, 2000; Adler & Snibbe, 2003). In the work context, both sex and organizational level have been linked to health outcomes. Women are believed to experience worse physical health in response to work stress than men (Bradley & Eachus, 1995; Krantz et al., 2005; Nelson and Burke, 2000). Similarly, those lower in the organizational hierarchy are assumed to have poorer health outcomes. Some explanations for sex based differences include a mismatch between the
effort expended and rewards received at work, a wage gap that still favours men (International Trade Union Confederation, 2008) and/or traditional work-family overload. Women may also demonstrate higher autonomic arousal and a biophysical response (Seigrist, 1996; Lidwall & Marklund, 2006). For organizational level based differences, managers with more education, financial resources and discretionary control over their work schedule may have more opportunities to seek out quality health care. They may also have more authority, decision-making latitude and autonomy in their jobs, which are all associated with improved physical health (Schieman & Reid, 2009; Karasek, Baker, Marxer, Ahlbom & Theorell, 1981).

Given the above, it is not surprising that attention has been paid to differences in the way these individuals cope with work stress. However, perhaps surprisingly, these variables are often confounded in the stress and coping literature. Previous research on sex-based differences in the way women cope with stressors (relying more on emotion-focused coping) compared to men (who are more problem-focused), do not typically control for organizational level and/or access to coping resources in a male-dominated context.

In this study, we try to disentangle these variables arguing that different outcomes will arise when not just sex but organizational level and context vary. Data were collected from managers (n = 125) and clerical workers (n = 161) at a health care institution to explore these hypotheses in a feminine context. Our findings confirmed that while status differences held (with males and managers having better physical health than women and clerical workers), in this context, two novel findings emerge: First, even women at lower organizational levels were more likely to use direct-action coping than emotion-focused coping. Second, emotion-focused coping benefitted both men and women’s health. With greater understanding of the relationship between sex/gender, organizational level, work stress coping mechanisms and health, stress prevention strategies may be developed to minimize strain accordingly.

Paper 4: Anticipating Change: Identifying Workplace Environments where Civility and Incivility are out of Balance

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The social environments of workgroups have become an issue of increasing importance. Incidents of incivility, abuse, and bullying have prompted extensive discussion in popular media as well as in academic literature (e.g., Cortina et al, 2001). Organizations have expressed interest in effective methods for improving the quality of workplace communities, such as CREW (Leiter et al, 2011; Otasuke et al, 2010). When designing interventions to improve civility, it helps to consider how social environments change without deliberate interventions.
This presentation considers a method for identifying individuals likely to change their evaluations of their social environments. The method follows the outlines of an approach used to identify incipient change in job burnout (Maslach & Leiter, 2009). Here, the method defines four quadrants on the basis of consistent or contradictory patterns of coworker civility and coworker incivility scores at Time 1. The Consistent quadrants are Civil (Low Incivility; High Civility) and Uncivil (High Incivility; Low Civility). The Contradictory quadrants are Dynamic (High Incivility; High Civility) and Dull (Low Incivility; Low Civility). We defined these quadrants on the basis of median splits on the coworker civility and the coworker incivility measures.

Results: The first research question: Does consistency in civility/incivility help to identify employees likely to change. The analysis established that the Consistent quadrants were more stable over the one year interval with 60% of participants remaining in the same quadrant over the one-year interval while only 30% \( \chi^2(9) = 131.50, p < .001 \). Those in the Contradictory quadrants were more likely to change.

The second research question focused specifically on the Contradictory quadrants Dull and Dynamic: Is there information at Time 1 that predicts the direction of change. That is, are there differences at Time 1 between those who later moved towards the Civility quadrant from those who later moved towards the Incivility quadrant? The analysis showed that those who moved towards the Civility quadrant had more positive Time 1 scores on sense of community \( t(81) = 2.05, p = .044 \), coworker incivility, \( t(81) = 3.43, p = .001 \), instigated incivility \( t(81) = 2.58, p = .015 \), and the use of toughness rationales \( t(81) = 2.33, p = .022 \).

In sum, those who subsequently moved towards civility had a more positive view of their workplace community, experienced less coworker incivility, were less frequently uncivil towards their colleagues, and were less likely to justify their lapses in civility as demonstrating a necessary sense of toughness.

The discussion will also consider the extent to which employees changed in their evaluation of worklife as they changed their evaluation of civility and incivility over the course of the one year interval. The discussion will consider implications for theory development in this field as well as for practice.
Symposium title: Women who work: Choices, roles and abilities and their impact on mental health and well-being
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Biological rhythms affect women in the short and long term, from monthly cycles to lifelong care of children, and their employment opportunities are closely linked to their reproductive decisions. Despite many years of equal employment opportunities, affirmative action and company programs to support women’s work and family roles, women remain the predominant carers of their children and make choices about their types of employment based on the presence or absence of children. This symposium brings together international research on women and their work and family choices to explore how women today manage this balance and the effect on their well-being and mental health.

The first presentation reports on a prospective panel study of first time Australian mothers. Intended plans for returning to work were initially based on type of work and education level, although as the baby grew older, mothers found that the quality of childcare, rather than their own employment was more important to their decision to return to work. The second presentation explores how women’s menstruation influences their well-being while at work, recognising that the monthly cycle presents a stressor for women. Weekly diaries completed by nurses showed that when psychosomatic symptoms were controlled, they reported greater strain when experiencing menstrual symptoms, but this did not interfere with their job performance. The third presentation explores the effects of menopause on older women’s working lives, expanding on limited research in this area. This presentation will consider the demands and resources of the workplace, along with family roles on menopausal symptoms and mental health, to understand the OHS implications of menopausal women’s employment. The final presentation compares work and family roles of a sample of employed Australian women and men, with the work arrangements of European women. Unlike the European women, Australian women were predominantly in permanent full-time positions although mothers of the youngest children worked fewer hours and mothers of primary school-aged children had greater burnout and negative spillover between roles. Compared to all women, mothers of adult children were the most satisfied with all aspects of their lives, although not having children did not limit well-being.

In conclusion, family roles may change women’s options and their biological rhythms may physically limit their functioning, but these do not lessen their abilities in the workplace. Employers can ensure that women can fully engage with the workplace by accepting these differences whilst benefiting from women’s contributions to their business.
Paper 1: To work or not to work: Changes in the intentions to return to work amongst first-time mothers
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Until recently there have been no statutory maternity leave provisions in Australian workplaces and the recently instituted statutory leave does not benefit all employees. A prospective panel study of Australian first-time mothers was recruited in the last trimester of pregnancy and followed for the next year to consider how intentions to return to work may change after birth and the factors that influence any changes. Before birth, nearly all the mothers intended to return to work, although their postnatal practices were affected by the availability of maternity leave and condition of work. Less education and limited maternity leave were predictive of the intention, and actual, early return to work. These mothers, breastfed for shorter periods and their children were likely to be in childcare for longer periods each day. Women with the highest levels of education were likely to have jobs with more family-friendly structures and this security of future employment allowed these women to delay their return to work. Across all of the mothers, there was a gap between expected timing of return and actual return, as they weighed work hours and responsibilities, against time with their child. Changes came about after reassessing priorities, and comparing the desire to spend time with their child, the quality of care available and job availability. Having a more difficult child increased the hours that mothers worked. Mothers’ attitudes to maternal employment changed over time, with benefits being perceived similarly over time, whereas the costs became less apparent. However, mothers working longer hours perceived greater costs, rather than benefits, for themselves and their child. In addition, mothers who believed that there were greater costs of employment were more likely to be depressed over time, whereas higher rating of benefits and workplace support of the mother, lead to greater work satisfaction and her retention in the workplace. The decision to return to work after having a child is more complex than simply being a period away from work. Return to work is complicated by the desire to stay with the child, the child’s temperament, and the quality of care that was available for the child, in addition to the nature of work and the benefits that work provided. Supporting mothers, and by extension their partners and children, by providing adequate maternity leave benefits and family-friendly structures will ensure that women can balance their work and family roles and is insurance for employee retention.

Paper 2: Menstrual symptoms as a stressor: a diary assessment
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In addition to dealing with the normal stressors of a job, women may on a monthly basis have the complications that pre-menstrual symptoms/tension (PMS/PMT)
PMS may function as another source of stress for women. However, menstruation, the menstrual cycle and its consequences such as PMS have not been easy concepts to introduce into the working environment. This research aims to examine the effects of menstrual symptoms on job strain and job performance while controlling for psychosomatic symptoms. The study's design used a diary method. Two waves of data were collected nine months apart, for one month on each occasion. Four diaries, one per week, were administered to the participants, a sample of nurses, at the beginning of each wave. The UK nurses (Time 1: N = 60, Time 2: N = 38) were asked to complete daily entries twice each day, once at the start of the day, and once either after finishing work or if not at work, at home around the time of the evening meal. The diary contained structured scales assessing menstrual bleeding, menstrual pain, job stress (strain, psychosomatic symptoms) and job performance. A hierarchical regression procedure was used to analyse the data. This was based on pooled-time series analysis to control the between and within participant variance, especially as ‘day’ was the unit of analysis. The results showed that while menstrual symptoms influenced job strain at Time 1 (Adj $R^2 = 0.44$, $\Delta R^2 = 0.02$, $p = 0.02$), no effect was found for job performance. Significant effects were not obtained on either outcome variable at Time 2. The present study showed that menstrual symptoms increased job strain during Time 1 of the study, and suggested that menstrual symptoms may affect the stress levels among nurses, and should be explored further. For this study, data were collected for one-month only, and a longer time limit may be more appropriate for researching menstrual symptoms. Some menstrual cycles may extend beyond the 28-day limit of each wave of the present study. Menstrual symptoms as a stressor did not impact negatively on job performance, this may imply that menstrual symptoms are related more strongly to physical symptoms rather that ability to function. These results are comparable with other findings on job performance. While pre-menstrual symptoms are the more widely studied phenomena the onset and the discomfort of menstruation may be another stressor to which working women are subjected.

**Paper 3: The relevance of the menopause to the occupational safety and health of women workers**

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While there have been advances in considering the occupational safety and health (OSH) of those women who work, there are some areas that do not receive the attention that they should within this environment. These areas include those that are part of women's life experiences, such as menstruation and menopause. There is limited OSH-related research in these areas, even though there are calls by policy makers and employee representatives for this to be increased. These ‘invisible’ issues are female-specific, and for the most part they remain ‘off the agenda’ as work-related stressors. Research shows that there are physical and socio-emotional effects on women when they are menopausal, with higher rates of
depression and somatic symptoms occurring. As such, there is a need to identify possible workplace risk factors that impact on the timing and health consequences of menopause, and to determine how women respond in turn to these occurrences when working. There are increasing numbers of older women at the workplace, due to fewer childcare responsibilities and as a result of many years of changes in employment patterns. Menopause as a natural part of the life cycle for women may occur during a woman’s career and is especially relevant with the ageing workforce and the requirement to stay in the workplace for longer periods than before. Older women’s re-entry to work benefits economies, with studies reflecting the stronger work ethic of older workers, which may influence productivity and performance. This presentation will explore how menopause affects a sample of employed women in Australia and the UK. Menopause is most commonly studied for its health consequences for women during the menopausal transition, with links to physical symptoms and mental health (especially depression), cardiovascular and musculoskeletal problems. Within the workplace, depression is linked to poorer interpersonal relationships with colleagues, decreased work performance and the increased incidence of presenteeism and absenteeism. The severity and duration of menopause symptoms will be compared with mental health problems to understand how the demands (e.g. environmental constraints) and resources (e.g. social support, job autonomy) of the workplace, in conjunction with their family roles, influence the women’s attitudes to menopause and to their work. Identifying the risks in the workplace that either reduce demands or increase resources available to the women during their menopausal phase will highlight the OSH concerns of women and provide suggestions to reduce any negative impacts these may have on women in the workplace.

Paper 4: Age and experience: A comparison of work and family demands across the lifespan amongst Australian employees and European women

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This presentation will explore the demands that may occur from family responsibilities as well as from the individual’s job, and compare a cohort of Australian working adults (male and female) with women’s employment situations in Europe. The Australian sample was divided on each participant’s parenting demands, ranging from none (participants without children), few (parents of adult children), some (parents of adolescents), more (parents of primary school-aged children) and most (parents of young children). The age of each group increased reflected by the increasing age of the children, although the non-parents were more varied in age. Compared to the European trends of women undertaking casual and part-time work, the Australian women were mostly employed in full-time, permanent jobs although a third of mothers of the youngest children (and mothers with more children) did take up part-time, casual positions. Compared to the Australian men, women on average worked fewer hours, although this difference was only significant amongst mothers of the youngest children and those
with adult children. Within the Australian women, mothers of young children worked significantly fewer hours than the women in the other groups, particularly the mothers of adolescent children and those without children. Despite the differences in working hours, the women did not differ in their occupational role salience and all reported similar levels of work and life satisfaction and work-life balance, and were similar to the Australian men in these outcomes. Mothers of adult children showed the most robust outcomes. When compared: to women without children, they were more absorbed by their work, less exhausted, less cynical and with greater sense of professional efficacy; to the mothers of younger children (preschool and primary school), they also felt more vigorous, that their lives were less hectic, and with significantly less negative spillover between work and family roles. In particular, mothers of primary school-aged children were likely to report higher levels of emotional exhaustion, negative work-to-family spillover and being busy, possibly reflecting the challenges of returning to full-time work hours whilst caring for children who were not yet independent. The results indicate that for Australian women, adult children coincide with greater competence and engagement in work and a significant reduction in the problems associated with combining work and family roles, whereas this was more problematic with younger children. Unlike their European counterparts, most women were in full-time permanent positions, although the proportion in part-time work increased in the groups with more and younger children.
Symposium Title: Illegitimate Tasks as a Source of Stress
Nicola Jacobshagen
University of Bern, Bern, Switzerland

Task characteristics have been a focus of occupational stress research for many years (e.g., Caplan, Cobb, French, Harrison, & Pinneau, 1975; Karasek, 1979; Kornhauser, 1965; Ganster & Schaubroeck, 1991; Humphrey, Nahrgang, & Morgeson, 2007; Kompier, 2003; Parker & Wall, 1998; Sonnentag & Frese, 2003). Workload and conflicting expectations have been especially prominent in this research (e.g., Beehr & Glazer, 2005; Spector & Jex, 1998). In this symposium, we suggest an additional feature of tasks as a source of stress, namely their subjectively perceived lack of legitimacy. We consider tasks to be illegitimate to the extent that it may be perceived as improper to expect employees to execute them. There are several reasons why tasks may be considered illegitimate. For example, tasks can fall outside of the range of one’s occupation. Another possibility refers to role differences within a profession, such as when employees are assigned tasks that do not match their levels of experience.

In this symposium we discuss the relationships and impact of subjectively perceived illegitimate tasks at work in different data sets (e.g., from Switzerland, Sweden, Germany) and with different methods (e.g., cross-sectional and longitudinal data as well as a diary study) and analyses (e.g., regression, structural equation, multilevel).

Paper 1: Medical doctors do not experience illegitimate tasks – or do they?
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Objectives: The job of a physician has changed over time. Reports show a deteriorating work environment and that the work has become more stressful. Also, reports show that physicians nowadays use only one third of their working time for direct patient work and half of their working time for various forms of administrative work. This indicates the relevance of studying the impact of the necessity of tasks. Illegitimate tasks are a new kind of stressor studied in the work context. Tasks are illegitimate if they violate norms or expectations about what can reasonably be expected from an employee.

Methods and results: The relationship between illegitimate tasks and strain (sleep problems, stress feelings, and emotional exhaustion) was tested in a sample of 1377 physicians in Sweden while controlling for social support, control, and demands in structural equation modeling. Illegitimate tasks explained variance in all three indicators of strain. These results confirm the unique contribution of illegitimate tasks to strain, above and beyond the effects of other important predictors.

Conclusions: Our study shows that not only work demands count with regards to stress, but also the perceived necessity of demands as well. We discuss the
specific contribution of this stressor concept, the need for further research on it, and some practical and empirical implications.

**Paper 2: Daily Self-Esteem and Illegitimate Tasks: A Diary Study among Office Employees.**

Ivana Igic, Samuel Ryser, Norbert Semmer

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Objectives: The “Stress-as-Offense-to-Self” concept (Semmer, Jacobshagen, Meier, & Elfering, 2007) assumes that threats to the self are a core element of many stressful experiences. Illegitimate tasks represent a new stressor concept, which refers to tasks that cannot be expected from an employee. They are either outside the range of one’s professional role or they should not exist (Semmer, Tschan, Meier, Facchin, & Jacobshagen, 2010). Illegitimate tasks should be related to self-esteem, as they are postulated to threaten the self. This association has been shown in cross-sectional data (Semmer, Jacobshagen, Meier, Elfering, & Tschan, 2011). The current study tests this link on a day-to-day level.

Methods: A two-week diary study was conducted with 57 employees (61.4% men), aged between 17 and 52 (M= 31.37), working for different organizations. Daily self-esteem was assessed in the morning and evening (RSES; Rosenberg, 1979). Illegitimate tasks were assessed with the Bern Illegitimate Tasks Scale (BITS; Semmer et al., 2010), while time pressure and job control were measured with the Stress-Oriented Task Analysis scale (ISTA, Version 5.1; Semmer, Zapf, & Dunckel, 1995) and the social stressors with the social stressors scale (Frese & Zapf, 1987). All of these items were adapted so that they referred to the day-level. Neuroticism was assessed with the BIG 5 scale (Rammstedt & John, 2005). All the scales showed internal consistencies above $\alpha = .70$. We used multilevel analysis with sex, age and neuroticism (Level 2 predictors), and self-esteem in the morning, and daily work characteristics and control as Level 1 predictors.

Results: As compared to the intercept-only model (Model 1), models that included person-variables (sex, age, neuroticism; Model 2); self-esteem in the morning (Model 3), and daily work characteristics (time pressure, social stressors, and control; Model 4), the final Model 5 had the best fit. Neuroticism and self-esteem in the morning were significant predictors. In Model 5, daily illegitimate tasks predicted lower self-esteem in the evening ($B = -0.251, SE = 0.075, p < .01$), and they were the only significant daily work-characteristics.

Conclusion: This is the first diary study exploring the relationship between daily illegitimate tasks and daily self-esteem. On days with more perceived illegitimate tasks at work, employees reported lower self-esteem in the evening, compared to days with fewer illegitimate tasks. Results are in line with the theoretical postulations of the SOS concept and provide evidence about the short (daily) effects of illegitimate tasks on employees’ self-esteem, while controlling for time pressure, control, and social stressors.
Paper 3: The role of illegitimate tasks on sleep quality and physical strains in a longitudinal working sample
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Objective: Recent literature has proposed illegitimate tasks as being more powerful work stressors than most established work stressors. If this is the case, the health state of individuals experiencing illegitimate tasks would cause particular concern. This study aimed to investigate the influence of illegitimate tasks on health outcomes like sleep quality and physical strains in a random selection from a population-based sample of workers.

Methods: A two-wave-study with a time lag of one year was conducted. A computer-generated random sample of 2860 individuals was selected (t1) two years after baseline from a random sample of the German-speaking Swiss population, otherwise participating in a population-based, cross-sectional census survey. After one year, these 2860 individuals were contacted again (t2). Out of these, 353 did not answer at all, 490 did not answer all assessment questionnaires, 637 were older than 65 years and 129 were no longer in the working process. This left a longitudinal sample of 1251 at least part-time working participants (44.6 ±10.7 yrs; 45.7% female). Cross-sectional and longitudinal multiple linear regression analyses were performed for the outcome variables ‘sleep quality’ and ‘physical strains’ controlling for age, gender, and the established work stressors ‘unfair treatment at work’, ‘time pressure’, ‘work interruptions’, ‘effort-reward imbalance’, as well as ‘performance constraints’ at both time points.

Results: Illegitimate tasks demonstrated a significant influence on sleep problems (t1: p < 0.05; t2: p < 0.05), as well as on physical strains (t1: p < 0.05) in the cross-sectional analyses beyond the work stressors mentioned above. After one year, results confirmed the power of illegitimate tasks as work stressors on sleep quality (p < 0.05), but not on physical strains.

Conclusions: Illegitimate tasks are short and long-term work stressors for working individuals. They directly enhance current health complaints like sleep problems and physical strains over and above well-established risk factors and negatively influence health complaints like sleep problems in the long-term.

Paper 4: Do illegitimate tasks impair detachment from work? A multilevel analysis
Maria Kottwitz, Cora Bobst, Nicola Jacobshagen, Wolfgang Kälin, Laurenz L Meier & Norbert Semmer
University of Bern, Bern, Switzerland

Objective: Situations that threaten self esteem have great potential to evoke stress. Recently, the concept of illegitimate tasks has been introduced, which refer to tasks that a given role occupant cannot reasonably be expected to carry out, because
they are perceived as not conforming to his or her core role (unreasonable tasks), or as unnecessary; illegitimate tasks therefore should represent a threat to the professional self. Having to carry out illegitimate tasks should therefore be prone to induce rumination, that is, perseverative cognitions focusing on the negative aspects of such experiences. Rumination has the effect of prolonging the state of stress, thus impeding mental detachment and thus recovery. The current study aims at testing the hypothesis that illegitimate tasks are positively associated with rumination on an intra-individual basis.

Methods: The current analyses are based on a three-wave-study with a time lag of six months each, conducted in three Swiss organizations. Seven out of 176 participants at wave one dropped out due to turn-over, leaving a sample of 169 participants at wave three. The mean age was 40, ranging between 16 and 62 years (SD=1.6) and 59% were female. Illegitimate tasks were measured by the Bern Illegitimate Tasks Scale, consisting of unreasonable and unnecessary tasks (Semmer et al., 2010) while rumination was measured by the Cognitive Irritation Scale by Mohr et al. (2006), which assesses ruminative thoughts about work-related problems. Data were analyzed by multilevel analysis, controlling for age, gender and neuroticism (at baseline); illegitimate tasks (level-1) were group-centered, thus removing inter-individual variance. Wave of measurement was entered as two dummy variables.

Results: Group-centered multilevel modeling revealed that within survey periods illegitimate tasks and rumination were positively associated on an intra-individual level (β=.326, p<.01). A significant effect also emerged for neuroticism (level 2).

Conclusions: Results suggest that illegitimate tasks indeed act as a work stressor that is associated with impaired detachment on an intra-individual basis. At times when they experience more illegitimate tasks than usual, participants tend to ruminate more, which is likely to impair recovery.

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Paper 5: Illegitimate tasks and work engagement: The influence of professional identity
Ella Apostel, Conny Antoni
University of Trier, Trier, Germany

Objective: Illegitimate tasks are tasks that are considered unnecessary or unreasonable, as not being part of one’s professional role, and therefore, they cannot reasonably be expected from an employee. Previous research has shown illegitimate tasks to be related to several indicators of strain, over and above the effects of other stressors. In this study, we focus on the extent to which one identifies with one’s profession as a potential moderator of the association between unnecessary/unreasonable tasks and work engagement. Thus far, these associations have not been analysed in the literature.

Methods: 108 healthcare professionals of five different German hospitals participated in this study. The mean age was 43.6 (SD = 9.9), ranging between 19
and 61 years. 95% were female, which is not unusual for this profession. Unreasonable and unnecessary tasks were assessed by the Bern Illegitimate Tasks Scale (Semmer et al., 2010). Based on the interviews with healthcare professionals (n = 10), two professional identity scales were developed: patient orientation reflects an item-pattern of taking care of the needs and wishes of patients, and medical record includes an item-pattern of maintaining accuracy and compliance in the medical record. Work engagement was measured using the absorption scale developed by Schaufeli and Bakker (2003), which is characterized by being immersed and happily engrossed in one's work. All scales had good Cronbach’s alpha. To test the buffer effect of professional identity we conducted hierarchical regression analyses, z-standardizing predictor and moderator variables.

Results: Results show that, controlling for age and time pressure, illegitimate tasks decreased work engagement. Moreover, controlling for age, a strong personal consideration of patient orientation was negatively related to illegitimate tasks. Furthermore, healthcare professionals who considered the patient orientation as an important part of one’s profession were protected from the negative effects of unreasonable tasks on work engagement. On the other hand, healthcare professionals experienced low level of work engagement under conditions of high unnecessary tasks and a strong personal consideration of the medical record.

Conclusions: Illegitimate tasks induce affective reactions in terms of low work absorption. However, they are differentially associated with work engagement, if the extent to which one identifies with one’s profession is regarded. Thus, the study indicates the importance of professional identity, and promotes implications for future research, and healthcare professionals practice.

Paper 6: Illegitimate tasks among local government managers – an organizational approach
Lisa Björk¹, Eva Bejerot², Annika Härenstam¹, Nicola Jacobshagen³
¹Göteborg University, Gothenburg, Germany, ²Stockholm University, Stockholm, Sweden, University of Bern, Bern, Switzerland

Objective: Illegitimate tasks have been concluded to be stressors in their own right and to be associated to counterproductive work behaviour. However, little is yet known about the sources to illegitimate tasks. This study aims to explore the prevalence of illegitimate tasks in a sample of local government managers, to test the associations between stress, performance and illegitimate tasks and chiefly, investigate what organizational characteristics generate them.

Methods: Analyses are based on self-reported survey data among first line and middle managers in seven Swedish municipalities (n= 440). The psychometric properties of the Bern Illegitimate Tasks Scale (BITS) and its subscales unnecessary (UNT) and unreasonable tasks (URT) (Semmer et al., 2010) were explored in factor and reliability analyses. The face validity of the associations between illegitimate tasks and stress and performance was tested through
correlation analysis. The intraclass correlation was used to estimate the proportion of second level variance in the BITS, UNT and URT scales separately. Indices of resource deficits, organizational control deficits and supportive structures (Eklöf et al., 2010) were aggregated to second-level variables and used as predictors to BITS, UNT and UNR in single, or when motivated multilevel, regression analyses, controlling for span of control, managerial position, managerial experience and gender.

Results: The BITS, UNT and URT scales all showed good reliability and were also associated to stress and performance. About 10% of the variability in BITS and unnecessary tasks could be attributed to the organizational level. Managers in organizations where the resource allocation is unfair and arbitrary, where top-down decisions are difficult to realize and where the decisional structures are obscure will report more illegitimate tasks in general (preliminary estimate $\beta = 0.476$), and particularly more unnecessary tasks (preliminary estimate $\beta = 0.804$). Also, the larger the span of control, the more unnecessary, unreasonable and illegitimate the tasks.

Conclusions: Managers compensate for organizational deficits by performing working tasks that in the long run might be detrimental for their health and the efficiency of the organization. The results indicate that there is a lot to be gained in addressing up-stream conditions, such as the organization of work when aiming to prevent illegitimate tasks.
Symposium title: Burnout: antecedents in Portuguese nurses, teachers and police officers
Cristina Queiros
FPCEUP, Porto, Portugal

Nursing, teaching, and policing are stressful professions, with a central role in society in terms of the health, education, and security domains. Professionals working in human services are more vulnerable to experience burnout, since they work under stressful conditions and deal with people demands. When they experience burnout, it affects their self well-being, the care they provide to others, and it impacts negatively upon their organization. Burnout became a concern since Freudenberger (1974) and Maslach (1976) alerted others to the psychological health of professionals in human services. In Portugal, burnout elicited increased research, with the aim to identify antecedents and the protective factors which related to individuals and organizations. This symposium aims to present four different studies conducted with Portuguese professionals across several professions.

Paper number 1 investigated the influence of social support on burnout among 400 female teachers. Despite the fact that the sample does not experience high burnout levels, they showed high social support from colleagues and students which protected them from emotional exhaustion.

Paper number 2 investigated the influence of engagement on burnout among 1216 nurses. Engagement seems to be an essential element for health and well-being among this population, helping them to face labor demands, and it is likely to contribute positively to the health and quality of life of their patients.

Paper number 3 investigated the predictive role of stress sources on burnout levels among a sample of 355 members of one Portuguese Police Force. The results showed that different dimensions of burnout predicted different stress sources.

Paper number 4 relates to the previous study, since data was collected among 626 recruit police officers in their last month of academy training before joining the Portuguese Police Force. This study investigated sources of stress experienced and the relationship between engagement and coping among this population. Results showed the main sources of stress experienced are related with recruits personal life and the course. Furthermore, engagement levels were influenced by the coping strategy employed by the police recruits. The results suggest that future academy training which aims to increase engagement levels among police recruits should concentrate further on exploring coping strategy preferences.

Theoretical implications of the symposium draw attention to the existence of different antecedents of burnout across different professions. Additionally, the symposium suggests practical implications that future interventions should include coping, and social support in order to prepare workers to deal with the demands of the professions and increase their engagement levels.
Nowadays teachers’ work is complex and has new demands, including; teaching, learning new information and skills, keeping abreast of technological innovations and dealing with students, parents and the community (Pillay, Goddard & Wills, 2005). They work under stressful conditions and deal with people presenting demands thus making them more vulnerable to experiencing burnout (Carlotto & Camara, 2007; Hakanen, Bakker & Schaufeli, 2006; Marques-Pinto & Picado, 2011; Watts & Robertson, 2011). Social support has been studied as an important variable protecting individuals from burnout (Hendrix, Cantrell & Steel, 1988; Salami, 2011; Zhang & Zhu, 2007).

This study aims to verify the influence of social support in burnout among 400 female Portuguese teachers. The Maslach Burnout Inventory – ED (Maslach, Jackson & Leiter, 1996) and Social Support Appraisals (Vaux, 1988) were used to collect data in the district of Porto, Portugal. Teachers aged from between 24 to 60 years old (M=41.05 SD= 8.94), had an average of 16.6 years of teaching experience, 65% were married, 64% had children and all taught students aged between 10 to 17 years (with 44% teaching students aged between 12 to 15 years).

The results showed that the sample presented moderate levels of emotional exhaustion, low depersonalization, high professional accomplishment and high social support levels, especially from family and friends. Marital status only distinguishes married teachers with more emotional exhaustion and age was negatively correlated with social support and personal accomplishment. No other socio-demographic differences were found. Emotional exhaustion was negatively predicted from others social support (colleagues and students, $\beta = -.160, p < .001$), depersonalization was negatively predicted by friends social support ($\beta = -.124, p < .05$), and professional accomplishment was positively predicted by others social support (colleagues and students, $\beta = .284, p < .001$).

Overall, the results suggest that despite the sample not experiencing high burnout levels, social support (in particular, support from colleagues and students) seems to be a protective factor. Recent results (Watts & Robertson, 2011) suggest that burnout among teachers is comparable with other service sector employees. When those professionals burn-out, they affect not only their self well-being, but also prejudice the care they give to other individuals and negatively influence the school. In sum, due to teachers’ central role in our society, it is recommended that protective factors should be reinforced in the future among this population.
Day after day, nurses are facing new demands in their work and are becoming a potentially vulnerable group to experience burnout. The Burnout syndrome emerges when professionals feel that their individual resources are insufficient to face the demands of work activity, such as a variety of functions, being overworked and the workplace conditions (Maslach, 1976). Nurses are considered to be particularly susceptible to burnout due to the stressful nature of their work (Mann & Cowburn, 2005; Van Bogaert et al., 2009).

In their review of 15 years of burnout research, Enzmann and Kleiber (1990) identified 144 studies of nurses’ burnout. Although it is not easy to reduce the labor demand within the nursing profession, it appears that some characteristics of their work should be reinforced as they seem to promote well-being and satisfaction, even in situations of being overworked. Engagement can protect individuals from burnout, since it helps professionals to efficiently cope with stressful situations (Schaufeli et al., 2002). Thus, professionals feel more vigorous, energetic, dedicated, and identified at work by adopting positive attitudes by increasing their intrinsic motivation and job satisfaction, reducing emotional exhaustion and depersonalization.

This study aims to identify the influence of engagement in burnout among 1216 nurses in the district of Porto (Portugal) through the application of the MBI-HSS (Maslach & Jackson, 1997) and UWES (Schaufeli & Bakker, 2003) Portuguese versions (Marques-Pinto, 2009). Results show that engagement is a significant predictor of burnout. In particular, nurses engaged in their work have more personal accomplishment and less emotional exhaustion and depersonalization. We found that vigor (β = -.377, p < .001); and dedication (β = -.131, p < .001) negatively predict emotional exhaustion. Furthermore, vigor (β = -.336, p < .001) and dedication (β = -.316, p < .001) negatively predict depersonalization. Finally, vigor (β = .613, p < .001) and dedication (β = .294, p < .001) are significant predictors of personal accomplishment.

In conclusion, engagement is crucial in the performance of nurses and appears to be an essential element for health and mental well-being, helping them overcome the high demands at work and allowing them to grow up in adverse environments. Thus, engagement contributes indirectly in a positive way to the health and quality of life of patients.
Paper 3: Burnout predictors: the role of work stress sources
Sonia Pedroso Gonçalves
CIS/ISCTE-IUL, Lisboa, Portugal

The world is becoming increasingly competitive and characterised by the existence of pressure that is frequently much greater than what is desired. For this reason, it becomes difficult to respond actively and on time to this pressure and maintain the emotional and psychological balance needed to face daily pressures. In this context, stress associated with work is one of the major problems which originates from industrialisation and modern technology. Facing intense stress over permanent periods results in burnout.

Growing concerns about the impact of burnout on both employees and organization well-being have stimulated efforts to understand their antecedents and consequences in the workplace. Some professions are associated with higher risk for burnout development. One of these professions is the police officer.

In this way, the present study aims to investigate the predictive role of stress sources on burnout levels. The sample is composed of 355 members of one Portuguese Police Force (Lisbon, Portugal). A questionnaire was completed which included the Maslach Burnout Inventory – General Survey (adapted from Maslach et al., 1996) and the Police Work Stress Sources Scale (Gonçalves & Neves, 2009).

Results show that the different dimensions of burnout have different predictors in terms of stress sources: work-family conciliation and work related ambiguities, and uncertainties are significant predictors of emotional exhaustion, no-operational work demands and work related ambiguities and uncertainties are predictors of cynicism; and finally, internal management and no-operational work demands predicts personal accomplishment. These results reinforce the importance of diagnostic and monitorisation of this population.

Paper 4: Stress, coping and engagement among Portuguese police recruits
Mariana Kaiseler¹, Cristina Queiros¹, Fernando Passos², Joana Brites Rosa²
¹FPCEUP, Porto, Portugal, ²Divisão Psicologia - PSP, Lisboa, Portugal

It is well known that police officers have a risky and stressful job, and academy training is crucial to prepare recruits for duty (Violanti & Aron, 1995). However, relatively little research has been conducted among police officer recruits. The aim of the current study therefore was to investigate the relationship between engagement, stressor type and coping strategies among Portuguese police recruits attending academy training.

626 Portuguese (Lisbon) recruit police officers, aged between 20 and 25 years (M age = 22.84 years; SD = 1.45), going through the last month of academy training participated in the study. The recruits were asked to describe the most stressful
situation experienced over the last month, and to report their coping preferences using the short version of the Brief Cope (Carver, 1997) and engagement levels-UWES (Schaufeli & Bakker, 2003). The results showed that Portuguese police recruits faced two main sources of stress related with their personal life and with the course. Coping explained a significant proportion of variance among engagement scales: Absorption ($R^2 = .16$, $p < .001$); Vigor ($R^2 = .13$, $p < .001$) and Dedication ($R^2 = .10$, $p < .001$) after controlling for stressor type. In particular, higher levels of religion were associated with higher levels of engagement (Absorption $\beta = .18$, $p < .001$; Vigor $\beta = .20$, $p < .001$, Dedication $\beta = .15$, $p < .05$), higher levels of self blame were associated with lower levels of engagement (Absorption $\beta = -.14$, $p < .05$; Vigor $\beta = -.17$, $p < .05$, Dedication $\beta = .14$, $p < .05$), finally higher levels of humor were associated with lower levels of engagement (Absorption $\beta = -.124$, $p < .05$; Vigor $\beta = -.11$, $p < .05$, Dedication $\beta = -.11$, $p < .05$).

The results suggest that engagement levels are influenced by the coping strategy employed by the police recruits. Thus, it is recommended that future academy training should aim to increase engagement levels among Portuguese police recruits should further concentrate on exploring coping strategy preferences.
Symposium title: Fostering employee well-being: The interplay between work and private life
Verena C. Hahn, Carmen Binnewies
University of Mainz, Mainz, Germany

Over the last years, research evidence has accumulated that both employees' work and private lives are important for employees' well-being and job performance. This symposium expands prior research by bringing together four studies which examine the interplay of employees’ experiences, behaviours, and beliefs in their work and private lives for predicting employee well-being. Specifically, the studies explore daily spillover processes from work to home (Presentation 1), boundary conditions (leadership behaviour) of spillover processes (Presentation 2), the influence of one’s own and one’s partner’s preferences for segmenting work and private lives for well-being (Presentation 3), and the temporal development of general self-efficacy and domain-specific self-efficacy beliefs in the work and home domains in mothers (Presentation 4). The four presentations complement each other in using different methodological approaches (e.g., daily diary study, longitudinal study, dyadic study) and samples from three countries (Germany, United States, Switzerland).

First, Mühlethaler and her colleagues examine the relations between daily achievements at work and sleep in a diary study with 164 employees in Switzerland. Results of multi-level analyses showed that daily achievements at work predicted better sleep quality.

The second presentation by Syrek and her colleagues focuses on the role of leaders for the interplay between employees' work and private lives in highly demanding jobs. Using data from 263 German employees, results showed that leaders' transformational leadership was positively associated with employees' work-life balance. Moreover, transformational leadership buffered the relation between job demands and reduced work-life balance.

The third presentation by Hahn and Dormann investigates how employees’ and their partners’ preferences for segmenting work and private lives influence employees’ psychological detachment from work. In their sample of 127 dual-earner couples from the U.S., they showed that both the employees' and their partners' preference for segmentation were associated with higher psychological detachment from work. Moreover, both the employees' and their partners' levels of detachment contributed to employees' well-being.

Fourth, Grether and Wiese examine the interplay between specific self-efficacy beliefs in the work and family domain as well as general self-efficacy beliefs in a sample of 297 mothers returning to work after maternity leave. Cross-lagged structural equation analyses showed that general self-efficacy beliefs predicted subsequent occupational and family self-efficacy. Similarly, both types of domain-specific self-efficacy beliefs predicted subsequent general self-efficacy beliefs. Taken together, the four presentations advance our knowledge about the interplay
between work and private life and give new insights into fostering employee well-being.

**Paper 1: Daily achievements and sleep**  
Céline Mühlethaler, Diana Pereira, Sven Gross, Laurenz L Meier, Norber Semmer  
*University of Bern, Bern, Switzerland*

Goal attainment at work has been shown to improve well-being and to induce positive experiences (e.g., Austin & Vancouver, 1996; Carver & Scheier, 1990). Most studies refer to explicitly set goals, usually over longer time-frames (e.g., weeks) and little is known about the short-term effects of daily achievements in terms of successfully completing a work task, or achieving good results. For such achievements it suffices that they correspond to some more general goals, such as doing good work. We have shown in a previous study that daily achievements influence daily well-being (Mühlethaler, Gross, Meier, & Semmer, 2010). Based on the idea that daily successes are ego-enhancing, we expect that they should reduce rumination and foster good quality sleep. We hypothesized that daily achievements during a work day will predict higher sleep quality, less difficulties to fall asleep, and fewer awakenings during the night. As high quality sleep indicates good recovery, and thus restored resources, high quality sleep should in turn increase the probability of daily achievements.

Data is from a two-week diary study conducted in Switzerland. The sample consisted of 164 employees (36% men). Daily achievements were measured with a short version of the SUCCESS-scale (Grebner, Elfering, Achermann, Knecht, & Semmer, 2008), and asked participants to indicate task-related successes (e.g., if they completed a task). Self-reported sleep quality, difficulties falling asleep, and sleep awakenings were measured with a scale by Jenkins, Stanton, Niemcryk, & Rose (1988). We calculated two-level random coefficient models using HLM 6.04, controlling for Level 2 variables age and sex.

Supporting our propositions, daily achievements predicted better self-reported sleep quality and less difficulties falling asleep, but not awakenings during the night. Contrary to our hypothesis, none of the indicators of sleep quality predicted daily achievements during the following day. Small successes at work have received surprisingly little scholarly attention thus far. Theoretically, they can be expected to be ego-enhancing, strengthening self-esteem and self-efficacy, and reducing worry and rumination; all this should improve sleep quality.

Our results show that more daily achievements lead to better sleep quality and decreased difficulties to falling asleep, thus fostering recovery. Finding positive effects of “doing good work” also has important practical implications: rather than focusing on “motivating” employees to do good work, organizations can assume that doing good work is motivating for most people. It might be more promising to support employees in their experiencing of daily achievements.
Paper 2: Balancing work and life in highly demanding jobs – the role of leadership as a buffer
Christine Syrek, Ella Apostel, Conny Antoni
University of Trier, Trier, Germany

In this study, we examine the relationship between job demands/characteristics and transformational leadership with employees’ work-life balance and exhaustion. Specifically, it is hypothesized that high time pressure and low transformational leadership predict poor work-life balance and high exhaustion. We expected that transformational leadership buffers the negative effect of high job demands on work-life balance and exhaustion. Moreover, it is proposed that high motivational job characteristics such as task variety and problem solving and high transformational leadership predict high work-life balance and low exhaustion.

The study is part of a work-learn-life balance project in the IT sector. In total, 263 employees participated in the study. Established scales for job demands, job characteristics, transformational leadership, work-life balance and exhaustion were used, showing good internal consistencies. We controlled for age, sex, tenure, personal situation, full- or part time work.

The results show that time pressure was negatively related to work-life balance and positively related to exhaustion, while transformational leadership was positively correlated with work-life balance and negatively related to exhaustion. As hypothesized, transformational leadership buffered the relationship between time pressure and a decrease in work-life balance and between job demands and an increase in exhaustion. Unexpectedly, the results show that task variety and problem solving are positively related to exhaustion.

The analyses show that high transformational leadership buffers the relationship between task variety and an increase in exhaustion and between problem solving and an increase in exhaustion. For work-life balance, we did not find support for a relationship to task variety; yet similarly to exhaustion, transformational leadership buffered the relationship between problem solving and a decrease in work-life balance. The study therefore indicates the importance of leaders to show transformational leadership particularly in highly demanding jobs.

Paper 3: The role of partners for employees’ psychological detachment from work and well-being
Verena C. Hahn¹, Christian Dormann²
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Modern communication technologies (e.g., smart phones, mobile internet access) have enabled employees to stay connected with their work even after leaving their workplaces, and to work at home or virtually anywhere. As a result, employees can have difficulty switching off mentally from work during nonwork time. Switching off
mentally from work during nonwork time (i.e., psychological detachment from work) is essential for unwinding from job stress and recharging one’s batteries for the next working day. There is evidence that employees who prefer to separate their work and home life find it easier to detach from work during their off-job time compared to employees who prefer to integrate their work and home life (Park, Fritz, & Jex, 2011).

In this study, we extended this idea by proposing that not only employees’ work–home segmentation preference, but also their life partners’ work–home segmentation preference contributes to employees’ psychological detachment. In addition, we investigated whether employees benefit from their partners’ psychological detachment.

We examined whether partners’ psychological detachment was associated with employees’ psychological detachment on the one hand and their well-being on the other hand. In this study, 127 dual-earner couples from the U.S. (n = 254) responded to web-based questionnaires assessing work–home segmentation preference, psychological detachment and life satisfaction. The hypotheses were tested with multilevel analyses using the actor–partner interdependence model. Results confirmed that employees’ and their partners’ work–home segmentation preference were associated with employees’ psychological detachment. Employees’ work–home segmentation preference partially mediated the effects of partners’ segmentation preference on employees’ psychological detachment. Moreover, employees’ and their partners’ psychological detachment were positively associated. Finally, both employees’ and their partners’ psychological detachment contributed to employees’ well-being.

Taken together, our results suggest that partners’ preferences and experiences matter for employees’ psychological detachment on the one hand and that partners’ psychological detachment matters for employees’ well-being on the other hand. By trying to segment work from home and pursuing detachment strategies, employees can help themselves and their partners to detach from work and enjoy better well-being.

**Paper 4: How general and domain-specific self-efficacy beliefs develop during mother’s return to work: A longitudinal approach**
Thorana Grether, Bettina Wiese
RWTH Aachen, Aachen, Germany

Self-efficacy beliefs play an important role for positive functioning in the work and family domain. The positive associations of self-efficacy beliefs with employees’ job-satisfaction and performance, for instance, have been repeatedly shown (Judge & Bono, 2001; Stajkovic & Luthans, 1998). Conceptually, self-efficacy beliefs can be assumed to be hierarchically structured, with general higher-order self-efficacy beliefs at the top and more specific lower-order self-efficacy beliefs at the bottom. However, the causal relations between generalized and domain-
specific self-efficacy beliefs have not yet been systematically tested. More precisely, it is unknown whether general self-efficacy beliefs operate as cause or consequence of specific self-efficacy beliefs.

In this study, we examined the prospective relations between general self-efficacy beliefs and two types of specific self-efficacy beliefs, namely occupational and family self-efficacy beliefs.

Data stemmed from a sample of 297 mothers returning to work after maternity leave. They filled out questionnaires at four times (two weeks before their first working day, and five weeks, 11 weeks and six months afterwards). For occupational self-efficacy beliefs as well as for family-related self-efficacy beliefs, cross-lagged structural equation analyses indicated that general self-efficacy beliefs predicted these domain-specific beliefs. Similarly, both types of domain-specific beliefs predicted subsequent general self-efficacy. Hence, within the work-family domains, specific and global self-efficacy beliefs show reciprocal relationships.

Additional cross-lagged analyses including only the domain-specific self-efficacy beliefs indicated the absence of significant prospective relations between occupational and family self-efficacy beliefs. Implications for self-efficacy theory as well as for research in the work and family domains will be discussed.
Symposium title: Researching organizational level health interventions – discussing different approaches
Georg Bauer, Gregor Jenny
Division of Public and Organizational Health, ETH/University of Zurich, Zurich, Switzerland

Occupational health psychology is operating in an increasingly complex and fast changing economic context. Thus, interventions to improve health in organizations need to build capacities both in and of organizations to continuously address occupational health issues on their own. This symposium takes up the trend to positive psychology and positive organizational behaviour in occupational health psychology and the related movement from occupational to organizational level interventions.

The symposium aims to present and discuss current conceptualizations of organizations and corresponding intervention approaches to improve organizational health through four papers. The first paper by Jenny et al. outlines the development of a research model for Organisational Health Development (OHD) which shows the interaction between the multi-dimensional aspects of organisational health capacities and individual health capacities. The second paper by Neilsen introduces a five phase model which aims to improve the health and well-being of workers through changing how their work is designed, organized and managed. The third paper by Salanova discusses the advances made in assessing psychosocial factors at work from the Positive Psychology perspective through the lens of the Healthy & Resilient Organizations (HERO) Model. In the fourth and final paper Hasson et al. introduce HealthWatch, a web-based system for individual and organizational health promotion and stress management and describe how interventions can be tailored depending on the time available.

Paper 1: Systemic organizational health development: a model focusing on individual and organizational health capacities
Gregor Jenny, Susanne Hoffmann, A. Blum-Rüegg, K. Lehmann, Georg Bauer
Division Public and Organizational Health, ETH/University of Zurich, Zurich, Switzerland

Interventions designed to improve workers’ health usually advocate change on both an individual and organisational level. Likewise, intervention outcomes comprise not only individual health in various facets but also organisational indicators of performance. To grasp the multidimensionality of such change as well as the complexity of the change process itself, we developed a research model for Organisational Health Development (OHD). The OHD model combines the generic EUHPIID Health Development Model (Bauer et al., 2006) with the New Management Model of St. Gallen (Rüegg-Stürm, 2003), which is committed to structuration theory, a systemic viewpoint and organisational ethics.
We define OHD as both the on-going reproduction and the targeted improvement of health in organisations as social systems, based on the interaction of individual and organisational capacities (Bauer & Jenny, 2012). Accordingly, the OHD model shows the social system as organisational structure, strategy and culture (organisational health capacities) in interaction with individual competence, motivation and identity (individual health capacities). This interaction encompasses factual and social processes, i.e. daily business processes, leadership and supportive processes. Factual and social processes are grouped according to the JD-R-Model (Bakker & Demerouti, 2007) into job demands and resources. Further, the model shows customers, politics/society, capital providers and private life as a relevant environment of the organization influencing its decisions and processes. Results comprise individual health and sustainable organisational performance. Individual health is distinguished into negative and positive health, following propositions of salutogenesis and positive psychology. Sustainable performance expands the notion of vital economic outcomes to social and ecologic responsibilities of organisations.

OHD as a partly targeted improvement of individual and organisational health capacities refers to capacity building as an intervention approach. Four principles of capacity building are outlined for OHD, addressing both the process (“building”) and the outcomes of OHD (“health capacities”), comprising interventions on multiple levels (organisation, units, teams, and members as well as the environment), refering to systemic thinking by viewing organisations as complex social systems, in which reciprocal and multiple perspectives are to be considered, and enabling the organisation and its members to deal with self-defined issues and become free from external support. We combine systemic consulting with OHD as a capacity building approach, following seven phases in which capacities are built for ongoing OHD within a company.

Paper 2: Towards healthy organizational change: Presenting a model for improving health and well-being in today’s organizations
Karina Nielsen
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Background: In recent years, there has been an increasing interest in developing organizational-level occupational health interventions that focus on increasing resources in addition to minimizing psychosocial risk factors. Furthermore, there has been an increasing understanding that it is not only the content of interventions that drive outcomes but also the processes by which they are implemented and how well they fit within the organizational context. A model for how to improve the health and well-being of workers through changing how their work is designed, organized and managed will be presented.

Method: The model consists of five phases: Initiation, screening, action planning, implementation, and evaluation (Nielsen et al., 2010). The theoretical framework
for the project are the job demands-resources model (Bakker & Demerouti, 2007), Conservation of Resources Theory (Hobfoll, 1989) and Build-and Broaden Theory (Fredrickson & Joiner, 2002). Through a participatory process, employees are involved in identifying risk factors and resources at work through cognitive mapping interviews (Harris et al., 2002). The factors identified through interviews are then translated into a tailored questionnaire asking employees to rate whether they see a certain aspect of the job as a negative or a positive aspect of their work. Using a tailored questionnaire ensures that the questionnaire is close to the reality of employees, easy to understand as it reflects their understanding of working life, and it enables the development of activities close to the organizational reality. Questionnaire data are analyzed identifying demands and resources that are associated with work engagement, burnout and job insecurity. Furthermore, using mixed methods to analyse the organizational resources (e.g. HR, training, attitude surveys) was conducted to identify which resources are available to employees and how they function. Employees and leaders jointly prioritize resources and demands that need addressing and develop action plans. Prioritization is based on: i) Strength of the relationship with outcomes, ii) Prevalence, and iii) Motivation to work with a given demand or resource. Follow-up on action plans is ensured through the use of Kaizen boards (Womack & Jones, 2003). Finally, a thorough process and effect evaluation is conducted using qualitative and quantitative methods to identify the effects of the intervention and the fit to the organizational context.

Conclusion: The method offers a novel approach to improving employee health and well-being. Central facets include the identification of organization-specific demands and resources, the systematic follow-up of interventions and the integration of initiatives into daily work.

Paper 3: Evaluation of Positive Organizations through the HERO Model
Marisa Salanova
Jaume I University, Dept. of Social Psychology, Castellón, Spain

Psychosocial risks evaluation is a main topic in occupational health psychology, but traditionally this was done from the negative pole of employee well-being, for example, from the job stress tradition and from the evaluation of topics such as burnout, anxiety, depression, psychosomatic complains, etc. Moreover, it is also mainly focused on an individual level of analysis of job stress and well-being. However, new advances and perspectives on psychosocial risk assessment and research also consider the positive side of well-being (such as, job engagement, flourishing, organizational trust) as well as multiple levels of study (i.e., individual, team and organization) considering a multilevel evaluation and intervention.

To do that, the Healthy & Resilient Organizations (HERO) Model will be introduced (Salanova, 2008; Salanova, Cifre, et al., 2011; Salanova, Llorens, et al., 2011), where HEROs have by definition (1) healthy resources and practices for structuring and managing the work processes that influence the development of (2) healthy
employees, and (3) healthy organizational outcomes. It is interesting to note that despite healthy organizations being an attractive topic, most of the studies are based on the job stress tradition, and concentrate on toxic (rather than healthy) organizations (Bell et al., 2002). Secondly, as previously noted, research and practice is focused at the individual level of analysis without taking into consideration the relevance of focusing on a more collective level of analysis, such as the group and/or organization levels (Wilson et al., 2004). Thirdly, there are no heuristic or theoretical models that incorporate results on HEROs from a broader perspective. Fourthly, due to the great number of disciplines involved (for example, HR management, job stress, occupational safety and health, and organizational behaviour) research results are fragmented and it is difficult to connect them to each other (Wilson et al., 2004). Finally, there is a lack of empirical and practice-based evidence with which to measure Healthy Organizations both quantitative and qualitatively.

In this paper I will discuss these and other advances in the arena of assessment of psychosocial factors at work from the Positive Psychology point of view. Moreover, organizational interventions focused to develop positive organizations will be proposed and structured in three areas of best practices such as amplifying task, social and organizational resources. Also it will be discussed if organizational resilience has an added value because these organizations are able to learn from the adversity and even will emerge stronger.

**Paper 4: HealthWatch – A web-based method to promote organizational health; optimize work ability, efficiency and job satisfaction and prevent presenteeism and absenteeism.**

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HealthWatch is a web-based system for individual and organizational health promotion and stress management. It targets the whole organization and offers time efficient and scientifically proven interventions at individual, group and organizational levels. HealthWatch is currently utilized in an ESF-funded project, Work with flow, which includes approximately 3000 employees in 10 companies. It is implemented gradually in each organization according to a standardized model, yielding average participation rates between 80 and 100 %. The intervention includes assessments using short questionnaires (i.e., the HW-11, takes 15 seconds) with 11 items on self-rated health and wellbeing as well as the psychosocial work environment. A more extensive questionnaire, the Web-QPS, covers the most common public health disorders and the psychosocial work environment and is distributed 2—4 times annually. For individuals, the HW-11 questionnaire yields instant feedback and tailored action plans (self-help exercises,
e.g. relaxation, CBT-based, problem solving, etc.) with previously documented beneficial effects biologically and psychologically (Hasson et al., 2005). The Web-QPS also provides instant feedback for the individual and includes a feature where the employee has the opportunity to be contacted by the occupational health care provider (if there are indicators of ill-health or risk, e.g. stress-related, lifestyle, etc.). At the organizational level, managers receive continuous, real-time feedback displaying the development of their group over time (HW-11). The HR department can monitor all departments in the organization and actively offer support to managers/groups in need. For the Web-QPS, feedback is given immediately after the survey round. Managers are also provided with educative interventions for organizational development and health promotion. To optimize time efficiency, the interventions are delivered with the concept: “From quick fix to fundamental change... and something in between”. This strategy makes it possible to tailor interventions based on the time available. One of the evidence-based methods used is organizational behaviour management (OBM) that can be described as group-level state of the art organizational psychology to excel in performance and wellbeing. The project is evaluated continuously both with regards to targeted outcomes and implementation procedures. Thus, possible effects on health, wellbeing, productivity, psychosocial work environment, ill health, presenteeism and sick-leaves are assessed. Furthermore, approximately 200 deep interviews are conducted. The assessment of the implementation procedures will be conducted with standardized and systematic process analyses using both questionnaires and interviews.
PAPERS
Specialization in occupational health psychology (OHP) varies between countries and formal education is not available everywhere. In Finland, a W&O specialization program was developed in a collaboration network between the six universities that train psychologists. This program (120 Ect) has a strong OH emphasis. The structure of the program follows the European training model in W&O psychology. Work–individual interaction, personnel, and organization are the main themes of the program. A scientific thesis (40 Ect), methodological studies (15 Ect) and participation in a counselling group (10 Ect) are essential elements. Every second year 16 psychologists with at least 2-year field experience are accepted onto the program. The passing of specific courses on the program gives the psychologist the right to act as an occupational health psychologist in the OH services according to the Finnish Act on Occupational Health. These specific courses deal with (i) theories of work and organizational psychology (especially work stress theories and promotion of well-being at work) (ii) job analysis emphasising task description and mental and physical load at work, (iii) occupational health services - legislation and collaboration.

The specialization thesis (one scientific article manuscript) challenges the students to concentrate on up-to-date scientific discussion and to refine their scientific thinking. The supervisor of the specialization thesis comes from the student's home university. Psychologists work often as the only representative of their profession on the basis of a general master's program and their need for theoretical and practical learning is strong. The specialization seminars (10) are organized in some of the six universities depending on the theme. This guarantees that the best resources of the country are available. The two-day face-to-face seminars are combined with internet essays and network discussions. The program of each seminar consists of theoretical lecturing and an investigation of practical problems and cases. Thereafter the students write an essay on the basis of recent scientific knowledge and investigate their professional practices in relation to this knowledge. One teacher acts as a member of the internet discussions. Often some of the students are better experts in specific professional questions than the teachers. One part-time professor and part-time lecturer coordinate the program but adjunct professors, lecturers and specialists from the field are also necessary resources. The counselling groups are led by specialized counselling psychologists. To conclude, national collaboration between universities can multiply the resources for organizing high quality specialization training in a small country.
Occupational Stress in Canadian College Staff
Victor Catano
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Objectives: National stress surveys of academics in universities in the UK, Australia and Canada identified stressors and their serious individual and organizational consequences. Academic stress was widespread in each sample. Australians reported higher stress levels than the general population. Universities are no longer low-stress work environments. The Canadian academic results were similar to those for the UK and Australia; the reported incidence of strain was high with 13% of respondents exhibiting signs of psychological distress and 22% reporting relatively high rates of physical health symptoms; these rates were higher than those found among Canadian white-collar workers. Gender was the most consistent demographic predictor of work and health outcomes. Work-life Conflict was the most consistent stress measure predicting work and health outcomes. The present study investigated whether the same occupational stressors and stress outcomes occurred at Canadian colleges, which have significantly different work environments and cultures. Teaching is the primary function of college instructors with minimal emphasis on research and publication.

Method: We surveyed 1112 instructors at 77 colleges of applied arts and technology in Ontario and British Columbia. The survey was carried out online and included all of the measures detailed in the Canadian University study.

Results: Compared to their university colleagues, college instructors had less control over their work, felt that they were more unfairly rewarded and that their unit heads and senior administrators were arbitrary decision-makers. They experienced more role ambiguity, but fewer work schedule problems, and a lighter workload. They had the same level of stress from work-life balance as those in universities except college female instructors reported less balance than males. In terms of strain, college instructors reported less use of medicines/drugs, and considerable fewer symptoms on the General Health Questionnaire. 98.7% of Instructors reported no concerns on the GHQ compared to 62.6% of university faculty. Instructors expressed greater job commitment.

Implications: The same set of stressors is at work in colleges and universities, but college instructors experienced less strain. The results show how the environment and work culture affect strain. College instructors have less control over their environment but experience less pressure, particularly to publish.
Test of the Job Demand-Resource Model in China: When Demand and Resource are Qualitatively Similar
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Objectives: The Job Demand-Resource Model (JD-R; Demerouti, Bakker, Nachreiner, & Schaufeli's, 2001) proposed that job demands and resources interact in predicting employees' work health. However, this interaction hypothesis has received mixed results (e.g., Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007; Hu, Schaufeli, & Taris, 2011). Cohen and MacKay (1984) suggested that the interaction effect would be more significant if demand and resource are qualitatively similar (i.e., the matching hypothesis). Thus, the first purpose of this study was to examine the moderating effect of cognitive resource on the relations between cognitive demand and job strains. Second, we tested if emotional resource interacted with emotional demand in predicting strains. Since existing studies examining the JD-R model are mostly conducted in Western societies, the third purpose was to examine if the theory would be generalizable to Eastern countries, such as China.

Methods and Results: Participants came from two samples. Sample 1 had 166 employee-coworker matched data collected from Chinese university employees. In this sample, cognitive demand (e.g., task demand) was matched with cognitive resource (e.g., self-efficacy). Sample 2 included 1238 law enforcement employees from China. In this sample, cognitive demand (e.g., task demand) was matched with cognitive resource (e.g., conscientiousness), and emotional demand (e.g., interpersonal conflict) was matched with emotional resources (e.g., supervisor support and coworker support). In Study 1, we found that task demand interacted with employees' self-efficacy in predicting job strains (e.g., self-reported negative emotions and physical symptoms, and coworker-reported voluntary absence and voluntary lateness). In study 2, we found that employees' task demand interacted with conscientiousness in predicting job strains (e.g., negative emotions, physical symptoms, job dissatisfaction, turnover intention, involuntary absence and lateness). Interpersonal conflict interacted with both supervisor support and coworker support in predicting job strains (e.g., job dissatisfaction, turnover intention, involuntary absence and lateness).

Discussion: Our two studies supported the JD-R model, especially the matching hypothesis. We found that when demand and resource were qualitatively similar, the interaction effects of demand X resource were significant in predicting various types of job strains. On the other hand, when demand and resource were mismatched, the interaction effects were not significant. Our study contributed to the existing literature in three ways. First, our study provided support to both the JD-R model and the matching hypothesis. Second, our study suggested that it is important to match qualitatively similar demands and resources in studying employees' work health. Third, our study provided evidence that the JD-R model was generalizable to Eastern countries.
Psychosocial work environment in the educational sector in Norway.
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This study is the baseline of a longitudinal study on changes in the psychosocial work environment in the educational sector. The main focus is on how do good intentions and interventions survive in the everyday work-life and with rationalization pressure. 8 lower and middle schools in 2 counties in Norway were contacted. The principal, a union representative and one teacher on each school agreed to in-depth interviews and a web-based survey was sent to all employees. 341 replies were registered which gives a response rate of 72.2 %. The interviews were analyzed with template analysis (King, 2004).

The study shows a work environment that is complex and subject to an increasing amount of changes and decreasing predictability. Both the number of tasks and task complexity is high and is combined with high time pressure. It is difficult to concentrate at work due to noise and constant interruptions. Respondents are under pressure from both their users (students and parents), their colleagues and suffer from a lack of resources. The boundaryless nature of their task combined with a work time arrangement that requires a 45 hour week gives additional strains in that it influences their non-work activities in a negative way. An interesting finding is that the descriptions from the principal and the teachers of the frustrations and joys of the work day was overlapping.

Explaining work engagement in Chilean public workers: the contribution of psychological empowerment in the motivational process
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During the past decades psychological empowerment has become an important topic for scholars and practitioners. This concept, understood as a constellation of psychological states, namely, meaning, self-competence, impact and choice, have been linked to several health outcomes. Indeed, many organizations integrate psychological empowerment within their intervention programs. However, so far there is no clarity about the specific contribution of empowerment to positive organizational outcomes.

The present article explores the role of psychological empowerment within the Job Demands-Resources model. Specifically, we test whether psychological empowerment may act a personal resource mediating the motivational process between job resources (autonomy, skill utilization, social support from supervisors and social support from co-workers) and work engagement (vigor and dedication). Hierarchical regression analyses in a sample of Chilean public workers (n = 1145) do confirm the mediation hypothesis. Whereas skill utilisation and social support from supervisor were fully mediated by psychological empowerment, autonomy and social support from co-workers were partially mediated. Furthermore,
psychological empowerment ($\beta = .231, p < .05$) was the most important predictor of work engagement. This study highlights the relevance of being empowered at work for well-being and optimal functioning.

**Everything that's solid melts into air: Harmonization of job demands in a globalized economy**  
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Background: Sickness absence for stress-related disorders is on the rise in Western societies. This may reflect a shift in job demands from mainly physical strain in industrial production to predominantly cognitive and emotional demands in the service sector. Two qualitative studies were carried out to understand the nature of contemporary job demands and contrast two distinct sectors: human services and the service industries. Besides, studies served as a needs assessment to design effective stress-prevention trainings.

Methods: Focus groups were conducted among health and social professionals working in healthcare settings (n= 304) and among employees in the service sector, covering the telecommunication, tourism, food and finance industries (n= 168). Participants were included through theoretical sampling, based on the principle of maximum variation (Glaser & Strauss 1998). Focus groups were audio-recorded, fully transcribed and analysed within a Grounded Theory framework.

Results: Results reveal that, other than expected, perceived job demands coalesce between human service professions and employees in the service industry. This points to a "harmonization" between two previously distinct working environments: Human service professions have to increasingly accommodate economic priorities at the cost of working with clients, while jobs in the business sector increasingly require the social and emotional competencies hitherto typical in human services.

Conclusion: By infringing on employees' professional identities, these shifting job demands may contribute to job-person mismatch and illegitimate task perceptions (Semmer et al. 2010). Consequently, workers in both sectors would benefit from health psychological interventions that support matching intrinsic job motivation with a changing working environment.

**Job Burnout and Depression: Unraveling their Temporal Relationship and Considering the Role of Physical Activity**  
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Job burnout and depression have been generally found to be correlated with one another. However, evidence regarding the burnout-depression association is limited because most studies are cross-sectional in nature.
Moreover, little is known about the factors which may influence the burnout-depression association, other than individual or organizational factors (e.g., gender; supervisor support). The current study seeks to address these gaps by (1) unraveling the temporal relationship between job burnout and depression; and (2) examining whether the burnout-depression association may be contingent upon the degree to which employees engage in physical activity.

On the basis of a full-panel three-wave longitudinal design with a large sample of employees (n= 1632), latent difference score modeling indicated that an increase in depression from T1 to T2 predicts an increase in job burnout from T2 to T3, and vice versa.

In addition, physical activity attenuated these effects in a dose-response manner, so that the increase in job burnout and depression were strongest among employees who did not engage in physical activity, and weakest to the point of non-significance among those engaging in high physical activity.

**Burnout and impaired executive control**

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Clinical observation of burnout patients has repeatedly revealed impairments in particular cognitive areas such as attention or memory, affective stability or inhibition of undesired reactions. There exists wide consensus among cognitive scientists that all of these functions are based on executive control processes. These control processes underlie the purposeful, goal directed regulation of behaviour and enable human beings to adapt to changing tasks and ignore irrelevant stimuli. Several studies have demonstrated relationships between burnout symptoms and subjective reports of impaired executive control. These reports have recently been extended by research results that indicated poorer performance of burnout patients in experimental tasks that demand executive control. However, it remained unclear to what extent these tasks demanded executive control and if the relationship with burnout was mainly based on executive control demands or if other demands, such as intellectual capacity or individual speed of reaction, were more important.

To analyse the relationship between burnout and performance in executive control tasks in more detail this study aimed at varying the level of executive control demands systematically in two tasks. We used two conditions of the N-Back test (0-back and 2-Back) as well as two conditions of a Colour Stroop test (congruent and incongruent). While the first condition of each task hardly demanded any executive control the second condition was designed to put strong demands on this capacity.
107 employees from several care facilities participated in the study. All participants in our sample were still included in the work process. While the preceding studies had compared burnout patients and healthy controls that were still working we could not rely on clinical diagnosis to assign participants to a burnout or Non-burnout group. Therefore the participants completed the emotional exhaustion and the depersonalization scale of a German version of the Maslach Burnout Inventory. Groups with high and low emotional exhaustion and independent groups with high and low depersonalization were formed and differences in task performance between the groups were analyzed in separate analyses. Employees that reported high emotional exhaustion performed particularly poorer compared with participants with low emotional exhaustion when the task conditions demanded high executive control.

The study is the first to show this specific interaction between executive control demands and emotional exhaustion. Although the direction of the relationship remains unclear these cognitive impairments should be addressed in prevention as well as treatment of burnout.

Crossover of Emotional Exhaustion among Dyads in Dental Work - The moderating roles of contact frequency, collaboration quality, and power imbalance
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Introduction: As interaction and interdependence among employees and working partners in work teams increases, the crossover and contagion of well-being at work has become a major topic in today's occupational health psychology arena. It is important to understand factors that may moderate (prevent or promote) the crossover of exhaustion between employees. A recent study by Westman et al. (2011) showed that rather than protect team members from burnout transmission, interaction frequency and social cohesion in teams may actually strengthen the crossover of burnout.

Objectives: Our aim was to investigate the role of collaboration at work in moderating the crossover of exhaustion among working dyads. More specifically, we examined the frequency of collaboration and perceptions of collaboration quality (good co-operation, mutual role clarity, and friendliness) as moderators of the crossover of emotional exhaustion from dentists to dental nurses and vice versa. We also examined the role of unbalanced power relations between dentists and dental nurses in crossover.

Methods: Our cross-sectional online survey data consisted of Finnish dentist-dental nurse dyads (n = 470). We used Moderated Structural Equation Models (MSEM) in testing the three-way interactions.
Results: Regression models showed that emotional exhaustion transferred from dentists to dental nurses when collaboration was both frequent and perceived as positive and friendly by the dental nurses. In contrast, dentists were less affected by their partners' exhaustion under similar conditions.

Conclusions: Smooth, friendly collaboration between dentists and dental nurses is a precondition for good work quality and the well-being of both groups. However, it may also place dental nurses at risk of exhaustion in situations where the dentists are exhausted and collaboration between them is frequent. Investing in good collaboration and support may protect employees from burnout, but from the crossover perspective this may not be enough. In the future, collaboration skills must be supported in a way that helps work dyads recognize and prevent burnout contagion. Future crossover research could more closely focus on the fact that not all working partners are equal, and that crossover processes may therefore be different, depending on the direction of crossover.

The Influence of Guilt on the Relationship Between Burnout and Psychosomatic Disorders

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Burnout is a serious problem that can be expressed as psychological symptoms, such as psychosomatic disorders. Guilt is an unpleasant and remorseful feeling associated with the recognition that one has violated or is capable of violating a moral or social standard (Jones & Kugler, 1993). It is a social emotion linked to communal relationships. Excessive or inappropriate levels of guilt can produce disorders of health. Guilt is a symptom that may be useful for understanding and diagnosing the relationship between burnout and its consequences (Ekstedt & Fagerberg, 2005; Gil-Monte 2008). We consider that one of the frequent causes of feelings of guilt in professionals is the existence of negative thoughts about the customers or clients and the negative and cynical way they have treated them (Maslach, 1982). Earlier studies have shown that feelings of guilt appear to be involved in the burnout process. However, the exact nature of the relationships among burnout, guilt, and psychosomatic disorders is unclear.

The purpose of this study was to test the mediator role of guilt in the relationship between burnout and psychosomatic disorders. The sample consisted of 714 teachers (16.4% men and 83.6% women) working in schools in the metropolitan area of the city of Porto Alegre, Southern Brazil.

Hypotheses were tested together in a path model. A model was constructed to test the relationships among the variables. The Hypothesized model (i.e., Indolence → Guilt → Psychosomatic disorders) showed an adequate fit to data (Chisq/18 = 88,738; GFI = 0.974; AGFI = 0.935; RMSEA = 0.074; NFI = 0.948; CFI = 0.958), and all hypothesized relationships were significant. The hypothesized model offers
a good representation of the relationships among burnout, guilt, and psychosomatic disorders.

The results point to recommending the incorporation of the evaluation of guilt as a symptom of burnout, in order to perform a more complete diagnosis and discriminate among subjects affected by burnout.

**Cross Cultural Comparison of Workplace Stress and Coping as predictors of Burnout Among Asian Nurses: A three Country Study**

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The issues of nursing stress, coping and burnout are of universal concern in the area of health care (Butterworth & Jeacock, 1999; Lambert & Lambert, 2001), often leading to individual and organisational consequences such as illness, absence, increased turnover and a decline in the quality of care. Although a large number of studies have been conducted in Western cultures, relatively few studies on occupational stress, coping and burnout have been conducted in Asia, where the majority of migrant nurses in western countries now come from. The general aim of this study is to look into cross cultural comparisons in terms of occupational stress, coping and burnout within three Asian countries- the Philippines, Malaysia and China.

The aim of the present study was threefold. First it aimed to identify key stressors and coping strategies in the nursing practice across the Asian region. Second it examined the direct effects of stress and coping on burnout. And third, it investigated the effects of different coping strategies and the extent to which they buffered or exacerbated the stress-strain relationship. Cross cultural differences were then examined in terms of stressors, coping and burnout and the relationships between these variables.

Data was collected from 935 nurses from general hospitals across the Philippines, China and Malaysia using the Expanded Nursing Stress Scale (ENSS), the ways of Coping scale (WCS) and the Copenhagen Burnout Inventory (CBI). Coping acted as a moderator for the stress-strain relationship for all three dimensions of burnout. The moderating effects of individual coping strategies differ for different nursing stressors–some helped alleviate the negatives effects of stress while others worsened them. Cross cultural comparisons revealed that although these nurses had similar work stressors, there were differences in the ways of coping and how coping moderated the stress-burnout relationship. Factor analyses identified several overarching themes among different nursing stressors and coping strategies. Results also indicate the differential effects of stressors on the three burnout domains (personal, work-related and client-related).
Areas for development and improvement of support for nurses will be presented further in detail. Implications of the study suggest that although stressors and coping may vary across Asian nations, these nurses share a common need for support to develop diverse and appropriate coping skills to handle specific nursing stressors. Establishing support groups and communication networks among service providers, patients and their families could be helpful in improving relations between the providers and recipients of healthcare.

**Burnout, workplace stressors and a period of employment in a particular profession among Slovenian employees**

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Despite increasing awareness of the importance of mental well-being within the workplace, the burnout problem has only recently been receiving proper research attention in Slovenia. Different aspects of job stressors have been linked to burnout among employees. However, so far none of the studies employed the cognitive ergonomics approach that quantifies the burden of stressors on human resources. In addition, the results of studies which address experience with burnout and the period of employment in a particular profession are inconsistent.

Our study aims to examine the relatedness of perceptions of self-reported burnout with workplace stressors and years of employment in a particular profession among Slovenian employees in different occupations.

721 Slovenian employees filled out the Oldenburg Burnout Inventory (OLBI) and the General form of Occupation stress index (OSI) questionnaire. Significant positive associations were found between the disengagement and exhaustion subscales of OLBI and with most of the OSI subscales as well as with the total OSI score. Professional subgroups of the sample significantly differed on OSI stress dimensions and in correlations between the experience of burnout and the period of employment. Our study also indicated that employed instruments could be a useful tool for identifying those workplace stressors that may increase the risk for occupational burnout in a particular profession.

**Leading on the highest competitive level without burning out – recovery buffer profiles among Olympic coaches and their association with burnout and positive health**

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International level coaches in sport have highly stressful jobs, facing a wide variety of both organizational and performance-related demands. In this context it is
essential to have sufficient recovery buffers such as strong sleep behaviours, recovery skills and basic self-esteem in order to prevent stress-related ill-health and maintain coaching performance.

The aim of this study was to explore different recovery buffer-profiles among Olympic coaches during a high stress period, and investigate differences in burnout and positive health between them.

Participants were 127 national coaches from the USA, UK, Canada and Sweden. A two-way cluster analyses was performed based on self-ratings of seven recovery buffers. A hierarchical cluster analyses using Wards method and with squared Euclidean distances as similarity measure was performed and this favoured a four factor solution, which was confirmed in a subsequent K-means cluster analysis. The four clusters was denoted “poor sleepers” (31.5% of total sample), “poor recovery buffers” (22.8%), “strong recovery buffers” (25.2%) and “stable sleepers” (20.5%). The four clusters did not differ significantly in terms of number of work hours. However, the clusters did differ significantly in how often the coaches experienced the workload as overloading. Post hoc analyses showed that the “poor recovery buffers” and the “poor sleepers”, who shared a pattern of poor sleep behaviours, had significantly higher ratings of overload than the “strong recovery buffers” and the “stable sleepers”, which shared a pattern of strong sleep behaviours.

A MANOVA showed that the clusters also differed in burnout; more specifically in the exhaustion and devaluation subscales but not in the performance subscale. Post hoc analysis showed that the largest differences were found between the “poor recovery buffers” and the “poor sleepers” (i.e., deprived sleepers) on one hand, and the “strong recovery buffers” and the “stable sleepers” (i.e., good sleepers) on the other. The clusters also differed in positive health. According to post hoc analysis, the “strong recovery buffers” had better positive health than the other clusters on most subscales. To summarize, coaches who have strong recovery buffers report lower levels of burnout and better positive health than coaches with weaker recovery buffers, despite a similar number of work hours. It is concluded that strengthening the individual’s ability to use recovery buffers efficiently may protect against burnout symptoms and contribute to improved positive health.

The Boudreau Bibliography: A complete and valid source of burnout citations--1957 to current
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Burnout seems to be more widespread, of longer duration, and more virulent—a kind of workplace pandemic affecting occupations, cultures, and countries alike. Indeed popular and academic writings suggest that chronic job stress or burnout has become the single, most important global concern.
This 1957 to 2011 burnout bibliography was developed using EndNote X4. In order for a citation to be included in the bibliography, several key strategies guided the reference search process: 1) the word “burnout” or one of its related forms (e.g., burnt out, emotional exhaustion) must appear in the abstract or title. For definitional purposes, burnout refers to the occupational, emotional, or psychological phenomenon often characterized by emotional exhaustion, depersonalization, and low personal accomplishment. 2) Citations that reported measuring some element of burnout were included whereas citations that merely use burnout to introduce a different topic were not included. 3) Citations in any language were included.

To date, a comprehensive catalogue totalling 21,675 burnout references from 1957 to 2011 has been compiled. A total of 124 databases (e.g., PsycInfo) from 24 different providers (e.g., OVID) and 15 previous bibliographies were used in the development of the bibliography. The bibliography includes a variety of sources such as journal articles, conference papers, books, magazine and newspaper articles, theses, and websites. The bibliography of burnout citations in the EndNoteX4 format is searchable using several different fields including title, year, occupation, author, keyword, and source type; it contains abstracts for approximately 62% of the captured reference citations.

In an attempt to measure the validity and coverage of the burnout bibliography, a sample of references from 39 burnout review and meta-analyses articles (1993-2011) were examined by two independent raters. The results indicate that 96.5% of all relevant references in the sample of 39 burnout review articles are in the current version of the burnout bibliography.

By providing a comprehensive and up-to-date list of references, this bibliography serves as an invaluable resource for global researchers, students, and practitioners interested in examining either the general topic of burnout or the more specific discussions of burnout experienced across occupations (e.g., nursing, teaching). Anyone interested in doing burnout meta-analyses may wish to consult this reference source before beginning any web searches. Finally, one might even consider using the bibliography as its own data set to examine and report on the changing trends within the field of burnout that have emerged over the last seven decades.

**Burnout among a group of policemen: the role of fatigue and emotions in the work context**  
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Background: Policework is a profession with a high risk of operational and organizational stress at work. The aim of this research was to investigate the effect of job-related affectivity and fatigue on burnout; specifically we aimed to study the
relation between acute fatigue and burnout and the indirect role of emotion during work.

We adopted the concept of burnout with two components: exhaustion and disengagement (Halbesleben & Demerouti, 2005). In this concept, exhaustion is related to the energetic aspect, and disengagement is connected to the motivational aspect. We hypothesized that acute fatigue is a precursor to burnout. According to Van Katwyk et al. (2000), psychological well-being is synonymous with work-related affectivity, and emotions are classified into four categories: high and low-arousal of pleasant emotions and high and low-arousal of unpleasant emotions. According to the theory of stress by Selye (1978), eustress and distress are assumed to be a high arousal of emotion.

Methods: Acute fatigue was measured by the index in accordance with the Japan Society for Occupational Health. In order to investigate exhaustion and disengagement the Oldenburg Burnout Inventory was used (Halbesleben & Demerouti, 2005). Job-related affective well-being was used to assess emotions within the work context (Van Katwyk et al., 2000). Hierarchical regressions analyses were performed.

Group: 187 policemen (28 women) filled in the questionnaires. Half of them worked in the prevention department and one-third were on duty in the criminal division. Their average work experience was 14.7 years (range 5 - 28).

Results: Fatigue had a direct impact on exhaustion and disengagement. This first effect was 3 times stronger than the second. In the next step the emotions were entered into these separate models. We observed that a low arousal of unpleasant emotions had an indirect relation with fatigue and exhaustion. Additionally, a high arousal of positive and negative emotions (eustress and distress) mediated between fatigue and disengagement. These effects of partial mediation were large ($f^2 = .34$ and $f^2 = .32$ respectively).

Conclusion: Our results indicate that a high arousal of emotions can lead to a deterioration of motivation of work, but a low arousal of negative emotions reduce energetic ability to work among policemen.

When work demands lead to emotional exhaustion: The mediating effect of an accelerated pace of work
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“When work, [production] and communication need only a fraction the time they took a century ago” (Rosa, 2003, p. 6). These changes indicate that acceleration is an integral part of today’s working life. Indeed, many employees face increasing time pressure and workload (Green, 2001) – a phenomenon termed “acceleration of the pace of work” by Rosa (2005). Yet despite the importance of acceleration in
modern work, still little is known about the job demands that cause acceleration and about its consequences. Thus, the present study focuses on a specific work demand, contradictory demands, in relation to an accelerated pace of work and one possible consequence, emotional exhaustion.

Drawing on Glaser and Büssing (1996), we argue that contradictory demands – described as a conflict between demanded and actual work goals, quality of work and competence – cause additional and increased work effort, which in turn leads to stress reactions. To test whether an accelerated pace of work mediates the relationship between contradictory demands and emotional exhaustion, a 2-wave panel study with 549 eldercare workers was conducted. Contradictory demands were assessed using a subscale of a German self-report instrument for work analysis in hospitals (TAA, Büssing & Glaser, 2004). Emotional exhaustion was measured by the Maslach Burnout Inventory (MBI-D, Büssing & Perrar, 1992). Acceleration of the pace of life was measured by a self-developed scale.

A structural equation model yielded satisfactory fit indices ($\chi^2(127) = 277.66; \text{CFI} = .97; \text{RMSEA} = .045, p\text{-close} = .88$). The effect of contradictory demands (T1) on emotional exhaustion (T2) ($\beta = .30; p < .01$) was partially mediated by the increased acceleration of the pace of work (standardized residuals from T1 to T2) ($\beta = .15; p < .05; \beta = .20; p < .01$). Hence, contradictory demands increase the risk of experiencing emotional exhaustion, because they require an accelerated pace of work. These findings partially support Glaser and Büssings' (1996) assumptions and call for attention from occupational health psychologists. Given the rapid changes in modern work environments the findings suggest the importance of protective factors in coping with acceleration and work demands to ensure well-being.

Job complexity mitigates the effect of emotional dissonance on employee burnout

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When interacting with clients, human service workers are at risk of experiencing discrepancies between felt and organizationally mandated emotions (i.e., emotional dissonance), which in turn contribute to feelings of ill health and burnout (Hochschild, 1983, Hülsheger & Schewe, 2011). Consequently, the question arises whether moderators exist that reduce the health-impairing effects of emotional dissonance. In the present study, it is argued that job complexity serves such a moderating role. Job complexity has been defined by the number of elements that need to be considered in carrying out a job (Frese, 1987). The higher the number of potential goals or plans is, the more the work requires deciding between various alternatives, which contributes to its complexity. Based on action regulation theory (Hacker, 2009; Zapf, 2002), it is argued that complex tasks reduce the negative effects of emotional dissonance because they foster employees’ intellectual flexibility and thereby strengthen employees’ capacity to deal with job demands.
such as emotional dissonance. In order to examine whether job complexity mitigates the relationship between emotional dissonance and employee burnout, a 2-wave panel study was conducted among eldercare workers (n = 583, 16-month time lag).

Moderated structural equation modeling revealed that the effect of emotional dissonance (T1) on employee burnout (T2) was influenced by the extent to which employees fulfill complex tasks (T1). After controlling for Time 1 levels of burnout, employees whose work offered job complexity were found to suffer less from emotional exhaustion \( B = -0.16, \ p < .05 \) and depersonalization \( B = -0.20, \ p < .01 \) when encountering discrepancies between felt and organizationally mandated emotions than employees with restricted job complexity.

Thus, designing complex tasks proved to be a crucial starting point for alleviating employee burnout in jobs that provoke emotional dissonance. From an occupational health perspective, it seems advisable for organizations to enhance job complexity in order to reduce burnout. This may be accomplished, for example, by implementing job enrichment or by decentralizing authority.

**Integrative approach to Burnout: how to combine physiological, subjective and cognitive clues? An field experiment based on Somatic Marker Hypothesis.**

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The Damasio theory of somatic-marker hypothesis (SMH) proposes that decision-making and learning rely on physiological affective states that inform us of the balance of incentive values of the different options we are facing. This theory has been tested with emotionally impaired people through a test developed by Bachara et al. (1994), The Iowa Gambling Task (IGT). This test presents a task in which participants are facing four decks of cards from which they repeatedly choose from. Each deck contains various amounts of fake rewards, and penalty cards and the participants are told to pick cards in order to maximize their winnings. To “win”, they should identify the good and bad decks.

Where burnout is concerned, different theories exist about the relations amongst the three major components; emotional exhaustion, depersonalisation and reduced personal accomplishment. As some theories put emotional exhaustion at the core of the syndrome, this leads us to the idea of combining both the Damasio theory and knowledge about burnout to conduct an experiment with workers at risk of burnout syndrome. We used the IGT in combination with physiological measures related to affective state, the electrodermal reactivity from one side and the sympatovagal balance (based on heart rate variability HRV) for the other.

The experiment was conducted on 41 nurses from two hospitals, at various levels of emotional impairment, as reported by the MBI HSS. The SMH leads us to
hypothesize that physiological markers should be weaker for near burnout nurses than for their colleagues in good health. The performances at the decision-making test (IGT) should also be inferior. This should be true on the basis of the global result of the MBI but especially on the emotional exhaustion part of this test.

The results were poor at confirming these hypotheses. There were no significant effect of the level of burnout on the cognitive performance as assessed by the IGT. The emotional reactivity measured by both the electrodermal reactivity and the HRV were partly correlated with the level of burnout, but in the opposite direction of our hypothesis. However, we found an interesting result to discuss: the higher level of reactivity of near burnout nurses what limited to negative feedbacks and negative anticipation.

Workers’ mental health is poorer if they lack recognition in the workplace
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Aim: To investigate the relationship between recognition in the workplace and workers’ mental health. Building on the philosopher Axel Honneth’s (1995) theory of recognition, it is hypothesized that a lack of recognition on the part of organization, supervisors, and colleagues is associated with workers’ poor mental health. Four types of recognition were considered as a function of the spheres of relations with others in which they are generated: (1) the social esteem stemming from social relations; (2) the respect of worker’s rights, stemming from moral/legal relations; (3) the emotional support from colleagues and (4) from supervisors stemming from interpersonal affective relations.

Methods: The database results from the merger of data from two large Belgian studies – Belstress Ill and Somstress – and comprises 4013 participants (2304 women), aged 21-66, and working in 9 organizations. Selected items from the ERI scale (Siegrist, 2001), the JDC-S scale (Karasek & Theorell, 1990), and Quine’s mobbing scale (Quine, 1999) were used for measuring the 4 types of recognition. Anxiety (SCL 90; Derogatis & Cleary, 1977) and chronic fatigue (Vercoulen et al. 1994) were considered as indicators of mental health

Results: Results show that lack of social esteem, lack of respect of workers’ rights and lack of emotional support from colleagues and from supervisors are associated with high levels of anxiety (all O.R. above 2.15, p<.001) and chronic fatigue (all O.R. above 1.72, p<.001) even after adjusting for the original database, sex, age, and company. Moreover, these tendencies remain unvaried as a function of workers’ occupational grade.

Conclusion: These results confirm that denying social esteem, respect of worker’s rights and emotional support can be harmful for workers’ mental health.
Organizational Culture and Health Status of Full Time Professors from Mexican Public Universities
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Neoliberal politics have restructured the organizational culture of Mexican public universities and changed the working conditions of full-time professors. Although State politics emphasize the need for transparency and involvement of academic staff in decision making, teachers and researchers perceive ongoing authoritarianism, limited access to institutional resources, lack of distributive justice, weak support structures for workers, and leaderships’ reluctance to recognize the academic achievement of staff. Moreover, about 40% of full-time professors are suffering from workplace harassment. Conflicts with colleagues, superiors and students, symbolic mistreatment, managerial arbitrariness, exclusion from decision making, and workplace harassment produce high levels of stress and tension which affect workers’ health status. This study measures the health status of 733 fulltime university professors (all of whom belong to the National Research System and are therefore part of Mexican scientific elite) from 28 Mexican State universities and UNAM. Health status is correlated to organizational culture, workplace harassment and personal and professional characteristics of individuals (gender, age, seniority, academic capital, disciplinary adscription).

Data were gathered via an electronic survey. Organizational culture is measured by 34 items (alpha de Cronbach = .973) exploring 5 areas: recognition, support, participation, distributive justice and leadership style. The workplace harassment scale (alpha Cronbach = .917) consists of 29 items in a Likert type scale exploring vertical and horizontal harassment in five different areas: recognition of academic achievements (5 items), teaching (4 items), scientific production (6 items), payment system (3 items) and psychosocial integrity (10 items). The health status scale (Likert type) measures the intensity of 15 psychosomatic complains during the month immediately before data collection (cronbach alpha = .907). ANOVA and regression analyses are performed.

58 per cent of professors presented low disorder levels. 37.2% suffered sometimes or frequently from 3-8 disorders and 4% of 9 or more. The two most important predictors for teachers’ health status were: (a) organizational culture and (b) exposure to workplace harassment. Institutions with weak worker support structures, high reluctance to recognize individuals’ achievement and/or poor levels of distributive justice presented higher psychosomatic disorder levels. The institutions observed also showed high levels of workplace harassment. Organizational culture differed between small universities (less than one thousand fulltime professors) and major ones. Professors in small universities observed higher disorder levels. Women and young academics (aged 30-40) had more health problems than males and older staff. No significant correlation was observed between health and scientific discipline and job category.
Objective: Research has demonstrated that occupational strain, conceptualized as high levels of job demands in combination with low control, is associated with poor health outcomes, including cardiovascular problems, psychological distress, depression, alcohol abuse and poor sleep quality. In addition, workplace bullying is also associated with health problems, such as depression. The main aim of this study was to identify the relative contribution of job strain and workplace bullying in relation to depressive symptoms.

Methods: BELSTRESS III was a Belgian epidemiological study on sick leave comprising 2876 workers aged 30–55 years from seven companies. Socio-demographic, physical and psychosocial risk factors were assessed by self-administered questionnaires. Symptoms of depression were assessed using the Center for Epidemiological Studies Depression Scale (CES-D), consisting of 11 items. The sum score (range: 11-33) was calculated and a cut-off value of 19 was used to identify those with symptoms of depression. Bullying was evaluated with an instrument based on the questionnaire of Quine and the upper 5 percent was considered as being bullied. Job strain was questioned using the Karasek Job-Demand-Control questionnaire. Dichotomous variables for demands and control were created based on the median values. High job strain referred to the combination of high job demands with low job control. Logistic regression analysis was used to assess the relative contribution of job strain and workplace bullying in relation to depressive symptoms, Nagelkerke $R^2$ changes were computed. The relations were adjusted for several possible confounding factors including; age, gender, occupation, educational level, self-rated health, obesity, company, level of stress and support outside work and locus of control.

Results: Workers who reported being exposed to workplace bullying had about 5 times more chance to demonstrate depressive symptoms, even after adjustments for the confounding variables. The workers with high job strain had approximately 2 times more chance to report high scores on the depressive scale. Introducing job strain in the model additionally explained 9% of the variance, while the introduction of bullying increased the amount explained of the variance, with 22%. Further analysis revealed that bullying was mediating the relation between job strain and depressive symptoms.

Conclusion: The relative contribution of workplace bullying in the relationship with depressive symptoms was greater than the contribution of job strain. The additional analysis revealed that bullying mediated the relation between job strain and depression. Our findings indicate that workplace bullying is a problem that needs to be actively prevented and managed.
STRESSLESS - Improving educators’ Resilience to Stress
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STRESSLESS is a two-year initiative (November 2010 - October 2012) supported by the European Commission under the Lifelong Learning Programme which aims to develop a practical tool (a guidebook) that will help educators and educational institutions to be resilient while coping with psychosocial hazards. STRESSLESS will provide an impact in following three key areas:

- Promoting well-being for individuals and institutions;
- Raising awareness on work-related stress management for employees and for organisations;
- Improving the quality of work in educational scenarios.

A needs analysis was conducted in all the partners’ countries and included three general groups identified on the basis of previous research findings: countries with stress levels higher than the European average (e.g. Greece, Latvia, Slovenia, and Switzerland); countries with stress levels lower than the European average (e.g. Belgium, Czech Republic, United Kingdom and, the Netherlands) and countries with stress levels equal to the European average (Portugal).

A total of 660 educators completed a questionnaire and 50 managers from educational institutions were interviewed for the needs analysis. The summarized results are the following:

- Work Engagement (a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption) was higher in Czech Republic, United Kingdom and Slovenia and lower in Belgium, the Netherlands and Switzerland.
- Work Family Conflict (feeling that work drains much energy and time) was higher in Portugal, Latvia and Slovenia and lower in Czech Republic, Greece and United Kingdom.
- Burnout (sense of being worn out and emotionally exhausted) was higher in Portugal, Latvia and Slovenia and lower in Greece, Belgium and the Netherlands.
- Stress (sense of being irritable and stressed) was higher in Portugal, Slovenia and Switzerland and lower in Czech Republic, United Kingdom and Switzerland.

Following the needs analysis a good practices handbook and a practical guidebook were developed. These are currently being piloted through workshops with educators in different countries including Portugal, Greece, Slovenia and in the Czech Republic, Switzerland and Brazil.

Following the workshops the guidebook will be revised on the basis of the pilot testing results. The final version of the guidebook will be available for a Grundtvig training course taking place in September 2012 in Latvia. It is hoped that the project and its practical tools will contribute positively to work-related stress management in the education sector. The presentation will present the project and its outcomes up to April 2012.
First line Managers’ Work Conditions and Health
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Objectives: First line managers’ work situation is usually described as demanding with a number of different work tasks and cross pressure from their subordinates and managers. Hitherto, work conditions for first line managers have rarely been compared to subordinates or to middle managers. The purpose of this study was to compare work conditions and health for first line managers in relation to subordinates’, and middle managers’ conditions.

Methods: The study used questionnaire data from 3145 employees, encompassing the demand-control items; variety, role clarity and role conflict. Health was measured with work-related flow, the EQ VAS-scale and Copenhagen Burnout Inventory. The study group was divided into four occupational groups: public blue collar (health and social care), public white collar (municipal/governmental servants), private blue collar (health and social care/industrial production) and private white collar (industrial production). Statistical analysis was performed by using ANOVA.

Results: First line managers rated work conditions and health as better than subordinates, while there were no differences between first line managers and middle managers. These results remained when comparing within occupational groups. Managers had higher control (p < .01) and less variety (p < .001) than subordinates. First line managers’ work conditions differed between the four occupational groups, but no consistent differences were found between private and public sector or between blue and white collar workers.

Conclusions: This study is one of few that have compared first line managers to subordinates and to middle managers with regards to occupational group. It shows that first line managers generally have better health and rate their work conditions as better than subordinates. Varying work tasks and cross pressure have been emphasized as problematic for first line managers’ work situation, but the results from this study show that managers have less variety than subordinates and that all respondents experience the same degree of role conflict regardless of hierarchical level. Within each occupational group, managers seem to have similar work conditions and health regardless of managerial level. However, managers’ work conditions differ between different occupational groups.

Implications: This study shows that work conditions differ between managers and subordinates, and between managers in different occupational groups. These findings need to be considered when designing workplace health interventions.
Career resilience and networking in relation to well-being: The mediating role of perceived employability.
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Perceived employability (PE) for the unemployed concerns the perceived confidence in the ability to find an acceptable job. It is mostly conceived as a personal resource that develops from other resources, both personal and social. Examples are career resilience (i.e., the ability to adapt to changing career circumstances) and networking, respectively.

The conservation of resources (COR) theory states that people strive to build, retain and protect resources. Individuals with many resources are better able to attract even more resources compared to individuals with fewer resources. This may imply that there is a positive relationship between career resilience and networking on the one hand and PE on the other hand. The more an individual is flexible with regard to his or her career, the more employment opportunities open up. Similarly, networking implies a solid base of people who can help in identifying more career opportunities. Furthermore, the COR theory posits that when people develop resource surpluses, they are likely to experience well-being. The more resources available to an individual, the better he or she can cope with difficult life and work circumstances. Consequently, career resilience, networking and PE might be positively related to well-being.

The aim of this study is to investigate if PE mediates the relationship between career resilience and well-being on the one hand and networking and well-being on the other hand. Specifically, we hypothesize (1) a positive relationship between career resilience / networking and well-being, (2) a positive relationship between career resilience / networking and PE, and (3) a positive relationship between PE and well-being, so that (4) PE mediates the relationship between career resilience / networking and well-being.

Hypotheses were tested with hierarchical regression analyses in a sample of 245 unemployed Flemish respondents from a Belgian outplacement company in the first stage of their outplacement track.

Results supported the mediation hypothesis that where career resilience was concerned: PE fully mediated the positive relationship between career resilience and well-being. The mediation hypothesis concerning networking also received support: PE partially mediated the positive relationship between networking and well-being.
Job-Related Resources, Demands, and Work-to-Family Conflict: A Test of the Stress of Higher Status Hypothesis
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Using data from the 2011 Canadian Work, Stress, and Health Study (CAN-WSH), a national sample of working adults (n = 5779), we examine the ways that work 'resources' and 'demands' are associated with psychological distress. With the Job Demands-Resources (JD-R) and Stress Process models as guiding frameworks, we test the "resource hypothesis" and propose an alternative perspective: the "stress of higher status hypothesis."

Building upon evidence of greater exposure to some job demands among workers in higher status conditions, we ask: (1) If higher status is associated with greater exposure, then what are the implications for the relationship between higher status and distress? (2) Do job resources attenuate the relationship between demands and distress?

We find a set of complex net associations in a meditational model, suggesting support for both resource and stress of higher status hypotheses. The only job resource that functions as such in multiplicative (interactive) models is job autonomy. It attenuates the positive association between most of the job demands and distress. Our findings help us to elaborate on the conceptual distinctions and connections among job demands and resources—as well as their consequences for stress and mental health.

The influence of decision latitude on health indicators under high work intensity
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Karasek’s Job Demand-Control Model (JD-C) predicts a negative impact of high job demands on health indicators (Karasek, 1979). This could however be influenced positively by a high degree of "control": For jobs with high demands, the degree of “control” makes the difference between an “active job” and a “high strain job”. The JD-C assumes a linear relationship between job characteristics and indicators of employees’ health. In contrast, Warr’s Vitamin Model (1987) assumes a non-linear relationship and De Jonge & Schaufeli (1998) found empirical evidence for this assumption.

In many industries, increasing changes in work requirements can be observed (European Agency for Safety and Health at Work, 2002), e.g. changing modes of management control, and changes in the decision latitude of the employees (cf. Kratzer, Dunkel et al., 2011). These new forms of work control are characterized by a change from input-orientation to output-orientation, accompanied by the
decentralisation of responsibilities and delegation of individual or collective control of work processes (Hinrichs, Wilde, et al., 2009). But this supposed shifting towards more control is contrasted by the statistics of (German) health insurances showing an increase of mental illnesses for several years. If so, it casts into doubt whether the assumption of the JD-C is still valid, that "control" has an important impact on health indicators.

With a company survey we examined the influence of work intensity (as a job demand) and decision latitude (as control) on health indicators (such as emotional exhaustion, psychosomatic complaints), and attitudes towards work (such as commitment, work engagement). We asked 251 employees of an automotive supplier, which mainly work under time pressure and high work intensity. The working conditions were analysed using interviews, document analyses and observations. As expected, we reveal negative correlations between work intensity and health indicators and positive correlations between decision latitude and work engagement. Multiple regression analysis confirms these results. But the regression analysis didn’t reveal significant influence from decision latitude to health indicators. Social support from supervisors and colleagues, however, show a significant influence on the health indicators.

Work engagement boredom and burnout – the role of personality and the need for satisfaction at work
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Objectives: People invest various degrees of energy in their work. Some people are work engaged and spend high levels of energy on their work, whereas other people are bored or burned-out and invest low levels of energy in their work. The present study addresses these three forms of job-related well-being – work engagement, boredom, and burnout – and examines their relationships with the Big Five personality traits and need satisfaction at work (NSW). Although some studies already addressed the relationship between personality, on one hand, and work engagement and burnout, on the other hand (Kim, Shin, & Swanger, 2008; Bakker, van der Zee, Ledwig, & Dollard, 2006), boredom has been neglected in many studies. The same holds for studies addressing the relationship between NSW and job-related well-being (Van den Broek, Vansteenkiste, de Witte, & Lens, 2008). Hence, the present study is one of the first studies in years that pays attention to boredom and its potential antecedents.

Methods: Data were collected from 255 (83.1% women) undergraduates from a university from the Western part of Romania. The age of the respondents ranged from 20 to 46 years ($M = 21.74$, $SD = 2.42$). Hypotheses were tested using three hierarchical regression analyses with work engagement, boredom, and burnout as dependent variables.
Results: The results showed that age, gender, the Big Five personality traits, and NSW explain work engagement at a rate of 34.5%, boredom at a rate of 24.6%, and burnout at a rate of 41.3%. In all three cases, NSW was the strongest predictor, adding an extra 12.8%, 19.1% and 28.4% respectively, to the models’ explanatory potential. Specifically, the three forms of well-being at work were differently predicted by the personality traits and NSW.

Conclusions: The present study revealed that work engagement, boredom, and burnout are three different kinds of job-related well-being. Moreover, it shed light on their potential antecedents.

Multilevel relationships between shared resources and employees’ health using the job demands-resources framework
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In occupational stress research, the nature of the hierarchical structure in the organizational setting is still understudied. Furthermore, research in this area should broaden the traditional pathogenic focus on salutogenic aspects of work, such as job resources (e.g. support and appreciation) and positive health (e.g. motivation, satisfaction). The job demands-resources model (JD-R; Demerouti et al., 2001) is a well-known framework for the analysis of work characteristics and their relationships with, for example, employee well-being. Previous research has provided strong evidence supporting the main assumptions of the JD-R model, amongst others concerning two psychological processes, i.e. a motivational and a health impairment process. However, the majority of research has been conducted at the individual level of analysis. Therefore, the main aim of this study is to examine whether job resources are also a group-level phenomenon, and how group-level resources influence the individual employee.

Results from over 2700 employees nested in 62 organizational units in 8 medium- and large-scale companies in Switzerland showed that employees’ individual reports of job resources can be aggregated to the level of the organizational unit, forming a shared resources construct. Contrary to our hypothesis, multilevel analyses revealed that shared resources tend to negatively effect positive health. More detailed analyses with the subfactors of shared resources indicate that the subfactor “shared peer behaviour” (peer support and appreciation) significantly predicts positive health, over and above individual-level job resources: While individual-level peer behaviour has a positive effect, shared peer behaviour has an unexpectedly negative effect on positive health, in terms of job satisfaction, affective commitment, and job-related enthusiasm. Additionally, no cross-level interaction effects were found. As these analyses were conducted with data from one of three measurement occasions, we will further validate these results with different subsamples within the same project. This study extends theory and research on the job demands-resources model by applying multilevel theory and analysis to explain the effect of shared resources on employee health.
Costs and benefits of dealing with others: Can job characteristics buffer emotional labor effects?

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Caregivers are often required to display positive emotions towards clients and, at the same time, deal with them in a variety of emotionally charged and difficult situations. To fulfil job requirements, they make use of emotion regulation strategies, known to negatively impact employee’s wellbeing and attitudes (Hülsheger & Schewe, 2011). Recently, Grandey and Diamond (2010) suggested bridging the fields of emotional labor and job design research to gain a fuller understanding of interactional and emotional job requirements and resources. Consistent with the Job Demands-Resources model (Bakker & Demerouti, 2007) job characteristics have been found to moderate the job demand – strain relationship (e.g. control as a buffer in a sample of nurses, Diestel & Schmidt, 2011). In answer to this call and consistent with the Job Demands-Resources model we propose that an enriched workplace functions as a resource for caregivers and buffers negative effects of emotion suppression and emotion-rule dissonance.

Method: Questionnaires were distributed to 340 caregivers employed in a large German organization and working in homes and workplaces of mentally challenged people. Out of these, 145 employees provided cross-sectional data in a voluntary survey (42% participation rate). We assessed emotional labor (surface acting and emotion rule dissonance) and job characteristics including interactional facets (feedback from others, feedback from the work itself, autonomy, task significance, skill variety, social support). Well-being was measured via irritation and job satisfaction.

Results: Results from regression analysis showed that surface acting and emotion-rule dissonance substantially impact well-being, but that these effects can be buffered by task variety and feedback from the work itself. Other job characteristics did not moderate the emotional labor – outcome relationships, but all job characteristics showed significant main effects on job satisfaction.

Discussion: Main effect sizes of emotional labor outcomes are in line with results of a recent meta-analysis (Hülsheger & Schewe, 2011), indicating that even though caregivers interact with clients more frequently than in other occupations, employees do not suffer more from performing emotional labor. Since we found the hypothesized moderator effect for only two out of six job characteristics, our results support Boumans and Landeweeds’ (1992) conclusion of rather main than moderating effects of job characteristics on well-being, at least for emotional labor requirements. In line with Huynh, Alderson, and Thompson’s (2008) description of interactional challenges for nurses, we derive strategies that help employees cope with emotional demands.
Several studies show the effects of work on health. Within these studies various moderating and mediating factors are included. Comparably little is known about the effects of work on the health of those employees who are at the beginning of their career, the junior members of staff. This group is in a special situation: They have only been employed for a few years, some of them change their job relatively often. They have to fulfill not only the usual demands which are part of everyday working life. Often highly motivated to work on their career, they also have to consider their further career development. Furthermore, at this stage in their life, gender issues and future plans play an important role. Therefore, several interesting questions arise:

- Do the effects which are shown in studies on work and health also concern junior members of the staff?
- Are the resources of the situation and of the person intervening factors?
- Do the attitudes toward career development, for example the wish to be promoted, moderate the effects of work on health?
- Are there gender typical effects of work on heath?

We conducted a longitudinal study with n= 602 employees (314 women and 286 men) out of different enterprises. We considered those employees who were either potential leaders or who were already leaders on the first or on the second level of the company hierarchy. We used a questionnaire and included stressors at work (like time pressure), resources (like control) and effects on well-being (like irritation). Our results show that there are moderate effects of working conditions on health. There are several intervening factors, which are relevant. On the basis of our study it should be discussed whether the specific life situation – in our case of junior members of staff - has to be considered in more detail when studying work and health.

The medical and psychological scientific evidence transposed by major national and international institutions on safety in work, indicate that certain characteristics related to the work environment, work processes and interpersonal relationships to organizational climate can cause stress in workers.

In 2009 the University Hospital Polyclinic “G. Martino” – Messina, made the first detection of the objective risk, work-related stress, which was made compulsory in Italy after the Law N.81/2008. All of the company staff were partitioned depending on their specialisation which exposes them to the same type of risk. They were
divided into five macro-areas of: 1) Area General Surgery, 2) Area Emergency and First Aid, 3) Area of General Medicine and Specialist, 4) Area Service, 5) Area Administrative.

The overall level of risk of work-related stress was average. This result led to the need to carry out operations of control and improvement with monitoring indications. It was essential to carry this out on all company personnel to assess their subjective evaluation of the risk of work-related stress. For this purpose, between May and August 2011 an on-line questionnaire was administered: Perceived Health Organization (P.H.O) which was composed of 58 items. This questionnaire investigates the following dimensions: sense of belonging; shared objectives; psychological empowerment; job satisfaction, coping strategies and the work environment.

The processing of the results showed that 40.89 % of all company staff had completed the questionnaire. The management of medical and health Areas of General Surgery, Emergency and First Aid showed low levels of work related stress risk. Conversely, the leadership in medical and health Areas of General Medicine and Specialist Service, highlights work related stress risk to be at an average level. Staff in the administrative department of the health sector were found to have medium-high risk of work-related stress.

This research turned our attention to the analysis perceived and acted of the subjective evaluation of work by trying to verify this correspondence with the company. This suggests that the roles and tasks that require high professionalism and responsibility are rewarding and protect workers from related stress risk in comparison to routine tasks and subordinate roles.

Self-reported and observer-assessed emotional work and level of depressive symptoms in eldercare workers
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Background: Studies have shown that employees in care work are at an increased risk of depression and anxiety. One explanation might be the high level of emotional labour in care work. In this study we investigate the association between self-reported and observer-assessed aspects of emotional work and depressive symptoms in Danish eldercare workers.

Methods: The study consists of two parts. The first part is a longitudinal study using data from 9949 eldercare workers who filled out a questionnaire on work and health in 2004/05 and again in 2006/07. Self-reported emotional work was measured with the Copenhagen Psychosocial Questionnaire (COPSOQ) and
depressive symptoms with the Major Depression Inventory (MDI). We used logistic regression to analyze the effect of emotional work at a baseline level and of depressive symptoms at follow-up.

The second part of the study is a workplace observation study of 120 care workers across 10 nursing homes, to be carried out in 2012. In 2011 we conducted nine interviews with managers and care workers at three Danish nursing homes to get an in-depth understanding of the psychosocial working conditions. This qualitative data were used to develop an action regulation theory-based instrument for assessing emotional work. Depressive symptoms in the observation study are assessed with the MDI.

Results: Both emotional demands (coefficient=0.80, \( p<0.001 \)) and demands for hiding emotions (coefficient=1.10, \( p<0.001 \)) at baseline predicted level of depressive symptoms at follow-up, after adjustment for age, cohabitation, seniority and level of depressive symptoms at baseline. Based on the interview data we created an observational instrument for assessing aspects of emotional work. The instrument differentiates between different types of work organisation that affect the amount and type of emotional work and also whether emotional work is stressful or rewarding. The instrument assesses: a) the frequency, duration, content, and initiator of interactions between care worker and residents, b) emotional work events such as solving conflicts between residents, comforting a resident or dealing with aggressive/violent residents, and c) non-verbal expressions of emotional work such as whistling, smiling, and sighing.

Conclusion: The quantitative analysis showed that self-reported emotional work predicts level of depressive symptoms in Danish eldercare workers. To further investigate this association and to account for common methods variance, we developed an observation instrument that captures core aspects of emotional work in the nursing home setting. The observation instrument is currently being tested in a pilot study. The results of this study will be available at the time of conference.

**Stressors associated with the transition of new health graduates into the workplace**

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Reports of health-care workforce shortages are on the rise. Consistent with this view, evidence suggests there are also difficulties retaining new graduates. Transition into the workplace from a student to a health professional has been described as stressful and is linked to burnout. Identifying stressors that may impact health graduate transition and integration into the workplace may help to retain qualified professionals and to protect graduates’ wellbeing. Studies have usually approached this topic by acquiring graduates’ perspectives only. This qualitative study included the organisational perspective by also interviewing personnel responsible for health graduates during the transition period.
A total of 46 participants from a regional hospital in Victoria, Australia participated in the study and included 15 medical graduates, 26 nurse graduates, and five medical/nursing organisational representatives. The critical incident technique was used to elicit perceptions about the factors that helped or hindered transition from student to health professional, using interviews to collect data.

Thematic analysis identified five broad categories that impact transition including: change, workload, dealing with conflict, responsibility and level of support. It was found that a supportive workplace culture and supportive colleagues are buffers that enable a successful transition for health graduates. Implications of this research suggest possible job re-design to consider rotation challenges and a younger generation of health employees. In addition it is proposed that flexibility-based problem-solving, patient-communication skills, conflict resolution and professional responsibility issues be addressed during orientation periods.

**Psychosocial challenges in the Home Care Services. A qualitative study of Home Care Workers’ perceptions of past and present work situation.**

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Introduction: In 2003 The Norwegian Labor Inspectorate revealed a high level of unhealthy time pressure to be a prevalent stressor among Home Care Workers (HCWs) in a fair-sized municipality in Norway. Despite a substantial effort in terms of workplace interventions to reduce the detected problems, the HCWs still seem to be exposed to several psychosocial risk factors in their work. The outset of this qualitative study was to gain a deeper understanding of how HCWs experience their work situation, and how they perceive changes in their work situation to affect them.

Material and methods: A qualitative approach was used to obtain rich descriptions about the topic in question. 17 semi-structured, in-depth interviews were carried out with Registered Nurses and Nurses Aids in 6 units within the Home Care Services (HCS). The interviews lasted for one hour and were audio-recorded and later transcribed verbatim. The interview guide covered topics dealing with work environment, work demands and changes in the last years. Template Analysis was conducted to produce a hierarchical list of codes representing themes identified in the interviews. As a basis for the initial template, 82 open-ended survey responses in 138 returned questionnaires distributed to the total sample (n= 181), were organized to identify topics related to stress-inducing changes in the work situation.

Results: A core category that emerged from the interviews was time pressure in terms of an increasingly hectic work situation, resulting in a bad conscience and feeling unable to perform the job properly. Distress related to consequences of organizational changes, budgetary constraints and the emerging of new and unforeseen work tasks, was perceived to result in (additional) time pressure and
strain. These results were reflected in the open-ended responses in the questionnaire where the following topics were listed as adverse changes in the work situation: organizational change (36), time pressure (31), increased work load (23), economic constraints (17) and absenteeism (17).

Conclusions: Time pressure is still a prevalent and increasing stressor for HCWs today, and predominant trends in working life indicate that the factors described as antecedents by the informants will continue to prevail in the future. These stress-inducing challenges must be met in a constructive way in order to ensure a sustained healthy work environment within the HCS.

Patterns of job-related affective well-being across 10 years: Latent transition analysis
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Aim: The aim of this three-wave 10-year follow-up study was three-fold: First, to identify the latent classes of job-related affective well-being; second, to examine participants' transitions across classes over time; and third, to investigate whether job demands and job resources predict the participants' latent class membership and class transition rates (i.e., possible shifts between the latent classes).

Method: The study was based on an ongoing FINNMA-10 study, which followed up Finnish managers and their job factors and occupational well-being over a period of 10 years. This extensive longitudinal study of managers was conducted in three waves across ten years: Time 1 (year 1996), Time 2 (1999) and Time 3 (2006). The original sample of managers was drawn from the membership registers of the Union of Technical Employees and from the Union of Professional Engineers. The study utilizes a sample of 402 respondents comprising all the participants who responded and were employed at all three measurement times. Mixture modeling and latent transition analysis were the primary tools of statistical analysis (see Muthén, 2002). Job-related affective well-being was conceptualized in line with Warr’s (1990) model covering indicators of enthusiasm, contentment, anxiety and depression.

Results: The results of mixture modeling indicated two latent classes in each measurement. The first class “High well-being” (n = 313 T1, n = 385 T2 and n = 373 T3) was characterized by high levels of job-related affective well-being (i.e., high levels of enthusiasm and contentment and low levels of anxiety and depression), whereas a reverse pattern was characterized among the participants in the second class “Low well-being” (n = 89 T1, n = 17 T2 and n = 29 T3). The transition analysis revealed that employees mostly remained in the same latent class over time, but when transitions emerged they occurred typically from “Low
well-being” to “High well-being” class. Both job resources and demands were found to be important factors predicting class membership and class transition rates.

Conclusions: A great majority of the investigated managers reported high job-related affective well-being in each measurement time. The increase of well-being over time was also typical among the participants. The study offered unique information about the long-term development of job-related affective well-being from a person-centered approach, shedding new light on the latent patterns of job-related affective well-being and, in addition, individual transitions between patterns over time as well as their antecedents.

Interpersonal relationships in schools: Association of pupil problem behaviour with teachers' absence due to illness

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Pupils’ problem behaviour has been linked with teachers' perceptions of the psychosocial environment at school and to teachers’ stress and burnout. Thus, pupil behaviour may be associated with teachers' health as well.

The aim of this study was to examine whether pupils' problem behaviour—namely vandalism, bullying, and truancy at school—were associated with absence due to illness among teachers.

Data on such problem behaviour of 17,033 pupils in 90 schools were aggregated to school-level and linked to absence records of 2364 teachers. Multilevel regression models adjusted for relevant covariates showed that pupil reported vandalism and bullying at the school-level were associated with teachers' short-term (1-3 days) absences. Teachers working in schools with a >15% prevalence of pupil vandalism were at 1.5-fold (95 % CI: 1.2-1.9) increased risk of short-term absence due to illness compared with their counterparts working in schools with less than 10% of pupil vandalism. Similarly, teachers working in schools with a >15% prevalence of bullying were at 1.3-fold (95% CI: 1.0-1.7) increased risk of short-term absences due to illness compared with their counterparts working in schools with a <10% prevalence of bullying. Truancy was not associated with teachers' absences.

Cumulative exposure to various forms of pupils' problem behaviour was associated with even higher rates of short-term absences among teachers (RR=1.7, 95% CI: 1.2-2.6). No association was found between pupils' problem behaviour and teachers' long-term (> 3-day) absences.

In conclusion, there seems to be a link between pupils' problem behaviour and teachers' short-term absence due to illness. At least three alternative explanations
for the association are plausible. First, pupils' behaviour may cause feelings of stress among teachers that increase the risk of ill-health, and thus absence due to illness. Second, it is possible that teachers' absenteeism increases pupils' problem behaviour, or that the association is bi-directional, a continual cycle in which both influence one another. Finally, the association can be non-causal, reflecting the effects of some third factor on both pupils and teachers. Improving the psychosocial school environment, teacher training, and extra resources for schools with the most problems might enhance the well-being of both teachers and pupils.

**Cross-cultural adjustment, Social Support, and Wellbeing Among Internationally Relocated Expatriate Spouses**

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Over the years, the increasing globalization of businesses has led firms to deploy more and more expatriate employees. With approximately 80% of expatriates married (Black & Gregerson, 1991), expatriate employees are often accompanied in their assignments by spouses or partners. Past research has illustrated how the adaptation of families to host countries is crucial to the success of international assignments (Ali, Van der Zee & Sanders, 2003). Cross-cultural adjustment refers to the extent to which spouses of expatriates adapt to living in the host country (Calliguiri, 2000). Poor spousal adjustment is associated with a lot of negative outcomes such as psychological withdrawal, reduced performance and expatriate turnover (Harzing, 1995; Hulin, 1991).

Despite the recognition of the importance of spouse adjustment to the success of expatriate assignments, efforts to understand the experience of spouses have been minimal (Shaffer & Harrison, 2001). Most studies have focused on the adjustment of the expatriate (i.e. Shaffer et al, 1999). Spouses however are generally more directly involved with the host country environment and living in a foreign environment away from family and friends can make the adjustment process frustrating and stressful (Albright, Chu & Austin, 1993). Cross cultural adjustment has been found to be dependent on social support such as that from family, friends and significant others. Studies on social support outcomes suggest that individuals with higher levels of social support are more optimistic and experience fewer life stresses (Ho & Chik, 2010).

In the present study, the relationships between socio-cultural adjustment, social support and wellbeing are examined. Data was collected from 280 spouses of expatriate employees of a major international oil and gas company located in six areas worldwide using the Measure of Social Support from Family, Friends and Significant others (MSPSS), the Socio-Cultural Adjustment Scale and the Satisfaction with Life Scale (SWLS).

Results showed that cross-cultural adjustment and social support were significant predictors of wellbeing. Furthermore, social support moderated the relationship
between adjustment and wellbeing. Support from significant others was found to play a crucial role in the adjustment of spouses. Low levels of support from expatriates heightened the effects of low adjustment on the spouses’ wellbeing. Results are discussed in reference to findings from previous research and implications for the management of spousal adjustment to international assignments are proposed.
Implications: The findings have implications for researchers of narcissism and cross-cultural work psychology. It is notable that in the two collectivist countries studied, those who are entitled and exploitative are mistreated, but in an individualistic country, it is the grandiose individuals who are mistreated. This is a provocative finding, and one that could be fruitful for future researchers.

Improving worker well-being and performance in the healthcare sector through relational coordination – a service quality chain approach.
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The healthcare sector is characterised by close working relationships among highly diverse teams of professionals. Relational coordination is a concept which has been found to be particularly important for the effective functioning of such teams (Gittell, 2006), which usually carry out highly uncertain, interdependent and time-constrained tasks and refers to the quality of relationships and communication among participants in a work process. To date, research on relational coordination has tended to focus on its benefits for organisations (e.g., Weinberg et al., 2007) or for service users (e.g., Hagigi, 2007). One exception is a study by Gittell, Weinberg, Pfefferle and Bishop (2008) which considers the impact of relational coordination on workers. It finds that relational coordination is an important source of job satisfaction for employees as a resource necessary to accomplish work effectively. Furthermore, the positive relationships that underpin relational coordination (e.g., shared goals, mutual respect) lead to improved employee well-being at work.

Although studies have looked separately at individual and organisational level outcomes, this study focuses how relational coordination can benefit both. The study was conducted in a hospital setting, taking data from six wards. Patient outcome data was collected in the form of patient satisfaction with particular aspects of care, while staff outcome data was represented by job satisfaction. The findings are based on data from a survey of 114 hospital staff, all of whom work within multidisciplinary teams. Based on the premise of the service quality chain, which posits that positive experiences of staff will lead to favourable outcomes for service users, the model proposes that relational coordination will lead to better organisational performance (patient experiences) via positive employee attitudes (job satisfaction). Organisational citizenship behaviour is proposed as the link between individual attitudes and organisational outcomes.

The results support previous studies, showing that relational coordination positively affects performance in the healthcare setting. However, they also provide support for the underlying principle of the service quality chain, showing that job satisfaction stemming from relational coordination will lead to workers engaging in more organisational citizenship behaviours, ultimately leading to improved patient experience. The findings highlight the importance of this group level competency in fostering individual as well as organisational level outcomes. They also underscore
the need for further research to understand the best ways of organising work in order to support relational coordination within contexts where it is integral to the effective functioning of teams.

**Gender Differences and Predictors of Workplace Deviance Behaviour: The Role of Job Stress, Job Satisfaction and Personality on Interpersonal and Organisational Deviance**  
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Over the years, research has indicated that organisational and interpersonal deviant behaviours are quite common in the workplace, and that 33-75% of employees have been involved in some form of fraud, vandalism, theft, embezzlement, sabotage, and unexcused absenteeism (Harper, 1990). Research in the past decade has illustrated that such damaging, immoral, and critical behaviour at work occurs at shocking rates and have cost organisations billions of dollars annually (Burroughs, 2001).

Workplace deviance behaviour is defined as “voluntary behaviour that violates significant organisational norms and, in so doing, threatens the well-being of the organisation or its members, or both” (Robinson & Bennett, 1995, p.556), and is typically classified into interpersonal or organisational deviance. In the present study, the relationships between job satisfaction, job stress and organisational and interpersonal workplace deviance, the direct and indirect effects of personality are examined. Furthermore, differences in gender and organisational tenure are analysed.

The importance of this study is twofold. Firstly, the majority of studies on workplace deviance have been conducted in the West, while the present study derives its sample from employees at a construction consultancy organisation in Singapore. Secondly, prior studies have not focused on the impact of job stress, job satisfaction and personality in combination with each other; nor have they explored the moderating effect of personality traits on job stress and job satisfaction and workplace deviance.

It was predicted that job stress would positively predict workplace deviance and job satisfaction would negatively predict workplace deviance. It was also predicted that agreeableness and conscientiousness would negatively predict workplace deviance while extraversion would positively predict workplace deviance; and personality traits would have a moderating effect on the relationship between job stress and job satisfaction and workplace deviance. The results suggest that there were gender differences, with males exhibiting higher workplace deviance. Some organisational tenure differences also emerged, with a significant difference in organisational workplace deviance when individuals worked at the company for more than five years compared to those who worked for fewer years, but not for interpersonal workplace deviance. Moreover, job stress positively predicted
deviance, but job satisfaction did not. Extraversion also had positive direct effects on workplace deviance and a significant buffering effect on job stress and interpersonal deviance. Results are discussed in reference to findings from previous research and implications for the management of workplace deviance in organisations proposed.

Workplace Social Capital and Depressive Symptoms in Belgian Companies: a Multilevel Analysis.

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Evidence suggests that different forms of social capital have different effects on health outcomes. Several studies on workplace social capital and health recognize social capital’s multidimensional nature by including some dimensions in their analysis, but none have investigated workplace social capital within an integrated theoretical model combining different dimensional classifications. Using data from the pooled BELSTRESS I and III survey (32 companies, n = 24,402), this study cross-sectionally investigates the influence of workplace social capital on depressive symptoms within an integrated model that consists of three dimensional axes: horizontal-vertical social capital, emotional-instrumental social capital, and individual-contextual social capital. Data were self-reported and the CESD-11 scale was used to assess depressive symptoms. Multilevel statistical procedures were used to account for company effects while controlling for individual-level effects.

Results show that different dimensions of individual workplace social capital (colleague help, colleague interest, supervisor help, and supervisor attention) were negatively and independently associated with depressive symptoms and that, at the company-level, only horizontal instrumental workplace social capital (colleague help) was negatively associated with depressive symptoms over and above the effect of individual workplace social capital.

Significant complex interaction effects were found, such that individual workplace social capital was an important protective factor for depressive symptoms in companies characterized by low levels of workplace social capital, but individual workplace social capital was much less important or even harmful in companies with high levels of workplace social capital. In addition, blue collar employees experienced more depressive symptoms than executives in low social capital companies, but the reverse was true in high social capital companies.

This study extends the existing literature with evidence on the multidimensional, contextual and cross-level effects of social capital on employee health. Future studies should examine whether these findings are applicable to other populations and occupational settings.
Psychosocial characteristics at work as risk factors for long-term cause-specific sick leave

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Objective: A substantial amount of research has shown that psychosocial risk factors in the work environment are related to all-cause sick leave from work. In contrast, little is known about the issue of sick leave due to specific causes. The aim of this study was to identify psychosocial determinants in the workplace of long-term sick leave due to musculoskeletal complaints and mental health problems in a sample of men and women.

Methods: BELSTRESS III was a Belgian epidemiological study on sick leave comprising 2876 workers aged 30–55 years from seven companies. Individual, socio-demographic, physical and psychosocial risk factors were assessed by self-administered questionnaires. Prospective data of registered sick leave during one year were collected. In the case of long-term sick leave (episodes of at least 15 consecutive days) causes were retrieved from the family doctors. Determinants of long-term sick leave due to musculoskeletal complaints and mental health problems were identified through multiple logistic regression analysis.

Results: Of the 518 long-term episodes of sick leave, the cause could be retrieved in 290 cases. There were 95 workers with a long-term sick leave episode due to musculoskeletal complaints and 85 workers with a long-term sick leave episode due to mental health problems. After adjusting for; gender, age, educational level, health behaviours, physical job demands and stress in private life, the results showed that long-term sick leave due to mental health problems but not due to musculoskeletal complaints was significantly related to effort-reward imbalance and borderline significantly to job strain. Bullying was a significant predictor of both outcomes of cause-specific sick leave; these relations remained significant after additionally adjusting for the baseline condition of musculoskeletal or mental health problems.

Conclusion: Long-term sick leave due to mental health problems was to a larger extent associated with psychosocial stress at work than long-term sick leave due to musculoskeletal complaints. However, workers reporting problems of bullying were more at risk for long-term sick leave due to both mental health problems and musculoskeletal complaints.
Stress and Job Performance: The Moderating Role of Presenteeism
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Presenteeism refers to the act of being present at work while being ill. It is associated with productivity losses or suboptimal performance due to the fact that people are at work but are not working to their full potential. Indeed, it has been suggested that excessive attendance can result in illnesses, and consequent negative outcomes for organizations and presentees. However, there is currently very limited knowledge on the consequences of presenteeism for employees’ mental health and work outcomes.

Job stress has been found to present a curvilinear relationship with job performance taking the form of an inverted U-shape suggesting the existence of an optimal level of stress where job performance can reach its full potential known as the Yerkes-Dodson Law. The aim of stress management is to determine how to control stress so as to achieve an optimal level of arousal. However, little is known about presenteeism in the study of job stress and job performance. What happens to employees who exhibit high presenteeism? Does presenteeism have a moderating effect on the relationship between job stress and job performance at all levels of stress? If such an effect exists, does it moderate in a positive or a negative way? Do presentees and non-presentees react in similar ways at an optimal level of job stress? To answer these questions we investigate here the moderating effect of presenteeism on the relationship between job stress and job performance. We analyze whether presenteeism has an aggravating or an ameliorating effect when employees are under or over-activated. Finally, we explore whether presenteeism has a moderating effect when employees tend to experience an optimal stress level.

We gathered data from 402 nurses from hospitals in Turkey through a questionnaire survey in Turkish using psychometrically sound instruments. We employed hierarchical moderated regression analysis with curvilinear interaction terms to analyze the data.

We found empirical support for the inverted U shaped relationship between stress and performance as proposed in theory. However this relationship held only for those who did not engage in presenteeism. We found the opposite shape – a normal U shape curve - for those who practiced presenteeism at work. Based on our findings, we argue that the Yerkes-Dodson Law depicting the relationship between stress and performance is contextually constrained. We call for future studies to test the Yerkes –Dodson Law in different organizational contexts and cultures.
A correlational study between the perception of organizational culture and well-being at work
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This study was born from the understanding of the scarcity of studies analyzing the role organizational characteristics play in workers’ well-being. In order to examine the relationship between organizational culture and well-being at work a sample of 856 police officers completed a cross-sectional questionnaire. The theoretical background of this study is Warr’s (1990) conceptualization of work-related affective well-being and the competing framework of organizational culture from Quinn (1985).

The results of this study show that individuals who perceive an organizational culture profile balanced through four different culture orientations have higher levels of well-being at work, that is, more comfort, enthusiasm, overall affective well-being and job satisfaction as well as lower levels of anxiety and depression.

The evaluation of work stress through an integrated approach: the role of organizational and individual variables
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This study takes the move from the perspective of the integration of work stress evaluation methods, needed in order to contain the common method variance and the effect of individual variables in subjective measures. The aim of this study is to detect the antecedents of psycho-physical symptoms of work stress, in terms of both individual and organizational characteristics, through an integrated approach based on a new scale of mental and physical strain specifically developed by physicians. The study was conducted on health care workers of an Italian organization (n = 410), to whom the scale mentioned above and a subjective assessment instrument were administered.

The analyses show how the presence of prior pathology is a risk factor in relation to the psychological and physical strain. Furthermore, some specific individual characteristics, such as gender, as well as some organizational ones, such as a pathological work/life conflict and workload, are also risk factors in relation to the psychological and physical strain. The analyses also show how other factors such as the age, the consumption of alcohol between meals, the quality of the relations with colleagues, and the characteristics of the workplace are relevant as protective factors. The adoption of an integrated approach allows one to enrich and deepen the evaluation of work stress, highlighting the importance of the inclusion of a specific evaluation carried out by the physician in the broader process of work stress assessment.
Job Satisfaction Mediates the Relationship between Working Conditions and Work-related Substance Use: A Swiss National Study
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In occupational health psychology (OHP), research on the association between working conditions and substance use is scarce (Frone, 2010). Yet, the OHP perspective could arguably contribute to the understanding of work-related substance use, its antecedents, and consequences. We focused on the association between working conditions and work-related substance use, examining the mediating role of job satisfaction.

Using data from the Stress-Study 2010 (Grebner, Berlowitz, Alvarado, & Cassina, 2011), we tested whether stressors (time pressure, social stressors, and physical demands) and resources (job control and social support by supervisor and coworkers) relate to the prevalence of work-related substance use. In addition to the direct link between working conditions and substance use, the mediating role of job satisfaction was examined. Cross-sectional data were collected by phone interviews.

The sample is representative for the Swiss workforce and includes 1006 respondents. Prevalence of work-related substance use attributed to various intentions (e.g., use of substances in order to work in spite of pain) was measured using four items (cf. DAK, 2009). Stressors, resources, and satisfaction with one’s working conditions were assessed using items of the European Working Conditions Survey (EWCS, 2005, 2010). Controlling for sex, age, and industry, analyses revealed positive main effects of time pressure, social stressors and physical demands with work-related substance use. With respect to resources, a negative main effect was found for social support, but not for job control. Employing a bootstrapping approach, the mediating role of job satisfaction was confirmed for all examined associations. The three stressors as well as the two resources were indirectly linked to work-related substance use, via job satisfaction.

The findings suggest preventing work-related substance use by improving working conditions. Stressors should be reduced and resources increased using situation and person-targeted stress prevention as job design and trainings of social competencies (e.g., managing conflicts). However, the degree to which such measures successfully reduce work-related substance use may, to a certain degree, depend on the achieved increase in satisfaction with one’s working conditions. We thus recommend monitoring employees’ self-reported degree of satisfaction with their working conditions.
Engaging identity during change: A longitudinal study on resources, commitment and adaptivity
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Aims: In order to successfully implement organizational change, a crucial aspect is whether the organization manages to maintain affective commitment, as well as behavioural support for the change. The quality of the employee-organization relationship may deteriorate as a result of ongoing change. This longitudinal study combines social identity perspectives with organizational change literature, to examine factors predicting change adaptation over time. The purpose of the study is to examine whether identity-related resources can predict affective commitment and adaptivity during a major reorganization. We examine reciprocal relationships between the quality of leader-member exchange (LMX) relationships and personal resources (meaning-making and organization-based self-esteem -OBSE). In addition, we examine the effects of LMX and personal resources on affective commitment and adaptivity.

Method: The 2-wave sample used for this study was collected from a Dutch police district undergoing reorganization. The first survey was distributed before change was introduced. After one year, when the reorganization was still ongoing, the survey was repeated. The final sample consisted of 580 police officers who completed both surveys.

Results: Structural equation modeling analyses showed that LMX, meaning-making, and OBSE are reciprocally related and positively predict affective commitment and adaptivity over time. Furthermore, we tested whether the direct effect of resources on adaptivity was mediated by affective commitment. However, no support was found for a mediating effect, since affective commitment did not significantly predict adaptivity.

Discussion: The study emphasizes the importance of managing the employee-organization relationship during turbulent times, in order to maintain employee affective commitment and foster adaptation to change. Future studies could include other-ratings of adaptivity and other potential mediators such as work engagement to explain the link between resources and adaptivity. Practically, the study implies that organizations should focus both on top-down interventions (developing leadership-potential) as well as bottom-up interventions (stimulating self-management and resourcefulness in employees) to stimulate adaptation to change.
What do companies tell us about their occupational health and safety practices: An analysis of 100 FT 500 company corporate social responsibility reports

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Introduction: Although the majority of people spend considerable time at work, recent statistics suggest that 270 million occupational accidents (ILO, 2005), and 160 million new cases of work-related illness (WHO, 2010) occur annually. Health is defined by the WHO as “A state of complete physical, mental and social wellbeing and not merely the absence of disease.” Therefore the present situation is considered unsatisfactory.

Organisations commitment to occupational health and safety (OHS) is largely driven by regulation. However, several issues exist with solely adopting such an approach. While legislation has been relatively successful in negating traditional risks, emerging risks pose a greater challenge, with the most effective approach likely to reside at the organisational level. Furthermore, regulation requires a stable legal infrastructure to support it, which is unavailable in many developing countries. Similarly ILO conventions only have legal force if ratified by member states. Many members, both developing and developed, have opted not to sign relevant conventions. Lastly, there is a desire to minimise the legal burden on organisations and thus further regulation is considered a last resort. Corporate social responsibility (CSR) is a supplementary approach, with the potential to further engage organisations. The business case for CSR has lead to its adoption by several organisations, and several conceptual models regarding CSR, naturally include OHS. However, there is little research of this link at the implementation level. To engage organisations, further information is required to assess whether, and how, organisations understand the OHS-CSR link. The present research considered CSR reports from 100 organisations to address this issue.

Method: Organisations were selected from the 500 highest valued companies in 2010 (FT 500), classified by WHO regions and sector using the NACE classification system. A sample was drawn ensuring representation across regions and where possible across sectors. A thematic analysis, guided by a thematic framework based on the consideration of several CSR guidance tools, highlighted organisations’ material CSR-OHS issues.

Findings: Findings suggest a broad understanding that CSR encompasses OHS, as most themes in the thematic template were considered. However, differences were apparent at the subtheme level, and across regions with developed regions showing a higher level of engagement. Sector analysis was hampered by sample size although some trends emerged. These findings are discussed, considering legal regulations, regional familiarity with CSR and culture, as well as possible methodological explanations.
Conclusion: Overall this research presented mixed findings, however a basic understanding that CSR includes OHS is apparent. This paves the way for future work to develop idiosyncratic tools and guidance relating to OHS under CSR, further driving OHS management.

Core Values that simultaneously support Health, Safety and Well-being at Work and Organisational Development
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Case studies and anecdotal evidence suggest that the broader organisational culture can either support or hinder the development of specific aspects of organisational culture, such as “safety culture”. We assumed that health, safety and well-being (HSW) promoting cultures have more in common than is often realized, and that a conceptual disconnect with the broader organisational culture may imply a handicap for their development.

Our research focused on the role of core values as key aspects of the broader organisational culture, and their meaning for (the development of) a HSW promoting culture. Our central research question was: Can core values be supportive to the development of a HSW promoting culture? And if so, what core values?

The research was carried out in two phases, each comprising: a literature review, case studies and an expert/stakeholder workshop. The nature of the research process was to some extent iterative.

We identified three clusters of core values that support a HSW promoting culture. Two clusters are dominantly ethical in nature, while the third cluster is chiefly ratio and business oriented. The first cluster is characterized by a positive attitude towards (individual) people and their ‘being’; it comprises the values trust, participation and heedful organizing. The second cluster is characterized by responsibility for actions planned or undertaken. This cluster comprises the values responsibility/sustainability and justice. The third cluster is characterized by critical reflection, creativity and renewal and comprises the values (individual and organisational) resilience and growth.

The implementation of these values is likely to support a HSW promoting culture, but also business development and corporate social responsibility. The (clusters of) core values identified can therefore be regarded as vital success factors for the development of a HSW promoting culture while they also have the potential to increase the strategic meaning of HSW for organisations, and to strengthen top management commitment.
Corporate Social Responsibility (CSR) as defined by the European Commission as the integration in a company of social and environmental concerns, interacting with their stakeholders (workers, community, NGOs, consumers…). A broad infrastructure in the field of CSR has been developed in recent years which include more than 100 instruments, standards, regulations and institutions (Waddock, 2008; McKague and Cragg, 2007). CSR instruments are used to assess companies and to improve their social and labour performance. Their relevance has rapidly increased due to worldwide accepted initiatives such as the Global Reporting Initiative (GRI), the United Nations Global Compact (UNGC), the Social Accountability 8000 (SA8000) and the ISO 26000 guide. Most of them include requirements to promote occupational health and safety at work, outlining good psychosocial practices (i.e. aspects relating to work organization and management) which are expected within a company.

This research begins with an extensive review of scientific and grey literature about CSR instruments. Afterwards, key instruments were thematically analyzed (Braun and Clarke, 2006), extracting the main themes of the areas related to Occupational Health and Safety in order to detect which ones were more relevant. Results of the thematic analysis show that Occupational Health and Safety received important coverage in these instruments, however psychological as well as psychosocial aspects had a low coverage.

This paper aims to inform occupational health researchers and practitioners about the most accurate CSR instruments to collect OHS information within companies. It will introduce and explain various CSR instruments and tools, discuss their different goals, and on the basis of the thematic analysis, the most relevant instruments to OHS researchers will be identified.

As long as Occupational Health psychologists are not familiar with CSR instruments and tools, collection of information from these sources will remain limited. As a result of this the opportunity to promote psychological well-being at work through CSR practices is not being tapped adequately. In this context it is becoming more necessary to link OHS and CSR research particularly to manage psychosocial risks at work.

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Using the Job Demands-Resources Model to Predict Health and Job Satisfaction in New Graduate Nurses.
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Employee self-reported health and job satisfaction are important determinants of nurse retention, a chief concern during a nursing shortage. The Job Demands-Resources (JD-R) model was developed to help explain the workplace conditions and the mechanisms through which they contribute to employee well-being.

This aim of this study was to use the JD-R model to increase our understanding of how new graduate nurses' work environments influence their health and job satisfaction. We hypothesized that emotional exhaustion would mediate the relationship between job demands (supervisor and co-worker incivility) and self-rated health, a health impairment process, and that work engagement would mediate the relationship between job resources (authentic leadership and supportive community) and job satisfaction, a motivation process. We also included a direct path from a personal resource (psychological capital) to both mediating variables.

Path analysis using structural equation modeling techniques was used to test the hypothesized model in a sample of 342 nurses with less than two years of work experience in acute care hospitals. The hypothesized model did not produce an adequate fit with the data, however, with the addition of three theory-driven paths (two direct paths from the job resources to job satisfaction, and one from emotional exhaustion to job satisfaction) the model fit statistics revealed an adequate fit ($\chi^2 = 15.68$, $df = 14$, $IFI = 0.998$, $CFI = 0.998$, $RMSEA = .019$).

Supervisor and co-worker incivility directly influenced emotional exhaustion ($\beta = .27$ and .13), which in turn influenced global health ($\beta = -.30$). Community directly effected work engagement ($\beta = .23$) and job satisfaction ($\beta = .33$), while authentic leadership only influenced the latter ($\beta = .19$). Work engagement was correlated with emotional exhaustion ($r = -.31$) and influenced job satisfaction ($\beta = .27$). Finally, psychological capital had a direct effect on both emotional exhaustion and work engagement ($\beta = -.25$ and .19) both of which influenced job satisfaction ($\beta = -.25$ and .27, respectively). Our results suggest that negative leadership behaviours are more destructive than negative co-worker behaviours in the health impairment process, while positive co-worker behaviours are more important in the motivation process. These findings can help inform healthcare initiatives directed at improving workplace factors related to the retention of new graduate nurses.
Work-related health attributions as a mediator of the effect of work climate on subsequent employee attitudes and behavioural intentions
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Previous research has indicated that employee health may be negatively related to subsequent work-related attitudes such as job satisfaction and organizational commitment, as well as positively related to turnover intentions (see Göransson et al., 2009 for an overview). It has also been suggested that the link between health and such outcomes may be more closely examined and further understood by the investigation of how employees actually believe that work affects their health, i.e., whether employees attribute actual or potential health problems to their work (Göransson et al., 2009). Such work-related health attributions have been found to be negatively related to employee attitudes and behaviours, even when factors such as employee health and work climate are taken into account. It has also been found that indicators of a detrimental work climate relate negatively to attitudes and behaviours independently of the effect of health.

The present study represents a partial replication and extension of previous research, by testing the effect of work-related health attributions over time, as well as testing whether these attributions mediate the effects of work climate factors and health complaints on employee work attitudes. The model proposes that work climate and employee health predicts subsequent work-related health attributions, which in turn predict subsequent attitudes and behavioural intentions (job satisfaction, organizational commitment, and turnover intentions).

This was investigated in a sample of Swedish accountancy firm employees, who participated in three waves of a longitudinal study conducted in May 2008, October 2008 and October 2009. A macro for SPSS developed by Hayes and Preacher (http://www.afhayes.com/spss-sas-and-mplus-macros-and-code.html, 2011) was used which allowed for the simultaneous testing of multiple predictors (and mediators if relevant), the inclusion of control variables, and for the estimation of standard errors and confidence intervals for the indirect effects by using a bootstrapping technique.

The preliminary results indicate that all predictors were significantly related to work-related health attributions. The direct effect of work-related health attributions on two of the outcomes was also significant, the exception was organizational commitment. More importantly, the indirect effects of the predictors on all outcomes except organizational commitment via work-related health attributions were significant, i.e., the 95\% confidence intervals did not include zero.

The results indicate that work-related health attributions may play an important role in how work climate variables and health relate to subsequent attitudes and behavioural intentions.
Does job satisfaction predict early return to work after cardiac intervention?

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Background: Return to work (RTW) after cardiac event is a complex and multidimensional process which seems to be more influenced by psychosocial factors than by a patient’s clinical status. Employees’ appraisal of work environment, which is likely reflected in job satisfaction, might affect behaviour and decision regarding RTW. The aims of this paper were to analyze a) whether job satisfaction predicted early RTW in Italian employees sick listed after cardiac intervention and b) whether specific components of job satisfaction were stronger predictors for early RTW than other components.

Methods: Participants were 83 consecutive patients who underwent angioplasty or cardiac surgery (coronary bypass surgery or cardiac valve surgery) and were admitted to a rehabilitation hospital for cardiac rehabilitation in Northern Italy between 2007 and 2010. The data were collected at baseline during the cardiac rehabilitation and 6 months later. Job satisfaction was assessed using the Job satisfaction scale of the Occupational Stress Indicator (OSI). We defined early RTW as returning to work within 2 months after cardiac intervention. We used logistic regression analyses to study the association between job satisfaction at baseline and early RTW at follow-up, adjusted for socio-demographic, medical (type of cardiac intervention, ejection fraction) and psychological factors (depression, locus of control, illness perception).

Results: Compared to low job satisfied workers, employees with high job satisfaction were more likely to return early to work, with an odds ratio (OR) of 5.92 (95% CI, 1.69-20.73; p < .001). Among the job satisfaction components, satisfaction for organizational processes was the most strongly associated with early RTW (OR = 4.30, 95% CI = 1.21-15.03; p < .05).

Conclusion: To the best of our knowledge, this is the first prospective study that investigated whether job satisfaction predicts time to RTW after cardiac intervention. The results suggest that when employees are satisfied with their job and positively perceive their work environment, they will be more likely to RTW early, independently of socio-demographic, medical or psychological factors. Interventions aimed at preventing long-term sickness absence should consider job satisfaction and psychosocial job factors.
Work-related and psychological determinants of job satisfaction among hospital professionals: a structural approach

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Literature on job satisfaction differentiates between two types of interdependent determinants: work-related and psychological factors. However, little is known on how these determinants are structured and impact job satisfaction, if this structure is stable, and if not, how it varies according to organizational contexts or professional specificities.

This paper aims at studying the possible structures between work-related and psychological factors, impacting job satisfaction among five types of professionals working in a university hospital environment. Paper and web-based job-satisfaction questionnaires were sent to all collaborators of the Lausanne University Hospital (n = 10,070), in the fall of 2011. Overall job satisfaction was assessed as well as three work-related determinants (workload, evaluation of the supervisor and level of institutional membership) and two psychological ones (burnout, and self-fulfillment). Structural equation modeling analyses using a multi-group technique were realized on data (n = 5008). Five types of professionals (physicians, nurses, laboratory staff, administrative staff and psycho-social workers) were considered and entered as groups in the analyses.

Results indicate first that a model in which all the variables impact directly job satisfaction fits the data less well than a model in which direct and indirect links between variables are entered. The expected model confirms that, except for institutional membership, work-related factors are significantly linked with psychological factors. Secondly, results reveal a stable structure between some of the variables impacting job satisfaction across profession types. More particularly, the impact of workload on job satisfaction was mediated by burnout and evaluation of the supervisor across all the professions. Moreover the latter variables, with self-fulfillment had often direct effects on job satisfaction. Thus, burnout, evaluation of the supervisor and self-fulfillment appear to be central elements of the model. However, some relationships seem to be profession-specific. It is the case for the link between workload and self-fulfillment, which is significant for nurses and laboratory staff but not for physicians. It is also the case for the links between institutional membership and job satisfaction or evaluation of the supervisor, which appear to be significant for physicians, laboratory and administrative staff, but not for nurses.

Even if relationships between job satisfaction and some determinants seem profession-specific, a central node of variables is constantly associated with job satisfaction across hospital professions. Future research is warranted to generalize this observation to other institutional contexts.
The Role of Character Strengths-Related Person-Job Fit for Positive Experiences at Work and Calling
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The fit between a person and the work environment has often been highlighted in psychological research as being decisive for positive experiences at work, like job satisfaction (Verquer, Beehr, & Wagner, 2003) and pleasure at work (Edwards, 1996). The importance of character strengths-related person-job fit for positive experiences was highlighted as well by postulating that activities congruent with the individual's character strengths are most valued, satisfying, engaging, and meaningful (e.g., Park & Peterson, 2007; Peterson, Park, & Seligman, 2005; Seligman, 2002). Findings from two different studies with participants employed in various occupations will be presented showing the role of character strengths-related person-job fit for positive experiences at work (i.e., job satisfaction, pleasure, engagement, and meaning at work), and seeing the job as a calling.

In both studies participants filled in measures for character strengths as traits, the applicability of character strengths at work, and positive experiences at work. In study 2 participants also rated the extent to which they see their work as a calling and their co-workers (n = 111) judged the applicability of the character strengths at work as well. The latter allowed controlling for common method variance in the examination of the relationships.

Both studies show that the fit between an individual's character strengths and those demanded at the workplace are positively related to the degree of positive experiences at work (i.e., pleasure, engagement, meaning, job satisfaction). Additionally, there seems to be a critical number of character strengths applied at work: Those individuals applying at least four of their character strengths had higher scores in positive experiences compared to those applying none to three. Moreover, study 2 shows that only those applying four or more of their character strengths described their jobs as a calling. Finally, results show that the effect of character strengths-related person-job fit on calling is partially mediated by positive experiences indicating that the degree of fit even has two modes of action on calling – direct and indirect through the enhancement of positive experiences. In the light of the two studies, a positive workplace is one that fosters the individuals' character strengths (i.e., allows for their application) and consequently facilitates positive experiences and calling.
Work demands and impact on life satisfaction in emergency medical service: humour as the solution?

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Objective: We investigated the relationship between psychosocial work impact and life satisfaction in emergency medical service workers. Additionally we wanted to know if and how different coping strategies like avoidant-, problem-, emotion-oriented coping and humour influence this relationship or have an effect on life satisfaction. We hypothesized a negative relationship between psychosocial work impact and life satisfaction. Secondly, we hypothesized that this relationship is moderated by certain coping strategies. The use of humour for example is expected to weaken the relationship between psychosocial work demands and life satisfaction. Finally, we expected a direct influence of some coping strategies on life satisfaction. One of the expectations was a positive relationship between humour and life satisfaction.

Method: German emergency medical service workers (n= 105) filled in a set of questionnaires consisting of: socio-demographic questions, four sub-tests of the Copenhagen Psychosocial Questionnaire (COPSOQ), the Satisfaction with Life Scale (SWLS), the Coping Humour Scale (CHS) and the Coping Inventory for Stressful Situations (CISS).

Results: Firstly, we found a negative relationship between psychosocial work impact and life satisfaction. None of the coping strategies moderated the relationship, but one, emotion-oriented coping, had a strong positive relationship with life satisfaction. We also found a strong negative correlation between emotion-oriented coping and psychosocial work impact.

Discussion: The strong negative correlation between psychosocial work impact and life satisfaction supports the hypothesis that a higher psychosocial work impact is associated with lower life satisfaction. Our results indicate that humour was not a moderator between psychosocial work impact and life satisfaction. This fact could not be explained by an under-use or non-use of humour, because the results show that this sample was using humour in a coping way. Finally, our results suggest that it is plausible to classify humour as a form of avoidant-oriented coping.
Socio-psychological determinants of self-protective behaviour of medical personnel at early stages of professional activity
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Background: Public health care in Russia is normally understood as protecting the health of the whole society. It implies the availability and quality of medical service, personal and governmental involvement in providing for individual health. Surprisingly, little attention is paid to the proper health care of medical personnel themselves, while their physical and emotional health are essential for quality of the medicine and health of the population in general. This paper presents the findings of a study of socio-psychological determinants of self-protective behaviour of medical personnel at early stages of professional activity. It is based on statistical data gathered from examining 88 young surgeons, interns of surgical departments and students who work as paramedics during their studies.

Methods: Both qualitative and quantitative research methods were applied. In the first stage 68 participants went through the questionnaires, which consisted of seven parts. Later 20 participants (7 young surgeons, 8 interns and 5 students) took part in narrative research, which helped to fill the gaps left during the first stage.

Results: The results indicated that only 15% of respondents never had any occupational trauma. 40% of the respondents reported about 2 traumatic incidents in the last year, 45% recognized 3-7 injuries per year. Men were found to have a tendency to have more occupational trauma (66% of injuries). 30% had trauma during the operation time (cut with surgical tools or needle puncture), 45% of trauma injuries were found to be connected with injection tools, especially with utilization of syringes. An unexpected finding was that 80% of traumas were not registered in the trauma register (official record of injuries). “We do not have time to do it, we prefer to hope that everything will be ok” was the main reason reported by the medical doctors for not reporting their trauma. Assessment of individual psychological features showed that the amount of traumas was linked to the level of self-regulation (-0.665), emotional exhaustion correlates with satisfaction with equipment (0.582), smoking correlates with the level of independence (-0.611). The analysis showed that the self-protective behaviour of the personnel is determined by social and psychological decisive factors (determinants) such as specific features of professional activity, technical and recreational facilities, degree of emotional burn-out syndrome and individual psychological features of the personality.
A resilience intervention on burnout, patient safety and intention to leave among Dutch medical residents
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Introduction: Medical residents (doctors in training to become medical specialists) are in a vulnerable position. While still in training, they are (partly) responsible for patient care. They have a dependent relation with their supervisor and have low decision latitude. In general medical residents are committed and sometimes overcommitted to their job (‘a vocation’). Furthermore, they frequently experience a double load in work and private life (e.g. starting a family). Previous studies showed that this combination of factors poses medical residents at increased risk for burnout and drop-out of their training. Exhaustion is an increased risk to make medical mistakes. Burnout, medical mistakes and quitting training might be prevented if medical residents are more resilient and work in a resilient system (of processes, supervision and private life).

The objective of this study was to develop a resilience intervention addressing burnout, patient safety and intention to leave among medical residents. The intervention was designed in close collaboration with medical residents (n= 40), medical doctors (n= 30) and medical specialists (n= 15) of a regional hospital for general curative care. A resilience model for health care was designed, combining knowledge from individual resilience and system resilience literature. To increase individual and system resilience we focused on four abilities: responding (to the actual), monitoring (the critical), anticipating (on the potential) and learn (from the factual). We hypothesized that the intervention would result in increased individual resilience, increased system resilience, as well as increased system ability to promote individual resilience.

Method: An Intervention Mapping Protocol was used to design the intervention iteratively and in collaboration with the target group. A combined quantitative and qualitative approach was chosen for the effectiveness study. At baseline and after completion of the intervention, medical residents and their supervisors filled out questionnaires on several key indicators of resilience and the outcomes. Interviews and focus group meetings took place before and after implementation of the intervention.

Results: At the conference we will be able to present a resilience questionnaire, an integrated resilience model for health care, the design of the intervention and findings from the implementation and evaluation phases.

Discussion: Individual resilience interventions have proven to be successful, as well as have system resilience interventions. Until now there has not been an intervention that integrates lessons learned from both fields. The present study may contribute to filling this gap.
May the force be with you: A multilevel approach on resources that enhance team resilience
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There is a need to understand better the nature of team resilience and its team and organizational main predictors. In this study, we analysed antecedents of team resilience as a collective psychosocial construct. Specifically, the authors hypothesized that (a) team-level resources (i.e., collective efficacy, transformational leadership, and teamwork) and (b) organizational-level healthy practices would be positively related to team resilience. In order to achieve these objectives, we conducted multilevel regression modelling, using data from 238 work teams (team level) from 73 organizations (organizational level). Results confirmed our hypotheses, the standardized coefficients were: collective efficacy (.25; p<.00), transformational leadership (.20; p<.00), teamwork (.30; p<.00) and organizational strategies (.60; p<.00). Moreover, 73.5% of the variance in team resilience was explained by team level variables and 26.5% by organizational ones. This study provides evidence that organizations can boost team resilience by means of specific team and organizational resources. Thus, these results must be taken into account for practitioners and managers in order to plan how to manage their resources within the organization.

Emotional labour and wellbeing in nurses: testing the triple match principle
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The term “emotional labour” refers to the effort involved in managing feelings when the work role specifies that particular emotions should be displayed and others should be hidden (Morris & Feldman, 1996). Although emotional interactions with customers or service users can be satisfying for employees, there is strong evidence that sustained emotional labour is detrimental to wellbeing. Emotional labour is a fundamental part of nursing, but little is yet known about its impact on wellbeing and the factors that might protect or exacerbate its negative effects for nurses.

This study utilises the job demand-resources model (Demerouti et al., 2001) to examine relationships between emotional demands and strain in nurses. The triple-match principle indicates that the likelihood of finding an interaction between job demands and resources in predicting strain is increased when the three variables are closely matched within either the physical, cognitive or emotional domains (Chrisopolous, Dollard, Winefield & Dormann, 2010). This study tests this principle by examining the role played by emotional support and emotion-focused coping in the relationship between emotional demands and both emotional exhaustion and strain-based work-life conflict.
Three hundred and fifty-one nurses completed an online questionnaire. Scales developed by Zapf et al. (2001) measured emotional demands. Maslach et al’s (1996) measure of emotional exhaustion and Carlson et al’s (2001) strain-based work-life conflict scale were utilised. Emotion-focused coping was measured by the scale developed by Carver et al. (1989). Emotional support was assessed by a measure developed for the study.

Significant positive relationships were found between emotional demands and both emotional exhaustion (p<.001) and work-life conflict (p<.01). Emotional support was negatively associated with emotional demands (p<.01) and emotional exhaustion (p<.001) and work-life conflict (p<.01). Emotion-focused coping was positively related to emotional demands and emotional exhaustion (both p<.01) but no significant association was found with work-life conflict. Some evidence was found that emotional support moderated the relationship between emotional demands and emotional exhaustion (p<.001), but evidence for the buffering role of emotion-focused coping was weaker (p<.05).

The findings of this study highlight the negative impact of emotional demands experienced by nurses on work-related wellbeing that appears to extend to the work-home interface. Some support for the triple-match hypothesis was also found in that emotional support moderated the positive relationship between emotional demands and emotional exhaustion. Further research is required to examine the types and sources of social support that are most beneficial in helping nurses manage the emotional demands of their work.

Violence at work: ‘Normalised’ among a sample of those working with vulnerable young people in the UK

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Background: Internationally, violence and aggression within the work environment is known to be a significant problem (Brooks et al., 2010) and this can impact on both individual and organisational outcomes. There is a general recognition that certain occupational groups are at an increased risk of encountering work-related violence and aggression with employees working in occupations dealing with substance abuse, mental health issues, learning disabilities, or with young offenders being at an increased risk.

In order to implement strategies for managing violence within the workplace, a comprehensive knowledge of risk factors, incidence and impact must be clarified. To date, research has been dominated by survey studies and very little attention has been paid to employee perceptions and attitudes towards aggression experienced through work.
Aims and Method: A qualitative approach was utilised to explore participant experience of work-related violence and the impact of this on their psychological health. Semi structured interviews were undertaken with nine individuals who worked with vulnerable young people in a number of areas including education and the youth offending unit. All interviews were recorded and transcribed verbatim. The data were analysed using Thematic Analysis as described by Braun and Clarke (2006).

Results: Participants described a number of violent incidents which occurred in the workplace incorporating both physical and verbal abuse. Not all incidents of violence were reported to management. Workers who were exposed to repetitive violence at work tended to describe it in a rather matter-of-fact way indicating that the violence has become ‘normalised’ as “just part of the job.” Concern was expressed regarding levels of training, with current measures described as ‘inadequate’. The long-term effects of work-related violence included; frustration, worry, distress, anxiety, stress and feeling exhausted and drained.

Conclusion: Exposure to violence within the workplace was viewed as an accepted aspect of work among this sample of care workers indicating that it has become ‘normalised’ and as such, it is less likely to be reported. The true nature and extent of antisocial behaviour encountered at work may therefore be hidden. Antisocial behaviour can act as a barrier to effective engagement at work and employers and practitioners throughout Europe therefore have a shared interest in preventing work-related incidents.

Horizontal Bullying Against Nursing Students: A Turkish Experience
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According to the bullying literature the prevalence of bullying and harassment in the health sector workplace is a well known problem and the risk of being subjected to psychological violence among nurses is three times higher than other professional groups in the service sector (Keely, 2002; Celebioglu, et al, 2010). Also Ferns and Meerabeau (2007: 437) quote that nursing students have the highest risk of experiencing aggression because of inexperience, frequent ward changes and the challenge of meeting new environments. Nursing students are exposed to horizontal (negative behaviour directed from colleagues on the same level) bullying and harassment in nursing school and workplace. Randle (2003: 395) indicates that bullying was found to be commonplace in the transition to becoming a nurse; students were bullied and also witnessed patients being bullied by qualified nurses. This means that if the student is socialized into a nursing culture that accepts bullying as a routine practice, then the results can be destructive (Cooper et al, 2011). Magnussen and Amundson (2003) in their U.S study identified that some nursing instructors actually impede their educational experiences, undervalue nursing students, or treat students in uncaring ways. In Turkey, Celik and Bayraktar (2004) investigated all types of abuse in the nursing
school and found that students experienced high rates of verbal abuse in addition to academic, physical, and sexual abuse.

This study aims to analyze the horizontal bullying and harassment experiences of nursing students’ in various nursing schools in Turkey. To estimate bullying at nursing school we used a short version of the Negative Acts Questionnaire that was adapted according to the earlier studies on bullying against nursing students particularly those conducted by Cooper et al (2011), Ferns and Meerabeau (2007), and Celik and Bayraktar (2004). Data were collected by means of anonymous self-reported questionnaires. A total of 370 nursing students participated in the study, among whom 222 respondents (60%) reported that they had experienced work related bullying behaviours at daily and weekly frequencies during the last six months. A majority of the students reported that clinic nurses were the most frequently source of bullying behaviours (70.8%). Some of the students denoted that they had been exposed to bullying behaviours from the Lecturers (29.5%), and the School (29.2%) as well.

A systematic review of studies on bullying and harassment in nursing school demonstrate that in spite of different cultures, countries, and research designs, and settings, high level of workplace bullying and harassment is a problem for nurses and their responses to abuse are similar and include; anger, anxiety, guilt, self-blame, and shame. Our findings also show that nursing students who experienced bullying behaviours felt anger and lost their concentration, their social life was affected badly, and they even thought of leaving the profession as a consequence. In addition, in contrast to previous studies on bullying in nursing education, this study shows that students preferred active responses to cope with bullying instead of using unhealthy and passive coping behaviours which were found in previous studies. The result indicates that the latest studies and some court cases have a good effect on people’s comprehension of bullying as a work life problem.

Non-transitory nature of mobbing: Ours workers tutelage
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Introduction: This study refers to the mobbing situation in Italy and as a consequence the commitment of INAS-CISL in support of workers. INAS-CISL is a social institution present in important countries, including Switzerland, and assists workers and their families in social security completely free of charge. With mobbing being a cause of psycho-physical pathologies INAS attends to workers protection. The current economic situation, the increasing loss of jobs are affecting the health of workers and their family.

Research Grounds: Thousands of mobbed workers have contacted the INAS listen-points for help. To carry out this research the operators interviewed many of these and decided to deepen the analysis of the problem by demonstrating the
non-transitory nature of mobbing but also its potential to cause radical changes in workers lives and its irreversible and often dramatic consequences.

Methodology: Different questionnaires have been used for workers redundant or at work; questions regard: relationships in the company, aspects tied to the kind of harassment suffered, social status in the personal and family relationships; economic difficulties generated by the situation, psychophysical conditions and comments by the worker about his/her experience. Semi-quantitative information was gathered and analyzed by a team of psychologists, sociologists and trade unionists.

Results: Among the most significant data showed: 39% of the interviewed workers changed their job type, 28% were separated/divorced from their spouse, 54% isolated themselves from friends, 33% faced economic problems, 49% suffered from various psycho-physical pathologies, 75% had professional demotion, 40% had stopped working, 53% had turned to the courts and one person interviewed had committed suicide.

Conclusions: Our results confirmed previous ones and also provided new surprising elements. It is particularly useful to evaluate the “State of Self”of the mobbed person and the risks he/she could encounter. Working not only satisfies ones economic needs, but also provides a social status that allows the individual to express themself. In mobbing situations work can become a source of great suffering and life changes.

Acts of offensive behaviour and risk of long-term sickness absence in the Danish elder-care services: a prospective analysis of register-based outcomes

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Background: Acts of offensive behaviour have been identified as an increasingly serious issue within health care services. Offensive behaviours can manifest themselves as bullying, threats and/or violence, or sexual harassment. In a work-setting, acts of offensive behaviour should be expected to have potentially harmful effects on the psychological well-being of individual employees, as they may be considered as offenses to the ‘selves’ of the affected employees. Research has suggested that these acts of offensive behaviour are associated with adverse outcomes such as low job satisfaction, turnover intentions and actual turnover, as well as adverse mental health outcomes etc. Thus, the purpose of the present study was to investigate associations between acts of offensive behaviour (bullying, threats, violence, and sexual harassment (measured as unwanted sexual attention) and the risk of long-term sickness absence for eight or more consecutive weeks among female staff in the Danish elder-care services.
Methods: The associations were investigated using Cox’ regression analysis. The data consisted of a merger between Danish survey data collected among 9520 female employees in the Danish eldercare services and register data on sickness absence compensation.

Results: Compared to unexposed employees, employees frequently exposed to bullying (HR=2.33, 95%CI: 1.55-3.51), threats (HR=1.52, 95%CI: 1.11-2.07), and violence (HR=1.54, 95%CI: 1.06-2.25) had significantly increased risk of long-term sickness absence when adjusting for; age, job function, tenure, BMI, smoking status, and psychosocial work conditions. When mutually adjusting for the four types of offensive behaviours, only bullying remained significantly associated with risk of long-term sickness absence (HR=2.26, 95% CI: 1.50-3.42). No significant associations were found between unwanted sexual attention and risk of long-term sickness absence.

Conclusions: Results indicate that prevention of bullying, threats, and violence may contribute to reduced sickness absence among elder-care staff. The results furthermore suggest that work organizations should be attentive on how to handle and prevent acts of offensive behaviour and support targets of offensive behaviours.

Peculiarities of stress and bullying in the workplace

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Introduction: Bullying at work has been extensively investigated in the last years because of its major impact on health and work organization. It is a well-defined phenomenon belonging to a wider range of psychosocial risk factors. The aim of the study is to highlight the peculiarities of bullying and other occupational stress cases in a sample of patients seeking health care at our Centre.

Methods: 100 subjects were selected: 48 were diagnosed with bullying-related disorders (Sample 1) and 52 were diagnosed with disorders associated with work organization and interpersonal malfunctions not ascribable to bullying (Sample 2). Data regarding main socio-demographic and occupational variables, main occupational issues, and health outcomes were compared.

Results: Participants mainly consisted of women (52.1% S1; 69.2% S2) with a similar average age (42.5; 45), medium-high education (76.3%; 81.5%), white collar workers (47.9%; 63.5%), with higher percentage of managers in S1 (27.1% vs 13.5%). Private enterprises are prevailing specially in S1 (81.3%; 59.6%; χ² = 5.6; p <0.05) above all in industrial sector in S1 (22.9%) and in health care in S2 (19.2%). At equal company seniority (13 and 12 years), duration of occupational problems is significantly longer in S2 (5 years) than in S1 (2.8 years) (t = 2.4;
p<0.05). Personal offence is the negative act most frequently reported by S2 (53.1%) while demotion is reported more by S1 (67.7%). Negative acts are more frequently originated by superiors only, especially in S1 (75.0% vs 56%). In both samples the more frequent antecedents to the negative situation are company organizational changes (36.2%; 40.4%). Change of supervisor (17.0% vs 0.0%) and organizational conflicts (23.4% vs 6.4%) are reported more in S1 while assignment in a new workplace is reported more in S2 (23.4% vs 4.3%), as antecedents to the negative situation ($\chi^2 = 20.8; p <0.01$). Symptoms reported by approximately three-quarters of participants of both samples, are asthenia and sleep disorders; with half of participants reporting mood troubles. S1 report significantly higher frequency of depressive symptoms. Participants with bullying-related disorders are more frequently on sick leave than others (35.4% vs 11.5%; $\chi^2 = 14.6; p <0.05$).

Discussion: The present work confirms the impact of bullying at work focusing also on other relevant cases of a different nature, involving work organization and interpersonal relations that may produce severe health outcomes. Hence the peculiarities of all such cases are of utmost importance in view of targeted actions and prevention measures.

Course of PTSD symptoms following workplace robbery: the role of gender and age in a sample of bank employees
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Introduction: Victims of workplace robbery can report psychological distress and Post-Traumatic Stress Disorder (PTSD). The role of gender and age in modulating psychological responses to trauma is unclear; however, women seem to face a higher risk of developing PTSD then men. We aimed at assessing whether gender and age is associated to trends in PTSD symptomatology in a group of bank employees, victims of workplace robbery.

Methods: We report an interim analysis of a psychological support program for 100 victims of 30 different robberies occurring in 2010 within a large Italian banking corporation. The intervention consisted in the first psychological support session – based on the Psychological Debriefing – which occurred within 7 days post-robbery (T0). The follow up assessment took place 45 days after the support encounter (T1). In both interviews the Impact of Event Scale (IES) was administered to assess the course of post-traumatic reactions. We administered the Post-traumatic Checklist (PCL) for PTSD diagnosis at the follow-up assessment only.
Results: The sample consisted of 49 males and 51 females (mean age=40.9 years). IES mean score at T0 was 32.31 (SD=19.02). Participants reported a statistically significant reduction in IES scores during the follow-up period ($\Delta_{T0-T1}=14.14$; $p<.01$). Women reported higher IES scores (T0: $\Delta_{M-F}=14.99$, $p<.01$; T1; $\Delta_{M-F}=10.8$, $p<0.01$) but the change rate was not significantly different across gender. The association between gender and IES scores was robust when adjusted for; age, work seniority, number of previous workplace robberies, subjective perception of severity of the last robbery, physical confrontation and injuries reported during the event. At follow up, women reported higher PCL scores ($\Delta_{M-F}=5.47$; $p<0.01$); Five subject (4 women) reached the PCL cut-off point for PTSD diagnosis. Age was not associated to IES and PCL scores.

Conclusion: Women reported higher psychological distress after the bank robbery. Post-traumatic symptoms decreased along the follow up period. However symptoms persisted at follow up in almost 10% of women. The clinical implications of our findings should be evaluated with longer follow up periods and larger samples, in order to also consider gender-specific support programs.

Transformational Leadership and workplace bullying: The moderating role of interactional intraunit justice climate. 
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This study examined the linkage between transformational leadership and workplace bullying, and examined the moderating influence of interactional intraunit justice climate; this is, the manner in which teammates treat one another. On the basis of the literature, it was hypothesized that (a) transformational leadership is negatively related to workplace bullying, (b) interactional intraunit justice climate is negatively related to workplace bullying, and (c) interactional intraunit justice climate moderates the relationship between transformational leadership and workplace bullying. The hypotheses were tested with self-report data gathered from a Spanish sample of more than 1500 employees from a variety of different jobs.

The results of moderated regression analyses showed that interactional intraunit justice climate moderates the relationship between transformational leadership and workplace bullying. As expected, low levels of workplace bullying were maintained when transformational leadership was high, however, low interactional intraunit justice climate led to increased workplace bullying when transformational leadership was low. These results suggest that positive interactional intraunit justice climate is especially beneficial when low levels of transformational leadership exist. These findings imply the desirability of not only promoting transformational leadership within organizational settings, but also that of positive
interactional intraunit justice climate in order to prevent and intervene against workplace bullying.

**Identifying line manager behaviours for effective return to work following sick leave**

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Background: Evidence suggests that line manager behaviours have a strong influence on employees’ health and well-being outcomes (e.g. Skakon et al, 2010). Studies also suggest that line managers play a vital part in the return to work of employees following long-term sickness absence. However, few have examined specific line manager behaviours associated with managing an employee back to work following long-term sick leave.

This study presents data using a newly-validated questionnaire on line managers’ return-to-work behaviours. It was hypothesised that employees who rate their managers as exerting more positive return to work behaviours are likely to return to work earlier (hypothesis 1). It was further hypothesised that positive line manager return to work behaviours will be associated with increased employee work productivity, job satisfaction and well-being following initial return to work (hypothesis 2) and over time (hypothesis 3).

Method: An online questionnaire link was emailed to employees who were about to return to work following sick leave due to either stress, depression or anxiety; back pain; cardiovascular heart disease or cancer. Employees were recruited from organisations by human resources or occupational health and through charities involved in rehabilitation. Time 1 data were collected from employees within six weeks of returning to work and Time 2 data was collected six months later. Measures included the new Line Manager Behaviours to Support Return to Work (62 items); Work Limitation Questionnaire (Lerner et al; 1998); Job satisfaction scale (Nagy; 2002); self-rated job performance scale (1 item, Bond and Bunce; 2001); General Health Questionnaire (Goldberg; 1972) and socio-demographic data.

Analysis: Stepwise regression analyses were run to examine return to work outcomes cross-sectionally (Time 1 data) and longitudinally (Time 1 to Time 2).

Results: A total of 359 employees responded to the survey at Time 1. Most employees had been on sick leave due to stress, depression or anxiety (58%). A total of 115 employees responded to the T2 questionnaire. Time 1 data analyses showed the subscale ‘inclusive behaviour upon initial return’ (from the line manager behaviour questionnaire) was significantly associated with return to work. Time 2 analyses showed that the overall behaviours were associated with lower perceived
work limitations and psychological distress; and greater job performance, psychological well-being and job satisfaction.

Conclusion: Specific line manager behaviours are important not only for an earlier return to work, but also for productivity and well-being.

The development of a return-to-work self-management tool for employees affected by cancer
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Background: The prevalence of cancer survivors is expected to increase in most western countries due to an ageing population and continued improvements in early diagnosis and treatment (Hewitt al, 2003). Many cancer survivors are able to return to work after treatment (Hoffman, 2005), but evidence for the number of successful returns is mixed; and 20-30% of those returning to work following cancer report one or more limitations in their work capacity. Advice and guidance on treatment and work ability by health professionals is poor and largely anecdotal (Bains et al, in press). There are also few tried and tested workplace interventions.

This study developed an empowerment-based ‘power questions’ tool that enables people affected by cancer to find solutions in making a timely return to work or to maintain employment during diagnosis and treatment. The project used intervention mapping and a Delphi consensus method to develop and test the tool.

Method: This study was funded by the Department of Health and commissioned by Macmillan Cancer Support. The study used the first three steps of the intervention mapping process to guide the development of the tool:

a) Needs Assessment: To create an overview of tool content and design, a literature review was undertaken. Focus groups with employees affected by cancer were conducted to explore ‘gaps’ in information/advice received from healthcare professionals and other stakeholders.

b) Identification of intended outcomes and performance objectives: The focus group data was used to identify the target outcomes for the tool and the performance objectives. For example, an outcome that was identified was that the tool would help those affected by cancer make informed decisions about work matters. Therefore, the performance objective for the tool was to identify appropriate support and resources (as a set of questions/statements). A draft tool was developed based on the outcomes and performance objectives and finalised through a two-round Delphi consensus process with health professionals; line managers; HR professionals, OH practitioners; employees affected by cancer; and research experts in cancer and work. Medians and inter-quartile ranges were calculated to take a balance of participants’ views.
c) Selection of theory-based methods and implementation plan: the tool was piloted to assess its feasibility with a small number of cancer patients who had not previously participated.

Results and conclusions: The development of the tool and findings from the feasibility will be discussed.

Psychological Stress in the Workplace and Presenteeism Propensity
A Test of the Effort-Reward Imbalance Model
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The aim of this study is to examine how different types of employee-organization exchange relationship per se, as depicted by the effort-reward imbalance (ERI) model, are associated with presenteeism propensity over and above the recognized explanatory role played by health problems.

Four types of exchange are delineated: 1) under-reward (high effort-low reward), 2) over-reward (low effort-high reward), 3) low mutual investment (low effort-low reward), and 4) high mutual investment (high effort-high reward). Research propositions are formulated according to identity theory, on which is based the ERI model. Data were obtained from a large representative sample consisting of 1609 public and private sector workers living in the Canadian province of Québec, who responded to a questionnaire administered using computer-assisted interviewing individuals.

The study focuses on acts of presenteeism (i.e., acts of showing up at work although sick) that are associated with episodic health problems (e.g., cold, headache). Thus, the sample comprises individuals who experienced episodes of illness over the 12-month period preceding the administration of the survey and reported 1 to 9 presenteeism days.

Controlling for numerous confounding factors, notably health problems, and using various formulations of effort-reward imbalance, the results indicate that workers who are part of over-reward exchanges have the lowest presenteeism propensity. In addition, workers involved in under-reward exchanges show a higher presenteeism propensity than those involved in low mutual investment exchanges. Finally, workers who are part of high mutual investment exchanges show levels of presenteeism propensity similar to those who are part of either low mutual investment exchanges or under-reward exchanges. However, a closer examination of the results suggests that, in terms of levels of presenteeism propensity, workers involved in high mutual investment exchanges may be more similar to those involved in under-reward exchanges.
One main contribution of this study is to provide a possible explanation, based on identity theory, for why studies generally report a weak association between job strain and sickness absence. Indeed, we found support for the proposition that workers who are part of the most stressful type of exchange relationship with an organization (i.e., under-reward exchange) are more inclined to choose presenteeism over sickness absenteeism.

The prospective relation between presenteeism and different types of sickness absence
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Objective: Previously, few cross-sectional studies revealed a positive association between presenteeism and absenteeism. To our knowledge, only one longitudinal study revealed that presenteeism is predictive for absenteeism of more than 30 days, ignoring the duration of sick leave per spell or the frequency of spells. This prospective study aimed to investigate whether presenteeism is an independent risk factor for several detailed measures of absenteeism.

Methods: BELSTRESS III was a Belgian epidemiological study on sick leave comprising 2876 workers aged 30–55 years. Individual, socio-demographic, health and psychosocial risk factors were assessed by self-administered questionnaires. Presenteeism was evaluated using a single question, assessing the frequency of going to work despite illness during the preceding year. Three categories of presenteeism were used: 0-1 times (reference category), 2-5 times (moderate rates of presenteeism), > 5 times (high rates of presenteeism).

Prospective data of registered sick leave during one year were collected. Long spells of sickness absence were defined as sick leave periods of more than 15 days, while short spells were those periods between 1 and 3 days of sickness absence. Workers with more than 3 episodes of sickness absence during the follow-up period were classified as frequently absent. The relation between presenteeism and the three binary absenteeism outcomes were examined using multivariate logistic regression analysis. The analyses were conducted separately for both genders and adjusted for confounding variables.

Results: The results demonstrated that male workers with moderate levels of presenteeism at baseline were approximately 2 times (OR= 1.88; 95%CI=1.22-2.88) more at risk for long spells of sickness absence, while men with high rates of presenteeism had nearly 3 times (OR= 2.65; 95%CI= 1.23-5.76) more risk for long sickness absence, during follow-up. In women, no association could be revealed between the moderate levels of presenteeism and long spells of sickness absence. Only women with high rates of presenteeism were significantly 2.5 times (OR=
2.53; 95%CI= 1.41-4.54) more at risk for having long spells of sickness absence. High rates of presenteeism at baseline were significantly and positively associated with short spells of sickness absence in both gender (men: OR=2.43; 95%CI= 1.03-4.52; women: OR= 1.72; 95%CI= 1.07-2.78) and with high frequent sick leave in women ( OR= 2.05; 95%CI= 1.23-3.44).

Conclusion: These results suggest that presenteeism predicts several types of sickness absence. The main implication for practice is that management strategies dealing with absenteeism also have to consider the concept of presenteeism.

The attendance dynamics of UK employees: A longitudinal study into the health consequences of presenteeism and absenteeism of public and private sector employees
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Although the phenomenon of absenteeism has been well researched in comparison presenteeism, whereby individuals go to work despite being ill, has been relatively neglected. The UK is currently going through a deep and long term recession. To date, a number of public sector cuts have been implemented which have had a significant impact on jobs and heightened job insecurity across the public sector. It is in this context that this longitudinal study took place.

The purpose of the research project was to investigate both absenteeism and presenteeism rates of employees, in particular to provide some insight into the prevalence of presenteeism and whether it changes over time. In addition the study explored whether the psychosocial work environment (work relationships, work-life balance, job security, work overload, control, resources and communication and the overall job) influences the relationship between presenteeism and absenteeism, physical health and psychological well being and the productivity of UK workers.

Employees from four public sector organizations (three police forces, one National Health Primary Care Trust) and two private sector organizations (two manufacturing companies) took part in the study. The survey was distributed during the summer period of 2010 and 2011. A total of 1170 surveys were completed at Time 1 and 828 surveys were completed at Time 2.

The data will be analysed using time series regression. The findings will be discussed in terms of the private and public sectors and the multi-dimensional relationships between absenteeism, presenteeism and the psychosocial work environment. The role of organisational context will also be considered.
History of sick leave and vocational situation - the role of job-to-job mobility
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Introduction: Long periods of sick-leave increase the risk of exclusion from the labour market. Job-to-job mobility might prevent this by creating a better match between the capacity of the individual and work demands. There is a lack of knowledge whether job-to-job mobility affects the likelihood for those with long-term sick leave to remain in work. The aim of this study is to investigate if job-to-job mobility for men and women with previous long term sick leave decreases the likelihood of being excluded from the labour market.

Methods: In a longitudinal register study a cohort from the Swedish population who in 2004 were between 20 and 60 years old, had sickness allowance insurance and had employment in both 2004 and 2005 where created. This cohort includes over three million individuals. Data is collected from registers from the Swedish Social Insurance Administration, The Swedish Tax Agency and employment statistics. Job-to-job mobility encompasses a change in work place, within the same company or to another, between 2004 and 2005. The same analyses were performed on cohorts from 1994 and 1999 to control for potential conjuncture effects. The likelihood (OR) that the previous long-term sick where employed in 2008 in regard to whether or not they changed job between 2004 and 2005 was analyzed using logistic regression analysis. Adjustments for age, sector, children and income were made. All analyses where conducted for men and women separately.

Results: Both men and women with more than 180 days of sick-leave in 2004 who changed workplace between 2004 and 2005 were, three years later, less likely to be excluded from the labour market than the non-changers, w: OR=0.84, (CI: 0.77-0.91) m: OR=0.87(CI 0.77-0.98). Similar results are obtained in analyses of cohorts from 1994 and 1999.

Discussion: The preliminary results indicate that job-to-job mobility can be a successful strategy to remain on the labour market despite long-term sick leave. Further studies are required, including diagnosis and reasons for job-to-job mobility to investigate during which circumstances mobility is a successful or possible strategy.

Fatigue in workaholism climates in the workplace: The moderating roles of supervisor support and proactive health behaviours
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Workaholism is defined as the habit of working excessively hard and feeling compelled to work. Workaholism can have good and bad implications, including
engagement as a positive state of mind identified by vigour, dedication, and absorption. Workaholics often participate in presenteeism, or work even when they are ill, which has been attributed to their inner determination to work. However, common illness symptoms (e.g., fatigue, drowsiness, and aches) have an adverse effect on productivity. Additionally, working while ill leads to a depletion of personal resources, such as cognitive energy and recovery. The expended energy to work when ill, in the absence of recovery, can cause fatigue. In this study we explore whether perceived supervisor support (PSS) and employees’ proactive health behaviours (PHB) lessen negative outcomes associated with a workplace climate that fosters a workaholic environment. Specifically, the purpose of this study is to examine variables that are related to workplace workaholism climates, highlighting the roles of PSS and PHB in the relationship between employee presenteeism and fatigue.

Participants were 652 employees from various organizations that completed a self-administered questionnaire. A moderated mediation model was investigated, where presenteeism fully mediated the relationship between workaholism climate and fatigue. PSS was included as a moderator at the first leg of the model, and PHB at the second leg.

The results show that PSS and PHB act differently as moderators in the workaholism climate–presenteeism–fatigue relationship. Specifically, the results indicate that PSS attenuates the relationship between workaholism and presenteeism, such that the relationship is stronger for workers with more supportive supervisors. Although PHB had a significant (negative) main effect on fatigue, the interaction between PHB and presenteeism did not significantly predict fatigue. However, a significant indirect effect was observed at specific values of the moderators, such that the indirect effect of workaholism on fatigue through presenteeism was stronger at low levels of PHB and moderate to high values of PSS. Unexpectedly, higher levels of PSS were connected to worse health-related outcomes. These results suggest that employees may have a normative commitment to the organization when working in workaholic climates under the direction of supportive supervisors, which compels employees to work when they are ill. The results of this research show the importance of developing organizational management practices that promote employee health and organizational efficacy by reducing presenteeism and fatigue.

The role of self-efficacy, self-esteem, intrinsic and extrinsic motivation, and locus of control in the stress-coping process: Evidence from the innovation context
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The stress-coping theory by Richard Lazarus was adapted to the innovation context to explain in which ways the situational perceptions of a manager determine his or her innovative behaviours (e.g., idea generation, testing, and
implementation) and innovation-blocking behaviours (flight, intrapsychic coping) (Krause, 2004). Innovative behaviours become likely, with a high perceived need for change of the work situation (primary appraisal) and simultaneously the increasing perceived susceptibility to change which represents the degree of attributed situational control (secondary appraisal) (Krause, 2004).

This paper argues that the situational perceptions (primary appraisal and secondary appraisal) depend on a managers' self-efficacy, self-esteem, intrinsic and extrinsic motivation, and the locus of control (internal vs. external). The relative importance of these person-related predictors on the managers' perceived need for change (primary appraisal) and the perceived susceptibility to change (secondary appraisal) in the context of organizational innovations (process innovations) was tested in a cross-sectional study with a sample of 274 employees of different organizations in the United States.

Hierarchical regression analyses have shown that a managers' intrinsic motivation is the best positive predictor for the perceived need for change. The best positive predictor for the perceived susceptibility to change the work setting is a managers' self-efficacy. For innovation management, these results imply that we should increase managers' intrinsic motivation and self-efficacy to increase innovations in organizations.

Direct and indirect effects of coping, neuroticism and support on officer well-being and job satisfaction in a British police force

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Police work has been identified as a particularly stressful occupation and one of the most dangerous jobs in the world. Early research typically examined the direct effect of job stressors on a variety of outcome measures such as job satisfaction, and well-being, but more recently, the role of individual and organizational variables has received increasing attention. The present study focuses on such variables and argues that the way in which officers cope on the job, their dispositional traits and the amount of support available to them, will, in combination with each other, impact upon their well-being and satisfaction on the job.

The aims of the present study are threefold. First, it presents measure coping strategies developed specifically for policing. Second, it examines the predictive power of different coping strategies on the well-being and job satisfaction of police officers. Third, the impact of coping, neuroticism and supportive managerial behaviour on well-being and job satisfaction are examined.

A police-specific coping strategies scale was developed following a series of focus groups with 75 police officers in a British police force. This yielded a 21-item measure of coping which was then included in a questionnaire together with measures of social support, neuroticism, well-being and job satisfaction and
distributed to all police officers force-wide. A total of 1940 (response rate of 60%) were returned.

Exploratory and confirmatory factor analyses were conducted on the coping scale, which ultimately leading to a five factor solution. These factors were then modelled in combination with neuroticism, social support, well-being and job satisfaction. For the hypothesized model it was predicted that coping would yield direct effects on well-being and job satisfaction, but that neuroticism would yield both direct and indirect effects on outcomes, with supportive managerial behaviour mediating the relationship.

The revised model suggests that while neuroticism exhibits both direct and indirect effects on well-being and job satisfaction, supportive managerial behaviour can mediate the impact of some coping strategies on outcomes. Moreover, coping strategies, have at best, only modest effects on well-being and job satisfaction, with avoidance coping exhibiting the most substantial effect. Neuroticism and support, on the other hand, exhibit more substantial direct and indirect effects on outcomes. Findings are discussed in relation to previous research together with strategies for equipping police officers with the appropriate skills and resources on the job.

**A longitudinal examination of the relationship between workaholism and job-related and general psychological wellbeing: It is working excessively, rather than working compulsively, that counts**

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In recent years there has been increasing attention on the adverse health effects of workaholism, which may be defined as an irresistible inner drive to work excessively hard. To date, however, most organizational research on workaholism has been based on cross-sectional data, which means that robust conclusions on the direction of the investigated relationships may not be drawn. In the present study we explore the contribution of workaholic tendencies (i.e. working excessively, (WE), and working compulsively, (WC) to job-related and general wellbeing by using a full panel longitudinal design with a one year time lag.

Data was collected within the health sector in Italy in the context of a psychosocial risk assessment. A sample of 160 workers was available for analysis (75% females), mainly including medical doctors, nurses and administrative staff. Results indicated a high stability of workaholic tendencies at the one year follow-up (\(r = .54\) for WC, and \(r = .62\) for WE) lending support to the view that workaholism is a relatively stable disposition. Furthermore, two path analytic models showed that, once the effect of gender and job stressors which were prevalent in the investigated context (i.e. psychological demands, role conflict, and role ambiguity) was taken into account, WE had a lagged negative effect on general psychological health (as investigated by the GHQ-12) and job-related affective well-being. To the contrary, the lagged effect of WC on both outcomes was not significant.
These results suggest that the behavioural component of workaholism (i.e. working excessively) may be the critical one as far as the adverse health effects of the phenomenon are concerned.

**Finding the perfect balance: The mediating role of work-life balance in the relationship between perfectionism at strain**

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Objectives: Perfectionism is often thought to be advantageous in the workplace. However, an abundance of clinical research suggests that perfectionism is related to significant negative outcomes, such as stress and strain outcomes (Hewitt & Flett, 1993). The negative aspects of perfectionism are typically attributed to perfectionistic concerns, characterized by a fear of failure, negative self-evaluations, and concern over mistakes (Hill, Huelsman, & Araujo, 2010; Stoeber & Otto, 2006). However, perfectionistic strivings are characterized by high achievement strivings and motivation (Stoeber & Otto, 2006). Even though the workplace may be the domain most affected by perfectionism (Stanley & Ashby, 1996), there is little research on work-based perfectionism. The limited research available indicates that perfectionistic concerns are positively related to work strain and stress (Mitchelson & Burns, 1998), but perfectionistic strivings are related to work-life balance (Mitchelson, 2009). Therefore, we compared these two perfectionism components in a work context, examining the relationship between perfectionism and strain. Moreover, because qualitative research has found themes of perfectionism that influence working mothers’ decisions to “opt-out” of the workplace (Beauregard, 2006), we examined work-life balance as a potential mediator in the relationship.

Methods: Participants were recruited from a working sample as part of a larger coaching intervention study (Achieving Balance Through Life and Employment (ABLE) program). The ABLE program is a 10-week wait list control intervention with individualized coaching, designed to improve work-life balance and reduce strain. Participants will be asked to complete a survey, including measures of perfectionistic concerns and perfectionistic strivings (multi-dimensional perfectionism scale; Hewitt & Flett, 1991) strain (strain symptoms checklist; Bartone et al., 1989), and work-life balance (Day, 1996).

Results: Qualitative analyses from preliminary ABLE data suggested that many participants struggled with issues related to perfectionistic concerns, such as unattainable expectations, fear of failure, and concern over mistakes, as well as perfectionistic strivings, such as the motivation to succeed. Qualitative feedback from the coaches suggested that although the strivings helped maintain program focus, the perfectionistic concerns impeded progress and were associated with negative outcomes. The proposed meditational model will be analyzed using meditational analysis using MPlus (Muthén & Muthén, 2008).
Implications: The current research extends past research by comparing the effects of two proposed components of perfectionism (strivings and concerns) in a workplace setting. Moreover, by focusing on employee health outcomes, it will help inform organizations on potential target issues for interventions when seeking to improve employee health.

Early emotional experiences and work stress coping patterns
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Work-related stress often results in conflicts, employee dissatisfaction, lowered productivity and even psychological dysfunctions. Overcoming these problems requires specific knowledge about individual roots of stress reactions and coping patterns. The influence of childhood emotional experience on coping with workplace stressors was examined among 102 adults (70 females and 32 males) who were employed in professional and middle-management positions. They all sought psychological help because of the problems caused by stress at work. Analysis of most significant memories of the childhood revealed key emotionally traumatic experiences. According to narratives content analysis 5 groups were identified, based on typological concepts of early psychological traumas (J.Pierrakos 1973; A.Lowen, 1998; V.Raikh, 1999; L.Bourbeau, 2001;): subjects with prevailing experiences of: 1) rejection (16.7 %), 2) abandonment (22.5%), 3) shame/ humiliation (16.7%), 4) broken trust/ betrayal (23.5%), 5) injustice (20.6%).

Investigation of the connection of childhood traumatic experiences and individual behavioural patterns in stress at work revealed that the above groups not only differed significantly in responses to stressors, but also perceived different factors as stressful.

For example, in the first group (rejection) people are hypersensitive to remarks, feel lost if others pay much attention to them and feel fear of condemnation. To avoid criticism they tend to do the job perfectly, and so any work takes a very long time, increasing their panic and desire to run away and hide. In the second group (abandonment) people tend to dramatize the situation too much, are afraid of chiefs and important people. If requirements are too high and hard they delay execution and may not finish, often leaving tasks until the last moment. In the third group (shame/ humiliation) people are very afraid to make mistakes and often feel humiliated and ashamed, neglect themselves and condemn themselves to suffering, rather than blaming other people. In the fourth group (injustice) these people work to exhaustion experiencing stress because of their striving for perfection. When they do not see recognition, they experience anger and may unleash it on others. In the fifth group (broken trust/ betrayal) people expect full acceptance of their own position from others, they often feel dissatisfaction with others and have a sense of betrayal, deceit, and a breach of obligations.
The above results can be used in the formation of teams, preventing stress situations and mediation in conflict, and for overcoming the effects of stress.

Stabilised and Resigned Forms of Life Satisfaction and Their Implications for Positive and Negative Affect
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Subjective well-being (SWB) comprises a person’s cognitive judgement about their quality of life as well as the affective reactions to it. Cognitive and affective SWB measures although generally interrelated (Lucas, Diener & Suh, 1996) are also found to diverge quite frequently (Diener, 1994). The processes behind this divergence are not yet fully understood. This paper argues that one reason for the divergence is because life-satisfaction is conceptualised as the result of how one judges the quality of one’s life situation against a self-set standard (DeNeve & Cooper, 1998; Diener, Emmons, Larsen & Griffin., 1985). As a result the extent to which individuals are satisfied depends solely on the degree to which expectations are being met. Any characteristics or differences in expectations are not taken into account. Therefore life satisfaction, in its classical sense, is a one dimensional and purely quantitative measure.

Such a one dimensional view is problematic given related research findings within the context of job satisfaction. Particularly Bruggemann’s (1974) job satisfaction model highlights the importance to distinguish between different qualitative forms of job satisfaction which are partly based on differences in aspiration levels, i.e. self-set standards (Baumgartner & Udris, 2006; Buessing, Bissel, Fuchs & Perrari, 1999). As a consequence Bruggemann (1974) distinguishes between five different forms of job satisfaction of which resigned and stabilised satisfaction have been consistently replicated in a variety of studies (Baumgartner & Udris, 2006).

Despite their relevance within the job satisfaction literature, self-set standards are largely ignored within the life satisfaction literature. As a result there simply is no differentiation between different qualitative forms of life satisfaction. This paper explores the usefulness of distinguishing between different forms of life satisfaction by drawing on Bruggemann’s (1974) model of job satisfaction. It does so by modifying the items used to measure resigned and stabilised job satisfaction (cf. Baumgartner & Udris, 2006) in such a way that the focus is on judging one’s life instead of one’s job. Through internal reliability analysis five items were found suitable to measure resigned life satisfaction ($\alpha = .69$) whereas four items were found suitable to measure stabilised life satisfaction ($\alpha = .86$). The findings based on independent t-tests ($n = 121$) provide empirical support for the notion that individuals who lowered their self-set standards (resigned satisfaction) generally report less affective SWB than individuals who did not lower their self-set standards (stabilised satisfaction). On the basis of these findings it seems justified to conclude that differences in self-set standards should not only be considered within
models of work satisfaction (Bruggemann, 1974) but also within the context of life-satisfaction.

**Career success; protean career attitude and the mediating role of career self-management behaviours**

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There is both burgeoning interest within organisational stakeholders and a paucity of understanding among career scholars about how employees self-directed career orientations and self-managed vocational behaviours affect career success; Briscoe, Hall and DeMuth (2006).

Protean career attitude, a value-driven self-directed career attitude, is conceptualised as being important for realising career success and presents a relevant framework for understanding the relationship between both components of career self-management and career outcomes, Hall (2002).

Previous research around this framework has shown positive associations between this attitude and i) subjective career success and ii) non-reflective career self-management behaviours, however, these studies have acknowledged limitations in the choice of antecedent and outcome variables assessed. For example; Volmer and Spurk’s (2010) inclusion of subjective and objective outcomes but omission of career self-management behaviours, and De Vos and Soens’ (2008) omission of an objective outcome and omission of reflective career self-management behaviours. This study conceptualised that the protean career as an attitude reflecting a feeling of personal agency would engage individuals in managing their own career through self-directed career behaviours. In turn using these behaviours should increase individual’s feelings of career success and career attainments.

This study assessed the influence of protean career attitude on objective (salary and number of promotions) and subjective (career satisfaction) career success and assessed the mediating role of both reflective (self-initiated feedback seeking, and self-initiated mentoring) and non-reflective (networking) career self-management behaviours in this relationship. A cross-sectional design collecting survey data from 103 Human Resources employees from an environmental services organisation in the United Kingdom was used. Hierarchical regression analysis was conducted to test for mediation.

Although the mediating role of career self-management behaviours was not found, the results showed both confirmatory and hitherto undiscovered positive associations. Protean attitude was positively associated with two developmental networked behaviours; networking and mentoring, and networking was positively related to salary. Contrary to prior research, protean attitude was positively related to salary, but not significantly associated with subjective career success.
Thus, individuals with a self-directed career attitude were no more satisfied with their careers compared to peers who have a more passive career attitude; however this self-directed attitude is valued and rewarded by their employer. The initiation of networked developmental relationships gives credence to the view that protean employee’s career orientation is self-directed rather than self-reliant and it is recommended the organisation adopts a relational approach to facilitate these relationships.

Working Moms – Living on the Bright or on the Dark Side of Life?
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In the literature, working moms are said (1) to suffer from work, due to the experience of a double burden (scarcity theory), (2) to profit from working, since the accumulation of roles is associated with rewards and privileges (role enhancement theory), and finally, (3) to profit or suffer from work depending on perceived role quality (role quality theory).

In a survey of working moms (n = 248), we analyzed for which of the three notions empirical support is strongest. Results of independent t-tests reveal that depressive symptoms in employed mothers are higher than in mothers not engaged in paid work, thereby providing evidence for scarcity theory.

In addition, findings of an ANCOVA imply that working moms with good work role quality do not differ significantly from nonworking moms in reported depressive symptoms. Similarly, results of a moderated regression analysis suggest that besides the engagement in paid work, poor quality of the mother role presents a significant predictor of depressive symptoms.

The latter findings lend support to role quality theory. Thereby, current results suggest that for working moms, living on the bright or dark side of life is mainly a question of role quality. In doing so, the findings contradict role enhancement theory, which so far has received strong support in the literature. To conclude, our findings stress the necessity of focusing not solely on the quantity but also, and more importantly, on the quality of working mother’s roles.

Always going somewhere - never being anywhere: The impact of occupational travel and other organisational stress variables on work-family conflict and burnout.
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Aims: The main aim of the study was to examine the impact of occupational travel frequency and other organisational stress variables on work-family conflict and burnout.

Method: The study was conducted in a large Norwegian oil and gas company. Company register data based on occupational travel frequency were coupled with questionnaire data. Questionnaires were distributed to respondents via e-mail, and the data collection was carried out during May-June 2011. The response rate was 68%, and 2093 respondents answered the questionnaire.

Results: Two hierarchical regression equations were constructed to test the ability of the independent variables to separately predict work-family conflict and burnout. Gender and parental responsibility were entered at step 1 in both equations. Gender demonstrated a small significant relationship with burnout ($\beta = -.09, p < .001$), but not with work-family conflict, whereas parental responsibility demonstrated a significant relationship with both work-family conflict ($\beta = .18, p < .001$) and burnout ($\beta = .07, p < .01$). However, the association of parental responsibility with burnout was reduced to insignificance with the entry of subsequent predictors. Occupational travel frequency, job demands, role ambiguity and role conflict were entered as step 2 in both equations and accounted for a significant proportion of variance in both work-family conflict ($R^2_{\Delta} = .34, p < .001$) and burnout ($R^2_{\Delta} = .26, p < .001$). Control over travelling and restitution culture were entered as step 3 in the first regression equation and the variables were both significantly related to work-family conflict ($\beta = -.14, p < .001$ for the former and $\beta = -.04, p < .01$ for the latter). The model overall explained 40% of the variance in work-family conflict. For the second regression equation work-family conflict was entered as a predictor variable in step 3, demonstrating a significant relationship with burnout ($\beta = .28, p < .001$). Control over travelling and restitution culture was entered as the fourth and final step, and only restitution culture reached statistical significance ($\beta = -.04, p < .01$). However, the effect was so small that it did not account for significant additional variance. The model overall explained 33% of the variance in burnout.

Conclusion: This research demonstrates how occupational travel and other organisational stress variables are related to work-family conflict and burnout.

The Role of Negative and Positive Affectivity in the Relationship Between Work-Family Conflict and Well-Being: A Diary Study
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Objectives: Several studies have shown that work-family conflict (WFC) is associated with poor employee well-being, such as heightened levels of anxiety, depression, and exhaustion. Despite this empirical evidence, crucial questions remain unanswered. First, most previous studies on WFC conceptualized it as a stable phenomenon ignoring that WFC and its consequences may change from
day-to-day. Therefore, little is known about the relationship between WFC and well-being on a daily basis. Second, research on vulnerability or resilience factors that may exacerbate or buffer the detrimental impact of WFC are lacking. Although social support and coping styles have been addressed as potential moderators, it is unknown whether trait negative affectivity and trait positive affectivity reflect vulnerability and resilience factors for the WFC-well-being relationship respectively. Those developing interventions for promoting employee well-being will benefit from knowledge about whether the effect of WFC on well-being depends on certain personality factors. Therefore, we tested whether trait negative affectivity and trait positive affectivity moderate the relationship between daily WFC and daily well-being.

Methods: To test our hypotheses, we conducted a web-based diary study over four consecutive workdays with a sample of 118 employees from an automotive company. Participants reported trait negative and trait positive affectivity in a general survey. WFC and two indicators of well-being (i.e., sleep-problems and negative affect) were collected by daily surveys. The data were analyzed using multilevel path modeling.

Results: Results showed that daily WFC was positively associated with both indicators of daily well-being. That is, the experience of daily WFC was related to high levels of daily sleep problems and daily negative affect. Importantly, trait negative affectivity moderated these associations, such that they were more pronounced for individuals high on trait negative affectivity compared to individuals low on trait negative affectivity. In contrast, trait positive affectivity did not moderate the associations between daily WFC and daily well-being.

Implications and Conclusions: In sum, our study demonstrates that daily WFC is associated with daily sleep problems and daily negative affect. High levels of trait negative affectivity seem to be a vulnerability factor for the detrimental impact of daily WFC on daily well-being. Therefore, employees high on trait negative affectivity represent an at-risk group that could be targeted by interventions.

Understanding the burden of care: Impact of child and adult care responsibilities on multiple indicators of work and personal well-being for male and female manufacturing employees.
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The challenges of juggling work with other responsibilities, such as child care are well-known and have been linked to a number of stresses, strains, and other outcomes relevant to work and personal well-being. Likewise, eldercare responsibilities have become a part of the lives of many employees, although the impact of eldercare on workers’ lives is not as well-studied.
There are also good reasons to expect that gender and age influence exposure to caring responsibilities as well as the nature and personal costs of such responsibilities. Furthermore, we argue that there may be a particular burden born by those for whom the two caring roles converge (often referred to as members of the “sandwich generation”).

In this study we examined data regarding the burden of caring roles for a sample of workers from the manufacturing sector (n= 325), which is a segment of the labour force sector that has not been well-studied with respect to adult care and multiple caring roles. As part of an ongoing longitudinal study of work capacity and aging, manufacturing employees who participated in the second wave of the study completed a survey that provided information about their off-the-job caring responsibilities and a number of work and personal outcomes that we hypothesized would be impacted by the burden of enacting caring roles in tandem with the work role.

Relevant to this study, the survey included measures of work-family conflict and balance, work stress, work burnout, workability, job satisfaction and depressive symptomatology. Participants were classified as having no significant “family care” responsibilities, primary or full responsibility for one or more children, responsibility for one or more adults, or responsibility for both child and adult care.

Consistent with previous research, caring roles were associated with increased levels of inter-role conflict, work stress, and work burnout, and decreased job satisfaction, as well as compromised workability, and increased depressive symptomatology. Gender significantly moderated the strength of many of these relationships. Furthermore, our data indicates that adult care responsibilities exact a greater toll than child care responsibilities.

In addition, differential exposure to adult care, child care and multiple care responsibilities for workers of different ages suggests that some subgroups of workers are at increased risk of stress and strain associated with their caring responsibilities, particularly when they involve caring for adults or caring for both children and adults.

**Work-family conflict and subjective health complaints: the role of rumination and work-family facilitation**

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Objectives: The experience of work family-conflict (WFC) has been associated with higher levels of subjective health complaints (SHC). Perseverative cognition such as rumination has been put forward as a mediator between stressors and health. The current study tested the following hypotheses: (1) Rumination mediates the WFC – subjective health complaints relationship, and (2) Work-family facilitation
(WFF), the experience that the work role provides gains which enhances functioning in family life, buffers the impact of WFC on both rumination and subjective health complaints.

Method and results: An online survey assessed socio-demographic variables, negative affectivity, WFC, WFF, rumination about combining work and family, and SHC in a sample of 286 working parents (241 women and 45 men). Inclusion criteria for the sample were: having a paid job, living together with a partner who has a paid job, and having at least one child (<18 years) living at home. Controlling for socio-demographic variables and negative affectivity, work-family conflict was positively associated with SHC. Hierarchical regression analyses and Sobel tests confirmed that this association was partially mediated by rumination. Analyses on the subdimensions of SHC indicated this mediating effect pertained to pseudoneurological complaints and gastro-intestinal complaints, but not to cold/flu, allergy, and musculoskeletal complaints. Furthermore, as expected WFF buffered the effect of WFC on rumination, but no direct moderating effect on the association of WFC and SHC was found.

Conclusion: The results suggest that work family conflict has its negative effects on subjective health partially through perseverative cognition about combining work and family. Furthermore, the results imply that experiencing work-family facilitation may reduce the impact of work-family conflict on rumination, but not to the extent that health complaints are also reduced. Thus, next to interventions to reduce work-family conflict, interventions focusing on stimulating the experience of work-family facilitation might reduce rumination, and interventions to reduce and gain control over ruminative thoughts (e.g. thought postponement, thought stopping) might be fruitful ways to enhance working parents’ subjective health.

**The weekly assessment of Work-life balance and Wellbeing – Is there an intervention effect of diary studies?**
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Looking at the interplay of work and private life there is the question of how life domains can really fit and how organizations and employees can build and keep this balance without putting at risk results on the one hand and health on the other hand. Arrangements of an organization to support work-life balance in their employees are often centralized, global and are little targeted on the special needs of individuals, e.g. more flexible working hours or workspace. The science project called “Lanceo – Balanceorientierte Leistungspolitik” (www.lanceo.de), financed by the German ministry of education and research and the European social funds, found evidence that people often do not relate such arrangements to their private life and that there is more personal responsibility and planning needed to adequately utilize such organizational opportunities and to cope in a health protecting way with this problem of the reconciliation of different life domains.
This study tries to investigate the effect of reflecting on one’s demands in life and work by using a diary study design. This person focused approach is based on the assumption of an intervention effect by merely participating in subjective questionnaires itself. Employees from two German enterprises in the financial sector received questionnaires every Monday and Friday over four working weeks. At the beginning of each week, i.e. on Monday, the workload and amount of unnecessary tasks that will arise in the upcoming days had to be estimated. Additionally it was assessed what strategies - e.g. prioritizing life domains and delegation of tasks in work or private life - employees planned to use for themselves in this forthcoming week. At the end of the working week, i.e. on Friday, participants were asked to indicate, how their demands, strategies and their wellbeing (vigour, exhaustion) really showed up.

The hypotheses are that people plan their weeks ever more prospectively over a four week period just by reflecting consciously on their demands and strategies. As a result an increase in vigour - a component of work engagement - and a decrease in emotional exhaustion - a component of burnout - over four weeks is expected. Furthermore the effect on negative and positive Work-Home Interference (WHI) is studied, in so far as negative WHI should decrease whereas positive WHI might increase over time. In the oral presentation the procedure and the results of the study are going to be presented and discussed.

A cross-cultural study of leadership and organizational factors predicting well-being – China and Sweden
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The growing trend towards globalization has initiated a need for organizations and managers to understand how leadership style and organizational factors are related to employee well-being in different cultural contexts (Lok, 2004). The interest for cross-cultural organizational and managerial studies is therefore increasing among practicing managers as well as organizational researchers. Contrasting views can be discerned when it comes to what extent national cultures influence leadership style and co-worker expectations concerning leadership. Some researchers state that there is a universal leadership style that is efficient irrespective of the situation (Arvonen, 1999), whereas others maintain that effective leadership is culturally contingent (Hofstede, 1980; 2001). According to a recent review (Dickson, 2003) there is a decline in the search for simple universality, i.e. that the phenomenon is invariable all over the world, in favour of a more culturally contingent view.

Considering that earlier research has shown great differences in cultural values between China and Sweden (Hofstede, 2001; House, 2004) the aim of the present study was to examine which leadership styles (employee-centered, Ekvall & Arvonen, 1991; empowering and supporting leadership, Dallner et al., 2000) and organizational factors (goal clarity, Oxenstierna, Widmark et al., 2008; group work,
social climate and control, QPSNordic, Dallner et al., 2000) act as predictors for well-being (GHQ-12, Goldberg, 1972) among employees and managers in a large global furniture retail company in China and in Sweden when background variables (age, gender, educational level and position) were controlled for.

Questionnaires were distributed in two furniture retail stores in Sweden and altogether 282 individuals participated in the study. The same questionnaire study was also conducted in two stores belonging to the same company in China (n= 595). A number of outliers were identified whilst analyzing the data and these were excluded from the analysis. The final sample consisted of 483 participants from the Chinese stores and 254 participants from the Swedish stores. The results of the multiple regression analyses revealed that managerial position, a supporting leadership style and goal clarity were related to well-being in the Swedish sample. The results for the Chinese sample showed that managerial position, goal clarity and social climate were related to well-being, whereas none of the leadership styles acted as predictors for well-being. The findings suggest that the role of culture regarding leadership in global organizations is multifaceted rather than either universal or contingent.

A 10-year follow-up study on the relationships between vigor, task resources, and life satisfaction

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Introduction: Following the Job Demands-Resources (JD-R) model (Demerouti et al., 2001) job resources via vigor can be expected to impact positive outcomes, such as life satisfaction. On the other hand, the Broaden-and-Build (BaB) theory (Fredrickson, 2001) suggests that positive moods such as vigor will build resources which in turn could influence life satisfaction. Some longitudinal studies have also shown that resources and positive states may mutually impact each other and then predict positive outcomes. By using two cross-sectional designs and a two-wave panel design over a 10-year period we tested the relationships between task resources, vigor, and life satisfaction.

Methods: The data consisted of a representative sample of Finnish fire-fighters (n= 403) collected by questionnaires in 1999 (T1) and in 2009 (T2). Vigor was assessed by six items from the Profile of Mood States (POMS) questionnaire. Task resources included three items: decision making on issues concerning one’s tasks, possibilities to use knowledge at work, and feedback on success in work tasks. Life satisfaction was measured with the question “How satisfied are you at present with your life?”

Results: The cross-sectional mediator analyses showed that the relationship between task resources and life satisfaction was partially mediated by vigor both at T1 and at T2. However, cross-sectional models in which task resources was the
mediator between vigor and life satisfaction similarly fitted the data. Furthermore, the cross-lagged analysis showed that task resources and vigor reciprocally influenced each other over time. In addition, vigor tentatively still predicted life satisfaction 10 years later.

Conclusions: Cross-sectional findings could only show that vigor, task resources, and life satisfaction were positively related to each other. Instead, longitudinal analysis showed that vigor and task resources at work positively influenced each other thus forming 'positive gain cycles" even over a 10-year follow-up period. This finding supports both the JD-R model and the BaB theory of positive emotions. However, neither vigor nor task resources predicted life satisfaction in the long-term. Enabling task resources, such as possibilities to use skills at work and participate in decision-making, may build vigor among employees. Vigorous employees, on the other hand, seem to be "job crafters" that can improve their job resources.

Balancing flexibility and stability at work – prospective management of individual resources
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Today's working processes contain more and more areas of non-controllability (Grote, 2009). Despite this fact companies and employees often spend vast efforts and resources on standardizing processes and trying to reduce or even avoid disruptions. Where this fails, significant energy and rearrangement efforts are again needed to rapidly solve problems and regain the control of the process.

The consequences for employees can be long waiting times followed by several attempts to catch up (e.g. to achieve deadlines). At this individual level, we assume the existence of intuitive and experience-based skills that are critical for coping with flexibility demands. Those strategies allow some employees to be more successful in anticipating disturbances and preparing in advance to deal with them, coping with fluctuating or new demands and responding in a more flexible way to changing demands. Employees with a high amount of these strategies will, under the same circumstances, show better performance and experience higher well-being than employees in which these strategies are less pronounced. Therefore, the present study examines at the individual level, whether individual prospective strategies influence the way employees deal with disturbances and flexibility requirements. By means of a questionnaire we collected data from 110 employees from two German companies (IT industry and automotive industry). The questionnaire included flexibility requirements (including Höge, 2006), four different individual strategies as well as indicators for poor and high Well-being (Irritation from Mohr, Rigotti & Mueller, 2005 and Work Engagement from Schaufeli & Bakker 2004).

The results show that the examined strategies moderate the relationship between flexibility requirements and Irritation as well as Work Engagement respectively. At
the same time the findings suggest that the buffering function of strategies is lower when very high flexibility requirements are given. This stresses the importance of the simultaneous consideration of individual and organizational factors at the workplace. These results will be presented and discussed at the conference.

**Association between the HSE ‘Indicator Tool’ and health in different work related-stress assessments**

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**Introduction:** The Health Safety Executive (HSE) developed a targeted approach for work-related stress assessment including a 35-item questionnaire (‘Indicator Tool’) with seven subscales.

Only a few studies have investigated the association between the Indicator Tool dimensions and potential health outcomes. In particular, ‘role’, ‘managers’ support’ and ‘relationships’ showed the highest associations (Bevan et al., 2010), while weak relationships were found with job satisfaction, sick-leave and performance (Main et al. 2005). ‘Demands’ and ‘relationships’ showed the highest negative associations with work-related anxiety and depression (Kerr et al., 2009).

**Methods:** We enrolled 2242 participants (response rate 70.4%) working in three different companies (semiconductor manufacturer, pharmaceutical, and telecommunication sectors). Management and trade unions actively collaborated by constituting a working group sharing responsibilities for work-related stress assessment, that was conducted using a multi-method approach including analyses on objective data as well as worksite inspections and observations, interviews and a questionnaire. The questionnaire also included socio-demographic factors, the “Indicator Tool” (Cousins et al., 2004), the ‘General Health Questionnaire’ (GHQ) (Goldberg, 1972), ‘Work Ability Index’ (WAI) (Tuomi et al., 1998), cardiovascular and gastrointestinal symptoms [Barton et al. 1995] and job satisfaction (Hackman & Oldham, 1975).

**Results:** The seven work-related stress factors of the Italian version of the ‘Indicator tool’ exhibited good internal reliability (Cronbach’s αs ranging from .75 to .88). The ‘Indicator tool’ dimensions were all significantly intercorrelated (rs ranging from .28 to .63). Multivariate regression analyses, adjusted for gender, age, job title and other confounders, were used to test the associations between dimensions of the Indicator Tool and health status. GHQ was associated with ‘Demands’ (β=-.19) and ‘Role’ (β=-.13); WAI was associated with ‘Role’ (β=.14), ‘Demands’ (β=.12) and ‘Relationship’ (β=.12). Cardiovascular and gastrointestinal symptoms showed associations with ‘Demands’ (respectively β=-.15 and β=-.12) and ‘Relationship’ (respectively β=-.21 and β=-.23). Finally, job satisfaction was
associated with ‘manager’ support’ (β=-.26), ‘Relationship’ (β=.22), ‘Role’ (β=.15) and ‘Change’ (β=-12). All reported associations were significant at the p<.001 level.

Conclusions: The seven dimensions of the ‘Indicator Tool’ were in part associated with considered health indicators. The sample presented good general health, thus limiting response variability. In organizations where workers show good health conditions it seems more useful to use measures of work related well-being as outcomes instead of indicators of psycho-physical health.

Wellbeing of financial workers from the time of economic rise to the global economic crisis
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Introduction: Work-places in the financial sector provided excellent employment opportunities at the end of the last century. We have followed up a representative sample of workers from two banks under different ownership. About 12%–14% of employees estimated perceived level of well-being each year was assessed with the implementation of the QAA (Questionnaire of Actual Availability). This was from AH model standardized for the Slovenian working population.

Sample and method: 4044 workers were from the state owned bank were sampled each year for eight years (approximately 12% of workers). 1023 workers were from the private owned bank were sampled each year for seven years (approximately 14% of workers). The QAA was administered to compose the average level of perceived well-being and covered; fatigue, mood, depression, stress and motivation, Analyses were performed according to the ages and proportion of overload from the sample of workers who estimated their well-being.

Results: The lowest level of perceived well-being was in 2006, the year of excellent profit and good incomes when there was a huge amount of work. During this year, in state owned banks a lot of loans to private and institutional customers were sold. In the private owned banks this year saw reorganization, the reduction of employee numbers and competition in the financial market for new customers. All workers perceived a decrease in well-being and an increase in fatigue in this year.

With the global financial crises arising in 2008 the amount of work decreased. As a consequence of lower incomes the reorganization process has started, and this is more evident within the state owned bank. Older workers have retired and workers not satisfied with the reorganization have left the work. Only workers willing to adapt to the new situation or without any possibility of attaining another job have remained. In 2011 the global financial crisis was reflected in perceptions of workers’ well-being. The amount of work was lower, workers were in a better health condition, and were available and competent to perform their work. Consequently, the perceived level of fatigue is lower and perceived well-being is better.
Conclusion: According to the results of the well-being follow-up for the period of 7 to 8 years one may conclude that the perception of well-being is more related to the amount of work and to overload, then to the global economic environment. Workers related their perception of well-being to the work-load and not to the global situation of the financial market. Thus, the work-load has a stronger impact than the fear of losing one’s job. Also the influence of “health worker” has to be included; because only healthy, competitive workers have kept their working positions.

Family or Work? - An Unsolvable Conflict Resulting in Maternal Depression?
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Evidence on the impact of work-family conflict on maternal depression so far is mixed. Building on role quality theory, we assume the conflicting evidence to be due to the fact that the relationship between work family conflict and maternal depression is moderated by role quality (of the mother, partner, homemaker and work role).

To date, no study has examined this notion, which is why we tested this assumption in a survey of 248 (working) mothers. Depression was measured using the German Version of the Beck Depression Inventory (BDI). WFC was measured using Carlson and Frone’s (2003) four factor measure. The quality of the various roles was measured using (sub) scales of existing psychometric instruments.

Based on the results of moderated regression analyses, we found that perceived quality of the occupied roles weakens the relationship between WFC and depressive symptoms: as soon as role qualities are taken into account, the influence of WFC on depressive symptoms decreases; and: as soon as potential interactions between WFC and role quality aspects are considered, only role quality aspects remain significant predictors of depressive symptoms.

To summarize, the present results provide evidence for our assumption that role quality is a resource that not only buffers possible conflicts between roles (e.g. work and family roles), but also protects one from the development of depressive symptoms. Therefore, in explaining maternal depression, it is recommended to not only concentrate on possible conflicts between work and family roles but also on the quality of these roles.

Working on-call and its impact on work-family-conflict and well-being
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Several sectors and professions (i.e. hospitals, electricity suppliers) need to be flexible and provide their services around the clock. To meet these requirements many companies choose flexible work arrangements like on-call duty. Therefore, their employees have to be ready for work during their leisure time: After finishing their regular working day (or working week) they have the opportunity to spend their time with their families, to meet friends or to pursue their hobbies. Only in the case of need (i.e. an emergency) they get a call from their employer. Then they have to interrupt their private activities and have to start to work. Although working on-call is not a new form of work arrangement only a few studies have addressed this yet (e.g. Nicol & Botterill, 2004).

Job characteristics like working weekends or rotating shifts (e.g. Shamir, 1983) cause a conflict between the demands of the employees work life and their private life. For working on-call this relationship is assumed, too. The work-family conflict can be time-based, strain-based or behaviour-based (Greenhaus & Beutell, 1985) and can affect physical and psychological health outcomes (e.g. Eby et al., 2005). Moreover, it can influence the employees' spouses and their family life (e.g. Bakker et al., 2008).

Our study has been conducted with multiple methods using a self-report questionnaire – about the working conditions in general and for working on-call –, a diary study and a questionnaire for the participants spouses – which assesses their own and their spouses situation, work-family conflict and well-being. In the diary study we compared four days with working on-call with four days without working on-call in respect of the employees daily workload, work-family conflict and well-being. In our study 87 employees and 58 spouses participated.

The T-Test statistical analyses with the self-reports in the diary study and the spouses' ratings show that being on-call has a significant negative impact on employees mood and their work-family conflict. The comparison between the different data sources between the ratings of the employees and their spouses became obvious. Additional analyses showed that work-family conflict mediates the relationship between workings conditions, especially quantitative overload, and psychosomatic complaints. The results and effects of working on-call will be discussed.

The interactive effect of work-family conflict and enrichment on work-related outcomes
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Work-family conflict (WFC) and work-family enrichment (WFE) have been found to be distinct, yet interrelated aspects of the work-family interface. With WFC quality of life in one domain (e.g., family) is deteriorated by virtue of functioning in the other domain (e.g., work), whereas with WFE, the quality of life is improved. WFC
and WFE have been linked to a wide range of work-related outcomes (e.g., job satisfaction, burnout, organizational commitment). As both conflict and enrichment experiences may coexist, the question arises whether one type of experience can buffer the other one when predicting work-related outcomes.

The present research, therefore, strives to examine the interactive (not only additive) effects of WFC and WFE on two work-related outcomes - job satisfaction and burnout (i.e., exhaustion and disengagement). For both WFC and WFE previous studies had found that their relationships with work-related outcomes are contingent on gender. Therefore, different models were assessed for men and women. Our proposition was tested using a sample of Slovenian employees (n= 738), 59% of which were female, from different occupations and organizations.

Using hierarchical multiple regression, we found that the proposed interactive effects were confirmed only for men. For women, only support for additive effects of WFC and WFE on job satisfaction ($\beta_1 = -.17, p < .001; \beta_2 = .59, p < .001$, respectively), exhaustion ($\beta_1 = .40, p < .001; \beta_2 = -.36, p < .001$, respectively) and disengagement were found ($\beta_1 = .18, p < .001; \beta_2 = -.53, p < .001$, respectively). Similarly, for men WFC was significantly related to lower job satisfaction ($\beta = -.10, p < .05$), higher exhaustion ($\beta = .33, p < .001$) and disengagement ($\beta = .15, p < .01$), whereas WFE was found to increase job satisfaction ($\beta = .49, p < .001$), diminish exhaustion ($\beta = -.21, p < .001$), and disengagement ($\beta = -.39, p < .001$).

For men, the interactive effect of WFC and WFE significantly predicted job satisfaction ($\beta = .10, p < .05$) and exhaustion ($\beta = -.13, p < .05$). Both interactions may provide support for the buffering role of high WFE as, under such conditions, the negative impact of WFC was diminished. In sum, our results strengthen the crucial role of WFE and underline the observation that men and women interpret their work-family experiences in a qualitatively different manner.

**Effects of work-life conflict on job outcomes and the moderating role of recovery**

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Based on the literature of work-family conflict (Greenhaus & Beutell, 1985) and recovery (Sonnentag, 2001) the present research is designed to examine the relationship between work-life conflict (WLC) and job outcomes and the moderating role of recovery. It is hypothesized that recovery during leisure time buffers the negative effects of WLC on job satisfaction and job performance. A sample of 249 German employees across a variety of organizational settings participated in the cross-sectional questionnaire study. Results from hierarchical regression analyses indicated differences between the affective outcome job satisfaction and the more behavioural outcome job performance.

For job satisfaction the negative impact of WLC was moderated by recovery. Only when employees did not recover effectively, WLC predicted a decrease in job satisfaction ($\beta = -.17, p < .001$; $\beta = .59, p < .001$, respectively). For exhaustion ($\beta = .40, p < .001$; $\beta = -.36, p < .001$, respectively) and disengagement ($\beta = .18, p < .001$; $\beta = -.53, p < .001$, respectively) the negative impact of WLC was also diminished by recovery. In sum, our results strengthen the crucial role of WFE and underline the observation that men and women interpret their work-family experiences in a qualitatively different manner.
satisfaction. For the outcome job performance the results were more complex. We found a positive association between work-private life interference and job performance and no relation between private life-work interference and job performance. In general, our findings suggest that recovery during leisure time is an important factor that helps to buffer the negative impact of WLC on at least job satisfaction.

Work-linked academic couples: work-life balance or conflict?
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The prevalence of employees working in a similar occupation to their spouse or partner has generally increased. Although there could be benefits for such couples, doing similar work may threaten their work-life balance and wellbeing. Little is yet known, about the way in which work-linked couples manage the work-home interface, or whether doing similar work enhances work-life balance or leads to work-life conflict.

Two studies are presented that examine the work-life balance experiences of work-linked academic couples. The first study investigated whether academics that are in a work-linked relationship differ in levels of key work-home interface variables, compared with those whose partners work in different professions. Levels of work-life integration and boundary strength, the extent of work-life conflict and working hours were compared. Levels of over-commitment and involvement in the job role were also examined. Whether work demands were more likely to spill over into the home domain for work-linked academics were also investigated. Of the 644 participants, 45% (n = 291) had partners who worked in the higher education sector, whereas the other 65% had partners in different professions. Findings indicated that academic employees in a work-linked relationship reported higher levels of work-life integration, weaker boundaries between work and home, greater commitment to the job role, higher levels of job involvement, and more work-life conflict than those whose partners did different work.

The second study involved 45 work-linked academic employees completing a questionnaire online combining quantitative measures with open-ended questions. Questions covered issues relating to work-life balance and conflict, work-home integration and boundary strength, as well as the benefits and costs of having a partner who did similar work. The frequency and nature of discussions between partners about work were also explored and the strategies utilised by participants to manage the work-home interface. Participants highlighted the benefits and drawbacks of having a partner who was also an academic. For example, the schedule flexibility often inherent in academic work was considered useful in helping partners manage caring responsibilities, but a tendency for work concerns and conversations (both positive and negative) to “take over” family life and leisure was also identified. A diverse range of strategies to manage the work-home boundary and reduce role conflict emerged and the need for work-related couples
to negotiate boundary management was emphasised. Findings suggest that dual-career academic couples may need help in managing the work-home interface more effectively.

**How I manage home and work together: occupational demands, engagement, and work-family conflict among nurses**

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Background: Nursing is an accountable profession due to the concern with patient safety (Aiken et al., 2002). In recent years, growth requirements and a reduction in rewards within this profession have been observed (Basinska & Wilczek-Ruzyczka, 2011). Most nurses are women and it is known that women often try to put together professional duties and family life. The conflict between private and professional life is bidirectional in nature. The negative impact of work on private life is observed more frequently than the reversed relation (Greuters et al., 2003).

The aim of this study was to evaluate the impact of conflict work-family and family-work on the perception of occupational stress and engagement. Professional demands were defined as work overload and interpersonal conflicts at work. Positive engagement was characterized by vigor, dedication and absorption (Schaufeli et al., 2002).

Methods: The following methods were used: Interpersonal Conflict at Work Scale and Quantitative Overload Inventory (Spector & Jex, 1998), Utrecht Work Engagement Scale – short version (Schaufeli, Bakker, & Salanova, 2006), and Work-Family Conflict and Family-Work Scales (Netemeyer, Boles, & McMurrian, 1996). The study consisted of 98 nurses from southern Poland (mean age 41 years, SD = 5.7) with an average seniority of 19 years (range 1.5 – 30). Most of them were married (85%) and had a working partner (82%); 10% didn’t have any children.

Results: The value of work-family conflict was stronger than the family-work conflict. Job demands were higher in the group of nurses who felt a greater negative impact of work on the family. Moreover, they felt less vigor, dedication, but more absorption (d = .42 - .85). Nurses who had a stronger negative impact of family on work also experienced a greater influence of the job at home (d = .62). Additionally they were more absorbed by their work (d = 2.04).

Conclusion: Our results confirm that the work-family conflict is stronger than the family-work conflict. The negative impact of work on private life shows in the differences in perception of occupational stress and engagement in work. However, we have observed that the family-work conflict is more frequent in nurses with high absorption. We suggest to longitudinally investigate the reciprocal relationships between work and private life among nurses.
Growing old, getting grumpy? A meta-analysis about the relationship of age and work-related strain
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Objectives: In light of demographic changes and an aging workforce, sound knowledge of the relationship between age and work-related strain is needed. However, little is known about this relationship. Based on life-span approaches, we examine age differences in various components of the work stress process using a meta-analysis approach. In doing so, we focus on age differences in a specific indicator of work-related strain, i.e., irritation. Irritation is a more short-term consequence of workplace stressors and includes both ruminations (cognitive irritation) about the work as well as irritability (emotional irritation). In addition, moderator analyses (job control, type of occupation, gender) are conducted that further differentiate and extend the overall meta-analysis results.

Method: A meta-analysis was conducted on the relationship between age and irritation including moderator analyses. The meta-analysis included a total of $k = 66$ studies (samples) from 48 articles, with a total of 233 effect sizes and a total sample size of $n = 29,806$ respondents.

Results: The meta-analysis showed no significant overall correlation between age and irritation. Instead, this relationship is significantly moderated by the type of occupation and by gender. The relationship between age and irritation was stronger in realistic jobs and in samples with a higher percentage of men.

Conclusion & Implications: Consistent with the idea that age-related losses and gains might compensate each other, no overall relation between age and irritation was found. However, the type of occupation influences which of these age-related changes, losses or gains are more prevalent. Therefore, managers might revise their all too often negative assumptions about older workers and might assess the strain level of their employees more thoroughly. This would enable managers to implement tailored stress prevention and intervention strategies.

Gender Perceptions of Factors Affecting the Career Advancement of Females in a Manufacturing Company
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Objectives: Despite a significant improvement in the number of females entering the South African workforce in recent years, gender differences in professions and occupations previously occupied by men have been slow to be eradicated. Previous research has shown that females, as a minority group, can experience
significant professional and personal barriers towards career advancement in male dominated occupations and organisations (Du Plessis & Barkhuizen, 2011). The main objective of this research was to determine the gender perceptions of factors that affect the career advancement of females in a South African automobile manufacturing company. More specifically we wanted to investigate whether there are any significant differences between the perceptions of males and females regarding the factors that facilitate and constrain females’ career advancement in the company.

Methods: A convenience sample was taken of males and females (n= 160) employed in a South African automobile manufacturing company. A questionnaire was used to determine the perceptions of both groups of respondents regarding the factors that facilitate and constrain females’ career advancement in the company.

Results: The results showed that significant differences exist between males and females regarding their perceptions of the facilitating and constraining factors that affect the career advancement of females. As regards the facilitating factors both groups of respondents were in agreement that hard work, effective communication skills, problem solving skills and personal sacrifice contribute to the career advancement of females. Both groups of respondents however had opposing views regarding the importance of family support as a facilitating factor towards female career advancement. Further results showed that females perceived that a lack of pay, training and promotion as well as the ‘old boy network’ and a lack of support systems at work were some of the most constraining factors in their career advancement. Males in contrast perceived that conflicting family responsibilities and inadequate job knowledge are some of the main constraining factors affecting female career advancement.

Implications and conclusions: This research makes an important contribution towards identifying the key facilitating factors but also the barriers affecting the career advancement of females in male dominated occupations and organisations. Identifying these factors can assist organisations to more effectively manage the career paths of females in male dominated occupations and retain them. Females experience significant career barriers in male dominated occupations. More research is needed to identify female career barriers and to implement effective interventions to overcome these barriers.

Objectives: The election of a democratic government in 1994 saw South Africa as a country, trying to recover from the past system of apartheid that had a policy of
separate development prevailing. Among the democratically elected government's plans was the transformation of the public health sector. Within the public health sector, where segregation of patients was caused by previous government's laws, transformation of hospitals included opening doors to patients inclusive of all racial groups. These health institutions thus had to adapt to providing the same treatment and courtesy to all the patients, irrespective of their ethnic background. The transformation that resulted from this democracy necessitated that health workers of diverse cultures sharing one goal, patient well-being, should work together to achieve an efficient and effective service delivery for their patients. The main purpose of this research was to explore the perceptions of employees regarding the factors that influence effective work relationships in a culturally diverse work context.

Methods: This research followed a case study approach. Focus group sessions (n=11) and follow-up in-depth interviews (n=4) were conducted with employees of a physiotherapy department in a South African government hospital.

Results: Findings showed that ethnicity, home language and education were some of the main factors impacting on effective work relationships in the physiotherapy department. Other factors that were mentioned included religion, lack of understanding and a lack of respect for different cultural backgrounds. Age, personality, values and beliefs were also factors that were mentioned least, though these are also important to consider in effectively managing work relationships in a culturally diverse work context.

Implications: This research makes an important contribution towards identifying those factors that can have an impact on the effective functioning of culturally diverse employees in organisations. It is important that management take note of these factors and educate staff to understand and appreciate cultural diversity and to be more culturally intelligent. This in turn can contribute towards improved work relationships and performance in organisations.

Conclusions: Cultural diversity has important implications for the effective work relationships and functioning in organisations. Organisations need to reach a stage of intervention where employees learn how to embrace diversity and contribute to the overall success of organisations.

Modelling psychosocial processes of gender-related diversity in psychosomatic health using the 4th European Working Condition Survey
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Aim: The aim of the current study was threefold: firstly, examine whether there exists a significant gender difference in mental health; secondly, examine where there are significant gender differences among vocationally active (full time)
European workers in relation to reported work conditions, work-related psychosocial factors, work-life imbalance, and private domestic duties; and finally, examine what work and domestic duty factors, and their respective interface, have predicative power in relation to vocationally active European men’s and women’s mental health; and where or if significant gender differences exist there within.

Method: A structured review of the literature was conducted in phase one of the study. The result of the review produced a theoretical model to yield *apriori* hypotheses to test. The sample was derived from the 4th European Working conditions survey. The sample included vocationally active European men and women (>35 hours per week) who reported that work affected their health. Excluded respondents were homemakers, part time workers, retired workers, and unemployed individuals, individuals on parental leave or leave for other reason, or on long term disability. The final sample size was 9790. The psychometric properties of all the tested variables were examined to ensure sufficient levels of reliability and validity. The final sample was randomly split into two samples. The analysis was replicated in both samples and the derived results were comparatively assessed, to examine the validity and reliability. Independent t-tests and chi-squares were conducted to examine where significant gender differences exist in self-reported working conditions, psychosocial hazards, domestic duties/home factors, and in relation to the psychosomatic health. Multiple linear regression analysis was conducted to examine the predicative factors of psychosomatic health in the entire sample; and in women and men as independent groups

Results: A statistically significant difference between men’s and women’s psychosomatic health was observed; with women reporting on average worse psychosomatic health. Significant gender differences were observed across a number of variables: including, working conditions, psychosocial hazards, and domestic duties/home factors. The results of the regression analysis for the entire sample (in both sample one and two) found several factors significantly predicted men’s and women’s psychosomatic health: including, work-life conflict, psychological demands, job pressure, gender, social support; and bullying and harassment. In sample two, threats of work-related violence was found to be significant. None of the examined home factors/domestic duties or social class indicators were observed to significantly predicate men’s and women’s psychosomatic health. The final model was found to account for 17.7% of the variance in sample one, and 18.7% of the variance in sample two. The analysis was re-run for men and women as independent groups in both sample 1 and 2. When men and women were examined as independent groups, physical/ambient working conditions were found to be a significant predictor of psychosomatic among women in sample one and two; whilst this relationship was not found among men.

Conclusion: The implications of the study will be discussed in relation to the promotion of men’s and women’s wellbeing from a gender-sensitive perspective in relation to workplace practices, policies; and avenues for future research will be highlighted.
Different manifestations of psychosocial work environment in men and women in the manufacturing industry in Sweden

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Background: In order to prevent serious illnesses arising from work exposure, it is important to understand their precursors and how they affect men and women. The most common reasons for sick leave from work today, are stress-related and the perception of an inadequate psychosocial work environment is a common stressor. How is this perceived by men and women? Are the effects of the psychosocial work environment manifested differently in the different sexes?

Methods: The longitudinal Work Lipids and Fibrinogen (WOLF) Northern Sweden cohort was used as it was suitable for the purposes of this study. The WOLF study aims at investigating the effect of work and lifestyle on health. The Northern Sweden WOLF cohort contains mostly manufacturing industries which comprise male dominated work environments. Out of the 1427 participants that participated both in 2000-2003 (T1) and 2009 (T2), 1,220 were men and 207 women. The study took on a holistic approach studying the interaction between sex and many psychosocial work environment variables in various health conditions. The interaction analyses and post hoc testing were performed with logistic regression analyses.

Results: The psychosocial work factors: demand, role conflict and psychosocial climate gave rise to different types of ill-health in men and women. After confounding control, women with high demands (OR 7.42; 95% CI 1.57-33.42) and poor psychosocial climate (OR 5.98; 95% CI 1.16-30.82) had a higher risk of neck-shoulder pain, whereas high demands (OR 2.26; 95% CI 1.37-3.74) gave rise to work overcommitment and role conflict (OR 1.37; 95% CI 1.18-2.95) to fatigue in men.

Conclusions: In a male dominated, manufacturing environment, women's reactions to poor psychosocial work environment seem to manifest themselves in bodily pain. Men on the other hand seem to react with psychological reactions such as work overcommitment and fatigue. From a preventive point of view, it is important to understand that different symptoms in men and women may be a response to the same exposure. This may be incrementally important when working in environments with unequal gender distribution.

The role of (work) organization for understanding sector differences in women working conditions in Sweden

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Background: Changing organization of work is one strategy to improve health of employees. In an earlier study, different types of organization were identified in
workplaces in Sweden. These were unevenly distributed between sectors in the labour market. Therefore, the present study tested whether the types of organization found contribute to sector differences in working conditions. The gender-segregated labour market in Sweden makes it problematic to differentiate between sector and gender. Therefore, only women are included in this study.

Method: Data from the Work Lipids and Fibrinogen (WOLF) study was used including 69 workplaces and 1047 women in Mid-Sweden. The impact of five types of organization on several aspects of psychosocial working conditions was tested with multilevel analysis. Each outcome was analysed separately with age, socioeconomic position of employees, and organisational sector controlled for. Interaction between sector and type of organization was also included in the analysis.

Results: Type of organization at workplaces could partly explain sector differences in role conflict, job demands, control, social support, psychosocial climate, and work over commitment. Women in traditionally organized workplaces had lower control and worse psychosocial climate than women in other workplaces. At socially organized workplaces, women had higher role conflicts and control but less emotional support. Women at group-oriented workplaces had better relation to management, less role conflicts and demands but the highest degree of work over commitment. Finally, women at regulating workplaces had high demands and less social support than women at other workplaces.

Conclusion: How work is organized at workplaces contributes to differences in working conditions between sectors.

Work engagement among mountain instructors: Identification of potential long term consequences
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Background: Work engagement refers to a positive, fulfilling, affective-motivational state of work-related well-being which can have a positive effect on work performance (Schaufeli & Bakker, 2004). Whilst the personal and organisational benefits of work engagement have been well documented, the long-term relationship between engagement and health remains less well defined (Bakker et al., 2008). This is surprising, given that in most industrialised countries work-related injury and ill-health presents a major burden to individuals, organisations and society.

Previous research by Hillebrandt (2007) has identified that mountaineering Guides, operating internationally are prone to chronic musculoskeletal problems yet despite their injuries, remain active. This may be a consequence of high work engagement. Anecdotal evidence also suggests that those working in the Outdoor Industry in the UK are susceptible to a variety of chronic injuries but this has not been investigated.
empirically. This pilot study aimed to identify the key factors related to the occupational health of those working as Mountain Instructors within the UK. Attitudes to work engagement were also explored.

Method: A qualitative approach was utilised involving semi-structured telephone interviews with twenty qualified UK mountain leaders. The interviews were recorded and fully transcribed. The data were analysed thematically using the qualitative data management tool NVIVO.

Results: The majority of interviewees demonstrated high motivation, job satisfaction and engagement with work. High levels of work intensity were also reported with some respondents working for months without a rest day. A large number of interviewees (85%) also reported a current musculoskeletal or cumulative trauma complaint which was related to work activities and these affected a number of body parts including the knees, hips, back and shoulders. Respondents also reported presenting to work whilst ill or injured, citing job insecurity as a driver for presenteeism.

Conclusion: The cumulative physical effects of working in the outdoors may only be apparent in later years and may be exacerbated through high levels of work engagement as demonstrated by those participating in this study. These findings have identified a potential long-term consequence of work engagement and have highlighted an important area for future research. The findings are relevant to other industries where the cumulative effects of work intensity and work engagement may have adverse consequences for health.

Effects of violence on engagement in a sample of penitentiary system employees
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Introduction: Security of penitentiary centers depends on employee’s engagement. They cope with overpopulation, violence and delinquency as a part of their job. We hypothesized: As the perception of violence increases, engagement could decrease and people would develop higher burnout levels, reducing job performance.

Objective: The aim of the present study was to evaluate the impact of violence on engagement and burnout levels of penitentiary system employees.

Methodology: We applied the Spanish version of the Utrecht Work Engagement Scale (UWES, Schaufeli & Bakker (2003)), the Psychological Violence and Harassment in the Workplace Inventory (Pando M. (2006)), the Spanish Burnout Inventory (Gil – Monte (2005)) and a custom – made socio demographic questionnaire, to a sample of penitentiary employees (n = 636). The sample
Results: Perception of violence was significant to more than 70% of employees in each group. Surprisingly, in violence perception, scores of Presence and Intensity were higher in the control group. Indolence was higher in the experimental group, the Levels of Enthusiasm, Psychological Exhaustion and Guilt scores were lower in the experimental group. The prevalence of Burnout was higher in the control group, but it was more severe in the experimental group (respectively 3.76% vs. 3.94% of burnout type 2 prevalence). The engagement component’s scores were higher in the experimental group, except in the Absorption scale. The complete scale showed a slight difference: 4.52 in experimental group, vs. 4.38 in the control group.

Conclusion: This study showed that, in the presence of violence, security employees react in both positive and negative ways. It seems that facing violence impacts on their health but also activates their job skills and other protective psychosocial factors. This study could help to create or improve PSR management programs for prison’s employees.

Social context and its influence on organisational commitment
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The study of the social context has acquired a particular place in the scientific fields dealing with workplace related behaviour. Nowadays, among the variables of social context, there are well-established concepts of societal and organisational culture, organisational climate and human resource management practices. All the aforementioned variables are denoted by the presumption that people are an important organisational resource; that the environment, in which they act, significantly affects them and that the key explanatory element of this impact is the meaning people assign to the environment.

The basic purpose of this study is to explain the role of societal (societal culture) and organisational (culture, climate and human resources management practice) context on organisational commitment. An integrated approach regarding the contextual variables was used, aligning them with the Kopelman, Brief and Guzzo (1990) theoretical model of climate, culture and productivity.

The sample comprised of Slovenian employees (n= 824), and utilised multiple regression (method “enter”), as a statistical method of analysis. The results obtained confirm the theoretical model. The statistical model explained 37% of (adjusted) variance in the ratings of employees' organisational commitment. Individuals respond above all to the direct work environment, described by the
following human resources management practices: 1) workplace organisation, 2) socialisation of newcomers, 3) training, 4) communication, and 5) health and equal opportunities related practices. The work environment is further determined by superior contextual variables: organisational and societal culture. However, societal culture has also a direct impact on employees' organisational commitment.

The study confirms the previous theoretical notes that it is essential to accede to the examination of the cultural concept as the contextual variable in a multi-layered manner, integrating the concepts of climate and culture in a uniform concept of the societal context. The study has several implications for further research and practice, e.g. planned organisational activities for the provision of health and general support of employees at work can contribute to the motivation and productivity of employees.

**Leadership and affectivity: Moderating effects on work engagement**

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Theoretical background and objectives: This study aimed to investigate the impact of transformational leadership and that of “destructive leadership behaviour anti-organization” (Einarsen et al., 2007) on workers’ engagement towards work. In this study we adopted the Job Demands-Resources model ((JD-R model, Demerouti et al., 2001), a theoretical framework that was recently used to investigate such outcome (Tims et al., 2011). The present study analyzed the impact of destructive leadership as a potential job demand and as well as the impact of transformational leadership as a possible job resource. It also investigated positive affectivity, considering it both as a potential determinant and as a moderator of the leadership’s impact on the outcome. Doing this, we partially retraced Bledow and colleagues’ (2011) hypothesis about how positive affectivity exerts an effect that moderates negative events in explaining work engagement.

Methods: This study was conducted through a questionnaire filled out individually by 143 respondents from a local Italian-government agency. The questionnaire included a personal-data section and four factors: work engagement (9 items, α .92), destructive leadership anti-organization (4 items, α .84), transformational leadership (7 items, α .95), and positive affectivity (10 items, α .90). Data analysis was performed with PASW 18. Multiple regression with moderating effect was used to investigate the causal relations among variables.

Results: Work engagement is influenced (38% explained variance) negatively by destructive leadership anti-organization and positively by positive affectivity. Moreover, there was a significant moderating effect. The impact of destructive leadership differs according to different positive affectivity levels. In particular, destructive leadership anti-organization has a stronger negative impact on work engagement for individuals who have a high level of positive affectivity.
Implications and conclusions: This research project deepens our comprehension of different types of leadership in influencing the investigated outcome. The two leadership scales show an unexpected influence referring to JD-R model: in fact, the resource of transformational leadership doesn’t influence work engagement. Moreover, this result is not in line with Tims and colleagues (2011). Positive affectivity has a strong effect on work engagement. Hence organizations that do not take steps to detect and reduce destructive leadership could see lower level of work engagement, particularly among the most motivated employees.

The Relations between Challenge/Hindrance Stressor and Job Dedication: A Qualitative and Quantitative Study
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Objectives: Job stressors can be categorized as either challenge stressors that are motivating or hindrance stressors, which are debilitating (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Empirical research has revealed differential relations between these two stressors and important work outcomes, such as job performance (Cavanaugh et al., 2000; LePine, Podsakoff, & LePine, 2005). Continuing this research, our objective was 1) using both qualitative and quantitative approach to examine the relations between challenge/hindrance stressor and job dedication; 2) examining how conscientiousness moderated such relations.

Methods: Participants were 1,238 municipal law-enforcing officers from Beijing, China. Using qualitative approach, we asked participants to describe a stressful job event they encountered at work in the past month. We also asked participants to report if their performance efficacy was decreased (-1), no change (0), or increased (1). Using quantitative approach, we measured challenge and hindrance stressors (Cavanough et al., 2000), job dedication (Van Scotter & Motowidlo, 1996), and conscientiousness (John, Donahue, & Kentle, 1991).

Results: Content analysis was conducted by three independent raters on 121 job stressful incidents submitted by participants. Among these, 70 incidents were classified as challenge stressor and 51 incidents as hindrance stressor. The chi-square analysis revealed a significant positive correlation between challenge stressor (0 = no report; 1 = report) and performance efficiency (-1 = decrease; 0 = no change; 1 = increase), as well as a significant negative correlation between hindrance stressor and performance efficiency. Consistently, the quantitative data showed that challenge stressor was positively related to job dedication whereas hindrance stressor was negatively related to job dedication. Finally, the multiple moderated regression analysis showed that conscientiousness was a significant moderator for both the challenge stressor-dedication and hindrance stressor-dedication relationships. Challenge stressor was positively related to dedication...
only when conscientiousness was low. Hindrance stressor was negatively related to dedication only when conscientiousness was high.

Conclusion: Both qualitative and quantitative data supported the idea that challenge stressor was positively related to job dedication whereas hindrance stressor was negatively related to job dedication. In addition, this study demonstrated the important role of personality in the challenge-hindrance stressor framework. Individuals appraise and cope with stressors differently. That is, low conscientiousness employees may be more motivated by challenge stressors than high conscientiousness employees, who are most likely already motivated. High conscientiousness employees may be more frustrated by hindrance stressors than those with low conscientiousness, since they are already less dedicated.

**Lean Job Design and Performance: The Mediating Role of Well-Being**

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Lean Manufacturing (LM) is an integrated socio-technical system with the objective of waste elimination through the reduction of variability (Shah & Ward, 2007). Research which addresses the quality of working life under LM has yielded contradictory and inconclusive findings which demonstrate health-improving, as well as health-impairing, aspects of its resulting job design. While some have found LM to be damaging for employee well-being due to the deterioration of job characteristics (Parker, 2003), others have concluded that it has the potential to improve well-being if managed effectively (Conti et al., 2006). To date no applicable model has been identified which incorporates both its positive and negative potential. The aim of the present study therefore is to examine employees’ well-being in a LM context using the Job Demands-Resources Model (Demerouti et al., 2001), which incorporates dual health impairment and motivational processes. Specifically, we investigated (a) the impact of lean job design (i.e. resources and demands) on well-being (i.e. work engagement and burnout) and self-reported performance (i.e. OCB), and (b) the mediating role of well-being in the relationship between lean job design and self-reported performance.

The sample consisted of 200 employees from a pharmaceutical company based in Ireland using LM. Employees completed an online survey which assessed their perceptions of job demands (production pace, production responsibility, monitoring, problem-solving) and resources (method, timing and boundary control, skill utilisation, feedback, group cohesion) relevant to the lean manufacturing context that they were working in, in addition to their work engagement, burnout, and performance.

Hierarchical multiple regression analyses were used to test the impact of lean job design (i.e. resources and demands) on performance (i.e. OCB) and the mediating role of well-being (i.e. work engagement and burnout) in this relationship. As
expected, lean resources were positively related to work engagement and negatively related to burnout. Also as expected, lean demands were positively related to burnout and negatively related to work engagement. Interestingly, both monitoring demands and production responsibility were positively related to work engagement which supports recent differentiations between challenging and hindrance demands in the prediction of well-being (Crawford et al., 2010). Results also supported the expected mediating role of well-being in the relationship between job design and performance.

These results provide support for the JD-R model in its adaption to the LM context. It also demonstrates the importance of maximising resources and challenges while minimising hindrance demands to optimise well-being and subsequent performance in lean organisations.

The development and evaluation of a novel, web-based workplace intervention to increase organisational capability and support for employees with mental health problems

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Post-GFC economies of the western world have suffered unprecedented setbacks and have increased stress on workers, managers and executives alike, which has, in turn, impacted upon the mental health of staff. In particular, depression and anxiety occur at high and increasing rates, reducing productivity and worker satisfaction. However, current workplace interventions have only been mildly successful. Workplace mental health interventions are urgently needed which: (i) are affordable, (ii) help reduce the stigma of mental illness, (iii) engage all levels of the organisation, (iv) are accessible to all employees - wherever and whenever they are located, and (v) offer information that increases awareness, (vi) assists prevention, and (vii) offers treatment options as well as rehabilitation.

In this paper we propose the development, testing and evaluation of a novel approach to workplace mental health improvement, whereby interventions are precisely tailored to organisations and importantly utilize a stratified, multi-tiered approach that comprehensively addresses mental issues at all levels within and organisation. New technologies have increased the pace of the modern world, and we believe these online technologies and their inbuilt efficiencies can also be used to deliver mental health benefits almost in any place and at any time. We propose to develop an intervention program which engages with different levels of the organisation (executive/manager/general employee) which is unique, and requires several steps. We will need to combine information collected from a number of sources including existing organisational data (e.g. sick leave), survey responses, and responses gained from three focus groups and fifteen individual interviews.

The information collected will inform the content of the web-based intervention modules, and will then be implemented to all employees of a single organisation.
The modules will be provided to new employees at commencement and to those who are on extended sick leave or worker's compensation. The intervention program will be trialled and evaluated after twelve months of use within the organisation. The evaluation will include comparison of organisational data (e.g. sick leave) pre and post intervention, as well as feedback collected from users upon completion of the modules, and stakeholder interviews. The challenges to the sustainability of such online programs will be presented.

The European perspective on prevention of psychosocial risks and mental health promotion at work
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The previous Community strategy on health and safety at work 2002-2006 identified stress as a priority. The current Strategy (2007-2012) reinforced the issue by focusing on psychosocial risks and mental health promotion at the workplace. The European Agency for Safety and Health at Work (EU-OSHA) supports the implementation of the strategy using different approaches, including both, research and good practice.

The EU-OSHA carried out a pan-European Survey of Enterprises on New and Emerging Risks (ESENER, http://www.esener.eu). The survey particularly addressed management of psychosocial risks at work, like stress, violence and harassment. Analysis of the data gives an overview of the situation of psychosocial risks and in how far they are dealt with within companies in different European countries. The data allows drawing conclusions on the needs and possibilities of interventions with regard to mental health promotion at the workplace. It can for example be shown that managers tend to view the main causes of psychosocial risks as being those linked to external factors, such as difficult customers, rather than related to internal causes.

As the ESENER data shows the health care sector is of special concern when talking about work related stress, violence and harassment. The Agency produced a fact sheet for mental health promotion in health care for giving ideas and initiations on how to tackle these issues in the health care sector. The ESENER data is further complemented by information for supporting mental health promotion. Several case studies displaying practical solutions on mental health promotion in companies, from different sectors, from all over the EU, have been collected. The case studies were summarised and analysed in order to obtain general as well as innovative approaches on how to maintain and enhance mental health at the work place.
Psychological and social work factors and mental health: a prospective study of Norwegian employees
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Objectives: Systematic reviews of prospective studies have reported that psychological and social work factors are risk factors for mental distress. Most of these prospective studies have focused on components of the demand/control/support model and the effort/reward imbalance model. These models do not cover the whole range of psychological and social work factors, and future research should employ more comprehensive exposure measures. In line with this, the objective of the present study was to determine the relation between a comprehensive range of psychological and social work factors and severe mental distress.

Methods: The study was prospective with a full panel design. 9404 subjects were recruited from 46 different organizations in Norway. Baseline data were gathered from 2004 until 2009, and follow-up data from 2006 until 2011. Psychological and social factors were assessed by the General Nordic Questionnaire for Psychological and Social Factors at Work (QPSNordic). Mental distress was measured by the ten item version of the Hopkins Symptom Check List (HSCL-10). The HSCL-10 was dichotomized with a cut-off point of 1.85. Multivariate binary logistic regression analyses were conducted.

Results: After adjusting for age, sex, occupational skill level and severe mental distress at baseline 11 of 19 factors were significantly (p< 0.01) related to severe mental distress at follow-up: decision control, role conflict, support from immediate superior, empowering leadership, fair leadership, social climate, positive challenge, human resource primacy, predictability during the next month, predictability of next two years and procedures designed to hear the concerns of all affected by the decision to make organizational changes.

Conclusions: Traditional factors like quantitative demands, decision demands and control over work intensity, were not explanatory factors for severe mental distress in this study. Factors like decision control, role conflict, support from immediate superior, empowering leadership, fair leadership, social climate, positive challenge, human resource primacy, predictability during the next month, predictability of next two years and procedures designed to hear the concerns of all affected by the decision to make organizational changes, were important explanatory factors in the etiology of mental distress. These results show the importance of including a comprehensive range of factors when investigating the relation between psychological and social work factors and mental health.
Background: The ageing of our population and its associated risk of cognitive decline will have a marked impact on work productivity and the psychological well being of individuals. The increasing rate of diagnosed mental illness and its impact in the workplace is also a universal concern. Based on the growing body of research supporting the positive impact of computerized Brain Training on cognition and mental health, the aim of this study was to determine whether the same benefits seen in clinical groups could be translated to working Australians.

Objective: Specifically, we wished to test whether online delivery of computerised cognitive Brain Training in the workplace translated to improved cognitive ability, increased work productivity and greater self-rated psychological wellbeing and job satisfaction.

Methods: We implemented a 16-week multicentre, randomized, single-blind, active controlled trial in an Australian public sector organisation. The Brain Training and Active Control groups completed 4 months of training during working hours. Testing of cognitive function and psychological well being was conducted at baseline, immediately after training and 6 months post training to determine persistence of effects. Measures of work productivity were also collected at these 3 time points.

Results: Overall, this study showed benefits conferred by both Brain Training and control training on well being and cognitive attributes. Brain Training selectively boosted outcomes in low cognitive performers across almost half of the cognitive tests, an effect that was maintained for 6 months. For high cognitive performers, most tended to decline in their level of performance over the training period. We also found some interesting trends relating to psychological well being, whereby, unexpectedly, control training improved stress, quality of life and overall psychological well being over the long term. When the group was split on initial stress level, we found that the high stress group reaped significantly greater benefit from both forms of training than the low stress group, showing improvements across measures of intention to quit, professional self esteem, depressive symptoms, psychological well being and job satisfaction. There were also numerous significant correlations between measures of well being and productivity, compared to few correlations between productivity and cognitive measures, suggesting perhaps a stronger relationship between well being and productivity.

While this research shows that Brain Training has discernable and positive effects on cognition in healthy working adults with lower levels of cognitive functioning,
productivity is more likely to be enhanced through a focus on improving well being. Enhancing well being at work as a means to boost productivity is the focus of a follow up study.

**Anxiety and perceived well-being of workers**

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Introduction: Availability Humanization Model (AH-Model) has been used to estimate work-load in real working situations. According to AH-Model, workers' availability depends also on human abilities and health. Mental health problems impact workers' availability and performance at work. Identification of connections between anxiety, as a frequent mental health problem, and perceived well-being, is the aim of this research. Well-being should be estimated with QAA (Questionnaire of actual availability) from AH-Model.

Sample: 319 workers from different occupations with diagnosis F41 – anxiety, determined by psychiatrists, included in the expert psychological evaluation as part of a process of health estimations as a part of expert estimation of work availability. From the group of 1050 persons, 319 had anxiety problems or the combinations of anxiety with other diagnosis.

Results: 270 of evaluated persons had only diagnosis from the group F41. 49 persons had combination of two (39) or three (10) diagnosis. There are important differences in perceived level of fatigue, mood, stress and motivation between different groups of workers. The lowest level of fatigue, depressed mood and perceived stress was in the group of patients with one diagnosis. The lowest level of fatigue, depression and stress was in the group with diagnosis F41,3. According to perceived level of well-being the worst combinations according to perceived fatigue were F41,1 and F61,0, and F41,2 and Z73,0. According to perceived stress the worst combinations were F41,1 and F61,0, and F41,2 and F48,0. According to perceived depression the worst combination was F41,1 and F61,0, and F41,8. Perceived level of well-being in the group of patients with combinations of diagnosis has been above 4,0 and in the group of patients with only 1 diagnosis (F41) has been below 3,5.

Conclusion: According to our results there is on obvious impact of mental health problems represented with diagnoses classified according to the ICD-10 on perceived level of well-being. Low level of perceived well-being should be the first sign of serious mental health problems. According to the standardized values of QAA values above 3,0 need special care and intervention by psychologist. The worst is combination of serious mental health problems and anxiety which is manifested in the perceived well-being above 4,0.
The QAA should also be used as an instrument for early detection of mental health problems and for in-time interventions. The QAA is a convenient instrument for implementation during the regular medical checking or for well-being follow-up for real working situations.

**Measuring Individual Work Performance: Identifying and Selecting Indicators**

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Individual work performance (IWP) is a relevant and often used outcome measure of studies in the occupational setting. Theoretically, IWP can be divided into four dimensions: task performance, contextual performance, adaptive performance, and counterproductive work behaviour. However, there is no consensus on the indicators used to measure these dimensions.

In the current study, IWP indicators were identified by means of the literature, existing questionnaires, and expert interviews. Secondly, experts from different professional backgrounds selected the most relevant indicators per IWP dimension. They also scored the relative weight of each IWP dimension in ratings of work performance. In total, 128 unique IWP indicators were identified. Twenty-three of these indicators were selected as most relevant for measuring IWP. Between experts from different professional backgrounds, there was agreement of 84% on these indicators. Task performance determined 36% of the work performance rating, while the other three dimensions respectively determined 22%, 20% and 21% of the rating.

In conclusion, numerous indicators have been used to measure IWP. However, we found notable consensus on which of these indicators were most relevant, reducing the number from 128 indicators to 23 relevant indicators. This provides an important step towards the development of a generic and comprehensive measurement instrument assessing IWP.

**The Role of Job Demands and Resources on Absenteeism, Engagement and Health of Portuguese Workers**

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Diverse work environment factors have been consistently found to be strong predictors of absenteeism. In this way, absences are directly related to work context and to its’ consequences on the health of employees. Also, aware of the relationship between work and both values and justice in individual outcomes,
several studies have linked shared values and justice with engagement and employees’ health.

The Six Areas of Worklife Model underlines the importance of workload, control, rewards, values, justice and community. In the present study, the Job Demands-Resources (JD-R) Model was used to examine the demands and resources perceived by workers. In this line, working characteristics may enhance two distinct psychological processes: excessive work demands lead to constant and high psychological effort resulting in exhaustion, and the lack of job resources result in frustration and in cynicism. Also, the effect of worklife experience can be moderated by values and justice perceptions, affecting the engagement and workers’ health. The present study accounted for both models, and intended to test and verify if high demands and lack of resources lead to absenteeism through two distinct mechanisms: exhaustion and cynicism, and to analyze the moderator effect of values and justice on engagement and health. A transversal study was conducted with Portuguese workers (n=899), where 62% were female and 38% male, with a mean age 42.7.

A series of multiple regression analyses confirmed the effect of job demands and job resources on absenteeism. Regarding the first path, results indicate the effect of workload in job demands ($R^2 = .296; p<.001$), from this to Exhaustion ($R^2 = .618; p<.001$). Also, the diverse dimensions of work context contribute to job resources: Control ($R^2 = .731; p<.001$), values ($R^2 = .216; p<.005$), justice ($R^2 = .492; p<.005$), community ($R^2 = .451; p<.005$) and rewards (n.s.). Job resources have a positive decreasing effect on Cynicism ($R^2 = -.944; p<.001$) that in turn predicts lower Absenteeism ($R^2 = -.805; p<.001$). Strong support was found for the adopted conceptual model as it explained 64% of the total variance. Results also show that work environment predicts the perception of values and justice ($R^2 = .979; p<.001$), similar results emerged for all three dimensions of engagement: Energy ($R^2 = .925; p<.001$), Efficacy ($R^2 = .836; p<.001$) and Involvement ($R^2 = .728; p<.001$). These elements converge in an interdependent relation, and predict employees health ($R^2 = .982; p<.001$), explaining 76% of the model’s variance.

The perception of high job demands and existence of job resources make distinct contributions to rates of workers’ absenteeism. It was observed that although job demands contributes highly to absenteeism, the perception of existence of job resources diminishes workers’ cynicism, in turn predicting significant lower levels of absenteeism. It is expected that diminished rates of nonattendance will result in higher rates of organizational productivity and profits. Also, availability of resources such as values and justice has a fundamental role in the levels of energy, efficacy and involvement (engagement) of employees, acting as a significant variable in relation to employees’ health.

The importance of investing in organizational and psychosocial development plans, in order to promote availability of job resources that enable workers to deal with the elevated demands of the present markets, is emphasized to portuguese
organisations. Economical conjecture and organizational life shows an increase on demands and on objective performance in order to attain pre-defined goals and in this way to remain competitive. Thus, this “symbiotic” relation is undeniable, job resources are fundamental to workers’ health and organizational participation, and in turn the well-being is essential to organizational outcomes.

**Why would you work in childcare? Exploring the experiences that influence motivation and turnover amongst the early childhood workforce**

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The provision of quality early childhood education and care (ECEC) services allows the economic benefits of parental employment to be matched by social and developmental benefits for children. However, quality relies on motivated and enthusiastic employees but there is limited research on the factors that would contribute to motivation.

In Australia, work in long day care centres (LDCs) is characterised by poor pay, low job status and high rates of staff turnover, whilst community kindergarten teachers are paid less than teachers in schools, increasing turnover and reluctance for new teaching graduates to enter the sector. Parents take stability of staff as a sign of quality for ECEC, equating long service with high quality care.

The current research used interviews with staff currently working in community kindergartens and LDCs to understand their motivations for working in ECEC and the demands that these women experience.

The employees were highly motivated by giving children the best start to life and gained satisfaction from their contribution to children’s growth and development. Turnover of staff was more likely where demands on the staff overwhelmed these motivations. Genuine caring was stifled by time demands (e.g. documenting each child’s progress), organizational constraints, and where effort was not considered to be adequately rewarded or appreciated by employers or parents. Many reported the dilemma of balancing their personal commitment to quality practices against the need for their ECEC service to remain financially viable. Time at work could also be internally generated, with a number of women reporting that they seldom turned off from their work, and were often working out of hours, either thinking about or completing unfinished work tasks. Supportive husbands and partners did not object to this intrusion of work into the family domain, although there were some reports of exasperation when the focus was always on the children in their care, rather than the woman’s own family. The women enjoyed their work and felt that they made a valuable contribution to their communities by giving ‘their’ children the best possible start to their education. For the most part, they had traded their own financial position for the benefits that could be given for children, but this could not be sustained as the women grew older and looked toward retirement.
Retaining staff in ECEC requires appropriate remuneration and acknowledgement of the social good that their work provides, to gain the balance between quality care and financial constraints.

Factors Relating to Organisational Energy
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Background: In recent years the significant escalation in the dissemination and use of information in the organisation, more complex work, and the new global business environment have necessitated major shifts in the way in which employees are viewed and managed (Lawler & Mohrman, 2003). This has led to an escalating interest in the effects that positive psychological states can have in the workplace (Luthans & Avolio, 2009), aimed at fostering the employee activities and behaviours that are needed to implement the organisation’s strategy effectively (Lawler, 2005). The concept of energy can be seen as a valuable tool with which to gain a deeper understanding of how organisations can reach their full potential. The objective of this study was thus to examine the relationship between organisational energy (as measured by two instruments) and respondents perception of their own levels of outgoingness, gregariousness and optimism.

Method: A cross-sectional survey design was used with a convenience sample taken from employees (n=300) in multiple South African companies within a range of industries. The EnergyScapes Profile (ESP) and the Productive Energy measure (PEM) were administered, as well as two questions regarding respondents’ optimism, outgoingness and gregariousness.

Results: Confirmatory factor analysis resulted in a one factor-solution for the ESP and a seven-factor solution for the PEM. Both scales showed acceptable internal consistencies. The results indicate significant differences between the respondents’ levels of optimism, outgoingness and gregariousness and their experience of organisational energy as measured by the ESP and the PEM.

Implications and Conclusions: Productive organisational energy can have a substantial influence on activating employee behaviour and activities to achieve the organisation’s strategy, and thus an understanding of the relationship between organisational energy, and employees’ optimism, outgoingness and gregariousness can provide valuable information which can be used to foster productive energy in the workplace.
Changes in acceleration-related challenge and hindrance demands affect employee well-being
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‘Acceleration’ is currently discussed as a contemporary societal phenomenon, leading to an increase and an intensification of job demands. Acceleration serves as an umbrella term for different time-related phenomena, such as changes in time-usage, feelings of time pressure or deadline rush, as well as modern habits of speed-dating or fast food.

The societal trend toward acceleration implies also the advent of a new quality of work-related demands for Work and Organizational Psychology. These “acceleration-related demands” can be characterized as dynamic in the sense of increasing pace, quantity, and change rates, according to the definition of acceleration by Rosa (2005). In an earlier study we were able to confirm that acceleration-related demands are different from traditional job demands in that they exert an additive effect on employee well-being (Ulferts, Kubicek, & Korunka, 2011). This paper analyzes employee appraisals of acceleration-related demands by using a longitudinal perspective. We tested whether acceleration demands are perceived as challenge and/or hindrance stressors. Next, causal effects of changes (increases) of acceleration demands on burnout and engagement were analyzed.

A two-wave panel study (15 months time lag) was conducted in 38 nursing homes and outpatient care organizations with eldercare workers. A total of 548 eldercare workers provided data on acceleration-related demands as well as on exhaustion and vigor at two time points. Structural equation modeling showed that acceleration-related demands need to be separately identified as either hindrance or challenge demands. Moreover, an increase in these demands affects future levels of employee exhaustion and vigor. Specifically, an increase in acceleration-related challenge demands was positively related to future vigor and negatively related to future exhaustion, whereas an increase in acceleration-related hindrance demands was negatively associated with future vigor but positively with future exhaustion. Therefore, it may be assumed that acceleration related challenge demands do not lead to a loss of energy, but rather, function in a similar way to job resources.

Exploring the Contribution of Work and Non-Work Sources of Social Support to Employee Well-being: A Mixed Methods Case Study
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Background: Social support has been found to directly influence both physical health (e.g. Shumaker and Brownell, 1984) and mental health (e.g. Stansfeld et al, 2002). Social support is a pertinent research issue for organisational psychologists
as it has been found to affect employee well-being, outcomes and performance (e.g. Boselie et al., 2005).

Objectives: The aim of this study was to explore social support from a holistic perspective as a factor affecting employee well-being. The research objectives were: 1) to explore conceptual issues surrounding social support and well-being. 2) to explore employee perspectives on what factors influence experience and perception of social support, and the relative importance of social support to employee well-being 3) to explore employee perspectives on ways in which their organisation could improve well-being at work.

Method and results: This mixed methods case study had four research phases: an online survey, a semi-structured interview, a diary study and a final semi-structured interview. Interview data (n=31) revealed location as a key theme affecting experience and perceptions of social support. Other themes included: technology, resilience and comparison to others. Eleven interviewees completed the diary and the final interview phase. Respondents reported here that the diary phase had increased their awareness of the effect of non-work issues on their well-being at work. Also, that greater understanding and acknowledgement from senior managers, and more open and honest communication between managers and employees could improve their well-being at work. Survey results (n=158) indicated that women reported greater levels of social support than men. They also scored more highly than men for positive mental well-being. Greater line manager support and peer support had significant positive associations to positive mental well-being. Poorer levels of support were significantly associated with worse psychological ill-health.

Conclusions: Facilitated by using mixed methods, taking a holistic approach to social support revealed a complex interplay of various sources and dimensions of social support that influence employee well-being. Due to the known organisational benefits from enhancing employee well-being (e.g. Boselie et al., 2005; Black, 2008) findings from this research are of potential interest to Human Resources professionals and organisational policymakers.

Is there a need to use instruments for assessing work stress which are adapted to the contexts under investigation? The case of call-centre workers

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Introduction: When assessing possible sources of job stress in specific work organizations, the use of context-specific versus generic instruments has been frequently advocated. Individualized approaches may be useful mainly when
assessment aims at detecting job- and organization-related characteristics that should be enhanced through intervention.

Aim: The aim of the study is to test the hypothesis that generic approaches, in particular the Job Strain and the Effort-Reward Imbalance (ERI) models, need to be complemented by the use of more individualized instruments in order to thoroughly capture possible sources of stress in specific work settings such as call-centres.

Methods: The present cross-sectional study includes 1359 permanent call-centre workers employed in two large-size Italian telecommunication companies (73.5% women; mean age 33.3 yrs old, s.d. 4.2; mean job tenure 7.3 yrs, s.d. 2.4). A questionnaire measuring several sources of work-related stress, health outcomes (psychological health, work ability and job satisfaction) and personal characteristics was administered to participants during a face-to-face interview. Preliminary worksite inspections also including in-depth interviews with “key” workers were conducted with the purpose of developing an instrument enclosing relevant sources of stress not covered by the Job Strain and ERI models. Data were analyzed by means of hierarchical logistic regression models.

Results: After adjustment for relevant confounds, general work stress models and also several specific factors showed statistically significant associations with health and well-being among call-centre workers. In fully adjusted models, factors such as work/home interference (O.R. da 1.4 a 2.9, p<.01), adequacy of performance appraisal (O.R. da 1.5 a 4.4, p<.001) and suitability of the physical environment (O.R. da 1.5 a 2.6, p<.01) were significantly associated with lower well-being (particularly job dissatisfaction) over and above the Job Strain and the ERI models.

Discussion: This study showed that in order to fully detect potential risk factors for work-related stress among call-centre workers, the use of general models such as Job Strain and ERI may need to be complemented by other instruments also assessing context-specific sources of work stress. Although not generalizable to other occupations, our results indicate the need of performing an in-depth preliminary examination of a specific work organization (by means of observational methods, interviews and/or focus groups) prior to selecting assessment instruments. Such an approach may permit a more comprehensive evaluation of possible sources of stress in individual work settings, giving a more precise insight over those workplace factors that should be targeted for intervention purposes.
The Relationship Between Exercise and Well-being: The Mediating Role of Energy
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The Center for the Promotion of Health in the New England Workplace (CPH-NEW; http://www.uml.edu/centers/cph-new), a research-to-practice center funded by NIOSH as part of the Total Worker HealthTM Initiative, is tasked with investigating ways to improve the safety, physical health, and psychological well-being of individuals in the workforce. Given this mandate, it is important to examine both physical and psychological predictors of well-being. Although there is empirical support for a positive relationship between regular physical activity and psychological well-being (Penedo & Dahn, 2005), the exact mechanism(s) and causal relationship between the two remains unclear. Given that exercise levels and reported levels of happiness are both associated with reported energy level, it is possible that reported energy level mediates the relationship between them.

Therefore, the current study extends previous research findings in two ways: (1) by replicating the observed relationship between positive affect and exercise and (2) by testing the possible role of reported energy level as a mediator of this relationship. The authors hypothesized a positive relationship between self-reported frequency of weekly exercise and self-reported happiness, mediated by self-reported energy level. One possible reason is that employees who are happier and have higher energy levels are likely to engage in exercise on a more regular basis. Another possible reason is that only those forms of exercise that act to increase an employee's energy level have a positive impact that employee's feeling of happiness. The possibility of a mediated relationship was tested using a North American sample of manufacturing employees (n = 399), and then replicated with an independent sample of corrections personnel from multiple prison sites (n = 313).

The hypothesized mediation model was supported in both datasets, and for both aerobic and anaerobic exercise. While the specific causal direction of the happiness-energy-exercise relationship could not be inferred due to the cross-sectional nature of these data, this research finding has implications for workplace health promotion efforts advocating for increased levels of exercise. Changes in the workplace to increase an employee's level of energy may be necessary before employees are willing to regularly engage in exercise. Alternatively, some forms of exercise may be more effective than others at increasing an employee's level of energy, and this may be prerequisite to achieving high levels of well-being. Future research can explore these two possibilities now that this mediated relationship has been identified.
Modeling the Relationship between Team Performance and Stress over Time: A Laboratory Simulation
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As more organizations adopt the use of self-directed teams, the relationship between stress and team performance becomes of increasing practical and empirical interest. Additional research is needed to both identify potential moderators of this relationship and to develop our understanding of how these relationships might change over time. Personality, associated with both occupational stress (Saksvik & Hetland, 2011) and performance (LePine, 2003), is a likely moderator of the team stress-performance relationship.

The current study explored stress- and composition-related differences in the performance trajectories of three-person teams participating in a simulated firefighting task using a cross-level longitudinal design with four repeated measures nested within 64 teams. The authors hypothesized that stress would be related to both initial performance level and change in performance over time, with team personality composition moderating these relationships. Analysis used hierarchical linear modeling. Stress (Stress in General; Stanton et al., 2001) was modeled as a time-varying covariate. Personality was measured using subscales of the Ten Item Personality Inventory (Gosling et al., 2003) and used to predict between-team variations in the stress-performance trajectories. Aggregated scores were derived for each team. As suggested by Bell (2007), multiple aspects of the stress and personality distributions (e.g., standard deviation, highest scoring member) were used to quantify team composition values, and included as separate moderators.

Hypotheses were generally supported. There was significant between-team variance in task performance (ICC=0.31). The best fitting base model included a linear trend for time with random effects, with fixed effects for average team stress and the interaction term. The final contextual model included disparities in team extraversion and conscientiousness, as well as most conscientious individual, all significant level-two predictors (p<.01). Disparities in extraversion and most conscientious individual, were moderators of the effect of stress on performance (p<.01).

Researchers have expressed considerable concern with respect to the proper way to aggregate individual scores to represent a team-level phenomenon. Often, the default is to average individual scores. The results of the current study lend support for the simultaneous modeling of more than one index of compositional variables. Implications for practical application and future research are discussed.
A mixed methods study of organizational socialization, employee well-being and patient care in the UK healthcare sector
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Introduction: The process of organizational socialization is critical in the development of the attitudes and behaviour of organizational newcomers. In particular, research has shown that increased learning around organizational entry can lead to better staff outcomes at a later time. However, there are a number of gaps in our understanding of this process. First, the mechanism through which early experience affects later outcomes remains largely unexplained. Second, the effect of this process on public health has often been ignored. Third, and related, the healthcare workforce has received little attention, and the potential effect of poor staff integration on patient care is therefore largely unknown. This study aimed to address these issues by examining the effect of learning around organizational entry on staff well-being and patient care in the healthcare sector. A unique mixed methods research design was used which placed the employment relationship, in the form of the psychological contract, at the heart of the link between early learning and later outcome.

Methods: Data was collected from UK hospital employees during their first twelve months of work using two primary methods. The first of these was a three wave longitudinal survey study which examined information acquisition, the psychological contract, well-being and performance in over 500 UK hospital newcomers. The second was a five wave longitudinal interview study which used the critical incident technique to obtain data on the development of staff well-being and incidents of poor patient care from 41 hospital newcomers.

Results: The survey study revealed a significant positive relationship between learning around organizational entry and both staff well-being and patient care at a later time. Importantly, these relationships were mediated by perceptions of the state of the psychological contract. The interview study shed further light on these findings, revealing a number of specific situations where poor newcomer integration led to impaired staff well-being, turnover behaviour and incidents of poor quality patient care.

Conclusions: This study illustrates the importance of the organizational entry process for both staff well-being and for the quality of care provided to patients in the healthcare sector. Additionally, the study suggests that the psychological contract is a crucial mechanism in this link. An important implication for practice is that a greater focus on newcomer integration could lead to better outcomes for staff, service users and organizations.
State work engagement: The interplay of organizational resources and job stressors
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Previous research evaluating predictors of state work engagement (SWE) has mainly concentrated on personal resources. Surprisingly, the predicting roles of organizational resources as well as job demands and stressors have been neglected. As SWE is an important outcome with regard to individual as well as organizational performance, further research is needed to understand the underlying mechanisms. Crawford and colleagues (2010) extended the Job Demands-Resources Model (JD-R Model, Bakker et al., 2001) by reporting different relationships between job stressors and trait work engagement depending on the appraisal of the job stressors. Building on this more differentiated version of the JD-R Model, the aim of our study was to investigate the relationship between hindrance and challenge stressors and SWE. It was hypothesized that there is a positive relationship between challenge stressors and SWE and a negative relationship between hindrance stressors and SWE. Furthermore, we aimed at extending previous research mainly focusing on personal resources by exploring the impact of organizational resources on SWE. Hence, we examined participative decision making (PDM) as an organizational resource. It was assumed that PDM moderates the relationship between both challenge and hindrance stressors and SWE.

We conducted a diary study over five consecutive working days with a sample of 119 employees of a car-manufacturing company. PDM was assessed by a pre-questionnaire, whereas job stressors and SWE were assessed on a daily basis. Hierarchical linear modeling was used to test our hypotheses. Interestingly, the data did not support the postulated main effects. However, the moderator hypothesis could be confirmed: the effect of PDM on SWE was particularly high when challenge stressors were high and hindrance stressors were low. The cross-level interactions show that a high degree of PDM leads to higher SWE depending on the nature of the stressor: If employees are facing challenge stressors a high level of PDM fosters SWE but in case of hindrance stressors a high level of PDM reduces SWE.

The Importance of Transformational Leadership on Teachers’ Affective Commitment and Turnover: The Mediating Role of Well-being
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Background: Organizational research has examined a wide variety of variables that influence well-being. One group that has been connected consistently to individual and organizational well-being is the social context variables and it is assumed that leadership can affect the way one feels about one’s work (Dierendonck et al., 2004). In fact, previous studies have demonstrated that transformational leadership contributes to valued teacher outcomes (see Leithwood et al., 1999, for a review).
For example, teachers in schools characterized by transformational principal behaviour are more likely than teachers in other schools to express satisfaction with their principal, report that they exert extra effort, and are more committed to the organization (e.g. Ross & Gray, 2006).

Aims: The present study research has positive occupational psychology as a paradigm and The Holistic Model of Stress (Nelson & Simmons, 2003) as the theoretical foundation. According to this model the same work stressor or demand can elicit both negative (distress) and positive (eustress) psychological responses to demands. The model also posits that distress leads to negative outcomes whereas eustress may lead to positive outcomes. To test this model we used the interpersonal stressor Leadership and, as indicators of distress and eustress, we used Burnout and Engagement, respectively. The outcomes are Turnover and Affective Commitment. This study is a report about the link between principal's transformational leadership and teachers' turnover and affective commitment as mediated by teachers' burnout and work engagement.

Methods: In this study, with a sample of 1255 Portuguese teachers from 18 secondary schools we have examined a) the relationship between principal behaviour and teachers affective commitment and turnover b) the mediating role of well-being (work engagement and burnout), using Structural Equation Modelling. Data were collected during 2011 and the participation rate was 70.6%.

Results and implications: Data analysis revealed that transformational leadership related positively with work engagement and negatively with burnout and, interestingly, that work engagement and burnout mediated the relationship between transformational leadership and affective commitment and turnover, respectively. An important implication from this research is that training should be provided to school leaders in order to develop their competencies (such as, be able to communicate a vision, to provide support, to empower the school staff, to be innovative, to lead by example, and to be charismatic, among others).

Work Engagement Among Factory Workers: The Moderating Role of Career Growth Perception
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A wide range of job demands and resources have been identified as predictors of work engagement. But when examining the context of factory workers, the role of social structural positions in shaping a motivational construct such as engagement has to be considered. In this regard, the Social Identity Theory (Tajfel & Turner, 1979) could serve as a useful framework in examining the dynamics of work engagement among low social structural position employees such as factory workers. This study draws from tenets of the social mobility belief system which is one of the self enhancement strategies in the social identity framework. This belief system predicts that members of low-status groups who perceive that group
boundaries are permeable would be motivated to pursue mobility. Individuals in this context would be more likely to dissociate from other in-group members and pursue more personal outcomes rather than group goals. Extending the premise in the context of work engagement among factory workers, it could be predicted that those who perceive permeability of boundaries (operationalized in this study as perception of potential for career growth in the company) would lead to engagement and this engagement will be more driven by job resources that are oriented towards personal gain.

To test the prediction, survey data was gathered from 168 factory workers in a food manufacturing company in the Philippines. A select set of job resources identified from past studies were examined as predictors of work engagement. Regression analysis indicated that trust in management, support from supervisor, role clarity, voice, and job challenge were significant predictors of work engagement. Perception of career growth was tested as a moderator between engagement and the various job resources considered. Findings indicated that perception of career growth moderates the impact of supervisor support and trust in management on work engagement. It was concluded that work engagement of factory workers who perceive career growth are more likely driven by job resources that were potentially beneficial to their underlying striving for social mobility. The study showed how a social identity perspective could enrich the dominant job demands-resources model in extending our understanding of work engagement. Implications for addressing engagement issues were discussed in the context of how social identity and structural positions could potentially interact to determine the “best strokes for different folks” within the organization.

The effect of personal resources on work engagement and health among psychotherapists. A longitudinal study

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Research based on the Job Demands-Resources Model has shown that personal and job resources are an important predictor for work engagement in the motivational process. Furthermore, recent studies have demonstrated that personal resources partially mediate the relationship between job resources and work engagement. However, to date, the consequences of work engagement on health have received little attention. The aim of this study was (1) to investigate the role of personal resources in the motivational process among psychotherapists and (2) to examine how personal and job resources as well as work engagement predict health outcomes at follow up.

Over 300 psychotherapists (mean age 46 years; 75% females) participated in a two-wave online questionnaire study. They had worked in their job for 18 years on average. We measured personal resources (i.e. self-efficacy, optimism, resilience, and hope), job resources (i.e. learning opportunities, social support, and autonomy)
along with work engagement and various health outcomes (i.e. general health, sleep quality, depression, and pain symptoms).

Hypotheses were tested using structural equation modeling. The results show that the effect of learning opportunities on work engagement is partially mediated by personal resources. In addition, the effect for social support and autonomy on work engagement is fully mediated by personal resources. Finally, both job, and personal, resources; as well as work engagement; measured at baseline predict health at follow-up. In particular, personal resources strongly affected health, both directly as well as mediated by work engagement. Directions for future research and practical implications will be discussed.

Heavy work investment and adult attachment: Are workaholism and work engagement associated with different attachment styles?
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In the present study we examined whether workaholism, a ‘bad’ form of working hard, and work engagement, a ‘good’ form of working hard, are associated with different attachment styles. Interestingly, some research suggests that the core notions of attachment theory (i.e., the effects of care giving on the exploration behaviour of young children) generalize beyond childhood to adult life. Specifically, it is assumed that the attachment to a romantic partner affects exploration behaviour at work. Having an available and responsive romantic partner provides a secure base for engaging in work activities. Employees can engage in their work activities without distractions (secure attachment). However, employees who have, for example, an inconsistent available and responsive romantic partner are likely to engage in work activities to attract their partner’s attention and to get their partner’s approval (insecure attachment).

Although workaholism has been regarded as a family problem that arises from, and is maintained by unhealthy family dynamics, no research has been conducted so far on workaholism (and – in contrast – work engagement) and attachment styles. In general, we hypothesized that work engagement will be associated with secure attachment and that workaholism will be associated with insecure attachment.

Drawing on a Dutch convenience sample (N=201), separate hierarchical regression analyses were conducted for the two workaholism dimensions -- working excessively and working compulsively --, and the three work engagement dimensions -- vitality, dedication, and absorption. Our research findings confirmed the hypotheses and revealed that the motivation underlying workaholism and work engagement differs. Moreover, our research findings shed light on a potential antecedent of workaholism and work engagement.
VARP: a model for assessing the risk of work-related stress: tools and application.
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Introduction: The approach to assessing work-related risk stress is conceived in this paper as a continuous process, divided into various phases, to take account of the work context and its changes and evolution, in a systemic view involving the complexity of modern organizational systems.

We present here the VARP Model, developed for assessing the main areas of risk of work-related stress (Deitinger, et al., 2010). The Model is based on the seminal review by Cox and Griffiths (1995) already employed in the European project “Psychosocial Risk Management – European Framework” (PRIMA-EF; cf. Leka, Cox, 2008), aimed at creating a European model for psychosocial risk management.

Aim: We present the VARP Model and the development of three specific tools. The first tool, Va.RP, comprises two forms: (i) a complete version for large companies, and (ii) a shorter one for medium-sized firms; both have independently validated rating scales. The second tool, CSL, is a short questionnaire specifically validated for micro and small enterprises (Nardella et al., 2011). An additional third tool originating from the VARP Model, is presented here: the Val.Mob Scale (Aiello et al., 2008), for assessing mobbing in organizations.

Method: Conditions for factor analysis for the different data sets collected by each tool were tested using the Kaiser-Meyer-Olkin measure and Bartlett’s test. We ran Principal Component Analysis and Confirmatory Factor Analysis on each data set, verifying the scales’ reliability by the Cronbach alpha index.

Results: On the whole, the three main tools all have highly satisfactory psychometric features; the independent validation of the scales makes them extremely flexible so they can be applied in a wide range of organizational settings, for investigating vital and innovative diagnostic aspects of psychosocial risk. The findings are examined in relation to the recent international literature.

Studying what actually stresses people with a grounded theory approach
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Background: Research into various causes of stress has brought forward a wide range of stressors. The original huge variety of causes of stress is however inevitably reduced when transformed into instruments. With time the different ways
of measuring stress become part of various models for explaining stress. There is quite a risk that the stressors at the basis of the models, and now significantly reduced in variety, then become a taken for granted part of the models they provide the input for.

Objectives: How often do we return to the basis of a model to question it? How often do we simply continue to use “the same old” instruments without questioning them? These questions pose a methodological dilemma. Research would be something quite different if we could not use measures that have been validated and are perceived as stable over time. But is there also a “best before date” for the instruments we use? There are good reasons to believe that this is the case as society continues to develop, constantly providing new conditions for how to do business. At the same time, what we are studying is people working together in organizations. Human beings as a species have not experienced any larger developments for the last 10,000 years. It is therefore fair to assume that we will respond to the same kind of stressors as we did 50 years ago. However it seems appropriate to suggest that there is a need to every once in while to return to and question the basis for our studies. Following this argument it was decided to study what causes stress to people at work using a grounded theory approach. The objective of the study is to increase the understanding for what actually causes stress with the intention to form a basis for comparison with existing, validated instruments.

Methods: A questionnaire with open-ended questions was sent to 350 potential respondents. At the moment of submitting this abstract more than ninety responses have arrived. Data collection will finish in mid December. The analysis will be carried out inductively with higher order concepts to be generated based on the sorting and categorizing of the empirical data content.

Expected results: The study is expected to result in a ‘listing’ of stressors and higher order concepts related to these to be used for comparison with presently used concepts of stressors.

Assessing and managing work-related stress through an integrated platform: a validated and easy to use methodology for organisations
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Introduction: In order for Italian employers to carry out the duties imposed by national legislation regarding Health and Safety at work, the assessment and management of work-related stress risk is required. According to the guidelines for work-related stress assessment given by the Permanent Consultative Committee on Health and Safety at work (composed of an equal number of representatives from Public Administration, Regions and social partners), employers have to choose the approach that they feel more suitable to their organization, and that
allows them to respect the methodological criteria provided by the guidelines. The authors have developed a validated and easy to use methodology to assess and manage work related stress through a free web based platform.

Method: The methodology for managing and assessing psychosocial risks has been developed according to the two assessment phases required by the Consultative Committee’s guidelines and considering the following criteria: company approach-sustainability, central role of Occupational Health and Safety representatives, managers, professionals, use of validated platforms, global support for risk assessment and management, and applicability to different sectors. A checklist has been realized to fulfill the preliminary phase, in order to support the assessment of all objective indicators of work related stress like sentinel events, work content factors and work context factors. For those cases in which a deeper assessment is needed, the HSE indicator tool has been validated in the Italian context to allow employers to analyze the workers' perception in relation to the six Management Standards (Demands, Control, Support, Relationship, Role, Change). Furthermore a focus group tutorial has been developed to bring to light the results of previous assessment phases and identify suitable solutions. Focus group tutorials also support the workers' perception analysis in smaller enterprises which cannot adopt the indicator tool.

Results: The result is a free and easy-to-use methodology available to Italian organizations through an integrated platform that provides online instruments to assess work-related stress risk according to Italian national legislation on Health and Safety at work. Using the web platform, organizations will be enabled to self-administer all the instruments provided, to process data retrieved, and finally to print summary reports of their own evaluation. At present 2860 public and private organizations, mostly SMEs, have registered to use the platform; sectors vary from health services to manufacturing, services and building (following ATECO classification of economic activities) with more than 226,542 workers involved. The preliminary evaluation was conducted by 611 companies, whereas 198 organizations performed the deeper assessment administering 3885 questionnaires.

Discussion: The developed methodology provides adequate support to organizations through validated instruments during the management and the assessment of work related stress following the existing regulatory scheme. This methodology is made available to all public and private Italian organizations through a free and easy-to-use web based integrated platform.

**Accident risk at work: Using the O*NET database to construct a unidimensional factor of occupational risk for workplace accidents**

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Of great interest to researchers is the prediction of relevant context-specific risk factors for workplace accidents, and how these contextual factors interact with one
another across organizational settings. The purpose of the present study was to derive a unidimensional occupation-level construct of risk that could be used for cross-organizational research. O*NET (Occupational Information Network) is a free-of-use online database which contains measures of the psychosocial characteristics of occupations in a quantitative format that describes various facets of the occupation itself. Although previous work has lead to the development of a “physical demands” factor using O*NET items, this does not tap into contextual factors that contribute to accident risk. Therefore, a unique scale development effort was needed for the creation of an occupational risk construct.

To establish content validity, a pool of initial items, drawn mainly from the physical work condition subset of the Work Context domain and work output subset of the Work Activities domain, were imputed into a $k$-means analysis, which aims to partition $n$ observations into $k$ clusters in which each observation belongs to the cluster with the nearest mean. A parsimonious 3-cluster solution was generated, whereby the analysis produced three groupings of jobs based on the O*NET items: “Safe Jobs,” “Elevated Risk Jobs,” and “High Risk Jobs”. These groups were then entered as a dependent variable in a discriminant function analysis (DFA), in which discriminating O*NET item predictors were combined into meaningful functions and then used to differentiate between these ad-hoc groups. A discriminant score from a resulting “risk function” was then obtained for each occupation, thus serving as an overall indication of occupational risk. To evaluate the convergent validity of the occupational risk construct, occupation information and self-report safety measures were gathered on 465 workers employed in a wide variety of jobs.

Correlations between the occupational risk construct and perceived risk, work safety tension, and self-reported work environment safety, were significant and in expected directions. In sum, the occupational risk construct has implications for researchers and practitioners alike. Safety scientists may draw upon the additional external validity information, which can provide comprehensive, valid and parsimonious safety-related information in cross-organization research efforts. Practitioners may also find the factor helpful as a starting point for identifying high risk jobs for within-organization interventions.

Can Senior Charge Nurses reliably report their clinical practice?

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Background: The hospital-based Senior Charge Nurse (SCN) plays a pivotal role in providing safe and effective care. While a recent review of the SCN role identified four main, and four secondary components (Leading Better Care National Project, NHS Scotland), accurately measuring what the SCN does in practice is far from straightforward. Few studies compare objective observer work sample reports with subjective SCN reports to evaluate whether the nurse can accurately and reliably report what they do.
Methods: This longitudinal descriptive study used standardised questionnaires and real time data PDA collection. Clinical activity was measured using; SCN self-report retrospective questionnaire; SCN real time self-report on PDA over 10 consecutive shifts; trained observers (n=5) sampling SCN activities using a behaviour checklist based on PDA electronic diaries in a 4 hour sample.

Results: All 205 SCNs working in hospital settings were invited to participate. Some 76 SCNs (37%) volunteered to participate in the study at study onset. Sixty-three SCNs provided 10 shifts of real time data. 48% of SCN reported working rotating shift patterns (32% including nights). Only 52% were on fixed days. Agreement between observer and nurse reports of activity were all significant, ranging from 0.34 (“enhancing patient experience”) to 0.64 (“directorate/hospital cover”). SCNs were, however, more likely to report “enhancing patient experience”, less likely to say they were “contributing to organisational objectives”, and more likely to say they are engaged in “direct care giving” and “administration” than the observers. Bland-Altman analysis showed greatest agreement between SCN and observer was when activities were rare or were commonly enacted.

Conclusion: Estimates of the time an SCN spends in aspects of clinical practice is influenced by the data collection methods used, who provides the estimate and the frequency of occurrence. Self-report is a valuable adjunct to observer accounts of SCN clinical activity.

Risk management from incident reporting to criticalities detection: a methodological proposal. A case study.
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Incident reporting in the Health Care could be underused or misused because of a cultural and organizational context characterised by the so called blame culture, whose effects are that workers perceive it as a control tool used by the management to find guilty operators. We believe that incident reporting is not effective for safety if it is not supported in advance by other tools that focus on weak signals and treat anomalies and human error as a resource for organizational learning and not something to hide and blame (Weick and Sutcliffe, 2007).

This frame was the ground for a project realised in the Italian health care domain, whose aim was to increase the commitment of operators and managers towards an organisational culture oriented to safety and well-being, of both the operators and the patients. The project involved 60 operators (nurses and physicians) from six hospitals, during 2010 and 2011. Using the action research methodology, the participants analysed their own activities and developed a tool for the detection of organisational criticalities within the SHELL model frame (Hawkins, 1975). Each participant has been supported in order to involve the hospital workers in the
implementation of the tool. The tool has been developed starting from activities, and it is aimed at providing outcomes at the operational level. It is composed by three steps that allow: 1) to detect and monitor problems concerning well-being and safety. It allows operators to signal problems, their frequency, and take into account the factors that produce them and the potential consequences; 2) to propose a solution for those problems in order to give a personal contribution to the increase of the general safety and well-being. This enhances an internal locus of control and assumption of responsibility in process management; 3) to involve operators in process monitoring and tracking the steps towards a solution, assessing also the adequacy of intermediate outcomes and the possibility of further actions.

This methodology had as positive outcomes: the reduction of the learned helplessness and resignation, the enhancement of an internal locus of control, the development of a traceable process monitoring that unifies the problem diagnosis phase and the solution implementation assessment, and the possibility to be used for evaluating work related stress.

The Performance-Enhancing Effect of Challenge Stressors is Mediated by Self-esteem: A Multi-Source study
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Recent research suggests that some stressors (i.e. hindrance stressors) have mainly negative consequences, whereas others (i.e. challenge stressors) can simultaneously have positive and negative consequences (e.g. LePine et al., 2005). Typically, it is argued that the positive effects of challenge stressors refer to organizational outcomes, such as performance, while there are concurrent negative effects for the individual in terms of strain (cf. Podsakoff et al., 2007). Conversely, it has also been suggested that challenge stressors possess a motivational force (e.g., LePine et al., 2004) by indicating potential growth – implying individual gains as well. Indeed, a recent study has shown that challenge stressors are related to strain but simultaneously foster individual well-being in terms of self-evaluation (Widmer et al., 2011). However, there are no studies linking positive individual and organizational outcomes. We assumed that the positive effect of challenge stressors on performance is explained by self-esteem.

We analyzed data from 153 dyads of employees (43.1% male) and supervisors (62.7% male). Mean age was 37.63 (SD=10.31) and 41.58 (SD=9.70), respectively. The index of challenge stressors consisted of time pressure, concentration demands, work complexity (Semmer et al., 1995) and responsibility (Jackson et al., 1993). As positive effects of challenge stressors typically appear only when their negative variance is controlled (cf. Cavanaugh et al., 2000), we also included hindrance stressors, consisting of role ambiguity, performance constraints (Semmer et al., 1995), and social stressors (Frese & Zapf, 1987). Self-esteem was
assessed in terms of organization-based self-esteem (OBSE; Pierce et al., 1989), performance in terms of in-role performance and OCB (FELA; Staufenbiel & Hartz, 2000). Except for OBSE, we used the mean of self- and supervisor-ratings to reduce common method bias (cf. Grebner et al., 2005).

Challenge stressors were positively related to performance, but only after controlling the negative variance by entering hindrance stressors (suppressor effect). As hypothesized, OBSE mediated the effect of challenge stressors on performance.

Expanding earlier findings that challenge stressors are related to performance, we replicated the finding that they also foster individual well-being in terms of self-evaluation (cf. Widmer et al., 2011). In line with this, we could now show that self-esteem partially mediated the often-found positive effect of challenge stressors on performance, including both in-role and extra-role performance assessed by self-report and supervisor rating. The boost in self-esteem may partly explain why high challenge stressors motivate people to perform better, in spite of the strain that is also associated with them.

**Authentic Leadership, Performance and Job Satisfaction: The Mediating Role of Empowerment**

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**Purpose:** The purpose of this study was to test a model linking authentic leadership of managers with nurses’ perceptions of structural empowerment, self-rated performance and job satisfaction.

**Background:** Authentic leadership has been proposed as the root element of effective leadership needed to build and sustain healthier work environments, because there is special attention to the development of empowering leader-follower relationships. Despite existing work on the connections among leadership style, structural empowerment and work outcomes, there are no studies to date that examine the relationship between authentic leadership and nurses’ perceptions of empowerment. Furthermore, while the influence of leadership and empowerment on commitment and job satisfaction is well documented there are few studies examining the influence of leadership style on nurses’ job performance.

**Method:** In 2008, a nonexperimental, predictive survey design was used to test the hypothesized model in a random sample of 600 registered nurses working in acute care hospitals across Ontario in Canada. The final sample consisted of 280 (48% response rate) nurses. Variables were measured using the Authentic Leadership Questionnaire, Conditions of Work Effectiveness Questionnaire, Global Job Satisfaction Survey, and General Performance scale. The theoretical model was tested using path analysis with structural equation modeling using (SEM) AMOS.
version 19.0. A sample size of at least 200 subjects is recommended as sufficient for SEM.

Results/Outcomes: The final model fit the data acceptably ($\chi^2 = 4.22$, d.f., = 2, $p = .121$, $CFI = .99$, $IFI=.99$ and $RMSEA=.06$). Authentic leadership significantly and positively influenced staff nurses’ structural empowerment ($\beta=.46$) which in turn increased job satisfaction ($\beta=.41$) and self-rated performance ($\beta=.17$).

Conclusion: The results suggest that managers who emphasize transparency, balanced processing, self awareness and high ethical standards also effectively increase nurses’ perceptions of workplace empowerment which in turn enhances their performance and job satisfaction. Work environments that provide open access to information, resources, support, and ample opportunity for everyone to learn and develop, both empower and enable nurses to accomplish their work. When nursing leaders know and act upon their true values, beliefs, and strengths, while helping others to do the same, higher levels of nurses’ well-being will accrue, which in turn have been shown to positively impact performance.

**When boredom strikes and engagement flourishes! An explanation of the relation between employee well-being and job performance**

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Initial empirical findings indicate that engagement stimulates employees’ job performance regarding both in-role and extra-role behaviour. As boredom at work is an antipode of work engagement one might expect that boredom is negatively related to job performance. However, little is known about the underlying psychological process that potentially explains why engagement leads to better performance than job boredom. The purpose of the present study was to examine the relationships between engagement and boredom on the one hand and job performance on the other, hereby focusing on the possible mediating role of ‘readiness’. Based on Broaden-and-Build theory and the concept of epistemic motivation, readiness is conceptualized as the extent to which one is receptive to new relevant information and consequently has the stance, or willingness to move to action towards performance. The move to action referred to three different dimensions of process performance (the particular behaviours that are relevant to the organizational goals), namely extra-role, in-role, and counterproductive behaviour.

Based on results from a previous study we assume that readiness partially mediates the positive relation between work engagement and both in-role and extra-role behaviour and the negative relation with counterproductive behaviour (Hypothesis 1). Job boredom was predicted to show the exact opposite results: readiness will partially mediate the negative relationship between boredom and both in-role and extra-role behaviour and the positive relation with counterproductive work behaviour (Hypothesis 2).
The hypotheses were examined in a survey study among employees ($n = 379$) of a supplier of printers and copiers. Work engagement was measured with the Utrecht Work Engagement Scale (UWES) and job boredom with the Dutch Boredeom Scale (DuBS). A newly developed and previously tested scale for readiness measured employees’ state of readiness and a set of well validated scales measured in-role, extra-role and counterproductive behaviour.

Mediation analyses in SEM replicated the partial mediation of readiness in the positive relation between work engagement and in-role and extra-role behaviour, and its negative relation with counterproductive behaviour. Job boredom however, showed neither a direct relation with either in-role or extra-role behaviour, nor an indirect relation through readiness. Interestingly, the results confirmed that job boredom has a strong positive, direct relation with counterproductive behaviour. Taken together, our research findings partially provide support for our hypotheses and shed a first light on the question how work engagement and job boredom are related to different dimensions of job performance.

**Does Being Good Make the Performance at Work? The Role of Character Strengths for Task Performance, Job Dedication, Interpersonal Facilitation, and Organizational Support**
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It was hypothesized that “being good” (i.e., the endorsement of character strengths) is related to good behaviour at work. The present research was aimed at investigating the relationships between 24 character strengths and four dimensions of job performance (i.e., task performance, and three dimensions of contextual performance: job dedication, interpersonal facilitation, and organizational support). This was done in a set of two studies to test for the replicability of the results. Furthermore, performance ratings in study 2 were not only based on self-descriptions but on supervisors’ judgments on the four dimensions of job performance as well. Greatest interest was in the results, which could be found across the studies 1 and 2 as well as across self- and supervisor-rated dimensions of job performance. In study 1 and 2, 318 and 108 employees, respectively, filled in measures for character strengths and the job performance dimensions. In study 2, also supervisors judged the employees’ job performance. The amount of shared variances of these two groups of constructs was examined and how each of the character strengths was related to each of the dimensions of job performance.

As expected, character, indeed, proved to be positively related to job performance. Therefore, the initial hypothesis, whether being good (i.e., character strengths) is related to positive behaviour at work (i.e., job performance) can be answered with “yes, to a considerable degree”, as shared variance was up to 48%. Findings were replicable across the two studies utilizing self- and supervisor-rated performance. Task performance went along with perseverance, teamwork, honesty, prudence,
and self-regulation. Job dedication was associated with perseverance, zest, bravery, and social intelligence. Interpersonal facilitation was related to teamwork, social intelligence, leadership, and fairness. Organizational support was related to all of the character strengths except six (i.e., forgiveness, modesty, appreciation of beauty and excellence, gratitude, humour, and religiousness) across all studies and samples. Character strengths seem to be promising personality traits regarding the prediction of job performance. This opens a new field for research on, for example, organizational behaviour, personnel selection, and personnel development.

What we can learn from Neuroscience for the workplace design for (older) knowledge workers
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At the beginning of the 21st century the world of work in general and knowledge work in particular are facing significant changes. Aspects of the world of work like skills and qualifications of employees, the technologies in use, the age of retirement or the design of the workplace are undergoing constant changes.

Until now changes in the world of work have been very often expedited by modern technologies. Another dominant factor for alterations in industrialized countries in the next years might be the demographic change, increasing the average age of employees in the 21st century. Additionally, the kind of occupation might be less related to the production of goods but more to the production and distribution of knowledge, therefore more individual know-how, expertise and learning might be needed. Such alterations of the frame conditions could also entail other requirements to employees, to workplace design for (older) knowledge workers as well as to the management. Or to say it in the words of Peter Drucker: “The most important, and indeed the truly unique, contribution of management in the 20th Century was the fifty-fold increase in the productivity of the MANUAL WORKER in manufacturing. The most important contribution management needs to make in the 21st Century is similarly to increase the productivity of KNOWLEDGE WORK and the KNOWLEDGE WORKER (Drucker, 1999)”

This review article aims to analyse neuroscientific findings on cognitive performance of older adults, in particular (older) knowledge workers. Based on an extensive literature review and in consideration of age-related productivity effects, recommendations for an age-differentiated and optimized workplace design are developed. In this context a special focus is laid on potential ways of influencing cognitive performance and on how to create a link between workplace design and neuroscientific findings on memory, attention, perception and motor activity. The review concludes by highlighting some important factors for the implementation of age-optimized workplace design in practice.
Employees Change Competence - a result of learning experiences from organizational change
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Extensive research has pointed out employee resistance behind both failure of change initiatives, and difficulties in implement change in organizations. Since employees thereby circumstance the flexibility of the organization to meet and master variation and unexpected circumstances, it is of considerable importance that employees have positive attitudes towards organizational change. However, the flexibility of the organization often implies reducing costs, and is often actualized at the expense of employees’ job security or working conditions. In public sector organizations, change by and large includes a decrease in the number of employees.

Hence it was of interest to study what workers do experience and learn from organizational change and how this can be related to prerequisites for job related mental health. Based on work-life learning theories, it was assumed that the individual actively reflects on his/her experiences from organizational change and that this reflection gives the worker a capacity through times of change. The result of that reflection was therefore named Change Competence (CC). From an organizational perspective the CC was considered either favourable or restrictive.

Experiences behind employees’ developing of attitudes towards change were studied longitudinally in a merger context with help from questionnaires. The aim was to study relationships between change experience, change attitudes and prerequisites for job related mental health.

The results show that the development of CC can be predicted both by personal premises (e.g. gender, education, hierarchical position) and by change-related premises (e.g. readiness for change, earlier change experiences and turnover intentions). Favourable and restrictive CC could be related to prerequisites for job related mental health. From an organizational flexibility perspective, the importance of workers positive experience of change is discussed.

Relationship of Cultural Values to Counterproductive Work Behaviour: The Mediating Role of Job Stress
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Objectives: Individuals with different cultural values have different goals, and needs at work, and their perceptions of organizational environments and outcomes are likely to vary. This study proposes that cultural values (i.e., individualism and collectivism) are particularly relevant to understand individuals’ counterproductive work behaviour (CWB). This paper also proposes that job stress has a direct relationship to CWB, such that those who experience more stress will engage in
more CWB. Further, individuals’ job stress plays an important role in understanding CWB as it partially mediates the relationship between cultural values and CWB. Thus, the purposes of this study were to investigate how cultural values are related to CWB, and to examine whether individuals' job stress acts as a mediator between cultural types and CWB.

Method: An anonymous questionnaire survey, was administered to a sample comprised of 440 Thai employees working in government institutes and private sectors. The following four measures were used to assess variables of the study: counterproductive work behaviour scale, individualism and collectivism scale, job stress scale, and a demographic information sheet.

Results: The results of the path model, which examined the joint relationships among cultural values, job stress, and CWB showed that job stress not only has a direct relationship to CWB, but also that it partially mediates the relationship between cultural values and CWB. Strong mediating links were found between horizontal collectivism and CWB and between vertical individualism and CWB. Nonetheless, the two cultural values have different impacts on CWB. That is, compared to horizontal collectivists, vertical individualists are more likely to engage in CWB. Moreover, this study found no significant effects for the hypothesized indirect and direct effects for horizontal individualism and vertical collectivism.

Conclusion: The findings demonstrate that cultural values predict CWB because they predispose individuals to react in certain ways to their job situations. In other terms, cultural values influence job stress, which in turn, has an effect on CWB. It is likely that cultural values will influence how an individual might interpret events that have the potential to threaten their welfare. Since individualists would consider their personal interest more important than the interests of a group, they would be more likely than collectivists to interpret unpleasant situations as threats. This heightened sensitivity to ego-threats would make them more likely to engage in CWB. Thus, an understanding of employees’ cultural values and work behaviours may provide options that managers can use to minimize deviant behaviour.

When supervisor’s unfairness counters organizational justice: a case of experienced threat during organizational change
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Background: Work organizations face constant changes that often arouse feelings of threat. Feeling threatened is considered detrimental as it is connected e.g., with stress, reduced welfare and work ability. Prior research has shown that perceived fairness of the organization determines the way change is viewed. Lately, studies have also noticed that the justice of an individual leader may affect this. It has been suggested that supervisor’s justice is especially consequential when s/he is considered to represent the group, that is, when the supervisor is ingroup prototypical.
Objectives: Our aim was to contribute to the existing research by exploring the interactive effects of organizational and supervisory procedural justice during change. Furthermore, we extended the previous research in line with the social identity approach and hypothesized that the relationship between organizational justice and threat is moderated by supervisory justice and prototypicality. In particular, the negative relationship between organizational justice and threat was expected to be less pronounced when the supervisor was unfair (rather than fair) and prototypical (rather than non-prototypical).

Methods: A cross-sectional survey study (n=104) was conducted in a Finnish public organization that was in the middle of a fundamental change. The questionnaire assessed perceived procedural fairness of the organization and supervisor, leader ingroup prototypicality, and experienced threat.

Results and conclusions: Moderated multiple regression analysis revealed that the expected three-way interaction was significant ($\beta = -0.23$, $p \leq .05$). Post-hoc probing showed that when predicting threat by organizational justice, the slope for highly prototypical supervisors' high justice differed significantly from the slope for highly prototypical supervisors' low justice, $t(96) = -2.11$, $p<.05$. The results indicate that, as hypothesized, prototypical leaders’ injustice diminishes the threat reducing effects of organizational justice. The present study participates in the discussion of different foci of justice and integrates justice research with social identity approaches by revealing the three-way interaction between leader ingroup prototypicality and procedural justice coming from two different sources. More practically, it highlights that an individual group prototypical supervisor has a great power to influence the wellbeing of team members and, further, success of the organizational change.

Changes in Department of Veterans Affairs (VA): Employees’ Perspective
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The Department of Veterans Affairs (VA), the 2nd largest federal agency in the United States, is currently transforming to address changing needs due to a rapidly growing population of Veterans returning from two concurrent wars. Give the large scope organizational transformation, VA employees face changes within their work environment. This study focused on describing the ways VA employees think of desired workplace changes. The qualitative interview data (one hundred workplace assessments, sample sizes for single assessments ranging from 15 to 150 interviewed participants) were derived from organizational interventions conducted by the National Center for Organization Development, an internal consultant agency to the VA that actively supports the VA transformational change efforts though providing assessment, intervention, and consultation services to VA facilities nationwide.
Using coding categories generated through a grounded theory approach, NVivo qualitative software, and trained coders who met interrater reliability criteria, we examined workplace characteristics VA employees discussed when asked about strengths, weaknesses, and desired changes within their organizations. Multiple regression examined which content categories best predicted the content of changes seen as desirable. Overall, these had largely similar content to what employees discussed as current weaknesses in their organizations. In other words, there was no disconnect between stated weaknesses and perceived necessary improvements. We summarize specific aspects of content that employees described as desired organizational changes. Additionally, we report content aspects described under current organizational weaknesses which had the strongest relationship to the proposed organizational changes in the workplace.

These results contribute to understanding employee priorities with respect to organizational change within a large federal organization. Employees experience the effects of organizational transformations at their workgroup level. Accurately identifying what employees believe needs to change in their workplaces is therefore critical to designing effective interventions that support large-scale organizational change.

Civility, Respect, and Engagement in the Workplace (CREW) in U.S.A. Veterans Affairs: Predictors of Successful Outcomes
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Civility, Respect, and Engagement in the Workplace (CREW) is an organization development intervention designed in the US Department of Veterans Affairs (VA). It uses a strengths-based approach for improving the organizational culture, by systematically promoting civility of workplace interactions. Civility (Anderson & Pearson, 1999) builds on interpersonally valuing and being valued by others. While civility norms vary among environments, observing the shared norm is universally valued. CREW interventions are based on defining, then supporting civil behaviours based on norms within specific workgroups.

CREW intervention units are workgroups of regularly interacting coworkers. CREW proceeds in 6-month long phases, called waves, scheduled consecutively to allow for sufficient supporting resources, and comprising multiple workgroups nationwide. Civility is assessed by participants’ ratings (e.g. of coworkers’ respect, cooperation, fair conflict resolution); the average of 8 ratings, civility index, measures pre- to post-intervention outcome.

Empirical support is available for CREW effectiveness in improving civility (Osatuke et al., 2009) and related outcomes (Leiter et al., 2011). Variability in CREW outcomes, however, has not been sufficiently examined. This study examined 402 VA workgroups that participated in CREW waves 1-11 (September 2005-February 2011) and had both pre- and post-surveys data. Regression analyses included the
following predictors: baseline civility levels; agreement on civility levels pre-intervention; workgroup occupation (e.g., nurses, clerical); level of familiarity with CREW within the broader organization (i.e., number of participating groups); level of familiarity with CREW in the broader VA system (number of previous CREW waves); geographical region as a proxy for socio-cultural context. We report relative effects of these predictors on outcomes within and across occupational group types and baseline civility levels. The results illustrate predictors of success in an intervention designed as adaptable to various types of groups and organizational environments.

Who does and who does not show the negative effects of informational injustice?
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Background: Injustice at the workplace is known to be a serious stressor for workplace-related attitudes, behaviours and health. Earlier research shows that higher age and trust is important in preventing increased turnover intention. Others found that employees who engage in withdrawal behaviour indicate less emotional exhaustion when perceiving injustice. However, traditional coping behaviours have not been studied as moderators before. Yet, this could elucidate preventive factors of how to deal with injustice experiences at work. Finding coping strategies that buffer the expected negative effects of injustice might disclose more beneficial ways of handling injustice than withdrawal behaviour for the organisation and employees.

The aim of this study is to investigate the effects of coping strategies as the moderators for the relation between supervisory informational injustice and its relation to job satisfaction, turnover intention and work-related health. We argue that employees with problem-focused coping (changing the situation) may have difficulties in applying this strategy within a hierarchical dependence relationship like the one to the supervisor. We predict that problem-focused coping does not attenuate the expected negative effects of perceived injustice. Employees with more emotion-focused coping strategies (avoidance and devaluation strategies) may perceive higher job satisfaction, lower turnover intention but impaired health. The analyses were also probed for the effect of gender.

Method and results: Data from 373 Swedish accountants was used. The data collection was conducted in 2009. We applied moderated hierarchical regression analyses. While change-oriented coping was found to moderate the relation between informational justice and turnover intention and work-related health, this coping strategy did not make a difference when informational justice was low. For women, the combination of high informational justice and high change-oriented coping was associated with lower levels of turnover intention and more positive work-related health. Contrary to our predictions, avoidance and devaluation coping
strategies had different effects. Devaluation coping attenuated the negative association between informational injustice and job satisfaction as well as turnover intention. The opposite was true for avoidance coping, which amplified the negative association between informational injustice and job satisfaction and turnover intention.

Discussion: Based on these results two main conclusions can be made from this study. First, changing the situation seems to increase the positive effect of informational justice from the supervisor. Second, devaluing problems seems to work as a buffer factor for the negative effects of informational injustice whereas avoidance coping worsens these effects.

Organizational Justice and Civility Norms: A Multiple Mediation Model
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Workplace incivility has been a common topic of interest for researchers and practitioners because of harmful effects on individuals and organizations (Bowling & Beehr, 2006). While many studies have examined negative consequences of mistreatment, there has been less focus on predictors of civil workplace behaviours. When fair treatment occurs from supervisors, the tone of the environment is set as one of concern and respect, leading coworkers to treat one another similarly with respect. H1a and b: Interactional and procedural justice will predict civility norms within an organization such that increased levels of justice will result in increased levels of civility norms.

It is also important to highlight possible mediators of this relationship between organizational justice and civility norms. A theoretical framework for examining the antecedents of workplace civility is Weiss and Cropanzano’s Affective Events Theory (1996), which posits work behaviours are reactions to affective experiences individuals have at work. It is therefore proposed that overall unfair treatment of employees by an organization will impact an individual’s job dissatisfaction, burnout/disengagement and job stress. Affective events theory would then suggest these negative outcomes would lead to uncivil behaviours. H2a and b: Job dissatisfaction, burnout/disengagement and job stress will mediate the relationship between interactional and procedural justice and civility norms.

Data were collected from 362 correctional officers through a field study conducted by CPH-NEW. Hypotheses were tested using the 2011 version of the Preacher and Hayes (2008) SPSS macro, which simultaneously tests multiple mediation models. Hypotheses 1a and 1b were supported. Also, dissatisfaction and burnout/disengagement were both simultaneous significant mediators of justice and civility norms. However, with job dissatisfaction and burnout both acting as mediators, job stress was not a significant mediator. This analysis also allows for the mediators to be compared with each other. Burnout had the strongest indirect effect on civility indicating that burnout negatively affects civility norms over and
above stress and dissatisfaction. This may be due to the sample of correctional officers who face very specific negative workplace conditions, however it may also indicate the importance of focusing on organizational design as a way to increase workplace civility. Organizational injustice is not the only thing that leads to dissatisfaction, burnout, stress and incivility, but evidence here suggests that it plays a role. This is notable because organizations can change how they treat their employees by enhancing communication and actively considering fair treatment of employees during change efforts.

**Does safety climate predict safety performance in Italy?**

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Different conceptualizations of safety climate have been proposed in the literature. One that seems particularly interesting from a measurement perspective was proposed by Neal, Griffin and Hart (2000). In their model, safety climate is defined as a specific form of organizational climate involving individual perceptions of the value of safety in the work environment which can be broken down into four facets: management values, communication, training, and safety systems. Furthermore, they propose a conceptual model in which safety climate affects safety knowledge and safety motivation, which in turn influence the two components of safety performance, namely safety compliance and safety participation. To date, however, their measure of these constructs has largely been applied and validated in English-speaking samples. Thus, the purpose of the current research was twofold:

1) to validate the Italian version of the questionnaire developed by Neal and colleagues.
2) to examine the conceptual model linking safety climate to antecedents and components of safety performance.

Our hypotheses were tested using a sample of 1255 employees from 14 different companies in Italy. Following Anderson and Gerbing (1981), a confirmatory factor analysis was conducted on the 32 items comprising the Neal and colleagues' questionnaire.

Results: $\chi^2$ (450, N=1255)= 1118, p<.001; CFI=.96; TLI=.96; RMSEA=.034(.032, .037), supported a model where safety compliance, safety participation, safety knowledge and safety motivation were posited as first order factors measured by their respective items. Safety climate was posited as a second order factor measured by management values, communication, training, and safety systems, which were, in turn, modelled as first order factors measured by their respective items.

A structural equation model where safety climate influenced safety performance only indirectly via safety knowledge and motivation was first tested. This model showed an excellent fit to the data. However, a model also allowing direct effects of
safety climate on both components of safety performance resulted in an even better fit, $\chi^2(2)=95., p<.0001$. The final model explained 62% of safety compliance variance, and 52% of safety participation variance. In conclusion, the current results replicated in an Italian sample the original findings of Neal and colleagues, confirming the indirect contribution of safety climate on safety performance components, while also evidencing a direct effect of safety climate in predicting safety performance.

Exploring the psychological contract of safety and safety related outcomes
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Recent research has found that equality in employment relationships may have implications for occupational health and safety. The psychological contract of safety examines the fulfilment and breach of reciprocal obligations within a health and safety context, and has shed some light on employee attitudes and behaviours. However, the majority of previous research in this area has focused on targeted samples. The current study aimed to replicate and expand previous research by examining the relationships between the psychological contract of safety and safety outcomes in a generalised sample. The study also examined the effects of organisational trust and optimistic bias on safety outcomes.

One hundred and fifty seven participants were recruited using social media and internet advertising. Participants completed their self-report questionnaire measuring employee obligations of safety, employer obligations of safety, organisational trust, safety climate attitudes, safety behaviour and optimistic bias.

As hypothesised, employee fulfilment of safety obligations was significantly and positively related to safety behaviour, while employer breach of safety obligations was significantly and negatively related to safety climate attitudes. Trust was found to partially mediate the relationship between employer breach of obligations and safety climate attitudes. No significant relationship was found between optimistic bias and safety behaviours, while trust was found to fully mediate the relationship between optimistic bias and safety climate attitudes. The implications of this research for occupational safety research are explored.

The influence of Safety Climate on Occupational Accident and Injury rates - A systematic review
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Background/Aim: It is usually common sense among practitioners and researchers that a good safety climate (SC) results in improved safety. However, there is a lack of systematic and detailed reviews to summarise and evaluate the scientific evidence underpinning the assumed relationship between SC and the level of
injury/accidents in a company. Therefore, the current research aims to fill this gap and study the association of SC with accident and injury rates.

Methods: Nine databases were searched for publications (in 3 different languages) on quantitative studies addressing the mentioned association. A total of 12 peer-reviewed papers were retrieved after eligibility and quality selection. Quality appraisal was carried out applying the STROBE guidelines together with the internal validity-confounding items from the assessment tool by Downs and Black (1998). A summary statement was then developed through evidence synthesis analysing the strength of the evidence considering the diverse characteristics of each study.

Results: Overall, the publications analyzed in detail demonstrated the association between SC and accident and injury rates (7 supported the association and 4 showed partial support), with more evidence gathered on the latter. However it was noticed that publications in this area are still somewhat scarce and largely based on cross-sectional rather than on longitudinal studies. Thus the research developed is yet subjected to many possible bias or weaknesses.

Conclusion: From the information gathered it is plausible to assume that Safety Climate has an impact on the accident and injury rates, and thus, it is likely that companies with a positive or improved SC will have lower accident frequency and a reduced injury rate. However, it is important to notice that there is not enough sound scientific evidence to support the influence of SC on accidents/injuries at work. Research (especially of the longitudinal or qualitative design) is still needed to demonstrate this association which has been widely acknowledged and accepted in the area of occupational health and safety.

Using more learning potential in learning from incidents processes
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Most organisations collect and analyse information about errors, incidents and adverse events with the aim to understand what happened, what caused the occurrence of these events and to learn lessons from them. Through learning from incidents, re-occurrence of (similar) events could be prevented, which should lead to meaningful improvements in safety and health performance. However, many organisations are not very successful in improving their OSH performance. Apparently they fail to learn effectively from previous events. Our research therefore aims to better understand the actual learning from incidents processes, and to identify possible improvements in the way organisations try to learn from incidents.

We see the ‘learning from incidents processes’ as a set of processes from reporting an incident to verifying the effectiveness of the measures taken. Building
on theories of organisational learning, an analytical framework and a survey have been developed to analyse where in this process most learning potential is lost. The analytical framework consists of eleven steps, divided into four phases: investigation and analysis (including also the collection of reports on adverse events), planning of interventions, intervening and evaluating. The framework clarifies that each phase and each step can be a limiting factor.

The results from the survey, based on this framework confirm that many steps are often performed substandard, resulting in a dramatic loss of learning potential. They also show differences between the formal organisation of the learning processes and how the process is performed in daily practice. In this way the loss of learning potential can be explained and understood. In itself this is only the first step towards more effective learning from incidents. Other relevant factors will be discussed, such as the 'learning to learn' process (increasing the organisations capacity for organisational learning) and contextual factors such as the organisational culture and safety culture and the functioning of knowledge management in the organisation.

Safety Performance Factors: A Qualitative Approach
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Background: This paper describes an approach to measuring safety climate in a high hazard construction industry. Safety culture is critical to the construction industry which is well known for its poor safety performance (Mohamed, 2002). Safety culture can be described as the safety beliefs, values, and attitudes held by an organization and its members (Cox and Cox, 1991). The success of safety intervention approaches appears to be dependent on a variety of factors including employee engagement (Harter, et al., 2002), upward communication, (Hofmann and Morgeson, 1999) and the commitment of senior management and its leadership (Cox et al., 2004). There is consensus in the recent literature that using a multi-instrument approach should be adopted to establish and measure safety culture (Cooper, 2002), despite few studies using this approach. This research adopts a multi-instrument, participatory approach including interviews, focus groups, surveys and behavioural audits. This paper reports the results of the first qualitative stage of this study exploring the perceived factors that affect safety performance.

Methodology: In order to generate an in-depth understanding of the factors that may influence safety performance both at an organisational and individual level, 7 focus groups were conducted with site-based employees, 36, in total. The focus groups were semi-structured. 27 in-depth, semi structured interviews were conducted with a wide range of employees from directors to site-based employees. Recorded interviews were transcribed and subject to template analysis.
Results: Safety Prioritisation; all participants reported a high level of individual and organisational commitment to safety, whilst the majority of site-based participants reported mixed messages about safety versus production with a disconnect between the conceptual ‘in principle’ commitment to safety on the one hand and the reality of getting the job done ‘on the ground’ on the other. Culture and Leadership; the majority of site-based participants interviewed described the safety culture of the organisation as one of zero tolerance with a ‘policing’ approach to safety management, controlling safety related behaviour through negative reinforcement and an ‘us and them’ culture; Employee Engagement and Communication; the majority of participants reported a tendency for one way ‘top down’ communication. Many participants reported a lack of reward and recognition and a recent reduction in consultation and involvement in decision making, leading to a perceived lack of autonomy and reduced morale. Results suggested that leadership style, employee engagement and communication may impact on the safety culture of the organisation which in turn affects safety performance.

Workplace behaviour and its relationship with work-related musculoskeletal disorders in catering industry: a qualitative study
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Background: Work-related musculoskeletal disorders (WMSDs) not only are common complaints at workplaces, but also constitute a public health problem and represent a major source of work disability. The mechanism of how different work habits (learned and habitual behaviours) associate with WMSDs, however, has yet to be revealed. The purpose of this study is to investigate how work habits are developed and its possible relationship with the development of WMSDs among chefs in Hong Kong.

Methods: A qualitative research design, using grounded theory method was adopted in this study. Face to face in-depth individual interviews were conducted to obtain views of the development of work habits from Chinese chefs with varying years of working experience. Trustworthiness of the research process was established by using varied strategies.

Results: The study findings suggest that work habits is a significant factor associated with the occurrence of WMSDs. It is formed by a series of learned behaviours and framed by work demand, supervisor and working environment particularly during the first three years of employment. The learned behaviours heavily rely on individual motivation, attitude, and experiences. Workers with risky work habits often overlook the importance of correct workplace behaviours and continue their risky behaviours.

Conclusion: Although many countermeasures have been used to prevent WMSDs, the possible causes of risky work habits have seldom been investigated. Future studies on the development of a valid instrument to gauge and distinguish different
type of work habits are recommended. Consequently, more effective interventions to reduce risky work habits can be formulated.

Classification of Health/Safety Issues/Concerns and Solutions Identified by Participatory Design Teams
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Researchers in the Center for the Promotion of Health in the New England Workplace (CPH-NEW; http://www.uml.edu/centers/cph-new), a research-to-practice center funded by NIOSH as part of the Total Worker Health™ Initiative (http://www.cdc.gov/niosh/twh/), have been conducting field studies on an integrated approach to workplace health protection and health promotion. A program Steering Committee is formed to guide the project and includes representation from management, line employees, human resources, and other relevant areas. Based on principles of participatory ergonomics, small teams of employees prioritize health/safety issues/concerns, and then engage in planning and design efforts for workplace interventions (Henning, Warren, Robertson, Faghri & Cherniack, 2009). The Steering Committee chooses among intervention alternatives and helps evaluate the effectiveness of the interventions as part of an iterative design process.

Given this open process that allows employee teams to identify their own health and safety concerns, there are few models that will identify beforehand which health concerns and potential interventions will be uncovered. Ergonomics training is provided so that employee design teams will consider changes to the work environment in addition to changes in individual health behaviour. To determine what health/safety issues/concerns and intervention solutions were considered by the design team during the intervention planning process, topical data was captured at each team meeting and later coded into general categories. Four general categories of health/safety issues/concerns were identified: general health concerns; excessive workload; back and neck problems; and work-related stress. The design team also identified 31 potential intervention solutions to these concerns. The potential intervention solutions were grouped into 5 general categories: education; procedure improvement; technology improvement; reward; and direct medical interventions.

Contrary to what might be expected, direct medical interventions were only suggested as an intervention in 2 out of 31 cases. In contrast, 14 out of 31 suggested interventions were work-related procedural changes. The Steering Committee approved 7 of the intervention solutions, and 4 of those consisted of procedural changes. No direct medical interventions were approved. It is possible that the Steering Committee saw the mutually beneficial nature of procedural
changes, and was naturally prone to implement these. Procedural intervention solutions were viewed as being very beneficial and appropriate for the workplace, making management more likely to implement intervention solutions that improve both worker health and productivity.

**Workplace meetings as a distinct workplace health promotion arena: a structured observational study**

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Introduction: Workplace meetings in Swedish healthcare organisations are a platform for managers to implement and inform about organizational goals, strategies and guidelines. The meetings are also regulated by collective labour agreements in order to strengthen employees influence over their work environment. In that way, workplace meetings could be a distinct workplace health promotion arena. The aim of this study was to explore workplace meetings as a workplace health promotion arena and the communication processes in a Swedish healthcare organisation.

Materials and methods: Nine strategically selected workplace meetings within nine different surgical and medical wards were observed in their natural setting. A semi-structured computerized observation scheme was used in order to clock and categorize data into predetermined categories, complemented with field notes. After all observational data was collected, the preliminary results was given as a mirroring and reflecting feedback to the ward-managers. This feedback section validated the findings and also gave us additional data that was helpful in the analysis process. Collected data were analysed using a content and discourse analysis of frequency charts.

Results: Each of the nine meetings’ structure (location, frequency, duration, number of participants) and flow of communication differed from the other. Total observed time was eight hours. The ward-managers viewed the workplace meeting as an arena for information, employee involvement in decision making and social interaction for the work group. Flow in communication downwards consisted of information (one-way communication) from the manager (46 %). Upward communication consisted of information from employees (13 %) and dialogue/discussion (two-way communication) between manager and employees and between employee and employee (41 %). Almost half of the time was devoted to clinical work (49 %), such as pharmaceutical care guidelines, number of occupied beds, medical and clinical devices. Personnel-related subjects such as manning, schedules and employment occupied 15 % of the time and physical and psychosocial work environment and employee health occupied 16 % of the time. Less common subjects were competence development (1%). Structural organisational changes (2 %), economy (2 %) and quality- and organisational development (2 %) were also less common subjects.
Conclusions: The observed opportunities of influence for the employees indicate that continual workplace meetings can be viewed as a distinct health promotion arena in terms of communication flow. The variations between the observed meetings indicate potential for further development and research of how the meetings structure, communication flow and subjects influence each other.

Development of a Toolkit for Integrating Occupational Health and Safety and Worksite Health Promotion

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The Center for the Promotion of Health in the New England Workplace (CPH-NEW; http://www.uml.edu/centers/cph-new) is one of four centers developing and evaluating integrated workplace health protection and health promotion interventions as part of the Total Worker Health™ initiative supported by the United States National Institute for Occupational Safety and Health. CPH-NEW, now in its 6th year, has developed a Research-to-Practice Toolkit to guide organizations in producing sustainable programs consisting of a healthy collaboration between workforce and management teams. The R2P Toolkit provides a complete set of step-by-step guides and supporting materials for program startup, including instructions for creating a "design team" made up of line-level employees who are later trained on participatory ergonomics and health promotion principles. The design team works in collaboration with a separate steering committee that provides oversight and acts as a resource for the design team, and as the vehicle for implementing workplace interventions. The R2P Toolkit includes tools such as a structured interview for key personnel and an All-Employee Survey structured around the assessment of organizational change through a pre-and post-administration. The types of data collected during a program's start-up process are also based on their demonstrated value for orienting the steering committee and design team to salient health/safety risks/concerns.

Another tool, the Business Decision Scorecard (BDS), introduces macro-ergonomic approaches into intervention planning, design and evaluation. It enhances line-level employees' ability to plan interventions by introducing a systemic root cause analysis for identified health/safety issues/concerns, followed by a stepwise business decision process. A set of intervention alternatives are then developed for possible consideration and implementation by the steering committee. The BDS is designed to build a sense of 'ownership' of intervention planning by members of both the design team the steering committee. The BDS is also a practical instrument and a process diagram for enlisting outside resources that are key to enhancing individual and workplace organizational-level access to, and understanding of, relevant health and safety information during intervention planning. Lastly, the BDS serves as an effective decision support tool for the entire
organization when resource allocations among various health protection and health promotion intervention alternatives are being considered. Lessons learned from on-going field tests of the BDS at small, medium and large work sites will be presented. Student contributions during iterative design of the Toolkit are highlighted. Plans for further development and dissemination of the CPH-NEW R2P Toolkit will also be described.

Promotion of mental health in academic context
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The admission in higher education is associated to transition process that requires accompaniment in order to contribute to success. However, multiple interfering variables in this process are responsible for the dissatisfaction of the students. Mental health promotion programs should involve the school community. This study aimed to evaluate the mental health of nursing students relative to mental vulnerability (psychiatric morbidity), towards the mental health inventory (Ribeiro, 1999). It is an exploratory and descriptive type of study, integrated within the paradigm of quantitative research.

The sample is made up of nursing students of a school in the north of Portugal. The sample is made up of 318 students who accepted to participate in the study. 275 questionnaires were considered valid (because they were completed fully). The instrument for collecting data was the mental health inventory (Ribeiro, 1999) and data was collected between March and April, 2010. The ethical principles inherent to investigative processes were respected. We verified that 35.5% are 4th grade students. Most of the students were aged between 18 and 23 years old. Regarding gender, 13.8% were male and 86.2% were female. We emphasize that in the last month: 48.5% described loneliness, 48.2% felt nervous and apprehensive; 68.6% felt tense and angry; 59.3% felt sad; 65% felt anxious and worried; 45.3% described feeling under great pressure and stress; 61.4% felt depressed; 7.8% considered suicide at least once; 61.4% do not have hope in the future; 68.2% feel happy with some frequency and 67% feel some pleasure in what they are doing.

The results point out a statistically significant association between gender and the practice of physical exercise (male students practice more physical exercise than female students, p<0.005) and with the consumption of alcoholic drinks (male students consume more than the female students, p<0.002). The students who consume tranquillizers feel more depressed (p<0.027); more nervous (p<0.047) and have fewer expectations for the future (p<0.037). These data are relevant as they allow intervening at the level of the prevention of the disease – in the depression towards the intervention in student who consume tranquillizers and the level of health promotion towards the intervention in healthy living styles.
A holistic health concept for the Cockpit Assembly at the Volkswagen plant Wolfsburg
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Due to demographic changes health promoting measures as well as holistic health concepts gain increasing importance. The following work introduces a preventive framework, which has been developed for the Cockpit Assembly at the Volkswagen plant Wolfsburg. When developing a health promoting concept it is crucial to focus on both, structural and behaviour oriented prevention. The term structural prevention describes the responsibility of a company to eliminate all potentially harmful factors which might appear in a working environment such as hazardous working conditions. Behaviour oriented prevention includes the health responsible behaviour of the employees themselves. A sustainable health concept needs to address both aspects.

The Volkswagen concept consists of multiple components for structural and behaviour oriented prevention which can be divided into proactive and reactive measures. Proactive elements in the category of structural prevention are for instance ergonomically designed work stations. These measures should be conducted in the planning phase in order to avoid any costly modifications. Other proactive measures are workshops on ergonomics for foremen and team leaders in the development stage and the qualification of new personnel. Hence, proactive measures, such as a priori training of new employees, can prevent non-ergonomic behaviours becoming standard procedure. Furthermore, they foster the development of health awareness in general.

The assessment and validation of existing work stations belongs in the reactive category of structural prevention. For a holistic assessment of work stations an identification of physical stress factors as well as the uncovering of psychological issues is necessary. After disclosing such, so called yellow or red, problem areas the next step should be the implementation of methods that improve the working conditions and hence relieve the employee.

This work provides a detailed elaboration of those individual components in a health promoting concept. Furthermore it is analyzed why such an approach is crucial for the acceptance within the workforce as well as the achievement of general health related goals.

Health promotion in the workplace: qualitative discursive analysis of an influenza prevention campaign
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The Regional Director for the WHO Regional Office for Europe (WHO, 2010) has recently noted some of the lessons that have been learned from the last influenza
Among these is that the role of the private sector in health promotion needs to be clarified, and that communication with the public must be improved. The workplace is a particularly useful focus for health promotion because it provides access to a target group – healthy working adults – that can otherwise be hard to reach. Established methods of communication facilitate health promotion and follow-up, and there can be a positive impact on employees’ families and the wider community.

In the case of pandemic influenza, risks to human life can be high, and the topic can evoke fear and panic. Prevention of spread is crucial, and careful consideration must be taken of the impact that the individual’s actions can have on the wider community. It is therefore important not just to pass information on, but also to encourage an atmosphere of collaboration and trust - qualities that will be particularly valuable in the event of a pandemic. It is therefore particularly important that communication in this area is well judged.

This study critically examines the ways in which health promotion materials aimed at preventing the spread of influenza might position key stakeholders, construct the illness, and construct the recommended response. The analysis also refers to the broader social and ideological contexts in which the health promotion campaign takes place.

Data were obtained from a European branch of a large, multi-national company, through that company’s involvement in a European Corporate Social Responsibility (CSR) network. Five items from the company’s health promotion influenza campaign were analysed. The target audience was the whole of the workforce (approximately 3,000 people), employed in clerical, administration and management positions. Qualitative analysis using discourse analytic techniques revealed inconsistencies in the health ‘message’, as well as presuppositions relating to the nature of employees’ health concerns. The ideology of medical power was implicit in the texts. Implications of these findings for workplace health promotion are discussed, and recommendations are made that draw particularly on the biopsychosocial approach to health behaviour and behaviour change.

Workplace stress is an everyday occurrence for today's workers. Its consequences have been well-documented, encompassing a range of psychological and physical outcomes such as lower job satisfaction and increased blood pressure. Stemming from a variety of sources, it is also a known antecedent of worker burnout (e.g. Hugh, Schaufeli, & Taris, 2011). Burnout is typically conceptualized as "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals [at work]" (Maslach & Jackson, 1981, p. 99). In line with the current
literature, we first propose that burnout is a negative psychological condition that is a direct consequence of workplace stress.

Dispositional pessimism is also related to an assortment of negative individual experiences, from social withdrawal (Carver, Lehman, & Antoni, 2003) to lessened physical functioning (Brenes, Rapp, Rejeski, & Miller, 2002). It has traditionally been conceptualized as remaining stable across a person’s lifespan (Giltay et al., 2006), associated with the Big Five trait Neuroticism. However, under certain conditions it can be somewhat volatile: Schulz et al. (1995) documented an increase of pessimism in recurrent cancer patients over time. It is also known to be a precursor to other negative experiences among undergraduate students (Thompson & Gaudreau, 2008), particularly disengagement, which is similar to burnout (Wallace, Lee, & Lee, 2010). While research on pessimism in the workplace has been overlooked, we propose that pessimism, rather than being a stable dispositional trait, is a temporary condition that is a direct consequence of worker burnout, which mediates the stress-to-pessimism relationship.

Data were collected from 262 healthcare workers across approximately 20 state correctional facilities: 28% were male, and 70% identified as Caucasian. The measures included subscales of the Job Stress In General scale (Stanton et al., 2001) and the Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou, & Kantas, 2003), as well as the Dispositional Pessimism scale (Scheier, Carver, & Bridges, 1994), a subscale of the Life Orientation Test. Reliabilities for all measures have been excellent in previous testing. A Baron and Kenny (1986) series of regressions revealed significant direct and indirect effects, suggesting a full mediation on the part of burnout between stress and pessimism.

Future research should focus on pessimism as a state rather than a stable personality trait, and how this affects worker efficiency and performance. Practitioners should be aware of the impact of stress and burnout upon one’s outlook and work to improve environmental conditions and worker psychological well-being.

**Perceived social support moderates the mediating effect of job burnout on the relationship between secondary traumatic stress and work engagement**

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Longitudinal study examined the direct and indirect impact of a particular type of occupational stress, namely secondary traumatic stress, on work engagement. Specifically, it was investigated (1) whether job burnout mediates the impact of
secondary traumatic stress on work engagement, and (2) whether this mediation is moderated by the level of perceived social support.

The respondents were professionals (e.g., social workers, rescue workers, \( n = 179 \)) working with trauma victims or survivors. All participants were indirectly exposed to traumatic stressful events through their work with patients/clients. The Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2004) was used to assess symptoms of secondary traumatic stress that were related to work, the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003) was applied to evaluate work engagement, the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) was used to measure perceived social support and the Oldenburg Burnout Inventory (OLBI; Halbesleben & Demerouti, 2005) was applied to assess job burnout. In all moderated mediation analysis the baseline level of work engagement was controlled for and a bootstrapping procedure was applied (Preacher, Rucker, & Hayes, 2007).

Results of our longitudinal study indicated that the effect of secondary traumatic stress on work engagement was mediated by job burnout only when perceived social support was low or medium. When perceived social support was high, the indirect effect of secondary traumatic stress on work engagement via job burnout was not significant.

One of the practical implications of the study is that suffering from the high level of secondary traumatic stress may have direct and indirect impact on low work engagement and that social support may help to prevent this effect.

Examining the effects of workaholism climate on employee fatigue.
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This study focused on how role overload mediates the relationship between workaholism climate and fatigue as well as how gender moderated this mediated relationship. Although most research on workaholism focuses on this characteristic within individuals, our study examines the extent to which a climate for workaholism exists at the organizational level and how such a climate can affect employees. Specifically, we believe workaholism climate can adversely affect employees regardless of whether they exhibit workaholic behaviours of their own. Akin to the individual-level research, we argue that a workaholic climate will lead individuals to take on greater work responsibilities than they can appropriately manage (Schaufeli, Bakker, & Prins, 2009). Not surprisingly, such overload should be positively associated with individuals’ fatigue levels. There have been conflicting results on how gender affects one’s propensity for being a workaholic; however, we hypothesized that there would be a distinct effect of gender on workaholism climate (Burke, 1999).
Our sample consisted of 598 working adults (M age=31). We used snowball sampling to gather participants who completed an online survey which included demographic, health, stress, and work-safety information. Workaholism climate and fatigue were measured with 5 and 6-item scales, respectively, constructed for the purpose of this study. Role overload was measured using a 4-item scale (Reilly, 1982).

We ran a moderated mediation macro by Preacher, Rucker, and Hayes (2007) to test the model, which showed a significant mediation of role overload between workaholism climate and fatigue. Workaholism climate significantly predicted role overload ($\beta=.493, p<.001$). Role overload significantly predicted fatigue ($\beta=.339, p<.001$). When role overload was added as a mediator, the significant relationship between workaholism climate and fatigue was no longer significant ($\beta=-.026, p>.10$). Further, the moderation of sex between workaholism climate and role overload was significant ($p<.05$).

In sum, the results of the study indicated that role overload accounted for the relationship between workaholism climate and fatigue. In addition, gender positively moderated the first path of this mediated relationship such that the relationship between workaholism climate and role overload was stronger for men than for women, even though women experienced more role overload in general than men. Organizations that are interested in fostering a healthy working environment should pay attention to the extent to which the climate — not just individuals — supports workaholism. Based on the results, helping employees establish balanced workloads will temper the fatigue associated with such a workaholic climate, particularly for men.

Model for early assessment of burn out syndrome in health care employees
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Aim: Professional groups most affected by the burnout syndrome in healthcare system are well defined in the literature. However there is no standardized method for establishing vulnerability to burnout. The present paper describes an ongoing project aiming to elaborate on a model for early diagnostics of burnout syndrome among targeted groups of health care employees.

Currently ongoing stages of the project are validation of the Bulgarian version of the Cloninger’s Temperament and Character Inventory (TCI) and assessment of its reliability and internal consistency; which will be followed by a survey of the risk groups using Cloninger’s inventory and Koys & DeCotiis and Maslach questionnaires to analyze and evaluate correlation between personality characteristics, psychological climate and degree of burnout syndrome manifestation in the studied groups; risk assessment of burnout syndrome and its modality; development of a model for early diagnostics and prevention of burnout syndrome among the risk categories of health care professionals.
The study subjects are 500 health care employees at a certain risk for developing burnout syndrome working in the following health care professional fields – oncology, psychiatry, intensive care, general practice, emergency care and palliative care.

Methods: (a) a battery of psychological methods for obtaining primary data on psychobiological profile of personality and psychosocial well-being - Cloninger's tests (TCI; permission courtesy of C.R. Cloninger, 2010); control setting values of burnout syndrome established by a standardized test of Maslach and evaluation of organizational and psychological climate; (b) Document analyses of administrative records (sickness absence, staff turnover, etc.) to test for correlation between burnout syndrome as a causal factor (independent variable) and administrative indicators as a resultant factor (dependent variable).

Test-retest reliability pilot sample study (n=80) demonstrates strong correlation between the two sets of responses to our battery of psychological tests. Some of those 80 participants were healthcare professionals from specialties other that the above-mentioned affected by burnout syndrome. For the purposes of the project after completion of the battery validation procedure, a case-control study will be performed of all 500 subjects from the target groups of health care employees.

Results: A model for early assessment of burnout syndrome in health care employees is the main expected result. The profiles of vulnerability will allow strategies for improvement of the status as well as preventive interventions to be implemented - group workshops on prevention: debriefing; individual psychotherapy; training in leadership techniques and communication skills.

**Prevention of anxiety, depression and burnout during medical residency training - The experts’ opinion**

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Aims: Studies have shown higher incidence levels of anxiety, depression and burnout in the medical profession than in the general population or other professions (Angerer et al., 2008; Buddeberg-Fischer et al., 2009; Nienhaus et al., 2008). It is vital to reduce these to prevent detrimental individual consequences and to maintain high standards of patient care. As the levels rise especially during residency (Buddeberg-Fischer et al., 2009; Stiller and Kulka, 2007), the present study aims to analyse the reasons and potential interventions at the early career stage.

Method: As the topic has not yet received much scientific attention, a qualitative study using in-depth interviews with: medical students, young doctors doing their residency, doctors who experienced one of the above mentioned mental
conditions, and four experts in the fields of career development, occupational health and occupational psychology, is conducted. The present paper focuses on the experts’ beliefs regarding the origins of the problems plus their intervention experiences.

Results: The experts emphasise a high risk potential during the career entry phase. The main causes of anxiety depression & burnout were identified as resulting from:

- the career preparation phase: inadequate training for real-life medical performance (e.g. concentration on theory rather than psycho-social and self-management skills)
- the work setting: institutional restrictions causing daily hassles (e.g. financial shortages, shortage of personnel), stressful job design (e.g. tight deadlines, exceeding time demands) and interpersonal difficulties at work
- individual characteristics: a low sense of coherence (SOC).

According to the interviewees, prevention and interventions have to cover all areas. For medical students, a realistic preparation for the job is required including more training in practical clinical skills and more emphasis on psycho-social aspects including communication, coping and interpersonal skills. Students should develop realistic ideas of their future jobs and how to keep a work-life-balance. During their studies, well-being can be promoted by teaching efficient learning strategies and with training to increase individual SOC. While the latter is also possible during residency, more institutional support is required there such as providing stress management training, mentoring programs, career counselling and anonymous psychological advisory centres.

Conclusions: Preventing occupational psychological problems in high risk groups such as medical doctors has to begin early. There are opportunities during medical school and residency which are not yet incorporated into the curricula or institutional planning.

The public health perspective: Useful for occupational health psychology research and practice?
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Background: How psychosocial working conditions affect physical and mental health is of concern to many occupational health psychology researchers and practitioners. Public health and epidemiology offer relevant concepts, theoretical frameworks, methodology and research evidence in this area.

Aims and objectives: The overall aim is to describe the public health approach, apply it to occupational health psychology topics, specifically in the area of psychosocial work characteristics and health. The presentation is intended to address conceptual issues and to be thought-provoking with a view to explore new areas of interdisciplinary collaboration in research and practice.
Frameworks and concepts used: The public health perspective is defined with its four most important notions: (1) the emphasis on prevention of disease and promotion of health rather than treatment of the sick (2) the focus on the population rather than on individuals, (3) that public health goals are achieved through the collective efforts of all parts of society hereby tackling problems that cannot be resolved by interventions on a smaller scale, (4) that public health interventions are aimed at minimising social inequalities in health. While applying the public health framework of prevention to occupational health psychology (primordial, primary, secondary, tertiary prevention) and the social epidemiology model of the wider determinants of health, those particular psychosocial work conditions will be highlighted that may benefit from population-level interventions rather than from interventions with individual workers or workplaces.

Conclusions for practice and research: Following a population health preventative perspective it is suggested that minor changes to psychosocial working conditions in many workplaces may result in higher health gain for the population than larger changes to ‘high-risk’ individuals or ‘high risk’ workplaces. This notion is in line with Geoffrey Rose’s famous public health example published in his seminal work ‘Sick individuals – sick populations’: He argued that the majority of heart disease cases does not arise from individuals with high level of risk factors but from individuals with average levels of risk factors.

It is suggested to build collaborative research involving public health and occupational health psychology scholars. Following the knowledge gained by the WHO global burden of disease approach, the use of population attributable risk indicators rather than the exclusive reliance on regression coefficients or odds ratios to determine the relative importance of specific psychosocial work characteristics for health.

Development and implementation of policies for the management of psychosocial risks: Exploring the role of stakeholders and the translation of policy into practice in Europe

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The key aim of this research is to evaluate the impact of policy level interventions for the management of psychosocial risks in Europe. This research is exploratory in nature and seeks to clarify the policy framework in relation to psychosocial risk management, identify key policy stakeholders, examine their perceptions and clarify their role in the policy making process. The research also evaluates the impact of selected policies by analysing their implementation and impact on action at the national and enterprise levels.
A combination of qualitative and quantitative methodologies was employed. Three qualitative and two quantitative studies were conducted and sought to: a. identify all stakeholders relevant to psychosocial risk management, b. analyse the role of key stakeholders in the policy development process as well as drivers and barriers for the development and implementation for such policies for psychosocial risk management, c. investigate the effectiveness and needs related to EU and national regulations governing health and safety and psychosocial risk management at the workplace, d. explore stakeholders’ views on the impact of policy interventions and priorities for action at the policy level, and e. analyse the translation of policy into practice at the enterprise level, by assessing the impact of policies on enterprise action (specifically on the implementation of procedures and measures to manage psychosocial risk management), and by identifying the key drivers, barriers and needs of European enterprises in relation to psychosocial risk management.

Overall, the findings of this work recognise many challenges in relation to policy evaluation for psychosocial risk management. However, unless the impact of these policies is evaluated using predefined and appropriate evaluation methodologies and criteria, the basis on which further policies can be developed will not be clear. The research also highlighted that despite the increased awareness of issues relating to psychosocial risks in Europe, there are several differences in perceptions amongst stakeholders and lack of prioritisation of these issues at the policy level that may seriously hinder practice. In this context, the role of researchers and academics is important. Evaluation of policies must therefore ideally be carried out on a tripartite plus basis and should not be within the remit of governmental agencies alone.

**The relationship between servant leadership and job satisfaction: the moderating effect of organizational justice**

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Servant leadership focuses on developing employees to their fullest potential in different areas: task effectiveness, community stewardship, and self-motivation (Greenleaf, 1997). The servant leadership aids followers understand their abilities, needs, desires, goals, and potential. With the servant leadership perspective, the leader has knowledge of each follower’s unique characteristics and interests, and the leader assists followers in achieving their potential. Thus, the leader should inspire trust, and provide information, feedback and resources (Lord, Brown & Freiberg, 1999). The servant leadership emphasises strong follower-centric, altruistic, moral/ethical, and values (Pekerti & Sendjaya, 2010).

According with Chung, Su Jung, Kyle & Petrick (2010) the predictive role of servant leadership on the organizational justice and job satisfaction has been little studied in the literature which opens an important field of study when the leader must provide support, confidence and security to employees to ensure a high job performance and achieve job satisfaction.
The hypothesis of this research is that servant leadership is associated directly and indirectly (through the mediating effect of organizational justice) to job satisfaction.

This research was conducted with a sample of 246 professors in an institution of higher education. We chose a sample of professors because they require the support of their superiors to have a high job performance in terms of research and teaching and, consequently, a high level of job satisfaction. The measurement scales used were: the questionnaire of job satisfaction of Minnesota to measure the job satisfaction: intrinsic, extrinsic and general satisfaction (Weiss, Dawis, England & Lofquist, 1977); the scale of organizational justice (distributive, procedural, and interactional justice) of Niehoff & Moorman (1993), and the scale of servant leadership of Liden, Wyne, Zhao & Henderson (2008) that measures seven factors of servant leadership (emotional healing, creating value for the community, conceptual skills, empowering, helping subordinates grow and succeed, putting subordinates first, and behaving ethically). To test the hypothesis we carry out the structural equation analysis using Amos software (version 19).

The results indicate that the factors of servant leadership (empowering, behaving ethically, and helping subordinates grow and succeed) have significant and positive effect on job satisfaction (intrinsic, extrinsic and general satisfaction). Additionally, we identified that the organizational justice has a mediating effect (positive and significant) between servant leadership and job satisfaction.

Handling negative media focus in hospitals: Organisational quagmire increases personification processes and personal consequences

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Introduction: Health care management and managers have gained increased focus in public debate and scientific literature during the last decade. There seems to be a lack of scientific evidence concerning the personal and organizational consequences for managers when becoming the focus of critical media attention. This paper explores, from empirical data, mechanisms and consequences of intense and unfavorable media attention on managers in health care organizations.

Materials and methods: A qualitative case-study approach was used to study 15 cases of managers with top- or middle-position at a hospital. In-depth interviews with the focused managers and a selection of their superior managers, subordinates, colleagues and partners were analyzed.

Results: The result describes a conceptual model that explains how experienced uncertainties related to managerial role, influence personification and its consequences (core category). The role-ambiguities appeared at different
interrelated levels (self as well as role in organization and society) and comprised uncertainties of separating one's own person from and function, to interacting with intra-organizational cultures and strong professional groups, and to understanding and accepting roles in society.

The uncertainties related to managerial role during intense media attention influenced level, and grade, of personification processes. Personification during the process were made on three different levels; self-, organization- and media-personification. The grade of uncertainty in the function strengthened both personification and personal consequences in the form of reactions to the intense pressure and violated managerial base. Three types of reactions were identified; being avoidant and narrow, hardness against oneself, subordinates or family and lastly, resignation and hebetation. These reactions seemed to influence the long-term consequences in terms of learning from experience and reinforced uncertainties related to managerial base.

Conclusions: Managers being personified may experience personal long-term symptoms and consequences in form of personal indignities and violated base. Grade, spread and consequences of managerial personification and their personal indignity of media focus were qualitatively related to uncertainties in managerial role. Proactive support to better handle external communication should start before, during and after media focus.

Leading and organising for health and productivity
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Objectives: According to the European network for workplace health promotion, ENWHP, as well as WHO, Workplace Health Promotion (WHP) comprises improving the work organisation and the working environment, promoting active participation, and encouraging personal development. This study aims to improve knowledge about how the interplay between various organisational principles, leadership and work conditions affect health and development of production. The long-term aim is to provide knowledge for implementation of tailored workplace health promotion interventions in various organisational settings.

Methods: The study is a prospective cohort study based on questionnaires to employees and first- and middle managers in nine public and private organisations. The questionnaire include questions on organisational principles, change, production and employee leadership (CPE), work conditions (effort-reward imbalance), conditions for innovative learning and competence development, health (CBI and work-related FLOW) and productivity. In total 6850 questionnaires were sent out at baseline, 4095 (60%) responded. Associations between
organisational principles (degree of sociotechnical and lean principles/tools), leadership, work conditions, conditions for innovative learning and health were analysed with multilevel logistic regression controlled for the random effect of organisation.

Results: At baseline, traditional Scandinavian sociotechnical organisational principles were more common in most organisations, but several organisations had begun to implement lean principles or tools. Organisational principles did not differ in their association with CPE leadership, but a higher degree of adopting lean principles or tools, increased the risk of stressful work conditions (p<.001), while a constructive leadership prevented stressful work conditions (p<.001). A CPE leadership (p<.001) and good psychosocial work conditions (p<.001) promoted an innovative learning climate at the work place. Ill health was highly associated with stressful work conditions (p<.001), while positive work related health, was associated with sociotechnical organisation principles (p<.001), CPE leadership (p<.001) and an innovative learning climate (p<.001).

Conclusions: Positive health and ill health are associated with different aspects of the work place. The interplay between organisational principles, how leadership is performed, and work conditions affect ill health and positive health through different paths. An innovative learning climate at the work place seems to prevent ill health and promote positive health. The results have implications for the development of WHP in different organisational settings.

Leadership style and Mobbing among Teachers in Nursing Schools
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Objectives: Mobbing in teams at the workplace, its preconditions, effects and potential prevention are much discussed in science and in practice. From previous studies, it is evident that manager behaviour can influence whether and in which intensity mobbing occurs in their teams (Walter & Cornelsen 1993; Hauge, Skogstad & Einarsen 2007). The objective of the present study is to analyze the connections between leadership behaviours, leadership styles and mobbing to show which behaviour of managerial staff could contribute to mobbing prevention. This is done in nursing schools in Austria, thus analyzing teams performing very specific “social” jobs which have so far been largely ignored in mobbing research.

Method: In a first step, a literature research was done. Subsequently, a quantitative questionnaire was developed on the basis of the Multifactor Leadership Questionnaire (Bass & Avolio, 1990, in the version of Geyer & Steyer, 1998) covering the transactional and transformational leadership dimensions. Additional items regarding mobbing promotional and mobbing inhibiting variables were adopted from a German version of the Leymann Inventory of Psychological Terror (Warth & Zapf, 1997). After a pretest, six nursing schools in Lower Austria were
selected as sample and the questionnaire distributed to their teaching staff. In total, 48 (73% of a total population of 66 teachers) were filled in and returned. Main component analyses as well as Cronbach’s alpha tests were conducted and sum scores calculated for correlation analyses of the leadership dimensions with the scales mobbing promotion and prevention.

Results: The transformational leadership style, especially the dimensions “individual appreciation” and “charisma”, have strong positive effects on mobbing prevention. The transactional leadership style does inhibit mobbing less effectively. However, high scores on the dimension “contingent reward” do correlate with less mobbing related activity, which is a so far not reported result. Laissez-faire leadership shows a positive but mediocre effect on mobbing prevention. The effect is significant, but could be measured on the basis of one variable only.

Conclusions and Implications: The present work can serve as a starting point for further large scale research or a qualitative study aimed at developing a questionnaire more tailored to the target group. Moreover, it has the potential to give executives an impetus to change their leadership behaviours into more mobbing preventive ones. Management training seminars for expressing appreciation towards employees and rewarding them appropriately could help develop effective leadership strategies reducing the occurrence of mobbing.

Leader Behaviours Predict Employee Well-being: A Swiss National Study
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In Occupational Health Psychology, leader behaviours have been studied for decades rather selectively. While associations of various performance promoting leader behaviours with job satisfaction have been demonstrated in numerous studies (cf. Derue et al., 2011), associations between such leader behaviours and other indicators of well-being are less well studied. We investigated whether relation-oriented and task-oriented leader behaviours perceived by direct reports relate to their job-related and context-free well-being using data of the Stress-Study 2010 (Grebner, Berlowitz, Alvarado, & Cassina, 2011).

Data were collected in three language areas of Switzerland by phone interviews. The sample includes 1’006 employed and self-employed workers and is representative for the Swiss working population regarding sex, age, language regions and industries. Data analyses are based on 732 employees’ (leaders and non-leaders) respondences. Perceived relational- and task-oriented leader behaviours (i.e. showing respect, providing support, solving conflicts to the satisfaction of the employee, encouraging the employee to participate in decision making, giving feedback, and planning and organizing well), and satisfaction with working conditions were measured using single items (cf. European Working Conditions Survey, 2005, 2010). Perceived stress during the past 12 months was measured using an item by Ramaciotti and Perriard (2000). Emotional exhaustion
was assessed by an item of the Oldenburg Burnout Inventory (OLBI, Demerouti et al., 2001). Momentary well-being was captured by four items of the WHO Well-being index (1998).

Controlling for sex, age, language region, and number of subordinates, multiple regression analyses showed positive associations of relational- and task-oriented leader behaviours with both types of well-being, job-related and context-free. Leader behaviours explained 15% of the variance in satisfaction with working conditions, 12% in momentary well-being, 7% in emotional exhaustion, and 6% in perceived stress. Results suggest the high importance of leader behaviours for job-related and context-free, short- and long-term well-being. To conclude, leadership development should be employed as a mean of situation-targeted stress-prevention and employee health promotion. Leaders should be trained in various relation-oriented behaviours including managing conflicts and providing adequate support. Such trainings should also focus on task-oriented behaviours like planning and organizing well and providing feedback.

Health promotion and well-being in the workplace: Presentation of a program for evaluation and intervention in psychosocial risks

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Currently, new approaches on Occupational Health Psychology have distanced from focusing simply on the pathological behaviour and study of negative variables, to the emphasis on positive factors such as engagement, self-efficacy, resilience, job satisfaction and empowerment. In this following, engagement and positive work experiences can be justified by the individual and subjective perceptions of personal and job resources, emotions and experiences. The ratio of Portuguese individuals who suffer from stress, burnout and emotional disorders cannot be ignored. However, and although the situation is alarming, it was possible to prove that positive work experiences have a direct effect in one’s perception of well-being and psychological capital, all of which are strong predictors of health.

The data for our analyses is based on 899 Portuguese workers, 39.6% females and 60.4% males. The demographic data indicate that the majority of the inquired Portuguese are undecided about the intention to leave their work in the next 5 years. However, during the last year, 211 of the participants have been obliged to absent themselves from work, and in specific, 128 had been absent for illness reasons.

Results showed a predictive effect of workload in the decrease perception of health and well-being ($R^2 = .54; p \leq .01$). The analysis of positive work variables concluded that: engagement predicts health, well-being and psychological capital ($R^2 = .63; p \leq .01$), work satisfaction ($R^2 = .72; p \leq .01$), commitment ($R^2 = .629; p \leq .05$), and empowerment ($R^2 = .357; p \leq .00$). In this following, work satisfaction predicts quality
of life and quality of work life ($R^2=.614; p≤.05$), that in turn affect the perception of health, well-being and psychological capital ($R^2=.603; p≤.01$).

Based on the results of the present study, and with the aim to promote health and prevent illnesses, a model of evaluation and intervention in psychosocial risks was created, based on Health Coaching methodologies. The present model lessens the need to promote personal resources, dynamic individual-work resources and empowerment, hence, increasing the importance of delineating strategies that decrease the psychosocial risks that arise from work participation.

**The impact of shift work and organisational climate on health**

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Shiftwork, in particular night work, is known to be a risk factor for disorders such as cardiovascular disease/gastrointestinal complaints and for work related accidents and injuries. Demands on circadian adaption, together with sleep disturbance and disrupted meal times, have been put forward as possible explanations of these increased health risks. Additionally, organisational factors (for example: coworker cohesion, supervisor support and work pressure) have also been shown to have a relationship with health outcomes.

Few studies however, have examined the role of difference in workplace environment itself between shifts on such health measures.

**Study 1:** This study investigated variation in organisational climate across different types of shift work and health outcomes in nurses. Participants ($n = 142$) were nursing staff from a metropolitan hospital in Melbourne. Responses to demographic items elicited the type of shift worked, while the Work Environment Scale (WES) and the General Health Questionnaire (GHQ) measures organisational climate and health respectively. Analysis supported the hypotheses that different organisational climates occurred across different shifts, and that different organisational climate factors predicted poor health outcomes. Shift work alone was not found to predict health outcomes. Specifically, permanent night shift workers had significantly lower scores for coworker cohesion compared to rotating day and evening shift workers and significantly higher scores for managerial control compared to day shift workers. Further, coworker cohesion and involvement were found to be significant predictors of somatic problems.

**Study 2:** Employees at one of eight Victorian Residential Protective Care Services were invited to participate in the study ($n = 65$). Measures were the same as for study 1. Correlation and regression analyses demonstrated a significant model explaining 24.5% of the variance. The highest significant predictors of GHQ anxiety were low levels of autonomy and high work pressure. Limitations of the second study included low participant numbers in particular for the night shift group, and there was less clarity between different types of shift work. Therefore, it was...
concluded that, modification of the organisational climate may be an important factor to improve health of shift workers. These findings suggest that, the modification of work environment factors may help to improve outcomes in shift workers.

**Stress in Australian Dairy Farmers: Effort-Reward Imbalance is associated with morning cortisol and salivary immunoglobulin concentrations**

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**Introduction & objectives:** The effort reward imbalance model (ERI) has successfully predicted coronary and depressive symptomology using prospective designs. Investigations focussed on predicting the physiological antecedents to such conditions however, has received little empirical attention. The aim of this investigation was to further test the generalisability of the ERI with dairy farmers. In addition, the study sought to assess the relationship of the ERI with pre-clinical biological indices of stress (i.e. salivary cortisol, salivary immunoglobulin A (sIgA)). Another objective was to determine which components of the ERI (effort, rewards, and overcommitment) best predicted the physiological indices with an aim of identifying meaningful forms of intervention.

**Methods:** Demographic information, the Perceived Stress Scale, Work Related Questions II and III and the Eysenck Personality Questionnaire-Revised Short Form were completed by participants (*n* = 66). Saliva samples were collected from participants in their own homes immediately after waking and 30 minutes thereafter and analysed for cortisol and sIgA concentration.

**Results:** Findings from the current study reveal that 45% of the current sample reported an imbalance between efforts and rewards in the workplace, suggesting these participants are ‘at risk’ of stress-related illness. The results of stepwise linear regression analyses revealed significant associations between the ERI and cortisol and sIgA concentrations. The analyses revealed that as extrinsic efforts increase sIgA levels decrease. Moreover, results indicate that low perceived rewards best predicts lowered sIgA and higher cortisol concentration levels in Australian dairy farmers. Personality variables were not related to ERI scores or sIgA or cortisol data.

**Discussion:** Dairy farmers were an ideal sample given their stable circadian rhythms and reports that suggest that these workers are likely to be substantially stressed. The physiological indices were in the directions expected given the high ERI stress scores attained, with lowered sIgA potentially suggesting lowered immunity. Ideally, future ERI investigations will use prospective designs and incorporate physiological indices in conjunction with modified work practices (for this sample, increasing rewards) in their design. This may enable us to understand if these changes alter both rates of ERI and importantly, physiology that is related to ill-health.
Stochastic Resonance Training Reduces Musculoskeletal Symptoms in Hospital Employees: A Randomized Controlled Trial
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Objectives: This study examined the effects of stochastic resonance whole-body vibration training on work-related musculoskeletal symptoms and body balance.

Participants: Participants were employees of a Swiss university hospital (N=180), with 88% being female and 45% working as nurses.

Methods: The study was designed as randomized controlled trial (RCT). The RCT consisted of two groups one given eight weeks of exercise and no intervention in the other group. Outcome was measured on a daily basis with questionnaires. Two components constituted musculoskeletal symptoms: musculoskeletal pain, and related functional limitations at work. Bodily balance was measured before intervention and after eight weeks of intervention as body sway on electronic balance plates.

Results: No change in musculoskeletal pain, functional limitation at work or body balance was observed in the control group. The training group showed a significant decrease in musculoskeletal pain and functional limitation at work at the end of the training period. In the training group there was also a significant positive training effect of on medialateral sway indicating an increase in body balance performance. Stochastic resonance whole-body vibration training was most effective in those participants of the training group who reported low participation at work and health problems prior to start of the training.

Conclusions: Stochastic resonance whole-body vibration was found to be effective in the reduction of work-related musculoskeletal symptoms. It is well suited for the use in a work environment since it requires very little effort in terms of infrastructure, time and investment from participants.

Job characteristics and Obesity in a sample of the Irish General Population
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Purpose: Recent research suggests that job stress contributes to the epidemic of obesity in the population. The complexity of the relationship between job characteristics and obesity has resulted in inconclusive evidence. The importance of gender stratification for these analyses has been shown; but detailed measures of job demands and job control could enhance our knowledge. In this present paper, we examine the association between specific job characteristics and obesity for males and females, paid and unpaid (household labour) workers.
Methods: Data is taken from a cross-sectional general population study of 2,047 men and women in the southern part of Ireland aged 50-69 years. Data collected included standardised physical measurements, demographic details and job characteristics. Job characteristics were measured using the Copenhagen Psychosocial Questionnaire. Items were summed for the different scales representing quantitative demands, cognitive demands, influence at work and possibility for development. Obesity was determined using the waist to height ratio with those having a ratio greater than 0.5 classified as obese.

Results: The mean age of the sample was 59 years with just under half male (49% n=1008). Almost 90% of the total sample was classified as obese. Of the total working sample (n=1233) 78% were paid (n=519 males, n=440 females) and 22% (n=21 male, n=253 female) were unpaid. Preliminary results using logistic regression, stratified by gender and adjusted for age and education, indicated that females, in both the total working sample (paid and unpaid) and in unpaid work, with a low possibility for development, were significantly more likely to be obese OR 1.56 (95% CI 1.01-2.40), OR 2.22 (95% CI 1.01-4.88) respectively. Furthermore, these same groups with high cognitive demands were significantly less likely to be obese OR 0.64 (95% CI 0.42-0.98), OR 0.37 (95% CI 0.17-0.78) respectively. However, for men, a low possibility for development and high cognitive demands were protective against obesity OR 0.82 (95% CI 0.40-1.66), OR 0.58 (95% CI 0.28-1.18), albeit non-significance. No association was seen for influence at work and quantitative demands.

Conclusion: Interestingly no association was found for men with regard job characteristics and obesity. The associations for women were largely driven by the unpaid woman and for specific measures of job demand and control. The effect of job characteristics and obesity within the genders is complex, but an area necessary to understand if we are to reduce this epidemic.

Adopting international frameworks and standards on Psychosocial Risk Management to the Petroleum Industry

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Significant changes which are taking place in the world of work lead to emerging psychosocial risks. These risks are linked to the way work is designed, organised and managed, resulting in an increased level of stress and can lead to serious deterioration of mental and physical health. As a result of this, there has in recent years been a number of initiatives and guidance that focus on managing the psychosocial risk. Some examples are the European Framework for Psychosocial Risk Management (PRIMA-EF), standard on psychosocial risk management in the form of a publicly available specification (PAS1010) developed by the British Standards Institute (BSI) as well as the World Health Organisation’s (WHO) Global Framework for Healthy Workplaces.
An essential question is how the frameworks launched by international projects such as PRIMA-EF, WHO and the BSI standards can be re-interpreted and adjusted to fit the language and systems of particular business contexts, such as that of the petroleum industry. As such, adopting international frameworks and standards have been of particular interest for Statoil. Over the last 5 - 6 years Statoil have worked towards strengthening the management of psychosocial risks with a special focus on work-related stress and bullying and harassment within the company by adopting best practise set forward by PRIMA-EF, WHO and BSI. Priority has been given to ensure that the risk management of psychosocial aspects is based on the principles of prevention and best practise. The efforts toward strengthening the management of psychosocial work environment in Statoil have so far included: 1) Developing and testing a HSE Key Performance Indicator (KPI) for psychosocial risk; 2) Establishment of a Psychosocial Risk Management Methodology; 3) Development of a step by step approach for handling complaint of bullying.

Do-it-yourself: An individual positive psychology intervention promoting positive emotions, self-efficacy, and engagement at work

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The emergence of positive psychology has paved the way for interventions that enhance well-being at a population level. Indeed, a lot of context-free interventions have proven to be successful in enhancing well-being of people. However, only a few work-related online interventions have been evaluated so far. In this study, we investigate the effects of an on-line self-enhancement program on positive emotions, self-efficacy, and work engagement.

Research has shown that both positive emotions and self-efficacy are individual antecedents of work engagement. According to Broaden-and-Build theory, the experience of positive emotions helps to build enduring resources (such as self-efficacy), which, in its turn, may lead to a more enduring positive state like work engagement. Self-efficacy acts as a self-motivating mechanism: people perceive their levels of competences to be high and consequently set themselves goals and are motivated to spend considerable effort and persistence in overcoming obstacles. So, both the experience of positive emotions and self-efficacy can cause employees to be engaged in their work.

The on-line training is designed to intervene in this individual “building process” towards work engagement. The program consists of three types of online assignments: happiness assignments to stimulate positive emotions, goal setting assignments, and resource building assignments. We assume that this training enhances positive emotions, self-efficacy, and work engagement. Moreover, we expect that the self-enhancement group shows significant increases in the outcome variables compared to a self-monitoring control group. This group of participants
does not attend the program; instead, they receive an on-line feedback report on their work-related well-being.

This study is based on two convenience samples. Participants of the self-enhancement and self-monitoring group are both recruited via a Dutch newspaper website. To test the hypotheses, we carried out 2 (time: pre- and post measurement) x 2 (group: self-enhancement and self-monitoring) repeated measures analyses of variance. The results revealed that the self-enhancement program had a significant positive effect on the antecedents of engagement (positive emotions and self-efficacy) compared to the self-monitoring group, but not on engagement itself, at least, not at first glance. However, additional analyses showed that the positive effects of the self-enhancement program do exist among employees who are low in engagement at the pre measurement, but not among employees who are medium or high in engagement. So, individual programs should target employees who are low in work engagement, because they have the most unused potential and therefore have more to gain in their well-being.

Promoting mental health in transcultural organisations: Introducing an organisational intervention model
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Managers in organisations often respond to transcultural communication and conflict situations by activating their personal and individual abilities whilst being responsible for their health and well-being (Mayer, 2011). Research has shown that organisations can contribute to the well-being and health of managers through various aspects. Work and employer organisations either promote health and salutogene inter-relationships or decrease health and emphasise pathogene interrelationships (Ilmarinen & Tempel, 2002). The issue of constructing healthy work environments has recently attracted interest in economic and management research (e.g. Rothmann & Cilliers, 2007). Antonovsky’s (1979) shift from the biomedical paradigm towards salutogenesis and the question of “what keeps people healthy” has gained popularity.

The aim of this paper is to show how salutogenesis, health and well-being of managers can be promoted within a transcultural organisational setting through specific transformation instruments by presenting a newly developed intervention model called METHO (Mental health in transcultural organisation). The paper presents how METHO promotes salutogenesis in international management organisations.

METHO has been developed on the base of a multi-method (qualitative and quantitative) research study conducted in the international automotive industry in South Africa (Mayer, 2011). The base of this model is salutogenic, resource-focused, transcultural, growth-oriented, transformative and solution-oriented (e.g. de Shazer, 2008). It is flexible with regard to differences in culture-specific
organisational structures and focuses on the improvement of the well-being and salutogenesis at work (Antonovsky, 1979). MEHTO includes four transformation instruments, such as individual counselling sessions, group training series, team mentoring and facilitator training and thereby creates transcultural mental health and salutogenesis in organisations which will be presented. The evaluation of METHO in management practice is in process at the moment.

Stress Management Maturity Concept - a model for successful interventions in work systems
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This paper proposes a maturity concept (Stress Management Maturity Concept) which can analyze the existing stress management practice and support a sustainable development of new preventive work practices in knowledge intensive work systems.

The concept consists of two modules: First, a maturity test which is used to map the existing stress management practices. The second module consists of an applicable self-help tool which can support the development and design of new preventive work practices based on a participatory process.

Module one is presently being developed in a newly started mixed methods research project - “Development of a stress preventive model for SMV's”. The development is based on research results and literature on Stress management and interventions and maturity models and subsequently tested in four case companies. Hereafter, the companies are to use the self-help tool.

The self-help tool was developed as part of a research project with the objective to study whether it is possible through an intervention to develop and implement stress preventive changes in knowledge intensive companies. The outcomes of the research project are preventive changes where the human factor perspective has been integrated in the design and management of work systems resulting in increased productivity, flexibility and work environment. To support successful interventions the research project builds on the following results and premises identified in previous interventions:

- The local collective knowledge forms the basis for the preventive interventions which have a participatory approach.
- Tacit knowledge on working conditions and practices, problems and relevant solutions is made explicit in collective rooms for reflections in order to secure participation, commitment and organizational learning.
- The development of preventive changes has its starting point in the daily local practices.
- The participants decide on their program goals and theory which can be evaluated step by step through the intervention by the evaluator.
The evaluation enables an identification of implementation failures and changes to be made. Progress and process activities are continuously visualized in order to secure focus, commitment and “something to talk about”. The appointed coordinator of the process follows the process and evaluates the implementation of the program and addresses the shadow systems in order to seek ideas and stories influencing the interventions. The Self-Help tool comprises together with the maturity model and the success criteria the key components of the maturity concept which can support the development and implementation of primary stress preventive changes.

Results of the DIRECT-project: A workplace intervention study to increase job resources and recovery opportunities to improve employee health, well-being, and performance in nursing homes
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Because of high demands at work, nurses are at high risk for occupational burnout and physical complaints. There is mounting evidence that job resources and recovery opportunities could counteract the adverse effect of high job demands. However, it is still unclear how job resources and recovery opportunities can be translated into effective workplace interventions that aim to improve employee health, well-being, and performance.

The objective of the DIRECT-project was to develop and implement workplace interventions to optimise job resources and recovery opportunities, which may lead to improved health, well-being and performance. Using the Demand-Induced Strain Compensation (DISC) Model as a theoretical framework, our key assumption was that job demands need to be compensated for by both matching job resources and matching recovery from work to optimise employee outcomes.

A 3-wave longitudinal, quasi-experimental field study was conducted. Health care staff of four intervention wards and four comparison wards from two nursing homes were involved. Based on base-line survey findings, workplace interventions were implemented accordingly, such as an ‘effective recovery’ workshop and a ‘smarter collaboration’ workshop. According to the principles of participatory action research, both employees and management were responsible for the initialisation, development and implementation of the interventions. After 12 and 24 months, effects of the interventions were investigated with follow-up surveys. Additionally, a process evaluation was conducted to evaluate the implementation process as well as the effectiveness of the interventions.

Based on the findings of the follow-up surveys, most of the interventions had not the intended effect thus far. However, a process evaluation revealed that
employees of the intervention wards had a more positive attitude toward their work environment than at the start of the project.

To conclude, the DIRECT-project is a first and promising intervention study with the DISC Model, and fulfills a strong need for systematic and theory-driven intervention research in the field of work, stress, health, and performance.

Initiatives for supporting employee well-being during major downsizing
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Downsizing has been found to have adverse effects on employee well-being and health. In the recent years it has become clear that in addition to those made redundant, downsizing also affects well-being of the employees who continue working in the organization after downsizing. In longitudinal research, downsizing has been connected for example with increased job insecurity (Campbell-Jamison et al., 2001), sickness absences (Vahtera et al., 2004), and increased use of psychotropic drugs (Kivimäki 2007).

However, a well-planned implementation of the restructuring process and the appropriate support actions may reduce the negative consequences of restructuring. Based on the results of PSYRES (Psychological health and well-being in restructuring) -project (Wiezer et al., 2011, Pahkin et al., 2011) the successful initiatives for ensuring employee well-being during restructuring should aim to decrease job insecurity, ensure that job demands remain in a reasonable level, improve the atmosphere in the organisation, create understanding of why the change is needed and improve personal resources which make employees less vulnerable to the negative effects of restructuring.

As a part of the PSYRES-project workshops were organized in four countries with the aim to obtain information about successful initiatives which organizations have applied to maintain psychological well-being during restructuring. The Finnish workshop focused on the situations with large-scale lay-offs. The workshop participants represented the actors in paper and pulp industry. This branch of industry has, during recent years undergone a market re-organization which has led to numerous downsizing activities, including closing down production units. The seminar participants (n=14) included employees' representatives, managers, HR personnel and occupational health personnel. Most of the participants had undergone several downsizing processes and also participated in implementing the restructuring processes and organizing support actions.

The successful initiatives defined at four levels included for example: 1) individual level: good practices when giving the notice, 2) group level: how to support task changes, 3) leadership level: training on how to deal with discussions about sensitive issues, and 4) organizational level: the role of the communication plan. The key elements of the initiatives defined in the Finnish workshop were similar to
those that came up in the other workshops. This indicates that successful initiatives are similar across the countries and sectors. The key factors for successful change are communication, participation and support, which should be targeted on the four levels.

The association between frequent difficult deadlines at work and sleep quality. A longitudinal study among Danish knowledge workers

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Background: Deadlines at work are a major and growing part of modern working life in Europe, including Denmark. It is unknown, though, whether frequent exposure to deadlines constitutes an occupational health risk. The aim of the present study was to investigate for the first time the association between deadlines at work and sleep quality.

Methods: We used a cohort of 363 Danish knowledge workers (e.g., engineers, media professionals; 55% women). Participants were surveyed in 2006 and 12 months later. We asked how often participants had deadlines that were difficult to meet and categorized responses into low (never/few times a year, reference group), intermediate (few times a month) and high frequency (few times a week/daily). Sleep quality was assessed as total sleep quality (TSQ), and with an awakening index (AWI) and a disturbed sleep index (DSI) derived from the Karolinska Sleep Questionnaire. We used multiple linear and logistic regression analyses to study the association between frequency of deadlines at baseline and sleep quality at follow-up.

Results: Prevalence of low, intermediate and high frequency of deadlines was 27%, 33%, and 40% respectively. Compared to the reference group, participants with a high frequency of deadlines had longer weekly working hours (44.2 vs. 37.7 hours, p<0.001), slept less (6.9 vs. 7.3 hours, p=0.003) and needed more time to fall asleep (16.1 vs. 13.0 minutes, p=0.02). High frequency of deadlines at baseline predicted low sleep quality scores at follow-up after adjustment for gender, age, and work schedule in the linear regression analyses (p-values of 0.008, 0.019 and 0.043 for TSQ, AWI, and DSI, respectively). Effect estimates were attenuated and lost statistical significance after further adjustment for baseline sleep quality. In the logistic regression analyses, frequent deadlines at baseline predicted onset of sleep problems at follow-up among participants free of sleep problems at baseline (OR=3.64, 95% CI=1.02-13.00, p=0.047).

Conclusion: To the best of our knowledge this is the first study that investigated the association between frequently occurring deadlines that are difficult to meet and sleep quality. The results indicate that frequent deadlines at work should be
considered as a possible risk factor for workers' health. We recommend studying the relation between deadlines and health endpoints in large-scale cohorts.

Towards an understanding of the factors which underlie the success of 'on-call working': Why is it ok for some, but impossibly difficult for others?

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Objectives: On-call working is now commonplace across a wide range of occupational groups. Anecdotal evidence suggests a huge variation in the impact of on-call working on the well-being of individuals; some workers are known to easily tolerate this component of their work scheduling, while others find it impossible to manage. From a research perspective, little is currently known about the factors which underlie this difference. Consequently, this two-part study aimed to identify the range of factors which may moderate the impact of working on-call on well-being.

Methods: Part I focussed on on-call working within the medical field and employed a qualitative methodology: Five medical professionals were interviewed, including a junior doctor, a physiotherapist and an anaesthetist. The data were analysed using an IPA methodology. Part II built upon the themes which emerged from the interviews and adopted a quantitative methodology. In this part of the study 198 individuals completed a large-scale questionnaire. The respondents represented seven occupational groups including police officers, prison officers and IT professionals. The questionnaire included sections on (1) operational practices for organising on-call rotas (2) the impact of on-call work on home-life and (3) psychometric personality measures, including mental toughness, desirability for control and sensation seeking.

Results: Analysis of the interview and questionnaire data yielded a range of factors which could be broadly categorised as 'individual' and 'organisational' factors. The individual factors identified included level of professional experience, flexibility of circadian rhythms, personality traits and differences in personal circumstances, such as marital status and number of dependents. Organisational factors included the similarity of on-call responsibilities to daily work, perception of adequate training and degree of input into rota scheduling.

Conclusions: This preliminary investigation into the factors which moderate the impact of on-call working provides a solid foundation for further research which may also lead to improved operational practices for on-call working populations.
Examining the Psychophysiological impact of on-call working: A pilot study
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Objectives: On-call working has become the fastest growing form of out of hours work scheduling. Many studies have documented that such work schedules have a detrimental effect on sleep (Akerstedt et al., 2007), health (Rugulies et al., 2009) and cognitive functioning/increased risk in emergency situations (Pasupathy et al., 2010). This pilot study used a psychophysiological methodology incorporating the biological indicator of saliva cortisol to measure the stress levels of on-call workers across 4 different shift types.

Methods: Participants collected 12 saliva samples in 4 different shift working conditions. Three samples, on 3 Wednesdays, 3 samples after they had completed their normal duties i.e. at the end of their shift; 3 samples on 3 rest days; 3 samples on an on-call shift when they had been called out; and 3 samples when on an on-call shift but when they had not been called out.

Results: The participant’s cortisol levels across each shift were analysed using a within subjects repeated measures ANOVA with 4 levels. The ANOVA revealed that there was no significant effect of shift type. However, although there was no significant effect of shift there was an effect size of r= .36, (F = 2.23) indicating that there is good evidence that a larger sample size would have found a significant difference between the shift types.

Conclusions: The saliva cortisol results indicate that being on-call and not called out is the most stress provoking shift type. Of further key importance was the finding that, on-call not called out was rated as being different to at rest in that it was reported as eliciting very similar effects to the participants normal work. Therefore the results of this study indicate that The European Working Time Directive (2004) ruling for being on-call and not called are incorrect in their ruling that where on-call workers are not called out this on-call period is classed as being at rest. However, the psychophysiological evidence from this study highlights that being on-call but not called out is clearly not the same as being at rest. Although, taking into account the very small sample size, these findings should be considered as preliminary and tentative.

The impact of the European Working Time Directive on surgeons' work life balance, patient care and surgical training in the UK
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Background: There is overwhelming evidence that sleep deprivation, sleep restriction, and enforced unnatural circadian cycles contribute to cognitive and motor impairments, injuries, and errors amongst medical professionals. The
European Working Time Directive (EWTD), which aims to improve working conditions and safety by placing a 48 hour limit on the working week, was fully implemented in the United Kingdom (UK) in 2009 (Council Directive 93/104/EC, 1993). However, the medical profession has raised concerns about the potentially adverse effects on postgraduate training and the provision of high quality patient care, especially in surgery. In order to comply with the EWTD, professionals have looked into some of the associated issues and given their recommendations; e.g. Walls (2007) suggested that local deaneries could provide expert knowledge on flexible training. However, there is currently a lack of an overview of the impact of EWTD compliance on trainees’ work life balance, patient care and surgical training in the UK. This research focuses on the implementation of EWTD in surgical practice and explores stakeholders’ perspectives on trainees’ work life balance, patient care and surgical training.

Methods: EWTD documents were reviewed and a pilot focus group interview performed (with two consultant surgeons, three professors of medical and surgical education, and a current surgical trainee), the results of which generated the interview schedule for subsequent interviews with stakeholders’ exploring their perspectives on the EWTD. 11 individual in-depth interviews were conducted with heads of surgical deaneries, representatives from The Royal College of Surgeons (RCS), the Department of Health, General Medical Council, Joint Committee on Specialist Training, two surgical trainee councils, Patient Advice and Liaison Services, and surgical trainees. All interviews were transcribed and analysed with Thematic Analysis. The patients’ advisory record was reviewed before and after the implementation of EWTD with content analysis.

Findings and conclusion: Preliminary analysis showed that apart from patients, most stakeholders believed the implementation of EWTD has resulted in considerable reductions in surgical training opportunities, quality of patient care and even life style. Most considered the introduction of EWTD as having had an adverse effect on the continuity of care in surgery. Trainees suggested that they have a better work life balance since EWTD was implemented but are concerned about their quality of training and delivery of patient care. Their concerns about training affect their quality of life in various ways. An improvement of information flow and training strategy is needed for better implementation of EWTD.

The role of negative affectivity in the evaluation of work stress: an empirical survey

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The evaluation of work stress is very often conducted using self-report measures in order to detect both the risk factors and their consequences in terms of strain. However, some authors criticize the exclusive use of self-report measurements in
the evaluation of work stress. In particular, many objections are related to the role, as yet unclear, played by affectivity in the process of work stress (Cox, Griffiths & Rial-Gonzalez, 2000; Semmer, Grebner, & Elfering, 2004).

This study was conducted in one Italian organization (n = 670) in order to examine the role of negative affectivity (NA) in the formation process of perceived work stress among its workers. An adaptation of the Strain Free Negative Affectivity Scale created for the Italian context was used in this organization in order to assess psycho-physical strain, perceived conflict and negative affectivity.

Four popular models, widely present in the literature on work stress, were tested within the observed organization: partial mediation model, common cause model, regression model, total mediation model. These models are characterized by a specific role, different in each of them, played by NA.

The results show both a direct and an indirect – through perceived conflict – effect of NA on strain. There is also evidence of a relevant role of NA in the formation process of perceived work stress. These results highlight the seasonableness of adding hetero-evaluations or objective indicators of stress to self-evaluations in order to obtain a broader and integrated knowledge of the work stress in the observed context.

**Appreciation and subjectively perceived performance: The mediating role of goal attainment and resentments**

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Many authors acknowledge that feeling appreciated at work is extremely important (Kahn, 1990; de Cremer & Tyler, 2005), and it seems to be the most important reward in the Effort-Reward-Imbalance model (van Vegchel et al, 2002; cf. Siegrist, 2002). Conversely, lack of appreciation signals “stress as disrespect” in the Stress-as-Offense-to-Self model by Semmer et al. (2007). Despite this broad acknowledgement, research that focuses specifically on appreciation, including its sources, forms, and triggers, is rare. Stocker et al. (2010) have shown that appreciation is related to job satisfaction and resentments towards one’s organization, and research in the context of the organizational behaviour modification approach has shown that appreciation tied to performance increases performance (Stajkovic, & Luthans, 1997).

In the current research, we test a more comprehensive model, assuming that appreciation from both superiors and clients fosters successful task completion, which, in turn, fosters subjectively perceived work performance. Furthermore, appreciation by supervisors should reduce resentments towards the organization, which should, in turn, improve perceived performance.
The current analyses were based on a cross-sectional study conducted in Switzerland ($n = 130$; mean age = 38 years (SD=12.2), 63% female. Appreciation was measured by the appreciation scale of Jacobshagen et al. (2008), which contains items on appreciation from supervisors, and clients. Subjectively perceived performance was measured by a scale of Jacobshagen et al. (2009). A sample item is “In the last time my performance has...” ranging from 1 “obviously increased” to 5 “obviously decreased”. Feelings of resentments were measured by the Scale of Geurts et al. (1999), which assesses feelings like anger, or treated in an unfair way. Goal attainment was measured by the pertinent subscale of the SUCCESS-Scale by Grebner et al. (2010; e.g., “I reached my goals”).

The path analysis shows that participant’ feelings of resentments function as a mediator between appreciation given by supervisors and subjective performance. Goal attainment is the mediator in the connection between appreciation given by clients and the performance of the employee. The $x^2$-test shows that the data match the theoretical model ($p=.42$), and the fit indices demonstrate that the model has a good fit (SRMR=.04; CFI=1.00).

Results suggest that appreciation of supervisors and clients are important for the subjective performance of the employee. Interestingly, however, appreciation by clients generates effects via goal attainment, whereas appreciation through an affective pathway. However, the data are cross-sectional, so causal conclusions cannot be drawn.

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To Investigate the Impact of Gender and Culture on the Expectations of Emotional Labour, Work Stressors, Psychological and Physical Well-being

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Emotional labour is a term coined by Hochschild (1983). Since then, numerous studies have been conducted but few have examined emotional labour with relation to gender, culture, personality and work stressors. This study has attempted to investigate the impact of gender, and culture on the expectations of Emotional Labour, work stressors, psychological and physical wellbeing.

A questionnaire which included measures of Emotional Labour (FEWS), organizational factors, the experience of physical symptoms, and the General Health Questionnaire (GHQ) was administered to newly recruited cabin crew ($n=312$). The average age of was 24 (SD2.72) years old. Sixty seven percent of the participants were female, and 5% did not state their gender.

From the results, it is observed that there are differences in expectations of emotional control, peer support, role clarity and physical wellbeing. Men expect to have more emotional control, more role clarity and more reer support in their future job, than women do. Women were experiencing more physical symptoms than men.
did at the time of joining the organisation. With regards to culture, the results indicate that individuals from individualistic cultures expected to have more norms regarding the organisation present than individuals from collectivistic cultures. Also individualistic cultures expect to have less role conflict, less autonomy and control, and less amounts of decision making than their collectivistic colleagues. On the other hand, collectivistic individuals expected less peer support than their individualistic colleagues. In addition, individualistic cultures reported a higher significant score on the GHQ, indicating that they were experiencing poor psychological wellbeing in comparison to collectivistic individuals, indicating that at the time of joining the organisation, individuals from Individualistic cultures experienced higher psychological morbidity.

The implications of this study, is that the results obtained from new cabin crew form a baseline for comparison with later experience of the job. In addition, expectations of cabin crew should be made realistic during the recruitment stage as the expectation of the role may not match the reality of the scope of the job.

Stress and Emotions during a Simulated Resuscitation: Time Course, Gender Differences, and Associations with Performance
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Objectives: Being involved in a medical emergency is a stressful and emotionally demanding experience. Feeling stressed and overwhelmed may degrade performance, leading to unduly restricted attentional focus (tunnel vision), but also to increased distractibility. The aim of the study was to investigate if acute stress in an emergency situation does, indeed, impair performance.

Methods: In a simulator study, we assessed emotions and stress/overload experiences before, during and after a witnessed cardiac arrest requiring cardiopulmonary resuscitation for 120 ⁴th year medical students. The students had some theoretical knowledge, but little hands-one experience with a cardiac arrest. They worked in teams of 3. Emotions were assessed for 11 critical time points before, during and after a resuscitation simulation, using the Geneva Emotion Wheel. In addition, feeling stressed, feeling overwhelmed, and motivation were assessed for the same time points. As feeling stressed was highly correlated with feeling overwhelmed, the two were combined into an index of “stress / overload”. Performance was assessed in terms of hands-on time during the first 180 seconds, based on second-by-second coding of video-tapes. Hands-on time included any activity that corresponds with the algorithm for treating a cardiac arrest (ventilation cardiac massage, defibrillation).
Results: Results showed expected changes of discrete emotions over time. Stress/overload was significantly higher during than before and after resuscitation, with women showing significantly higher stress/overload before and during the first part of the resuscitation, reaching values around 8 on a scale from 1 to 10. Aggregated across members of a team, stress/overload reported for the early resuscitation period was associated with significantly lower performance, whereas motivation during early resuscitation significantly enhanced performance. Gender composition of the teams was not associated with performance. As expected, positive emotions did not predict performance, but performance predicted pride in the after-resuscitation period.

Conclusion: Results show that stress may affect medical performance in an emergency situation, at least for medical students, implying that interventions to reduce stress may be promising. Results further show that the stress experience may change rapidly and that considering time-specific measures may yield associations that might be masked when using aggregated measures.

Control in the Face of Uncertainty: How the Sense of Personal Control Buffers the Effects of Job Insecurity
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Using longitudinal data drawn from the Work, Stress and Health study, a nationally representative survey of American workers in 2004 and 2006, we examine the effect of job insecurity on the sense of personal control. Anxiety over job loss and an uncertain economic future may contribute to feelings of powerlessness and a reduced sense that one can control the things that happen in their life—a key aspect of the self-concept that has been shown to be a critical component of good psychological and physical well-being (Mirowsky and Ross, 2003). However, job insecurity may also lead to a reduced sense of control as a result of declining job quality that often accompanies increased job precariousness. Researchers have argued that the loss of desirable job conditions represents an overlooked dimension of job insecurity, and suggest the importance of distinguishing between insecurity about the continuity of one’s job from insecurity over valued aspects of one’s job (Greenhalgh and Rosenblatt, 1984; Sverke and Hellgren, 2002).

Drawing from this broader conceptualization of job insecurity, we consider two aspects of job degradation that may be relevant to declining security, and that may serve to compound its effect on the sense of control: work intensification and reduced decision-making latitude.

Multivariate analyses of two waves of panel observations eighteen months apart (n=733) reveal that recently experienced job insecurity is associated with a decline in sense of control. In contrast, prolonged exposure to job insecurity is associated with a lowered sense of control only among older workers. We also examine whether job insecurity is associated with deteriorating job quality—as measured by
excessive job pressures and reduced decision-making latitude. Recently experienced job insecurity is associated with an increase in job pressures, while prolonged exposure to job insecurity is associated with a decrease in decision-making latitude.

We find only limited evidence, however, that changes in job quality account for the tendency of job insecurity to reduce the sense of personal control. These findings suggest that, in the short-term at least, job insecurity primarily decreases sense of control via its tendency to create anxiety and uncertainty over one’s economic future. Any effect of changes in job quality on perceptions of control, in contrast, may take longer exposure in order to be identifiable.

**Does General Well-Being Explain the Relationship between Job Insecurity and Work Attitudes?**
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This paper focuses on general well-being as a mediator of the relationship between job insecurity and work attitudes. It was hypothesized that job insecurity was related to lower general well-being, which in turn was associated with negative work attitudes. The hypothesis was supported among three different samples and for several indicators of general well-being.

In two cross-sectional studies among \( n = 175 \) Austrian employees and \( n = 446 \) Taiwanese employees, affective well-being (feelings of happiness/distress) partially mediated the relationship between job insecurity and intentions to quit and job insecurity and job involvement, respectively. Furthermore, in a 2-wave study among \( n = 178 \) German employees, cognitive well-being (life satisfaction) partially mediated the relationship between job insecurity and intentions to quit in the short term, whereas an indicator of affective well-being (positive mental health) partially mediated the longitudinal effect of job insecurity on intentions to quit. The results are discussed in the context of stress theory and with respect to the different indicators of general well-being.

**Changes in Community Pharmacy: The Impact on Stress and Errors in Pharmacists.**
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Introduction: In the UK, recent expansion of the community pharmacists’ role, coupled with increased dispensing loads, has led to concern about the risk of work-related stress and poor health among pharmacists (e.g. Willis and Hassell, 2010). Evidence for a positive association between occupational stress and human error
(e.g. Wadsworth, Simpson, Moss and Smith, 2003) suggests that stress in pharmacists could compromise patient safety. The aims of this study were (1) to investigate perceived stress in pharmacists and (2) to explore associations between stress and dispensing errors.

Method: The study was approved by the University of Manchester Ethics Committee. A questionnaire was sent to a randomly-selected sample of 2000 community-based pharmacists in England; survey items addressed individual and organisational characteristics, workload and working patterns, perceived sources of stress, physical and psychological wellbeing, and dispensing errors. The eligible response rate was 47.8% (n = 903; males = 420, females = 483).

Results: A comparison with normative occupational stress data for a sample of healthcare workers (n=7656) revealed that pharmacists were significantly more troubled by seven out of eight sources of job-related stress. Logistic regression of stressors on dispensing errors in the previous month revealed only overload to be significantly related to the reporting of involvement in a dispensing error (p < 0.01), although error prediction was limited (Nagelkerke R² = 0.014). Seventy-three percent of the participants reported at least one dispensing error in the previous month.

Discussion: The finding that pharmacists perceive that they are exposed to several sources of work-related stress to a greater degree than a comparable norm group is a useful contribution to recent debate regarding occupational stress in the pharmacy profession. The observation that overload is associated with dispensing errors warrants further investigation, but potentially has important implications for patient safety given recent increases in pharmacists' workloads. Directions for future research are considered.

The nonlinear relation between perceived employability and emotional exhaustion
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Perceived employability concerns the individual's perception of the possibility of getting a new job either in the current organization (perceived internal employability) or with another employer (perceived external employability). Previous studies have advanced perceived employability as a resource that promotes well-being and reduces ill-being, which has been demonstrated in some cases. However, relationships between perceived employability and well-being are, if significant, weak to moderate.

We hypothesize that perceived internal employability will show a negative, linear relation with emotional exhaustion, because internal employability can serve as a job resource and will consequently lower burnout. Employees who perceive more internal career opportunities, will thus, experience less emotional exhaustion. The
relationship between perceived external employability and emotional exhaustion, on the other hand, may be nonlinear, so that less employable, but also highly employable workers are more prone to emotional exhaustion. An employee who perceives less external opportunities, will feel locked in his or her position. This can relate to higher emotional exhaustion. When an employee perceives too many job opportunities on the labour market, (s)he might question whether (s)he would be better off doing another job, implying decision stress, or (s)he might feel pressured to act upon this perception, which also relates to higher emotional exhaustion.

The aim of this research is twofold: (1) to test nonlinear relations in order to question the assumption of linearity, and (2) to compare the relation between perceived internal employability and emotional exhaustion, with the relationship between perceived external employability and emotional exhaustion.

Results based on a sample of 339 respondents supported our hypotheses. In order to realize the first aim, hypotheses were tested by means of curve estimations. A negative linear relation was found between perceived internal employability and emotional exhaustion. The relation between perceived external employability and emotional exhaustion showed no linear relation, but a quadratic (nonlinear) relation.

The study suggests that higher perceived internal employability relates to lower emotional exhaustion, whereas too high and too low perceived external employability relates to higher emotional exhaustion. This stresses the importance of distinguishing internal and external perceived employability. We conclude that nonlinear relations add to the understanding of these relations.
POSTERS
Perceived Organizational Support, Organizational Cynicism and Well-Being of Japanese Employees: Moderating Effect of Supervisor Support
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Objectives: This study aimed to investigate the influence of organizational cynicism on Japanese employee well-being in the context of social exchange in employee-organization relationship, as well as the moderating effect of supervisor support. It was hypothesized that social exchange between Japanese employees and their employing organization influence employee well-being via organizational cynicism.

Methods: A web-based questionnaire survey was conducted with 1,127 Japanese employees from various organizations (49.1% female, mean age 39.58, SD 10.4 and range 20-60, mean tenure 10.96 years, SD 9.75, 65.3% non-managers). Organizational cynicism; perceived organizational support; perceived supervisor support; and employee well-being, consisting of work engagement, depressive symptoms, and somatic complaints, were measured.

Results: ANOVA revealed employees with higher organizational cynicism were younger and held non-managerial positions in their employing organizations. They also reported higher scores on depressive symptoms. Structural equation modeling demonstrated that perceived organizational support was negatively and strongly related to organizational cynicism (-.50, p<.001), and in turn organizational cynicism was negatively related to work engagement (-.32, p<.001) and positively and strongly related to depressive symptoms (.58, p<.001) and somatic complaints (.36, p<.001). Hierarchical multiple regression analysis indicated that perceived supervisor support moderate the relationship between perceived organizational support and organizational cynicism, such that the relationship becomes more negative for individuals with low supervisor support.

Conclusions: This study constitutes the first work demonstrating a strong and negative effect of organizational cynicism on well-being of Japanese employees in the context of social exchange in the employee-organization relationship. The study highlights the importance of supervisor support in reducing organizational cynicism when employees lack support from their employing organizations. Longitudinal studies are required in order to gain better knowledge of the relationships among the variables in this study.

Experimental study on the relationship between organizational culture and affective well-being at work: Role of person-organization fit
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The purpose of this study was to investigate the relationship between organizational culture and affective well-being at work, and also to investigate the role of person-organization fit in this relationship. Data were obtained from an
experimental design through questionnaire utilising scenarios with 127 police officers.

Interaction effect between organizational culture and person-organization fit has not been verified. Nevertheless principal effects were obtained, i.e., organizational cultures that emphasize support seem to promote enthusiasm compared with cultures that emphasize rules, and higher person-organization fit seems to promote higher levels of affective well-being at work.

The results show that the investment in a support culture seems to have an enhancing effect of better outcomes for the individual, and also the fit between worker and organization’s values, reinforces the importance of recruitment and selection process and of the way the organizations communicate their values to their internal customers. This is one of the first studies to provide evidence of the relationship between organizational culture and affective well-being.

Job demands-resources model in an Italian sample of academics
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Theoretical background: In recent decades, universities in many countries have undergone important changes that have profoundly affected the working life of academics (Winefield et al., 2008), making it more demanding and stressful (Kinman et al., 2006). In Italy, these changes – directly linked to the university reform (Law 240/2010) – are now highly critical (Nature, 2010; Pellerey, 2011).

This study investigates health impairment and motivational outcomes of Italian academics in the theoretical framework of the job demands-resources model (JD-R model; Demerouti, et al., 2001). We suggest that: H1 Demands (workload, work-family conflict and workaholism) are positively related to health impairment (physical symptoms and psychological strain); H2 Resources (supervisor and colleague support) are positively related to motivational outcomes (affective commitment); H3 Resources are negatively related to health impairment, with a minor effect.

Methods: The questionnaire respondents are 278 academics from a medium-sized university in northern Italy. The questionnaire included a personal data section and the following scales: workload (6 items), work-family conflict (5 items) and workaholism (6 items) as demands; supervisor support (4 items) and colleague support (4 items) as resources; physical symptoms (5 items) and psychological strain (6 items) as health impairment outcomes; affective commitment (4 items) as motivational outcome. Data analysis was performed with Pasw Statistics 18 and Lisrel (Jöreskog and Sörbom, 1993) to test the proposed SEM.

Results: The model showed satisfactory fit [$\chi^2 (39) = 88.361, p < .001; \chi^2/df = 2.27; CFI = .96; GFI = .95; NNFI = .95; RMSEA = .07$]. All specific demands loaded
significantly on the latent-factor demands, and all specific resources loaded significantly on the latent-factor resources. As expected, demands increased health impairment (H1) and resources increase affective commitment (H2). Resources are also related to health impairment but this relationship was weak (H3), in line with previous studies (Bakker et al., 2010).

Conclusions: Results support the JD-R model’s flexibility for investigating health impairment and motivational outcomes, in the academic context as in other areas (Bakker et al., 2010). Even though the robustness of the model had already been proved in different national samples (Llorens et al., 2006), we can now conclude that the model’s basic structure is maintained when applied in an Italian context. An original aspect of this study was its investigation of workaholism, which can be considered as a self-imposed demand (Bakker et al., 2009). Future research could further investigate its role for academics in particular.

Fit of Working Hours and Personal Needs of Physicians
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Keller, Aulike, Böhmert & Nienhaus (2010) elaborated stressors and resources in the daily work of hospital physicians and developed an instrument for stress-related job analysis for hospital physicians (ISAK; Keller, Bamberg, Böhmert & Nienhaus, 2010). Next to further studies Keller (2010) revealed small positive correlations between high working hours and psychological wellbeing. Additional studies suggest that contextual factors influence the correlation between working hours and psychological wellbeing, such as job rewards (van der Hulst & Geurts, 2001). Furthermore, following the p-e-fit model (Caplan, 1983), the fit of working hours and the needs of the worker seem to be important aspects of this relationship (Barnett, Gareis & Brennan, 1999).

The aim of the current study was to examine the possible intervening effect of the fit of working hours and personal needs, on the relationship between working hours and psychological wellbeing. The compatibility of working hours and personal needs was measured based on Barnett et al. (1999). Beside this fit as well as aspects of work schedule and shifts, work related irritation and the personal experience of concentration were measured as facets of psychological wellbeing.

The results show an influence of the fit of working hours and personal needs on the relationship between working hours and psychological wellbeing. It is intended that these first indications of an intermediary function of this fit are investigated more closely in a longitudinal survey.
The loss cycle of burnout: New evidences from Italian teachers

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The aim of this study was to longitudinally test the loss cycle of burnout in Italian teachers. Following Brummelhuis and colleagues (2011) we hypothesize that burnout triggers a vicious circle, increasing work-related demands and decreasing resources, and this in turn, leads to a stronger burnout. Using structural equation modelling (SEM) we test a meditational models, with baseline burnout (T1) predicting future burnout (T2) through the effect of both demands and resources. Specifically, high levels of burnout T1 will increase job demands (as measured by the difference in job demands between T2 and T1), which in turn will increase burnout T2. At the same time, high level of burnout T1 will decrease job resources (as measured by the difference in job resources between T2 and T1), which in turn will decrease burnout T2. We test these hypotheses in teachers employed in various levels of Italian schools, for both work-related and client-related burnout. Several personal variables were controlled for (gender and neuroticism). In general we found support for the formulated hypotheses. Results are discussed on the basis of the Conservation of Resources Theory.

The moderating role of psychological detachment and recovery quality in a 12-hr shift roster

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Although shift work presents a significant problem in regard to well-being, health and occupational safety, it can hardly be avoided because the necessity of around the clock services is increasing (e.g. Härma & Illmarinen, 1999). As a consequence of the limited possibilities to avoid shift work itself, previous studies focussed on the effects of different shift lengths on fatigue, well-being and occupational safety (e.g. Smith et al., 1998). To date, little is known about the role of psychological detachment and recovery quality during break periods, on fatigue and well-being in subsequent shifts. One may expect that psychological detachment from work and the quality of recovery during prior break periods moderate the effects of perceived workload on fatigue during subsequent shifts.

To test this assumption a diary study (cf. Ohly et al., 2010) was conducted with 64 rail network controllers working in a fully computerized control centre. Participants were asked to make four diary entries per shift during ten consecutive shifts. The first diary entry per shift dealt with recovery quality and psychological detachment in the prior break period; the other diary entries were used to measure perceived workload and fatigue every four hours. Hypotheses were tested separately for the two main shift rosters:
Stepwise multilevel analyses were carried out (step 1: control variables and fatigue at shift onset; step 2: recovery quality and psychological detachment before the current shift; step 3: perceived workload during the current shift; step 4: interactions; dependent variable: fatigue). Psychological detachment as well as recovery quality showed interactions with perceived workload on fatigue in the first shift roster but not in the second shift roster.

The results indicate that psychological detachment and recovery quality in rather short break periods can moderate the effects of perceived workload on fatigue during subsequent shifts. As a consequence these findings should be kept in mind by occupational health psychologists when improving working conditions of shift workers. Comprehensive employee information about the importance of rest phases for their quality of work, level of fatigue and occupational safety seems to be appropriate.

The participation and involvement of workers and workers’ representatives for safety at work (RLS) in the Italian credit sector
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The participation of workers in health management and promotion is an antecedent in individual well-being. In psychosocial hazards prevention and/or management, the active participation of workers and safety representatives plays a relevant part in improving occupational health. The promotion of educational health and the improvement in their behaviour eliminates or reduces the psycho–social risks at work.

The emotional involvement of individuals, single or as part of a group, leads towards an active participation in the working process, thus inducing workers to give up a passive attitude and delegacy. The active participation implies a real power to decide and to evaluate results. The aim of the research is to examine the level of participation in health and safety in the banking sector, focusing primarily on issues related to well-being, organization processes and the worker organization interface (RLS)

A questionnaire consisting of 49 items assessed by way of a 5 point Likert scale was submitted to RLS who were asked to give their opinion on safety and health in their organisation. The self-administered questionnaire refers to three dimensions: Role of the Italian worker’s representative (RLS)
The active participation in safety and health at work
The active policy of bodies in safety and health at work
Focus group oriented to investigate the opinions of workers’ representatives in the Italian credit sector
Analysis of the data gathered revealed a working environment that does not facilitate workers participation in the area analysed. Previous research demonstrated that in the same sector a considerable number of workers – 3 out of 4 – stated that they were not in a position to actively contribute to well-being in their workplaces. The aim of the present study is to involve the workers representative (RLS) to improve the participation at workplaces. The research is still ongoing.

Verification of a Predictive Model of Psychological Health at Work in Canada and France
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Background: At the 2010 EAOHP congress in Rome, a predictive model was presented and validated on a sample of teachers from France. In short, results showed that personal resources (optimism and resilience) were, directly and indirectly, the main predictors of PHW because they exert pervasive influences on self-perceptions and perceptions of the workplace. Job demands were directly and negatively related to PHW and to the perception of social-organizational resources (climate and justice). Finally, the influence of most PHW predictors, especially social-organizational resources, were mediatized by the satisfaction of individuals' basic needs. The objective of the present study is to verify if this predictive model of PHW can be applied with the same success on a sample from another country and culture. For linguistic reasons, a French speaking province in Canada was selected for this study.

Method: A sample of 537 teachers from Canada completed the same set of questionnaires, as did the initial 391 teachers sample from France, in a cross-sectional study. The two samples are similar regarding gender, age and teaching level; yet, there are more experimented teachers and teachers having a non-permanent status in the France sample (p<.01). All variables in the predictive model were measured with valid and reliable instruments (.80<α<.95) : PHW (well-being, distress), job demands, social-organizational resources (supportive climate, procedural and distributive justice), personal resources (optimism, resilience) and satisfaction of basic needs (autonomy, competence, affiliation). MPLUS software was used to test if the PHW predictive model was invariant across the two samples (Vandenberg & Lance, 2000).

Results: Structural equation model analyses suggest that the baseline unconstrained model fit the data in the total sample very well (χ²/dl = 2.12; CFI=.97; RMSEA=.047; SRMR=.036). Test of model invariance showed that the measurement model is invariant across the two samples when one equality constraint (on 34) is freed (different loading of one indicator: distributive justice). Moreover, at the exception of one structural path (on eight), the PHW predictive model is structurally invariant across the sample. The exception is that job
demands related more strongly to the perception of social-organizational resources in Canada than in France (-.40 vs -.24, p<.01)

Discussion: Overall, results suggest that the predictive model can be generalized at least for teachers from Canada and from France.

Aging and occupational wellbeing: An exploratory study
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Theoretical background: The European Agency of Safety and Health at Work reports that from 1995 to 2002, the number of workers increased by 0.36 million (2%) for those aged 15 to 24, while it increased by 2.38 million (16%) amongst those 55 to 64 years old. The boundaries of the definition of “old worker” are blurring; according to the Organisation for Economic Cooperation and Development, “workers are aging workers if they are in the second half of their working lives but have not yet reached retirement age”. The phenomenon of aging can be considered as a dynamic and differentiated process of change in which functions decline at the same time as other skills develop, and this process differs in each individual, even in relation to gender. Furthermore, there is a general consensus in the literature that the likelihood of serious or fatal workplace injuries increases with age.

Objectives: The aim of this study is to explore the associations between aging and several dimensions that describe the worker’s perceptions about organization, social relationship, job characteristics and psycho-social health.

Method: The data collected concern workers employed in four organizations that are different at several levels (structures, services provided, occupational profiles, different treatment on the National Insurance Contribution etc.): 120 workers belong to a company that provides environmental consulting services, 140 are part of an organization that supplies industrial services, and finally, respectively, 625 and 135, belong to organizations of the public health and educational sector. In order to explore the objectives, the workers were requested to fill out a self-report questionnaire. Particularly, at the organizational level the following factors were assessed: organizational equity (Maslach & Leiter, 2000), reward (Siegrist, 1996), organizational support (Karasek et al., 1998) and work-life balance (Geurts et al., 2005). At the relational level: social support (by superiors, colleagues and workgroup; Karasek et al., 1998) and social discrimination (Magnani et al., 2009). At the job characteristic’s level: decision authority (Karasek et al., 1998), skill discretion (Karasek et al., 1998), job demands [emotional, cognitive and physical (Karasek et al., 1998)] and job meaning (Kristensen et al., 2005). At the individual level: self-efficacy (Caprara, 1996). Finally, in order to evaluate the outcomes on workers’ psycho-social health, the following factors were taken into account: job satisfaction (Kristensen et al., 2005), organizational cynism (Brandes et al., 1999), stress symptoms (Kristensen et al., 2005), turn-over intentions (scale developed for the
present study). Finally, only for the educational and health sector, burnout syndrome (Maslach et al., 1996) was assessed.

Results: Correlation (Pearson’s r) highlighted that, across different contexts, psychosocial factors show variant associations with age (no significant relationships vs. positive relationships vs. negative relationships). In the poster the results for each context will be discussed.

**Understanding Changes in Team Member Stress over Time: A Laboratory Simulation**

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During the formative stages of a new work team, workers may be particularly vulnerable to stress. Lack of clarity of team members’ roles on the new team may serve to exacerbate stress. Individual and teammate characteristics such as personality may help explain reactions to environmental factors associated with stress during training on a novel task.

The current study explored changes in self-reported stress of individuals participating in six functionally-equivalent trials. Fifty-one participants were randomly assigned unique roles within three-person teams in a cross-level longitudinal design with a series of six repeated measures nested within individuals. Teams were trained on a computer-based simulated microworld task. Individual differences in stress over time were modeled using hierarchical linear modeling. A discontinuity in stress was included to account for a planned disruption of team practice. The Stress in General scale (Stanton et al., 2001) was administered following each trial.

Team member gender, personality, and work role were hypothesized to moderate differences in both initial stress level and changes in stress over time. Results supported the predicted relationships. Role explained 19% of the variance between individuals in initial stress level (p<.01). A cross-level interaction between time and gender explained 29% of the difference between individuals’ change over time; stress decreased faster for males (p<.01). A significant cross-level interaction between the discontinuity and mean teammate openness to experience was found (p<.01).

Results of the current study suggest that as self-directed work teams are trained on a novel task, team member stress decreases with practice. However, the leadership of such work teams has an effect on the extent of stress under particular task conditions. In general, the de facto leaders experienced greater stress than other teammates, perhaps because these individuals lacked leadership training afforded a formal supervisor, yet still assumed leadership responsibilities.
The significant discontinuity term suggests that even a slight change in the task environment during skill acquisition was sufficient to disrupt the comfort of individual team members. When determining how to respond to such task disruption, a team member may look to their teammates for guidance on how to react (Thomas & Griffin, 1983). Participants whose teammates were low in openness to experience were affected less by this disruption, possibly because of showing few outward signs of interest in the task disruption, and thus their teammates followed suit and ignored said event. Results suggest that teamwork skills training may be necessary in newly formed teams.

**Relationship between stress coping strategies and absenteeism among middle level managers**

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Nowadays most people hypothetically believe that company managers are the most affected group in terms of stress subjection. Luban-Plozza and Pozzi (1994) claim that managerial stress may be a disease resulted from careerism. However, despite their risky behaviour, managers are role models to many other professionals. Managers are heavily overloaded with various tasks and in turn held responsible for their decisions, which require constant attentiveness, and all these may finally lead to unbearable stress. They may experience symptoms like insomnia, anxiety, fatigue, or even a serious illness (high blood pressure, angina pectoris, myocardial infarction, etc.). A very frequent illness in managers is an infraction, classified as a managerial disease.

The central purpose of the paper is to identify symptoms of stress, strategies for coping with stress and absenteeism for middle level Slovene managers. The survey covered 211 managers. Data were collected through a questionnaire to determine strategies to cope with stressful life situations (questionnaire of coping with stress CRI) and the questionnaire, stress loads and symptoms of stress among managers. The obtained data was processed with SPSS computer programme and the following data processing statistic methods were used to analyse them:
- descriptive statistics and frequency distribution,
- t-test and ANOVA— to examine the statistic relevance of the differences between groups.

All our statistically relevant conclusions were drawn at a 95% confidence interval.

A managerial position as well as the work of a manager involves huge workload. The manager’s participating in this research experienced their work in average stressful and in general they use strategies focused on problems. The findings indicated that problem-focused approaches were less frequent among managers with less stress symptoms and stress loads than among managers who use non-problem-focused approaches. Statistical analysis also showed that there is a positive linear relationship between stress coping strategies and the frequency of
occurrence of symptoms of stress. Also a relationship between stress coping strategies and daily absence from work due to illness exist.

Consequences of work-family conflict for employee well being: A Cross National Comparison
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Work-family conflict is of emerging importance in relation to changing work-family demands in south Asian countries like India and Pakistan. The relationship among antecedents of work-family conflict (work overload, working hours) and work outcomes (turnover intention, job satisfaction) is empirically studied in the banking sector of Pakistan. In addition, the content of the psychological contract (with respect to work-life balance) is investigated. Based on a review of cross cultural studies it has been observed that work family conflict is a less important issue of concern for collectivist countries. Therefore a smaller connection between job satisfactions and turnover intention for collectivist countries has been found. However, most of the cross cultural studies have limitations; for example, some major studies only consider the region of south east Asia for cross cultural comparison, despite the fact that Asia is considered as a less culturally similar area.

This study intends to make a cross national comparison between an individualistic country (The Netherlands) and a collectivistic country (Pakistan) to try to get better understanding of three issues in the banking sector of both countries. First, to explore work-to-family conflict in relationship with increasing working demands (work overload and long working hours) and family demands (family overload); second, to link this problem to work outcomes (job satisfaction and turnover intentions); third, to take steps towards managing the problem by understanding the content of psychological contract (work-life balance). A questionnaire will be used to collect the data; the results will provide insights into the current dilemma of changing work family demands followed by work-family conflict, and their effects on job satisfaction and turnover intentions. Moreover, the study will provide better solutions by taking the employee's expectations and obligations in the content of the psychological contract with respect to work-life balance into account.

Sleep tonight, safe tomorrow: Sleep, fatigue and occupational safety
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Safety is a critical concern in workplaces, for unsafe behaviours lead to serious accidents and fatalities. The monetary costs of occupational injuries are high, and the suffering is experienced by all stakeholders involved and often lingers long after the costs are paid off (ie. the Chernobyl nuclear accident). One well-
recognized antecedent to unsafe work behaviours is sleepiness (Williamson et al., 2011), yet the mechanism of this relationship has not been fully determined. Sleep research consistently reveals that sleep deficits cause a drain in cognitive resources (Balkin, 2011). In turn, cognitive failures, which are mistakes in perception, memory, and motor functioning, are associated with an increase in mishaps at work (Wallace & Vodanovich, 2003). Therefore, the primary objective of the current study is to examine the mediational role of work-related cognitive failures on the relationship between sleep and occupational safety. Following a framework of fatigue risk assessment (MacDonald, Patel & Belenky, 2001), work characteristics will also be explored as moderating factors that interact with sleepiness to contribute to unsafe work behaviours.

Full-time, blue-collar employees will be recruited for the study. Participants will be instructed to fill out daily diary entries over a span of five working days to subjectively assess prior night's sleep and subsequent sleepiness, cognitive failures, safety performance, and injuries experienced at work. Daily information on the characteristics of their work shift such as the time and length of shift, physical demands, work overload, work routinization, and job affective well-being will be collected. In addition to self-reports, sleep will be evaluated objectively using actigraph watch units that will be worn by the participants throughout the work week. Actigraphy uses accelerometer technology to provide a valid, reliable and non-invasive physiological measure of sleep quality and quantity (Saleh, 2011). Data will be analysed using hierarchical modelling.

The current study notably contributes to uncovering the process between sleep and occupational safety by using a unique methodological combination of longitudinal design along with subjective and objective measures of sleep. Also, by applying a framework of fatigue, the study suggests that aspects of job design play a part in occupational accidents and human error needs to migrate away from being solely an individual accountability.

“Call centre” or “call centres”? Similarities and differences in determinants of physical discomfort at work
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Theoretical background and objectives: Call centres are one of the few booming industries in recent years. Several studies identify call centres as a work environment which can determine high level of stress due to work tasks and interactions with customers (Bakker et al., 2003). This study focuses on several call centres which are different in their activities; the aim is to investigate the effects of organizational resources (job autonomy, supervisors and colleagues support) and of general and specific demands (workload, emotional dissonance) on physical discomfort at work, considering potential differences in call centres.
Methods: This research was conducted in four Italian call centres of the same telecommunication firm (n = 946) that are different in activities (in-bound/out-bound) and customer service (providing telephone number information/telemarketing/customer handling complaints/technical support). The questionnaire consisted of: symptoms of physical discomfort at work; supervisors support (α .90); colleagues support (α .86); job autonomy (α .88); emotional dissonance (α .86); workload (α .77). Data analysis was performed with PASW 18: Cronbach’s alpha reliability of the scales; one-way analysis of variance, correlations and multiple regressions.

Results: Physical discomfort at work is different between call centres \( F(3, 942) = 8.18, p < .001 \): higher in call centre handling customer complaints and lower in the one providing telephone number information. Multiple regression models have percentages of explained variance between 22% and 31%. Determinants of physical discomfort at work vary according to call centres: supervisors support, workload, emotional dissonance are determinant in most call centres; colleagues support is a determinant in some call centres and job autonomy only in one.

Implications and conclusions: The results highlight that physical discomfort at work is influenced by organizational demands and resources which are different according to call centre types. The variety of activities and interaction with customers can determine considerable differences in call centre agents’ experiences: it suggests the importance of not considering call centres as an undifferentiated context with stereotypical characteristics. The results recommend that human resource policies should not be generalized but should be adapted to specific organizational needs, also for call centres that are part of the same organization. Future research in this context may deepen the determinants of other important dimensions related to quality of working life such as psycho-physical well-being and psychological discomfort.

Stress, Burnout and Emotional Disorders in Teachers and Students of Elementary and Secondary Education in Portugal

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The study analysis was conducted in primary and secondary schools in the district of Porto and set out to study and understand the causes and effects of stress, of an educational community comprised of teachers (n = 27) and students (n = 178. The latter were further evaluated in context federated sports (n = 19) as a way to understand the role of protector and enhancer situation stressors. The study verified the existence of problems in all communities covered, with worrying levels of vulnerability to stress, there are obvious difficulties in emotional level, the school community, which turns out to contrast with the well-being denounced by teachers and students, despite the fact that they may influence the form of relationship between teachers and students. For the sporting community, they have levels of
vulnerability much lower, although the levels of pre-competitive anxiety (somatic and cognitive, with higher rates in games on opponent) and self-confidence are high. Thus there is a need to establish a junctures demand for healthier quality of life in communities.

Exercise Participation among Saturation Divers employed in Norway: a Focus Group Study
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Objectives: Saturation divers are physically exposed to extreme environments, as they work at great depths of seawater for long periods of time. Divers can decrease their personal susceptibility to vascular bubble formation, a process that can cause serious damage and may even lead to decompression illness, by adopting an active lifestyle and exercise regularly. Main objective of the current study is to get a better insight in saturation divers individual, social and environmental barriers to, and facilitators of, exercise participation.

Methods: 16 saturation divers employed by subsea company Technip were recruited at Norwegian Underwater Intervention (NUI) in Bergen, Norway, and on board of the Skandi Arctic, an offshore subsea construction and dive support vessel, at that time mobilised in Haugesund, Norway. Divers were interviewed in focus groups of five or six participants each. Participants were asked to discuss open-ended questions about their exercise habits at work and in their time off. Additionally, participants filled out a short questionnaire.

Results: Being a saturation diver is an extraordinary profession and it may be not be easy to exercise on a regular basis. Topics that were identified in the present study that can be relevant for saturation divers physical exercise participation are working conditions, motivation and opportunity to exercise in saturation and leisure time, work-life balance, self-control and lifestyle. When divers are in saturation there are not many workout possibilities. There is little space and little equipment and a lack of time. Divers are often too tired to exercise after working. However, working as a diver can be intensive and is by some participants regarded as physical exercise itself. When divers are off, on the other hand, most of them have good opportunities to exercise frequently and it seems that divers who are motivated manage to do so. Work-life balance can make it difficult to exercise on a regular basis.

Conclusions: Saturation divers live extremely disciplined when they are in saturation in contrast to their leisure time. Therefore, it can be a challenge to create stable exercise habits. However, it may be possible to increase exercise participation at work by improving the availability of workout equipment (e.g. rubber strings, fold away stepping machines). An exercise-encouraging intervention may improve divers exercise participation both in the chamber and during leisure time.
Type D personality, social inhibition and negative affectivity do not raise blood pressure levels in a cohort of factory employees

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Objective: To investigate the effects of Type D personality, social inhibition and negative affectivity on blood pressure levels and hypertension prevalence.

Methods: In a cross-sectional study, 512 employees (33% women) have been examined, aged 18-65 years old (mean 42.13±8.49 years). Medical history was obtained and cardiovascular risk factors were assessed with a standard epidemiological record. The Denollet Scale 14 (DS14) was used to assess the type D Personality. DS14 consists of fourteen items, scored on a five point scale (0-4). There are two subscales, negative affectivity and social inhibition, each consisting of seven items. Each employee was examined twice with a week interval between the two visits. In each visit, three blood pressure measurements were obtained after a five-minute rest period in the sitting position, according to the international guidelines.

Results: 509 employees out of 512 (99.4%) have completed the questionnaire. The DS14 scale was positive in the 22.3% of men and in the 34.5% of women (p=0.003). There was not a statistically significant difference in the prevalence of hypertension between the employees with and without type D Personality (33.1% vs 27.0%, p=0.182), negative affectivity (29.3% vs 27.8%, p=0.702) and social inhibition (27.2% vs 30.4%, p=0.433). Neither the systolic blood pressure levels (126.39mmHg vs 126.43mmHg, p=0.985) nor the diastolic blood pressure levels differed significantly between employees with and without type D Personality, negative affectivity (p>0.05) and social inhibition (p>0.05). After adjustment for age and sex the results remained unchanged.

Conclusion: The study showed that type D Personality, negative affectivity and social inhibition do not raise BP levels. Other pathophysiological mechanisms beyond arterial hypertension appear to be involved in the link between type D Personality and cardiovascular morbidity.

The role of professional development in promoting work engagement and work-family enrichment

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Recently, work-family research has focused on concepts of positive spillover to supplement the dominant conflict perspective (Bakker & Schaufeli, 2008; Grzywacz
& Marks, 2000). One of these positive concepts is work-family enrichment, defined as the extent to which experiences in one role improve the quality of life in the other role (Greenhaus & Powell, 2006). Some authors demonstrated that work engagement, a fulfilling work-related state of mind, captures the nature of the positive role experiences at work and enables work-family enrichment mediating its relationships with job resources (Siu et al., 2010). The aim of this study is to understand, in this model, the role of opportunities for professional development, considered one of the main antecedents of work engagement (Xanthopoulou et al., 2007) and quality of work-life (Panari et al., 2010).

The research sample was represented by 137 workers from different professional categories (61% female, 39% male). They filled out one self-report questionnaire consisting of different measures: colleagues support, 4 items; supervisors support, 4 items; job autonomy, 7 items; opportunities for professional development, 2 items; work engagement, 8 items; work-family enrichment, 3 items.

Data analysis was conducted with Pasw Statistic 18 (descriptive analysis) and Mplus5 (structural equation modeling; Muthén & Muthén, 1998-2007).

The SEM analysis revealed a mediation role of opportunities for professional development ($R^2 = 61$) between two job resources (job autonomy and supervisor support) and work engagement ($R^2 = 63$). Work engagement is also weakly influenced by colleagues support and has a strong positive impact on work-family enrichment ($R^2 = 54$. Model fit: $\chi^2 (265) = 391.70; p < .01; RMSEA = .06 (90\% CI .05, .07); CFI = .93; SRMR = .08$).

The results support the findings of Siu and colleagues (2010) about the role of work engagement in making work as an experience that enriches the rest of life. Additionally, this study highlights the importance to promote, in organizations, transformational leadership cultures in which supervisors support people and provide autonomy to improve employees' professional development and, consequently, more engagement at work. This study has some limitations, including small sample size and its heterogeneity. Nevertheless, its results should be considered as a drive for further investigations to better understand the role of professional development in healthy work environment.

Exploring an expanded model of recovery experiences: Its impact on health and performance outcomes
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Background: Work-life conflict has been associated with individual strain outcomes, such as depression and anxiety (Kinnunen et al., 2006; Noor, 2003). However, having high demands in one domain (e.g., work) may be offset in the other domain (e.g., home) by providing opportunities for increasing recovery (Amstad & Semmer, 2009). Recovery from work is the process of accumulating resources, which in turn
enhances individuals' well-being and job performance (Binnewies et al., 2009; Fritz & Sonnentag, 2005). Feelings of recovery from work have a positive association with daily task and job performance (Binnewies et al. 2009; 2010). However, recent literature suggests that recovery can be defined in terms of other additional experiences (Stevens, 2010). The link between performance and the full spectrum of recovery experiences has not been investigated. Therefore, the purpose of this study is to test an expanded conceptualization of recovery experiences in relation to work-life balance, well-being, and job performance over time. This will be examined as part of a larger work-life/stress management intervention project, Achieving Balance in Life and Employment (i.e., ABLE).

Methods: ABLE is a 10-week, phone-based coaching program. Participants receive a manual as well as weekly one-on-one individualized coaching sessions, focusing on the promotion of physical and mental health, stress reduction, and balancing work and life demands (Day et al., 2011). Employees from multiple organizations are participating in the ABLE program and are assigned to one of two 10-week phone-based coaching sessions. Both groups are surveyed at 4 times to measure recovery, work-life balance, job performance, and employee well-being.

Results: Preliminary results from the first intervention indicate that recovery experiences can be increased with work-life balance and stress management coaching (Day et al., 2011). The current research expands on these preliminary results by examining the relationship among recovery, work-life balance, job performance, and well-being over time. Using multiple regression, we assessed the unique and joint impact of recovery experiences on work-life balance, employee well-being, and job performance.

Implications & conclusion: This research advances past research by extending the definition and measurement of recovery in an intervention context, and by providing a promising framework for future recovery research. The results of this study inform organizations of the effect that recovery plays in employees’ levels of well-being and work-life balance, as well as its potential to impact job performance.
of career management preparedness. A preventive peer group method was developed at the Finnish Institute of Occupational Health and was successfully applied in work life context (Towards Successful Seniority -group method). The method has been shown to be effective in enhancing career management preparedness, which then decreased symptoms of depression and increased mental resources in the follow-up, especially among the risk group for depression.

The group method is applied among women thinking about returning to work as a program lasting 4X4 hours during two weeks. Participants will be recruited from child welfare clinics, which is part of a public health care system with 99.3% coverage of all families in Finland. A pilot group was implemented in a large city with 8 participants. Participants were all mothers of approximately 1-year old first-born child. Childcare was arranged during the program in the same building.

Experiences from the pilot study showed that the method was successful in increasing feelings of preparedness for future return to work and combining work and family. All respondents were satisfied with the program and thought it was very useful in providing reference support, practical advice and tips, and self-esteem.

It is likely that young women returning to work after family leave will benefit from these group activities. The implementation of the method to transition from family leave to work life will be disseminated in collaboration between child welfare clinics, public daycare and other organizations. A randomized controlled study is designed to measure the effectiveness of the program on mental health and return to work.

Job stressors and their relations to work productivity loss and activity impairment: The moderating role of work-family conflict and enrichment
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Job stressors, such as extrinsic time pressures or conflicting demands, are common precursors of absenteeism, presenteeism and activity impairment outside one’s job. In light of increased challenges for reconciling work and family over the last decades, examining employees’ work-family interface in relation to absence and presence may be important. In fact, studies found that employees’ work attendance dynamics and overall activity may be determined by their work-family conflict (WFC). Work-family enrichment, on the other hand, may also contribute to employees’ absenteeism and presenteeism. To date, studies on these connections are rather scarce. The present contribution, therefore, strives to examine the effects of job stressors, WFC and WFE, as well as their interactive effects, on absenteeism, presenteeism and overall activity impairment. We presumed that absenteeism and presenteeism will exhibit differential relationships to job stressors (e.g., strictness, high work demands), WFC and WFE. In addition, WFE and WFC were expected to alter the relationships between stressors and outcomes.
Our hypotheses were tested using a sample of Slovenian employees, 52.5% of which were male, from health care and construction industry fields (n=301 and 303 depending on the outcomes of interest). The participants filled out the Occupational Stress Index, the Work productivity and Activity Impairment Questionnaire as well as the work-to-family conflict and enrichment scales. Using moderated multiple regression, we found that several job stressors, WFC and WFE were significant predictors of mostly presenteeism and overall activity impairment, but not absenteeism and productivity loss. In terms of interactive effects, one consistent finding was the interaction of WFC and extrinsic time pressure while predicting presenteeism ($\beta = .12, p < .10$), presenteeism ($\beta = .14, p < .05$) and overall activity impairment ($\beta = .14, p < .05$). Significant interactive effects were also found involving WFE. More precisely, the interaction of WFE and symbolic-aversiveness (i.e., serious consequences of a wrong decision) on presenteeism ($\beta = .11, p < .10$) as well as of WFE and conflict (i.e., ambiguous information, conflicting demands) on productivity loss ($\beta = -.14, p < .05$) were significant. The interactive effects involving WFC in general show that the high WFC condition is related to higher absenteeism and presenteeism regardless of job stressors. Interestingly, WFE coupled with high symbolic-aversiveness may also increase presenteeism. However, WFE may serve as a buffer against work productivity loss in conditions of high conflicting demands.

Humanitarian Relief Work and Trauma-Related Mental Illness
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Humanitarian relief work is dangerous, characterized by ongoing exposure to primary and secondary trauma. This presentation reviews research on trauma exposure and subsequent mental health effects of relief work. It appears relief workers suffer elevated psychological trauma, and experience post-traumatic stress disorder, depression and anxiety more than the general population. Organizations that employ humanitarian workers have varying approaches to training for these risks, and more support in the field is needed. With complex emergencies and humanitarian crises rising, such workers are increasingly and continually exposed to direct psychological trauma themselves and secondary trauma through exposure to others’ suffering. Direct traumas most commonly experienced by workers include frightening situations, threats or being chased, forced separation from family, shelling or bombing, and hostility of local populations.

Research on mental health related to humanitarian relief work is limited. Twelve studies estimate psychiatric diagnoses or symptoms associated with trauma among relief workers, including post-traumatic stress disorder (PTSD), anxiety, depression, or alcohol abuse. Estimates of diagnosed PTSD, related symptoms or
predictors range from 8-43%. Three studies examined symptoms of major depression (8-20%) and general anxiety disorder (8-29%). One study estimated prevalence of alcohol abuse symptoms at 16%.

Studies on employers of relief workers are even more limited—five studies address recruitment, training, and support of relief workers. There is very little pre-deployment preparation to prevent psychological stress in the field. Stress management practices vary widely and are not usually evidence-based, and staff support resources are underdeveloped. Employers offer little social or psychological support in the field or post-assignment. And humanitarian workers themselves may feel their suffering is less relevant than the populations they are trying to serve.

Ongoing trauma exposure and subsequent mental illness have implications for humanitarian practice as well as research. Workers should be informed of risks of potential trauma exposure and related psychological effects before service. Organizations should facilitate appropriate evidence-based support during service, and provide ongoing support following departure from the site. Psychological resilience of humanitarian workers also warrants further study.

Well-being at the workplace: the need for a psychological counselling service – an exploratory case study
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The present exploratory study has two main goals: a) assess the mental health of a group of employees and b) conduct an assessment of their needs at the workplace in order to promote effective measures that might help to promote their psychological well-being. The main focus idea is try to justify and sustain, (towards the management decision center) the need for opening a psychological counselling service.

From a total of 18 employees, nine of them accepted to participate in this first phase of the study, with ages ranging from 33 to 54 (M=44.67; SD=6.519). The Need assessment questionnaire (Lucas, Oliveira & Soares, 2011) assesses the employees' needs concerning psychological support and personal skills. It is composed mostly by closed-ended questions. Also the Portuguese Version of Mental Health Inventory – MHI (Ribeiro, 2001) was administered to assess mental health of employees. Cronbach Alpha shows positive values of internal consistency in most scales of Mental Health Inventory (above 0.80).

Overall, the preliminary results show that most employees consider that the existence of a psychological support service at the workplace is very important (66.7%), however only a few think to ask for psychological help when confronted with problems of daily life (33.3%). Note that, 58% consider very important the existence of workshops for promotion of personal skills, in particular in the domains...
of managing emotions and interpersonal relationship, adjustment to workplace and problem solving. Additionally, the results suggest mid-low levels of mental health (48) in employees. Values of distress (41) seem to be higher than positive well-being (4). Note particular difficulties in terms of loss of behavioural and emotional control (87), that must be seriously taken into account and be subject to intervention.

In the next phase of the study we intend to interview the participants through a semi structured interview, in order to explore some pre conceived ideas that might still exist when asking for psychological help and also, explore the difficulties encountered in terms of loss of behavioural and emotional control identified by the Mental Health Inventory (Ribeiro, 2001).

To investigate if Emotional Labour and other work strains impact on physical and mental health
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There have been numerous studies which have examined emotional labour (Hochschild, 1983) and job satisfaction. Wharton (1993) stated that emotional labour does not directly affect job satisfaction. However, according to Kinman and Gallagher (2001), emotional labour is negatively correlated with job satisfaction. In addition, suppressing emotions leads to job dissatisfaction (Cote & Morgan, 2002). While Zerbe (2002) states that greater job satisfaction is present when more pleasure is felt and displayed. Overall, research has demonstrated that emotional labour can be distressing (Wharton, 1993), and it has been correlated with stress (Mann, 1999). It was observed that limited research was available examining emotional labour, and organizational variables in conjunction. This study has attempted to investigate if emotional labour and other work strains impact on physical and mental health.

A questionnaire which included measures of emotional labour (FEWS), organizational factors (job satisfaction, decision making, role clarity, role conflict, autonomy and control and peer support), the experience of physical symptoms, and the General Health Questionnaire (GHQ) was administered to cabin crew working in a multicultural airline based in the Middle East (n= 68). The study was cross sectional in nature. The average age was 27.53 years (SD 3.42). Seventy nine percent of the participants were women, and 71% came from collectivist cultures.

Through a linear regression, it was observed that norms regarding emotions, emotional control, role conflict and decision making predict job satisfaction. Therefore if norms regarding emotions are present, if there is less emotional control, less role conflict, and the presence of more decision making, then the participant has more job satisfaction. The present study clearly indicates displaying
negative emotions was a predictor for lower psychological wellbeing. It was also observed that experiencing emotional dissonance, and the display of negative emotions, predicts a greater experience of physical symptoms. These findings are consistent with Mann (1999) and Kinman and Gallagher (2001), who found that emotional labour has an effect on well being, as emotional labour is positively correlated to stress and psychological ill health.

In conclusion, emotional labour and work strains have an impact on wellbeing. The practical implications of this research indicate that organizations may need to consider ways to equip employees who perform emotional labour to be able to handle stress in their work settings.

Involvement and emotional regulation in Oncology Health Professionals: Construction of an assessment tool
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Cancer is now the most feared disease of all time. However, medical advances allow for investigating new forms of treatment, changing perceptions about the disease and a greater quality of life, not only for the patient but for all who engage in it. The experience of the disease is a life event that requires an adaptation of the patient, family and health professionals.

The main objective of the authors is to investigate and identify connections between health professionals and families of oncology patients and provide guidelines to help develop intervention strategies helping these professionals deal with this involvement. The objectives set are supported from the research literature about oncology health professionals, involvement, interpersonal relations and styles of attachment.

In order to accomplish what they proposed in this research, the authors developed a tool for assessing the involvement of health professionals with families of oncology patients. The instrument, called Q-EPSOF (Soares & Pereira, 2011) was applied to health care professionals practising in oncology services in the area of Oporto.

The results, after the tests of validity and fidelity, showed a significant involvement between professionals and patients' families, the perception of being constituted a fundamental support for the family, a variable to consider in this process, making it essential for the diagnosis risk situations and planning of professional support.

We analysed the correlations between the scale of the study (Q-EPSOF) and adult attachment scale (EVA), concluding that dimensions are identical to assess constructs significantly correlated. The main contribution of this paper is to provide
clues about the possibility of evaluating the technical and involvement with their families, as well as to launch the discussion on how we can do.

**Karoshi and Its Environmental Characteristics**

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Objectives: Karoshi, death due to overwork in Japan, is a well-known job-related disease occurred in Japan, Korea and Taiwan. A Death from Karoshi, if the occupational causal relationship is confirmed legally, the employer owes a huge amount of indemnity to the suffered family. An essential question should be asked that why did not the overworked employee choose to leave the workplace, which is a regular outcome variable of burnout, and keep working till the death fall down?

According to Karasek’s strain hypothesis, a worker’s job demands will influence his/her job strain, bring in poor performance and burnout (Van Der Dofe and Maes, 1999). As a result, Stanley (2001) indicates that burnout workers usually rationally choice to quit from hard work environment or been fired due to his/her poor performance. Workaholism researchers have revealed that the workaholic behavior are relative to personality, organizational culture and supervisor’s attitudes (Ruth Hass, 1991; Spence, J. K. and Robbins, A. S, 1992; Spence, J. K. and Robbins, A. S., 1992; Burke ,1999b; Harpaz and Snir, 2003). However, few were known about the environmental characteristic that shapes the personality or tendency of overwork. This is what the authors attempt to do in the present research.

Methods: A qualitative research on ten cases of Karoshi and Karo-suicide (depression suicide from overwork) is applied. In order to avoid the questionable reliability of self-reported data, I chose the judicial precedents on Karoshi and Karo-suicide issues to analyze. Although such secondary data analysis might lose a body of details and maybe some important views, data derived from judicial precedents shows very high reliability because the Japanese courts have had conducted triangle tests for any evidence provided for judgment. Every job-related descriptions analysed in the present research is confirmed by Japanese courts would be analysed in this paper.

The authors choose Maslach and Jackson (1981)’s inventory, MBI-Human Service Survey, to estimate employee’s tendency of burnout: emotional exhaustion, depersonalization and diminished personal accomplishment. Maslach and Leiter (1997)’s six dimensions is adapted to estimate worker’s perceived fitness to his/her work environment: workload, lack of control, insufficient reward, breakdown of social community, and absence of fairness and values conflict.

Results: Our cases show that a relatively rich (in terms of control, reward and social community) but overworked environment might work best to shape Karoshi personality.
Work Stress
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Background: Stress, particularly work-related stress, has aroused growing interest in Thailand. Thai people are stressed due to work problems which were considered as the most influential factors in mental health. The workplace has changed dramatically due to globalization of the economy, use of new information and communications technology, growing diversity in the workplace (e.g. more women, older and higher educated people, as well as increased migration). Work stress is a pattern of reactions that occurs when workers are presented with work demands that are not matched to their knowledge, skills or abilities, and which challenge their ability to cope. When people are in a state of stress, they often feel concerned, less vigilant and less efficient in performing tasks. Work stress is currently studied by the Job Demand-Control model of Karasek which has had a large influence on job design and occupational health. In Karasek’s model, workplace stress is a function of how demanding a person’s job is and how much control (discretion, authority or decision latitude etc.) the person has over their own responsibilities. This creates four kinds of jobs: passive, active, low strain and high strain. Job demands represent the psychological stressors in the work environment.

Objectives: Our study aims to investigate the level of work stress and to compare the different among various careers.

Method: Job Content Questionnaire (JCQ), which has been developed in Thai, will be used for data gathering. The questionnaires will be given to 1,600 employees in 8 careers (factory workers, hospitality workers, university staffs, school teacher, state enterprise staffs, polices, soldiers, and nurse) in Songkhla province, South of Thailand. The data collection will start in November 2011. Mean and standard deviation and ANOVA will use for data analysis.

Application: The results of the study will indicate the kinds of work stress in various careers. Organizations can focus on improving work characteristic which can influence their employees’ stress.

Perfectionism in the Workplace
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Over the last few decades, a growing body of research has been devoted to understanding perfectionism in relation to other personality and life outcomes. Through extensive studies involving clinical populations we now have a better understanding of how perfectionism contributes to individual performance, well-being, and distress in the clinical domain. Despite these important implications of
health and performance for employees and organizations, however, little is known about the impact of perfectionism in the workplace. This study explores the impact of perfectionism on health, achievement, and distress in the workplace, focusing on its relations to performance, engagement, strain, and burnout.

In two samples of working adults from Canada and Turkey, both the setting of high standards and self-oriented perfectionism were associated with higher levels of performance and engagement. Hierarchical regressions were conducted to test the effects of adaptive and maladaptive perfectionism on the four workplace outcomes. Although having high standards did not predict outcomes above and beyond conscientiousness, achievement striving, and achievement motivation, perceived discrepancy between standards and performance was associated with higher levels of strain and burnout, and lower levels of performance and engagement. Adaptive and maladaptive perfectionism, operationalized as an interaction between high standards and discrepancy, did not significantly predict performance, engagement, strain, or burnout.

The study contributes to the literature in several ways. First, a comparison of the two widely used perfectionism measures, both of which have been used to measure adaptive perfectionism, suggested that although these two measures tap into similar constructs, self-oriented perfectionism is a measure of perfectionism that is inherently negative, and standards is a measure of pure perfectionistic striving. Second, adaptive perfectionism, as measured by the high standards subscale of the APS-R, appears to be a combination of conscientiousness, achievement striving, and achievement motivation. Third, perceived discrepancy between standards and performance, which was found to be associated with lower performance and engagement, and higher strain and burnout, emerged as a vulnerability factor in the workplace. Finally, differences in samples highlighted the instability of the discrepancy dimension across cultures, suggesting that the inconsistencies in findings with regard to the relationship between high standards and positive outcomes may be due to changes in the level of discrepancy as well as attributions of success and failure.

Work and headache: A prospective study of psychological, social, and mechanical predictors of headache severity.
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Introduction: Headache is a common health complaint among workers – disability as well as lowered productivity attributable to headache is substantial. Hence, successful preventive strategies should have a major public health impact. Despite the well known association between occupational psychological factors and somatic health complaints the link between such factors and headache remains largely unexplored. The current study aimed to identify occupational psychological and social predictors of headache severity.
Methods: A two-wave prospective survey with a two year follow-up was conducted. Respondents were recruited from 16 private and 18 public organizations. The prospective sample consisted of 3574 respondents (44.3 % of employees invited at both time points). Self-reported headache severity was measured as intensity multiplied by duration of headache during the previous four weeks. Fourteen psychological and social factors were assessed with the General Nordic Questionnaire for Psychological and Social Factors at Work (QPSNordic). In addition perceived physical workload and working with arms raised to or above shoulder level were measured by self report. Ordinal logistic regressions were conducted to identify consistent predictors of headache and structural equation modeling (SEM) was employed to elucidate causal structures that may have generated the results.

Results: Adjusted for sex, baseline headache, age, skill level, and other exposure factors estimated to be possible confounders, 11 of 14 exposures predicted headache severity. The most consistent predictors were job satisfaction (lowest OR 0.79, 99% CI 0.64-0.99), control over work intensity (lowest OR 0.67, 99% CI 0.48-0.93), decision control (lowest OR 0.47, 99% CI 0.25-0.88), role conflict (highest OR 2.95, 99% CI 1.74-5.02), and quantitative demands (highest OR 2.01, 99% CI 1.44-2.81).

Conclusion: Many previous studies of occupational psychological predictors of somatic health have investigated a limited number of fairly general factors. In the current study a comprehensive set of specific exposures were investigated. Although headache is widely known to be a serious health problem in workers, few previous studies have been devoted to discovering psychological and social predictors. The factors studied in the current study represent an important potential for interventions to reduce the burden of headache.

Occupational well-being of social workers who work with families and children
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The occupational well-being of social workers, who are working in social services, and particularly with families and children, face a high risk of various kinds of distresses, such as burnout syndrome, occupational stress, compassion fatigue, countertransference, traumatisation, secondary traumatic stress or vicarious traumatisation. These distresses are caused by the special work conditions and by the nature of social work with traumatised and deprived clients. Because of their specific work conditions, these social workers are particularly at a high risk of psychological distresses. As a result of these work-related distresses, absenteeism of employees and turnover rates are disproportionately high.

Moreover, child welfare is an especially sensitive topic, particularly for those who are working in the field of child protection who know that their work is constantly...
under examination by the press, politicians and the public. In brief, work demands and staff-client interaction represent the major risk factors for distress and diseases, resulting in high absenteeism and turnover rates of child welfare staff. Logically, absenteeism inevitably produces costs for the organisations and interrupts worker–client relationships. High turnover rates cause costs arising from continuously training new staff, and affect negatively the quality, consistency, and stability of client services.

However, several concepts are used in describing the problems related to occupational well-being in the social work profession. These concepts are defined differently by different researchers, and the relationships between them are not clearly marked. The most previous studies use concepts dealing with negative outcomes caused by work-related issues, and only a few deal with positive outcomes. Although there are many studies about preventing disease due to psychological stress, a concept of occupational well-being for the social worker profession has not been developed.

This poster presents a holistic concept of occupational well-being of social workers working in context of child welfare, consisting of the dimensions affective-, cognitive-, professional-, psychosomatic, and social well-being. The construction is based on an analysis of the main concepts dealing with social workers’ job-related distresses and well-being. Using the individual and organisational outcomes described in the concepts, together with the preventing and supportive factors, the multi-dimensional concept was constructed, combining all relevant elements of occupational well-being. This concept contributes to a deeper understanding of social workers’ occupational well-being, and reveals the processes and factors influencing it. The main goal was to focus on positive aspects of work-related issues instead of on the negative outcomes.

Non Molto Bene: Job Insecurity and Accident Under-reporting in Italy
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In the European Union, 500 million working days are lost annually as a result of workplace accidents and work-related health problems (Eurostat, 2008). Every four-and-a-half seconds an EU worker is involved in an accident that forces them to stay at home for at least three working days (European Agency for Safety and Health at Work, 2008).

Despite these staggering numbers, a growing body of research suggests that governmental injury surveillance figures may severely underestimate the true number of non-fatal occupational injuries due to accident-underreporting on the part of employees and organizations. However, to date, little research has been conducted in European countries on either the prevalence of accident under-
reporting or the variables that might predict such failure to accurately report accidents.

Thus, the purpose of the current research was two-fold: 1) to determine whether accident under-reporting occurs in a sample of Italian workers; and, 2) to test whether job insecurity is predictive of any observed under-reporting. It was predicted that as job insecurity increases, the discrepancy between experienced and reported employee accidents would correspondingly increase.

The theoretical basis for this proposition is derived from expectancy theory which suggests that motivation is a function of the valence of desired outcomes and the perceived relationship between behaviours and those outcomes. Specifically, if employees perceive that their jobs are insecure, they may be motivated to project themselves as “safe” employees in an effort to lower the chances of undesirable outcomes of unsafe behaviour (i.e., being laid off).

Our hypotheses were tested using a sample of 1264 employees from 14 different companies in Italy. As expected, there was a significant discrepancy between the number of accidents experienced per employee (M = .38) and the number reported (M = .23) to company officials, F(1, 929) = 18.01, p < .001. More importantly, the extent of this discrepancy varied as a function of employee job insecurity, F(1, 929) = 4.08, p < .05. Specifically, as employee job security declined, employees failed to report greater numbers of experienced accidents.

Thus, the current results not only replicated in an Italian sample the finding that accident underreporting occurs, but also that this underreporting is exacerbated by the experience of job insecurity.

**Employability and Individual Well-being In times of organizational change: Results from a Swedish study**

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For employees, organizational changes often imply job insecurity with profound negative effects for health and well-being. In recent years, perceptions to be employable have been discussed as an important resource for the individual to counterbalance these negative effects. It has been suggested that employees who feel that they rather easily can find an equivalent job with the same or another employer may be able to maintain better well-being when organizational changes take place. However, scientific evidence on employability as a preventive factor to maintain good well-being during organizational changes is still scarce. Also, there are few if any studies that have related perceived employability to ‘objective’ employability, for which the actual job position and level before and after organizational changes, may serve as a proxy.
Accordingly, the present study aimed at investigating how perceived employability, individual well-being and objectively held job positions associated with each other before and after an organizational change. It was expected that those with higher perceived employability report better well-being and would have better chances to remain in equivalent – or move to even better – jobs after organizational change had taken place. Additionally, it was expected that this strengthened employability feelings and well-being even further.

The study uses questionnaire data collected from managers in a Swedish municipality undergoing a major organizational change during 2011 and during which all managers had to go through a new recruitment process. Questionnaires were sent out at T1 (one month before the first recruitments started) and T2 (two months after the organizational change is finished and all managers are in their new positions).

Preliminary results of T1 data (T2 data is currently being collected) showed that higher age and lower education reduced feelings of employability with the same or with other organizations. Both internal and external employability showed strong associations with mental well-being. Data from T2 will show how these cross-sectional results compare over time and to what extent T1 employability and well-being can predict T2 employability, well-being and recruitment into an equivalent or better managerial position.

Self-esteem and Occupational Self-efficacy as Mediators of the Association among Perceived Organizational Support, Work Engagement and Job Satisfaction: differences among temporary and permanent employees.
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Introduction: Previous research has documented great vulnerability and exposure to stress among temporary workers due to labor state of uncertainty. Temporary workers are considered peripheral workers and usually the employers are unlikely to invest in long-term organizational commitment and motivation to work (Becker, 1993; Amuedo-Dorantes, 2000; De Cuyper at al., 2008). Many characteristics of temporary employment add to the vulnerability of temporary workers: poor job characteristics, highly monotonous work (Hall, 2006), low influence on workplace decisions (Aronsson et al. 2002; Parker et al., 2002), low job satisfaction and low organizational support are possible determinants of work stress. Many studies have found a greater work satisfaction in permanent employees (Benavides et al., 2000; Forde & Slater, 2006; Zant & Cooke, 2005) and a correlation between contract duration and organizational engagement (De Jong & Schalk, 2005).

Consequently, the aim of this study is to further investigate some variables concerning relationship between individuals and organizations in a temporary employees group, compared to permanent employees. More specifically, this research investigates if perceived organizational support affects work engagement
and job satisfaction. More over the study investigate whether self-esteem and occupational self-efficacy mediate the relationship between perceived organizational support, work engagement and job satisfaction.

Methods: Data collection is still in progress; however, the final study will include 200 workers, who will be split in two groups according to the employment status (100 temporary and 100 permanent workers). Participants filled in the Survey of Perceived Organizational Support (SPOS – Battistelli & Mariani, 2011), the Job Satisfaction scale of the Occupational Stress Inventory (OSI- Cooper et al. 1988), the Utrecht Work Engagement Scale (UWES – Pisanti et al., 2008), the Rosenberg Self-Esteem Scale (R-SES - Rosenberg, 1979), the Work Values Scale (Avallone et al., 2007) and the Occupational Self-Efficacy (OCCSEF- Tani et al., 2009). A series of hierarchical regression analyses were performed to explore the influence of R-SES, Work Values and OCCSEF in order to predict the variance of OSI and UWES scores.

Results: Preliminary results indicate that, overall, there is a significant relationship between perceived organizational support, work engagement and job satisfaction. The poster will show the differences between temporary and permanent employees. Moreover it will present the mediation role of self-esteem and occupational self-efficacy.

Conclusion and Implication: The results will be discussed and focused on their implication for future researches about the psychological impact of temporary employment.

**Job satisfaction and academic precarious work: an Italian study**
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Job satisfaction is analysed by several organizational studies as an indicator of cognitive well-being at work (Diener et al., 1985). The Italian literature on well-being in the academic context is weak, particularly referring to precarious work. In recent years, some changes were introduced in university working conditions: reductions in government funding of public universities and laws that increase job insecurity (Winefield et al., 2003).

The aim of this study is to detect the determinants of job satisfaction focusing on differences between academic precarious workers (PhD students, research fellows, adjunct professors) and academic staff (researchers, associate/full professors). Data were collected from 276 respondents (101 academic precarious workers; 175 academic staff) working in a north Italian university. The self-reported questionnaire gathered information about different variables: job satisfaction (5 items, 6-point agreement scale, $\alpha .76$); supervisors support (4 items, 6-point agreement scale, $\alpha .90$); co-workers support (4 items, 6-point agreement scale, $\alpha .91$); job autonomy (7 items, 6-point agreement scale, $\alpha .91$); commitment (4 items,
6-point agreement scale, \( \alpha .85 \); emotional dissonance (3 items, 6-point frequency scale, \( \alpha .92 \)); career advancement orientation (6 items, 4-point importance scale, \( \alpha .82 \)).

Data analysis (Pasw 18) included: alpha reliabilities (\( \alpha \)) for each scale; analysis of variance; correlations and multiple regressions.

Results revealed that academic staff perceive higher level of job autonomy than academic precarious workers \( [t (194) = -2.89, \ p < .01] \); while academic precarious workers perceive more supervisor support than academic staff \( [t (220) = 4.26, \ p < .00] \). Multiple regression analysis show that in the academic precarious workers sample job satisfaction is influenced by supervisors support and commitment (explained variance 49%); whereas in the academic staff sample, job satisfaction is determined by supervisors support, commitment and job autonomy (explained variance 42%).

This contribution highlights, in this specific context, the importance of supervisors support and commitment (an intrinsic component of academic work; Brockner et al., 1992) in promoting job satisfaction. Moreover, findings show that co-workers support has no influence on job satisfaction, in line with literature suggesting the image of universities as fragmented organizations (competition and poor cooperation between colleagues; Altbach, 2000). Finally, the results of the study indicate the importance of promoting job autonomy in academic precarious work, considering its role in determining the job satisfaction among academic staff.

**Temporary workers: the role of Corporate Image on Work Engagement**

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Introduction: A great deal of attention has been given recently on relations between the employees and organization: if this relation is not healthy, it decreases the likelihood of turnover (European Agency for Safety and Health at Work, 2009); employers are unlikely to invest in organizational commitment and motivation to work for temporary workers (Allen, Meyer, 1990; Becker, 1993; Amuedo-Dorantes, 2000; De Cuyper et al., 2008). In order to be successful, organizations should strategically aim to fit the individual values with corporate values (Bellotto, 1997). Value conflicts decrease employees' involvement in their work. Employees experience a de-motivating situation in which they are discouraged from pursuing what they truly value. They lose their sense of efficacy and accomplishment as they devote their time and talents to activities perceived as worthless or useless (Leiter, 2008).

Purpose of this study is to investigate some variables concerning the relationship between individuals and organizations in a temporary employees group compared to permanent. More specifically, this research investigates if corporate coherence and fairness affects work engagement, perceived organizational support and if
there are differences between two groups with respect to the investigate variables. Moreover, the study investigates whether work values, occupational self-efficacy and perception of labour market in your area mediate between corporate coherence and fairness, work engagement and perceived organizational support.

Method: Data collection is still in progress. The research will be carried out on a sample of 200 employees: 100 permanent and 100 temporary workers recruited from different work contexts in southern Italy. Employees filled self-report questionnaires: *Utrecht Work Engagement Scale* (UWES - Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002; Schaufeli, Bakker & Salanova, 2006; Pisanti et al., 2008), *Corporate Coherence and Fairness* (Majer, D'amato, 2007), *Survey of Perceived Organizational Support* (SPOS - Battistelli & Mariani, 2011), *Work Value Scale* (Avallone et al., 2007), *Perception of Labour Market in your area* (Avallone, Grimaldi & Pepe, 2007), *Occupational Self Efficacy* (OCCSEF – Tani et al., 2009).

Results: We expect that the comparison will confirm that there are some statistically significant differences between the two groups. Regression analyses will be employed to find the effects of corporate coherence and fairness on work engagement and perceived organizational support and to explain the role of mediation variables.

Conclusion: The possible implication of research will be discussed also in view of future organizational consulting intervention programs.

Differential effects of social resources on younger and older manufacturing workers' well-being: A longitudinal analysis
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Older workers are a growing but relatively understudied labor force subgroup in the manufacturing sector whose needs and responses to psychosocial aspects of workplace conditions may differ from those of their younger colleagues. In this study we examine whether various workplace social resources that have the potential to contribute to work well-being and mitigate negative outcomes, function in the same fashion for older and younger workers.

Specifically, this study explores whether multiple social resources exert longitudinal influence on disengagement, job satisfaction, and turnover intention, and whether the pattern of influences differs for younger and older manufacturing employees.

Participants were 303 employees of U.S. manufacturing organizations that are part of a longitudinal study of aging and work capacity. Younger workers (aged 50 and younger, n=167) and older workers (aged over 50, n=136) completed baseline surveys at time 1 and followup surveys later (time 2). At time 1, we collected social-
demographic information including age, gender, tenure, and income levels, and measured availability of three types of workplace social resources: coworker support, supervisor support, and workplace civility norms. In addition, we measured initial levels of disengagement, job satisfaction, and turnover intentions. At time 2, we assessed disengagement, job satisfaction, and turnover intention. Availability of social resources did not differ for younger and older workers. Hierarchical linear regression was used to analyze the collective influence of social resources on time 2 disengagement, job satisfaction and turnover intentions. For older workers, social resources accounted for an incremental 5.0% of the variance in disengagement, 8.6% of the variance in job satisfaction and 9.0% of the variance in turnover intention at time 2, after controlling for social-demographic variables and time 1 disengagement, job satisfaction, and turnover intentions, respectively. Civility norms ($\beta = 0.22, p < .05$) and coworker support ($\beta = 0.21, p < .05$) were associated with increased time 2 job satisfaction, and coworker support was associated with decreased time 2 turnover intention ($\beta = -0.31, p < .01$). For younger workers, the cluster of social resource variables did not explain significant incremental variance for any of the outcome variables, although one social resource, civility norms, was associated with lower time 2 disengagement and higher time 2 job satisfaction.

Results of these analyses and parallel examinations of gender subgroups in the sample suggest that social resources are similarly available but function somewhat differently on disengagement, job satisfaction, and turnover intention for younger and older manufacturing workers.

**Perspective Taking and Empathy as Antecedents of Task and Relational Conflict**

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The purpose of the current study was to examine several potential antecedents of task and relational conflict. Task conflict can elicit creativity and discussion among group members often leading to beneficial outcomes (Jehn, 1995; Sessa, 1996), whereas relational conflict may be detrimental to interdependent group functioning due to disagreements of a personal nature (De Dreu & Van Vianen, 2001; Jehn, 1995).

In an attempt to increase our understanding of both types of conflict the current study examined perspective taking (PT; understanding what others are thinking) and empathy (EC; understanding what others are feeling) as potentially different antecedents of task and relational conflict perceptions in group performance situations. Specifically, we proposed that perspective taking engenders cognitive engagement, leading to greater task conflict (and performance) in group tasks.

We proposed that empathy, on the other hand, engenders emotionality, leading to greater relational conflict (and lower performance) in groups. Participants (n=126) were asked to complete a challenging, time-pressured group task intended to
engender task conflict. In teams of three, participants were primed to either PT, EC, PT and EC, self-focus (first control condition), or were not given a specific instruction (second control condition). Manipulation checks and task and relational conflict outcomes revealed a lack of differentiation between PT, EC, and PT and EC prime groups, such that they all focused to a greater extent on their partners, but in a non-specific fashion (failing to truly PT versus EC).

Interestingly, however, these other-focused groups did report a lower perception of both task and relational conflict during their task than did those participants in the control conditions. That is, participants who were primed to focus (either PT or EC or both) on their group members perceived significantly less conflict than those who were primed to self-focus or who were given no instruction.

Potential methodological reasons for the lack of differentiation among the PT and EC primes, as well as implications of an other- versus self-focus for group conflict, are discussed.

Nurses-physicians relationship and turnover intention from unit: a multilevel analysis

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Background: Nursing turnover is considered a serious problem that by impacting on all the organizational levels (hospital, unit and individual), can reduce the ability to meet patients’ needs and the quality of care (Shields & Ward 2001). According to Sheridan and Abelson (1983), employees develop the decision to leave their organization following a sequence of stages. Starting with the initial dissatisfaction with the actual job, they gradually progress in successive steps that increase the probability to leave the workgroup, the organization and profession. At this regard, the unit can be considered the first place where nurses develop quitting cognitions. Unit is the environment where nurses work and interact daily and several studies showed that leaving intentions are associated with nursing work environment and unit characteristics (Beecroft et al. 2008). In the nursing unit, nurses develop working relationships with other nurses, supervisors and physicians and the quality of these relationships could impact significantly on both nurses’ attitudes and decision to leave the unit.

Aim: Based on the person-environment fit theory, this study analyzed nursing turnover intention from the unit, adopting a multilevel approach in order to get a better understanding of how intention to leave is associated to both the individual and group-level variables.

Methods: The study was a cross-sectional design. A questionnaire including measures of nurses-physicians collaboration at group-level, and affective commitment and turnover intention at individual-level, was administered to nursing
staff of five Italian hospitals. Participants voluntarily completed the questionnaire during working hours. As the data were multi-level, hierarchical linear modeling (HLM) was used to assess the relationships between the variables at group- and individual-level.

Results: A total of 1018 nurses (75.8%) completed questionnaires. We investigated whether the nurses-physicians collaboration (group-level) moderation of the affective commitment-turnover intention relationship constituted a cross-level or between-group interaction. The results showed that the between-group interaction was not significant (γ₀ = .03, ns), whereas the cross-level interaction was significant (γ₃₁= - .36, p< .05). The overall R² of this moderation test was .38. Thus, at individual-level, the nurses with high levels of affective commitment towards their unit showed low levels of turnover intention and this relationship was stronger when the nurses-physicians collaboration at group-level was high.

Conclusions: This study showed that the negative relationship between affective commitment and turnover intention is moderated by nurses-physicians collaboration perceived at group-level. Organizations might promote retention strategies taking into account the importance of the relationships within work unit to increase identification and reduce turnover desires.

Interpersonal Conflict at Work and Psychological and Physical Well-Being: The Moderating Effect of Depressive Symptoms
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In occupational health research, depressive symptoms have mainly been considered as an outcome. In this research, we examined the role of depressive symptoms as a moderator in the relationship between interpersonal conflict at work and well-being. Interpersonal conflict at work occurs in diverse forms and has been considered as a particularly stressful stressor. Based on the reactivity model of Bolger and Zuckerman (1995), we assumed that people with relatively high levels of chronic depressive symptoms react particularly strongly to conflict. People with high levels of depressive symptoms tend to be more dependent on others, they more often attribute negative events internally, and they are prone to rumination about stressful events, hence, they should be more vulnerable to conflicts. We tested our hypotheses with a cross-sectional study (n = 218) and with a diary study (n = 127) over two weeks. Results of hierarchical regression analyses (Study 1) and multi-level random coefficient model analyses (Study 2) indicated that conflict was related to impaired psychological well-being (depressive mood and job satisfaction) and physical well-being (somatic complaints). In line with our assumption, this effect was moderated by depressive symptoms. More specifically, conflict was more strongly linked to job satisfaction, depressive mood and somatic complaints among people with high level of depressive symptoms than among people with low level of depressive symptoms. This effect has been found in a cross-sectional and diary study, thus, these effects hold with regard to chronic
conflict as well as to daily conflict and on a between-person level as well as on a within-person level. Our findings indicate that conflicts may cause depressive symptoms, which makes people even more vulnerable to conflicts, indicating a vicious circle with high psychological and economical costs.

**Influence of mobbing on the individual's emotional deterioration and its consequences.**
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The aim of this study was to analyze the impact of mobbing on emotional deterioration (psychological exhaustion and feelings of guilt) and its consequences (depression) in a sample of employees working with intellectually disabled persons.

The sample consisted of 561 Spanish employees working with intellectually disabled persons at 61 job centers in the Valencian community (Spain). 115 (20.5%) of participants were males and 441 (78.6%) females. 5 participants didn't answer this question. Mobbing was evaluated by the Mobbing-UNIPSICO scale (Gil Monte, Carretero, Roldán & Caro, 2006). Emotional deterioration (psychological exhaustion and feelings of guilt) was assessed using the subscales of “Spanish Burnout Inventory” (Gil-Monte, 2011). Depression was measured using the *Zung Self Rating Depression Scale* (Zung, 1965).

In a one-way ANOVA, we tested the differences in psychological exhaustion and feelings of guilt, and depression according to the criteria of mobbing. Employees who meet the mobbing criteria: frequency (at least once a week) and duration (at least six months), scored significantly higher on the emotional deterioration variables than workers who meet one (duration or frequency) or any criterion of mobbing.

1. Psychological exhaustion: employees who meet two criteria, M = 2.07; employees who meet a single criterion, M = 1.78; employees who do not meet any criterion, M = 1.26; F = 56.33, p < .001.
2. Feelings of guilt: employees who meet two criteria, M = 0.95; employees who meet a single criterion, M = 0.89; employees who do not meet any criterion, M = 0.73; F = 7.79; p < .001.
3. Depression: employees who meet two criteria, M = 40.32; employees who meet a single criterion, M = 38.17; employees who do not meet any criterion, M = 35.04; F = 26.00, p < .001.

Thus, we can conclude that as the criteria for mobbing are met, the emotional deterioration in individuals, as well as its consequences, are increased.

**The relationship between workplace bullying and psychological strain: Physiological activation as a key factor**
Bernardo Moreno-Jiménez¹, Alfredo Rodríguez-Muñoz², Ynomig Moreno¹, Luis Manuel Blanco¹
Previous research has shown a clear picture of damaging effects of bullying behaviours. A large body of evidence links bullying to a range of indicators of strain, such as psychosomatic complaints, depression, and anxiety. However, although researchers have made much progress in understanding the consequences of bullying, until now, empirical evidence about the mechanisms that may explain this relationship is limited. It is well known that stress response is characterized by a physiological arousal (e.g., heart rate, blood pressure) that serves to meet the demands of the environment. This short-term activation is considered adaptive. However, a long-lasting activation has been shown to be dangerous for health and well-being. Thus, it seems plausible that physiological activation constitutes a relevant factor to understand health problems. However, studies on bullying and physiological variables are still scarce. Available evidence has shown a decreased cortisol levels among victims of bullying (Hansen et al., 2006). Thus, to fill in this gap, the aim of the present study was to examine the moderating role of physiological activation, measured as systolic blood pressure, in the relationship between bullying and psychological strain.

The sample was made up of 213 employees, who filled in a questionnaire about health and well being, and participated in a voluntary medical check-up that was carried out by an independent Occupational Health Service.

Results revealed that physiological activation strengthened the relationship between bullying and health problems, so that those with high levels of blood pressure reported more health complaints in bullying situations. These results are in line with the allostatic load theory, and underline the importance of physiological activation as a key factor in bullying process.

**Bullying: Intervening to create mentally healthy communities in the 21st century**
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To Solberg, Olweus & Endresen (2007, p. 443) “a bullying relation is characterized by the fact that one or more individuals repeatedly direct negative and hurtful actions towards an individual who has difficulty defending themselves.” This phenomenon is a reality in Portuguese schools (Mendes, 2010) and has a negative impact in development and health of the students. The implications of bullying can occur in a short and long term, with alterations in the school productivity, physical, emotional and psychological (Mokwa et al., 2010). The consequences can also occur in the aggressor as the destruction of the youngsters’ life, difficulty in respecting the law and difficulties in affective and social relationships (Pereira, 2008). The school is thus an ideal place to target the implementation of preventive programs of this phenomenon, showing the role of the schoolmates and the family.
Social support is identified as an output of several factors that contribute to the perception of security and support.

This study aimed to identify bullying behaviours in students and to characterize aggressors, victims, type and places where those occur and the perception of support by the students who were victims of aggression.

It is an exploratory and descriptive study, integrated within the paradigm of quantitative research. The sample constituted 5th grade students of an Oporto school, with a total of 204 participants. The instrument for collecting data was the questionnaire Bullying/aggression among students in the school (Pereira, 2008). This instrument comprises 35 questions grouped in five parts (in general multiple choice answers), personal data, friends, victims, aggressors and playground.

The results obtained reveal that 52.5% of the students were female, aged between 10 and 15 years old. 60.8% lived with their parents, 20.1% had failed a year and 5.9% do not like school. Since the beginning of the term 12.8% had been victims and in the last week 6.9% two or more times. The aggression type most frequent was verbal followed by physical. Assault situations occur more in the playground by students who are male, older and classmates. In relation to the perception of support we found that 14.9% of the victims told professors that they had been assaulted, and that only 26.6% told their parents. Regarding friend support, 22.3% indicated that 3 or more friends helped, but 5.3% indicated that nobody helped them.

The results found are consistent with the literature that male and younger students are more often involved in bullying behaviours (Carvalhosa, Lima & Matos, 2001). The school as, a source of social support can have an important role in the prevention of bullying (Lopes Neto, 2005).

**Violence and quality of life in the workplace: A model of an intervention program in nurses**

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The nurse is simultaneously a professional from whom help is expected, but is also someone who may become vulnerable.

This study aimed to describe the nurses’ quality of life; to identify the relationship between psycho-social variables and quality of life scales; implement a psycho-educational program to help manage emotions, provide resources for managing stress related to the work of nurses.
It is an exploratory and descriptive type of study, integrated within the paradigm of quantitative research. It is also a prospective and longitudinal study, as it will make an intra-subjects approach, at two different points in time.

The sample is made up of nurses / students of the Post-Graduation Course of the Oporto Nursing College (n=151) who agreed to collaborate in the study.

The results showed that in a sample of 151 nurses 84.8% were female. The minimum age was 24 years and the maximum 54 years, and the average was 33.2 years (SD= 5.7). Regarding the professional category 65.6 % had graduated. The nurses had 10.4 years working experience and 73.3% were permanent staff of the institution.

The instruments for collecting data were the sociodemographic and professional form, the NAQ-R (Einarsen & Hoel, 2001) in the translation and adaptation to Portuguese by Araújo, McIntyre & McIntyre, (2004) and the Short-Form Health Survey (SF36).

We implemented the intervention program, with a total of three sessions. The first sessions was about theoretical issues related to stress and violence, the second and the third ones integrated relaxation techniques for four muscular groups and the techniques of guide imagination. Regarding students, we found significant statistically differences between scales and some of the psycho-social variables. The data shows association negative and low between violence and quality of life $r$ (137) = -0.32, $p<0.01$.

The results of this study sensitize us to the importance of the implementation of intervention models to prevent psychological violence in Portuguese nurses, with the active role of the organizations in this process.

The caregivers also suffer: Suffering Child Nurses
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Human suffering as an unavoidable event can occur in different moments of life and under diverse perspectives. Even though the nurse is equipped with the necessary training and orientation to be able to act in particularly difficult moments, the complexity associated with attendance of chronically diseased or life-and-death children, for its impact, constitutes nowadays a real challenge to nurses. Moments of suffering and the stress caused by these life experiences integrate the course of this professional.

The aim of this study was to understand nurses’ perceptions of suffering, when they are looking after chronically diseased or life-and-death children. This study is placed within the paradigm of qualitative investigation, following a
phenomenological orientation. Furthermore, we chose a combination of methods, using a quantitative approach on stress answers and coping resources, in order to increase the credibility of data and conclusions. The context of the study is that of a pediatric hospital. We have made 20 semi-structured interviews. 78 out of the 103 nurses which practised functions in the hospital (excluding the surgery department) have fulfilled the applied questionnaire.

As conclusions of this study, we point out, as something which is revealed as evidence, the fact that contact with children’s and their parents’ and relatives’ suffering, constitutes for nurses a source of suffering. In order to overcome the emotionally tougher moments, nurses adopt coping strategies focused on emotion and on the problem. Management of nurse’s emotions can be developed according to an individual or organizational perspective.

The prevailing stress answers given by nurses are: denial; anger and frustration; distress and health; culpability; physiological answer and emotional distress. Meanwhile, the personal resource most used by nurses is the philosophical spirit (spiritual/existential resources).

Enacted Aggression and Perpetrator Outcomes: The Moderating Role of Procedural Justice
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Over the past 20 years research in the area of workplace aggression has shown it to be significantly related to a number of negative outcomes at the individual level as well as at the organizational level (Bowling & Beehr, 2006; Hirschovis & Barling, 2010). For the most part, the negative outcomes of workplace aggression have been studied solely from the perspective of the victims (see Barclay & Aquino, 2011; Hirschovis & Barling, 2010). Studies have shown that a vast range of attitudinal outcomes (e.g., job stress, job satisfaction), behavioural outcomes (e.g., absenteeism, work withdrawal), health outcomes (e.g., sleeplessness), and personal outcomes (e.g., psychological distress, anxiety) are influenced by experiences of workplace aggression (Glomb & Cortina, 2006).

One phenomenon that has received little research attention to date is the personal health and interpersonal outcomes experienced by the perpetrators of aggression in the workplace. Using survey data drawn as part of a larger study of workplace stress and health, we used a series of moderated regressions to investigate the relationship between enacted aggression and perpetrator outcomes of well-being and co-worker relationships. In addition, we examined procedural justice as a moderator of the relationships among enacted aggression and the above outcomes.

Enacting aggression was associated with poorer physical and psychological well-being and with poorer co-worker relationships. Procedural justice was positively
associated with physical and psychological well-being and co-worker relationships. We detected an interaction between enacted aggression and procedural justice predicting physical well-being. The relationship between enacted aggression and physical well-being appears to be stronger under conditions of high procedural justice. We also found a disordinal interaction between enacted aggression and procedural justice when predicting co-worker relationships. Under conditions of low enacted aggression, high procedural justice is associated with better co-worker relationships, but this is not the case under conditions of high enacted aggression. The results of this study contribute to a greater understanding of perpetrator outcomes following enacted aggression and moves researchers towards a more comprehensive understanding of workplace aggression.

A longitudinal examination of the predictors of enacted supervisor-, coworker-, and client- targeted aggression for men and women.

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Previous research has identified that a range of individual (e.g. trait anger) and situational (e.g. organizational injustice) variables predict workplace aggression, with the particular pattern being specific to the target (Hershcovis, Turner, Barling, Dupre, Arnold, Innes, LeBlanc & Sivanathan, 2007). Studies of sex differences in workplace aggression have tended to focus on differences in the amount of aggression enacted by men and women, with the balance of studies suggesting that men engage in more aggression than women (Barling, Dupre, & Kelloway, 2009). In this study, we examine potential sex differences in the pattern of the relationships among predictors and supervisor-, coworker-, and client-targeted aggression and build on the previous, predominantly cross-sectional research on workplace aggression (Barling et al., 2009) using two-wave longitudinal survey data obtained from samples of 239 men and 303 women. Using multiple regressions conducted separately for men and women, we examined the effects of several individual factors (i.e., demographics, trait negative affectivity, previously enacted aggression and violence) and organizational factors (i.e., procedural, interactional and distributive justice, environmental stressors (e.g., noise), and previously experienced workplace aggression from supervisors, coworkers, and members of the public) on aggression directed toward a) supervisors, b) coworkers, and c) clients. All the predictors were assessed at time 1 and the three outcome measures were assessed at time 2.

The pattern of results differed for men and women and for the target of the aggression. Mens’ supervisor-targeted aggression was predicted by experienced supervisor violence and previously enacted violence and aggression. Womens’ supervisor-targeted aggression was predicted by perceptions of distributive justice, experienced coworker aggression and previously enacted aggression. Mens’ coworker-targeted aggression was predicted by experienced coworker violence and environmental stressors. Womens’ coworker-targeted aggression was
predicted by experienced coworker aggression, previously enacted aggression, and work hours. Mens' client-targeted aggression was positively predicted by experienced client aggression, negatively predicted by previously experienced supervisor violence, hours worked, and previously enacted aggression. Womens' client-targeted aggression was predicted by experienced client aggression and previously enacted aggression and violence.

In sum, there are several predictors of enacted aggression toward various targets that differ for men and women. But, our data also suggest a pattern that is reasonably consistent across both men and women: that enacted aggression toward each target is a function of having experienced aggression from that source and of having previously engaged in aggression.

The Perpetrator, the Victim and the Bystander: An investigation of peer support during bullying instances in the workplace
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Key accepted definitions of bullying behaviour argue that the behaviour must be continuous and frequent and have negative outcomes for the victim (Agervold, 2007; Lewis, 2006; Salin, 2008; O'Connell et al., 2007; Einarsan et al., 2003; Quine, 2001). Other features highlighted by the research include an imbalance of power between the parties (Lewis, 2006; Zapf and Gross, 2001; Einarsen et al., 2003; Vandekerckhove and Commers, 2003) and intent of the perpetrator (Agervold, 2007; Rayner Hoel and Cooper 2002). This last condition poses difficulties as conflict can often arise between an individual's perceptions that behaviour towards them constitutes bullying whereas the alleged perpetrator(s) may argue that no harm was intended (Avergold, 2007). This can also be true of co-workers perceptions work place behaviour. In social psychological literature, a norm is typically defined as “a rule, value or standard shared by the members of a social group that prescribes appropriate, expected, or desirable attitudes and conduct in matters relevant to the group” (Turner, 1991, p. 3). An understanding of workplace norms may reveal not only why bullying is more likely to occur in certain settings but also why peers witnessing bullying are more or less likely to intervene on behalf of the victim or assist the victim in altering the situation.

This article has three main research questions. Firstly, to determine the level, intensity and frequency of workplace bullying which individuals observed as opposed to personally experienced in the healthcare sector during the previous six months. Secondly to determine what, if any, action they took subsequent to this observation. Finally, to examine if a relationship exists between employee’s perceptions of the organisational climate and their willingness or ability to take action in support of their peers upon observing negative workplace behaviours. With the support of the main nurses' trade union, the Irish Nurses and Midwives Organisation in Ireland, a sample of 27,000 nurses were identified. 3000 responses were subsequently analysed. The choice of questionnaire in this study was
influenced by previous empirical studies that utilised the Negative Act Questionnaire (NAQ) developed by Einarsen. Findings indicate a substantial proportion of nurses reported experiencing negative acts at work in the previous 6 months and that the perpetrators were supervisors and colleagues. In addition, respondents were questioned on the extent to which they had observed bullying in the previous six months positively responses to the actions they took were analysed and regressed against measures of organisational climate.

Violence and aggression against the police: Perceived coping ability as a buffer of the relationship between workplace violence and strain
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While the high workplace violence victimization risk for police officers is uncontested, findings on the relationship between the experience of violence and aggression and negative consequences such as, for example, symptoms of burnout, are more controversial. In two studies, psychological responses of police officers to workplace violence and aggression were investigated. In study one, a preexisting model of the consequences of client-initiated workplace violence was slightly modified and tested, using cross-sectional survey data from 596 police officers and structural equation modeling (SEM).

In study two, regression analyses were used to investigate whether perceived coping ability moderates the relationship between client-initiated violence or aggression as stressors, and emotional exhaustion or depersonalization as consequences. Data from study one and longitudinal data from 112 police novices from a different police corps were employed. In addition, predictors of perceived coping ability, such as perceived support or talk climate with regards to stressful experiences, are addressed.

A Predictive Model relating Work Stressors, Burnout and Ill-health of Accountants in South Africa
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Objectives: “Burnt out”, this term is being used more and more to describe accountants. In the last couple of years research has shown that accountants are leaving their profession because of ill-health caused by stress at work which eventually leads to burnout (Mustafa & Selahattin, 2010). Stress in an accountant’s workplace is the main reason for the accountant’s willingness to leave their profession and work in a field that is deemed to be less stressful. Once an accountant is diagnosed as being burnt out their symptoms normally show as ill-health, such as depression and counterproductive work behaviour (Tennant, 2001; Williams & Michie, 2003; Fox, Spector & Miles, 2001). The fact that accountants are leaving the field to find less stressful jobs, may eventually have a negative
impact on the skills availability in the profession. A recent study has shown that there is a deficit of about 6000 Accountants in South Africa (Bernstein, 2011). This study is intended to investigate the work stressors, burnout and ill-health of accountants with the aim of developing a predictive model relating these variables to the South African Accounting profession.

Method: A quantitative research approach is followed in this study. The Sources of Work Stress Inventory (SWSI), an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) and General Health Questionnaire will be administered amongst accountants in South African organisations (n =2000).

Results: We predict that positive relationships will exist between work stressors, burnout and ill-health. In addition we also predict that burnout will mediate the relationship between work stressors and ill-health. Finally we will develop a predictive model based on the interrelationship between these variables.

Implications: Despite a continuous proliferation of research on stress, burnout and ill-health in the global context, no research could be found relating all these variables for accountants in South Africa. This research makes an important contribution towards increasing the current knowledge regarding the work stressors that accountants are experiencing and the adverse impact thereof on their health.

Conclusions: This research concludes with a new predictive model for work stress, burnout and ill-health for accountants in South Africa. In addition we also suggest practical interventions for dealing with stress and the consequences thereof in the workplace.

Burnout among Slovenian employees: a meta-analytic review of related variables
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Occupational burnout has gained increased attention among professionals and researchers also in the Slovenian research field, since the number of publications gradually increased over the last few years. The aim of our study was to analyse relevant empirical Slovenian research papers on occupational burnout and systematically review the findings concerning the correlates of burnout.

A meta-analytic review was performed on Co-operative Online Bibliographic System and Services (Cobiss) from 2004 to 2010 with the following keywords: burnout, stress management, stress risk factors, job satisfaction, mobbing, staff turnover, absenteeism, presenteeism. We identified 148 papers (from initial 1490) concerned with occupational burnout, out of which 27 studies using Maslach Burnout Inventory were included into the qualitative meta-analysis.
Almost half of the studies were performed among employees in the educational sector, whereas most of the remaining studies included military and health sector. The majority of participants reported moderate levels of burnout. The majority of studies explored associations of burnout dimensions (emotional exhaustion, depersonalization and personal accomplishment) with basic sociodemographic variables (e.g. gender, age, education, and working years), work environment variables (e.g. overload, role conflict, responsibility, and relations) and individual characteristics (e.g. health, personality, work and life satisfaction, and coping strategies).

The results indicated that professional burnout significantly correlated with work demands, personality factors (personality hardiness), physical and psychological well being, intention to change job, satisfaction with work/life and emotion oriented (non-active) coping strategies. Though investigating different occupational sectors, our results largely replicated past research on burnout findings. Results may lead to a better understanding of reciprocal interactions between the personal and environmental factors contributing to job burnout.

The influence of burnout in aggressive behaviour among Portuguese police officers
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Police work is a stressful activity (Bittner, 1991; Blum, 2000; Dowler, 2005; Hackett & Violanti, 2003), eliciting burnout, health diseases, and aggression toward ownself (e.g. suicide) or others, such us verbal or physical aggression (Ainsworth, 2002; Thompson et al., 2005; Violanti, 1997). Both burnout and aggressive behaviour affect well-being of the police officers, and impact the social representation of police forces. This study aims to investigate the influence of burnout on aggressive behaviour on a sample of Portuguese police officers.

Participants were 60 male Portuguese police officers involved in a two year longitudinal study developed in Porto, Portugal. Participants were aged between 32 to 53 years (M= 43.4 and SD= 6.3). The Maslach Burnout Inventory - Human Services Survey (Maslach & Jackson, 1997) and Aggression Questionnaire (Buss & Perry, 1992) Portuguese versions were completed.

Despite low levels of burnout (between 0.933 to 1.596 to negative dimensions and 4.529 for professional accomplishment in a 0 to 6 points likert scale) and low levels of aggressive dimensions (verbal and physic aggressivity tendencies, hostility and irritability between 2.055 to 2.2777 in a 1 to 5 points likert scale), results show statistical significant correlations between burnout dimensions and aggressive dimensions. Emotional exhaustion and depersonalization are positively correlated with all aggressivity dimensions. Stepwise regression, show that each burnout dimension contributes differentially for each aggressivity dimension, and total score
of aggressivity was predicted negatively by professional accomplishment ($\beta = -0.284, p < .05$) and positively by emotional exhaustion ($\beta = .447, p < .001$).

Aggressive behaviour can be explained not only by biological theories (Berkowitz, 1993; Lorenz, 1966) but also by social theories (Bandura, 1973). Furthermore, human evolution is related with violence and aggressivity. However, in actual societies violence in not accepted, therefore police officers suffer ambivalence of being the target of the aggressivity of citizens and react aggressively only in special situations of danger and damage to the public order. In sum, our findings suggest the influence of burnout on aggressivity, alerting in this way to the importance of negative consequences of burnout that can negatively impact police officers and the organization.

**Sensation Seeking and burnout levels among Portuguese police officers**

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Previous research has shown that police officers are exposed to several stressful situations over time due to the nature of the job and organizational factors. Dealing with intense and permanent stress over time, can lead police officers to burnout, eliciting physical diseases, depression, aggressive behaviours and even suicide (Blum, 2000; Brown & Campbell, 1994). Personality traits of police officers have been studied (Abrahamsen & Strype, 2010; Bonifacio, 1991; Goldstein, 1968), and sensation-seeking trait is considered a pro-social behaviour/trait frequently presented among police officers (Gomà-i-Freixanet & Wismeijer, 2002; Grant & Terry, 2005; Homant & Kennedy, 1993). Sensation-seeking is related with age (Zuckerman, 1994), identified as a protector from stress (Hintsanen et al., 2009) and stress is an antecedent of burnout (Freudenberger, 1974).

The aim of the present study is to investigate burnout levels and its association with sensation seeking and age among Portuguese police officers.

Participants were 470 male Portuguese police officers which were aged between 23-53 years ($M= 34.37; SD= 5.97$). Participants fulfilled the Arnett Inventory of Sensation Seeking (Arnett, 1994) and the Maslach Burnout Inventory - Human Services Survey (Maslach & Jackson, 1997) Portuguese versions.

Results show that levels of burnout are not associated with sensation seeking personality traits among Portuguese police officers. On the other hand, age appears to be an important variable affecting sensation seeking among this population. In particular, age is negatively associated with the scale intensity activities ($r = - .17, p < 0.001$) and overall levels of sensation seeking ($r = -.10, p < 0.05$).

In conclusion, results suggest that in opposition to other studies conducted respectively among Indian (Desai & Chauhan, 2009) and Finish (Hintsanen et al.,
2009) police officers, Portuguese police officers do not show any association between sensation seeking traits and burnout levels. It is believed that these findings may be partially due to the high mean age of the sample under study. In agreement with this explanation, age in this study appeared to be negatively associated with sensation seeking levels of the participants. Another possible explanation for the nature of results found may be the cultural differences associated with Portuguese police officers. Thus, further research is recommended analysing sensation seeking and burnout levels among Portuguese police officers, controlling for age differences and cultural factors among this population.

Interpersonal Conflict-Handling Behaviour and Burn-out of Russian School-Teachers
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The aim of the present research is to investigate the peculiarities of burn-out of school-teachers. 97 school-teachers of different age and years in profession took part in the study. The Occupational Stress and Coping Inventory (Schaarschmidt & Fischer, 1997), Thomas-Kilmann Conflict Mode Instrument (TKI, 2009) and Maslach Burnout Inventory (MBI) were employed. The most popular Russian teachers’ modes for responding to conflict situations are revealed. The results show the interrelations between the strategies of resolving conflicts and teachers’ burn-out manifestations. The study uncovered peculiarities of burn-out experiences in the groups of teachers with different strategies of conflict responding. Teachers who use active strategies, especially competing modes, are less disposed to burn-out. Teachers greatly aspiring for professional growth use strategies of competing and avoiding; those less focused on professional success more often choose accommodating mode. Implications of the study are discussed.

Burnout and Peculiarities of Value-Meaning Systems of Russian Search-and-Rescue Teams Employees
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The aim of the present study was to examine burnout among employees of Search and Rescue Teams with different peculiarities of value-meaning systems. 54 Russian men aged 24-50 took part in the investigation. Maslach Burnout Inventory (MBI, 1981), Life-Meaning Orientations Questionnaire by Leontyev (1992) and Value System Questionnaire by Kashirsky (Value Significance-Value Realization-Satisfaction with Value Realization, 2008) were employed.

The data were subjected to qualitative and quantitative analysis. The results revealed significant differences in hierarchies of values of employees of Search
and Rescue Teams experiencing different extents of burn-out. It was found that activity for achieving positive change in society is less significant for the participants experiencing high burnout and self-realization and getting new knowledge are less significant for those who have low emotional exhaustion. Those who are not satisfied with value realization in the sphere of close relationships are exposed to burnout in greater extent than those who are satisfied with their relationships.

The results further show that the participants with different burnout levels possess value systems of different extent of harmony (values are of different level of significance and availability). It concerns the following value spheres: “Independence”, “Faith”, “Justice”, “Creative Work”. The role of meaningfulness of one’s life, and experiencing control over one’s life discriminating between the high level and moderate level burnout groups are also shown. Implications of the study are discussed. The ideas for future investigation are addressed.

The influence of job satisfaction in Portuguese nurses’ burnout
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Nowadays, work plays a key role in individuals' lives. In some contexts, there are specific requirements that make professionals more vulnerable to stress and emotional distress. In health organizations such as hospitals, professional performance can be characterized by multiple demands and can be influenced by different factors of occupational stress. When these factors are associated with unfavourable working conditions, health workers become particularly susceptible to psychological distress and job dissatisfaction, contributing to stress and burnout syndrome (Carlotto, 2010; Maslach, Schaufeli & Leiter, 2001). These professionals work under great psychological pressure, sometimes in adverse work contexts in which contact with disease, pain, suffering and death are part of their daily lives, leading them to an emotional distress caused by labour demands (Avellar, Iglesias & Valverde, 2007).

This study aims to identify the influence of job satisfaction in burnout among 1216 nurses in the district of Porto (Portugal) through the application of the MBI-HSS (Maslach & Jackson, 1997) and SLS20/23 (Meliá & Peiró, 1989) Portuguese versions (Marques-Pinto, 2009; Carlotto, 2008).

Results show that job satisfaction is a significant predictor of burnout. In particular, nurses who have more satisfaction in their work have more personal accomplishment, less emotional exhaustion, and less depersonalization. We found that intrinsic satisfaction (β = -.448, p < .001); supervision satisfaction (β = -.216, p < .001) and environment condition’s satisfaction (β = -.096, p < .001) negatively predict emotional exhaustion. Furthermore, intrinsic satisfaction (β = -.259, p < .001) and supervision satisfaction (β = -.146, p < .001) negatively predict
depersonalization. Finally, personal accomplishment is significant predicted by intrinsic satisfaction ($\beta = .305, p < .001$), satisfaction with benefits and political organization ($\beta = -.093, p < .001$), participation satisfaction ($\beta = .160, p < .001$), and supervision satisfaction ($\beta = .090, p < .001$).

These results suggest that job satisfaction lead nurses to adopt more positive attitudes to work, increasing their motivation and protecting them from burnout. The combination of individual and organizational factors is an important influence for the mental well-being of nurses, and professionals satisfied with their work provide better care to patients.

The influence of work-home interaction on burnout among Portuguese police officers
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Workers deal with job and family demands, trying to not have conflict between these two important domains of their lives. Work-home interaction has become a topic of research (Demerouti & Geurts, 2004), with researchers searching the direction and the valence of this interaction. Policing has special rules that can interfere with family schedules and organization, dealing with uncertain and unknown events. Due to their stressful professional activity (Brown & Campbell, 1994; Dowler, 2005; Ranta & Sud, 2008), police officers are also vulnerable to burnout, experiencing emotional exhaustion, depersonalization, and reduced professional accomplishment (Kop, Euwema & Schaufeli, 1999; Page & Jacobs, 2011; Pines & Keinam, 2006; Taris et al., 2010). Recently, work-family interaction was related with burnout (Innstrand et al., 2008), indicating bi-directional causal paths. This study aims to investigate the influence of work-home interaction on burnout, in a sample of Portuguese police officers.

Participants were 78 male Portuguese police officers working in a small town in north Portugal. They were aged between 35 to 54 years (M= 46.1 and SD= 4.9), all married and with children. The Maslach Burnout Inventory - Human Services Survey (Maslach & Jackson, 1997) and Survey Work-Home Interaction Nijmegen (Geurts et al., 2005) Portuguese versions were fulfilled.

Despite low levels of burnout (between 1.05 to 1.73 to negative dimensions and 4.33 for professional accomplishment in a 0 to 6 points likert scale) and low levels of work-home interaction (0.49 and 1.07 in a 0 to 3 points likert scale for negative interaction, and 1.21 and 1.42 for positive interaction), results show positive statistical significant correlations between burnout negative dimensions and negative work-home interactions. Stepwise regression show that emotion exhaustion is predicted by work-home negative interaction ($\beta = .378, p < .001$) whereas depersonalization is predicted by work-home negative interaction ($\beta = .421, p < .001$) and family-work negative interaction ($\beta = .234, p < .05$).
Burnout seems to be related with negative interactions between work and family, but those interactions differentially explain burnout. While emotional exhaustion seems affected by the negative influence of work in family, depersonalization reflects both paths of these negative interactions. The results reflect the complexity of the relationship between burnout and work-home interaction, already referred to by other authors (Marais et al., 2009; Mostert, 2011) in policing context. Interventions at workplace are needed to prevent burnout and help police officers cope with stressful job demands and separate them from family.

**The "Spanish Burnout Inventory" (SBI)**  
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The aim of this study is to present the structure, content validity and psychometric properties of the "Spanish Burnout Inventory" (SBI). The SBI is a questionnaire to evaluate psychological burnout that has been adapted and validated in over ten countries in Europe (e.g., Spain, Portugal, Germany, Czech Republic) and Latin America (e.g., Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru, Uruguay). Although it is an instrument originally developed in Spanish language, it has been translated into different languages (Portuguese, German, Czech, French, etc.)

The results of this study derived from the SBI Manual (TEA, 2011). The sample consisted of 12,025 participants from ten countries (Spain, Portugal, Argentina, Brazil, Chile, Colombia, Costa Rica, Mexico, Peru and Uruguay), and several occupational sectors (health, education, employees working with intellectually disabled persons, prison employees, telephone operators, customer service staff of the public administration, and others).

The following analyses were performed: exploratory factor analysis and confirmatory factor analysis, reliability (Cronbach’s alpha) and item analysis. The results confirmed both psychometric and theoretical models, and were appropriate for dimensions and items. We conclude that the SBI possesses adequate psychometric properties to estimate the burnout syndrome in Spanish and Portuguese-speaking countries.

**Validation of a tool for assessing psychosocial risk in the construction industry in Italy**  
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Introduction: The building sector in Italy has some important critical points on two fronts. One is the number of accidents, which has dropped in recent years but is
still high; the other concerns psychosocial aspects which, with the entry into force of legislative decree 81/2008 and subsequent amendments and additions, has become an integral part of any risk assessment. “Psychosocial risks/hazards” refer to the “aspects of work design and the organization and management of work, and their social and environmental contexts, which have the potential for causing psychological or physical harm” (Cox & Griffith, 1995; Favretto, 1998). The scientific community has started to focus closely on the question of overall wellbeing and organizational safety (Cooper, Williams, 1994). The concept of organizational wellbeing has been defined as “the set of organizational processes and practices, as well as the cultural core that animate the cohabitation in the workplace setting, promoting, maintaining and improving the physical, psychological and social well-being of the working communities” (Avallone & Paplomatas, 2005). This trend is also clear from the European Commission’s communication "Improving quality and productivity at work: Community strategy 2007-2012 on health and safety at work". The aim is to reduce accidents at work by 25%, with close attention to mental health and stress. Aims: To develop a questionnaire for assessing psychosocial risk in the construction industry and to validate it.

Methods and tools: Analysis of theoretical models of psychosocial risk; identification of the variables underlying organizational dysfunction (indicators) by focus groups comprising workers and experts in the sector. The sample was identified with the collaboration of Formedil which, through its own training facilities, involved several construction firms throughout Italy.

Results: A tool for assessing psychosocial risk in the Italian construction industry has been validated.

Conclusions: The main critical indicators in the work Context were: organizational culture and functions; attachment to the job; role in the organization; career development and occupational discontinuity; amplitude of decisions and control; interpersonal relations and home-work interface. The critical indicators in the work Content were: work environment (health and safety); job task; workload; work planning; mobility (temporary building sites). Under the heading Individual characteristics, the following problem points came to light: gender differences; age differences; nationality.

An observational instrument to assess working conditions within residentialeldercare

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Background: Several studies have shown that care-workers are at increased risk of ill-health and long-term sickness absence. So far, the majority of research on work
environment and health has relied on self-reported measures of both working conditions and health, rendering analysis vulnerable to common method bias. In this study, we developed an observational instrument for assessing the work environment in residential eldercare work. The instrument is based on Action Regulation Theory and is a further development of the RHIA/VERA-instrument, a psychological work analysis procedure. The instrument identifies work barriers in eldercare work that potentially cause stress reactions, and it measures the level of requirements for planning and thinking which depend on different forms of work organization. Based on Action Regulation Theory we conceptualised work characteristics as three dimensions: a) work barriers (factors that interrupt or impede work), b) thinking and planning requirements and c) level of communication requirements (opportunities for communication and contact).

Method: We carried out six in-depth interviews with staff and management at three nursing homes with different types of work organization. The main objective was to identify potential barriers that lead to stress reactions among staff. The interviews were guided by an interview manual that we developed based on previous research in care work. We analyzed whether different work organizational concepts affected thinking and planning requirements and communication requirements. We evaluated our findings in three follow-up interviews. Based on the analysis, we developed the observational instrument that will be tested in spring 2012.

Results: Nursing homes with work procedures that were almost entirely externally determined showed low levels of communication and thinking requirements. In contrast, levels of communication and thinking requirements were high in nursing homes where care-workers had the opportunity to make important decisions during work. A high level of thinking and planning requirements was associated with low levels of work barriers, as the care-workers had more opportunities to influence work procedures. In addition, we found that emotion work was a core aspect of the daily work in the nursing homes and we subsequently added this aspect to the observational instrument.

Conclusion: We identified core working conditions and barriers in eldercare work and used this information for the development of the observational instrument. We are currently conducting 12 pilot-observations at the three nursing homes to test the instrument. Results from these pilot-observations will be available at the time of the conference.

**Extending Sonnentag & Fritz’s (2007) Recovery Experience Questionnaire (REQ): A Validation Study**

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The recovery experiences included in the REQ (i.e. psychological detachment, relaxation and mastery) are drawn from Parkinson and Totterdell’s (1999) classification of affect-regulation strategies. In this classification system strategies are divided into two strategies; diversionary (i.e. they provide a diversion away from
a stressor) and engagement (i.e. they involve ongoing involvement within a stressor). Sonnentag et al., (2007) argue that only diversionary strategies are relevant for recovery. They state that because engagement involves an ongoing involvement with the stressor, recovery is not likely to occur. The current study has sought to challenge this presumption. Given the efficacy of engagement strategies in affect-regulation, it can be argued that they too may facilitate recovery. In the current study two engagement strategies are proposed; cognitive reappraisal and problem solving. To facilitate research on this topic, the primary aim of the current study was to develop and validate these two supplementary recovery experience scales.

The research consisted of three phases. The first phase of the research involved consultation with the target population through a series of focus groups. 45 health service employees participated in one of four focus groups. During these focus groups participants were encouraged to describe their personal experiences with regards to recovery after work. Findings from qualitative analysis provided provisional support for the engagement-orientated recovery experiences. They also provided evidence of their content validity. The second phase of the study involved a process of item generation. To assess the content validity (i.e. representative and clarity) a series of expert panels (i.e. 35 post-graduate psychology students) was conducted. Items were excluded where inter-rater agreements were less than .80. The final phase of the research assessed the factorial validity of the revised REQ and internal consistency of its component scales.

550 human service orientated employees completed an online self-report questionnaire. Participants were divided in two groups (i.e. calibration and cross validation sample). Confirmatory factor analysis was conducted using structural equations modeling (SEM). Fit indices generated were found to be within acceptable limits across both groups. The supplementary scales were also found to be internally consistent. (i.e. > .75). Findings in this study provide preliminary support for the use of engagement-orientated recovery scales in recovery research.

Core dimensions of a burnout scale: Psychometric properties and a cross cultural validation study

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Objectives: Burnout is usually defined as a psychological response to chronic work stress that is characterized by exhaustion, cynicism, and reduced professional efficacy (Schaufeli & Taris, 2005). Studies on burnout often concentrate on employees with helping professions. For instance, there is a high prevalence of burnout among teachers (Hakanen, Bakker & Schaufeli, 2006). However, it seems reasonable that other groups involved in education—students—can experience burnout as well (Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002). This
study’s objective was to validate the Romanian version of the Utrecht Burnout Scale for students (UBOS-S; Schaufeli & van Dierendonck, 2001). The Utrecht Burnout Scale is the Dutch version of the Maslach Burnout Inventory. This scale is recommended for burnout research within working environments as well as individual diagnosis purposes. The scale consists of 16 items distributed among 3 subscales: Exhaustion (5 items), Cynicism (5 items), and Inefficacy (6 items). Since exhaustion and cynicism are considered the core dimensions of burnout (Schaufeli & Taris, 2005), the present study focused on the Exhaustion scale and Cynicism scale. Moreover, the present study examined the reliability and factor structure of these two scales in both a Romanian sample and a Dutch sample.

Methodology and results: The Romanian sample consisted of 255 students (83.1% female, mean age 21.74 years, SD = 2.42). The Dutch sample consisted of 590 students (67.5% female, mean age 21.02, SD = 2.16). The UBOS-S was applied to both samples. Exploratory and confirmatory factor analyses (EFA and CFA) were used to test the research objective. EFA results supported the original two factor solution (exhaustion and cynicism), which explained approximately 50% of the total variance in both samples. Communalities ranged between .25 and .78 for the Romanian sample, and .31 and .70 for the Dutch sample. Only one cynicism item showed low communality on both samples. The internal consistencies alphas were .76 for the Exhaustion scale and .85 for the Cynicism scale within the Romanian sample, and .80 for the Exhaustion scale and .75 for the Cynicism scale within the Dutch sample. CFA results showed that the original model did not fit the data of both samples well. After removing the problematic cynicism item, the modified model showed good fit for the Dutch sample, and acceptable fit for the Romanian one.

Conclusion: All relations with interest variables (e.g., job demands) were in the expected directions for both samples, supporting the scale’s convergent and divergent validity.

Need satisfaction at work – scale validation on a Romanian student sample

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Objectives: Optimal functioning of individuals at work—and other life domains—, represent an important focus of researchers, managers and consultants in the field of work and organizational psychology. It is argued that the quality of someone’s functioning relies significantly on the satisfaction of three innate psychological needs (Van den Broeck, Vansteenkiste, de Witte, Soenens, & Lens, 2010) – that is, the need for autonomy (which is satisfied when the individual experiences psychological freedom when carrying out an activity), the need for competence (which is satisfied when the individual feels effective in interacting with the environment), and the need for relatedness (which is satisfied when the individual experiences a sense of communion and develops close and intimate relations with
others; Deci & Ryan, 2000). Using Dutch speaking samples, the Need Satisfaction at Work Scale was developed recently to measure need satisfaction at work (Van den Broeck, Vansteenkiste, de Witte, Soenens & Lens, 2010). Drawing on a Romanian sample, the present study seeks to validate the Need Satisfaction at Work Scale cross-culturally.

Methodology: The total sample consisted of 255 undergraduate students from a Romanian University, of which 83.1% were women. The age of the respondents ranged from 20 to 46 years ($M = 21.74$, $SD = 2.42$). The non-experimental research was performed using the Need Satisfaction at Work Scale (Van den Broeck, Vansteenkiste, de Witte, & Lens, 2010).

Results: Exploratory and confirmatory factor analyses (EFA and CFA) were conducted to examine the factor structure of the Need Satisfaction at Work Scale. EFA results supported the original three factor solution (which explained approximately 46% of the total variance), with factor loadings between .40 and .89, and with an average communality of .46. The internal consistencies alphas ranged from .73 for the Autonomy scale to .88 for the Competence scale, showing satisfactory reliability. CFA results showed that the original model obtained poor fit. One item was removed because of its cross-loading. The modified model fitted the data well.

Conclusion: All relations with interest variables (e.g., job resources, performance) were in the expected directions, supporting the scale’s convergent and divergent validity. The results contribute to the field of work and organizational psychology by supporting the universal potential of this scale.

Type D personality in Greek employees: somatization, cardiovascular events and healthcare resource use
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Introduction: Several studies correlate Type D personality with cardiovascular diseases. On the other hand, this type of personality seems to be linked to an increased risk for somatization. Both clinical problems lead to high utilization of health services. General Health Questionnaire (GHQ-12) provides a rather valid subjective assessment of one’s health. Subjective experience of “well being” or not affects the use of health services.

Aim: To investigate if Type D personality and GHQ-12 are associated with cardiovascular events, chest pain and healthcare resource use in a cohort of Greek employees.
Method: A total of 1000 employees in urban transportation were invited to participate in a cross-sectional survey. Each employee answered a questionnaire concerning demographics, medical history and occupational health and safety, and completed the GHQ-12 and the Type-D personality (Denollet Scale, DS14) questionnaires. The DS14 is divided into two subscales of seven items, negative affectivity (NA) and social inhibition (SI).

Results: A total of 687 employees (mean age 43.89±10.02) completed the questionnaires and participated in this cross-sectional survey. 15.9% of the employees achieved a pathologic score in GHQ-12 and 22.3% in DS14. There were no significant differences among different genders, age groups or working positions.

However, the employees with a pathologic DS14 score reported a significantly higher incidence of chest pain, arrhythmias, myocardial infarction, coronary artery disease, and pathologic general health (p<0.05) and a trend of more physician visits and hospitalizations (p<0.10). NA and pathologic GHQ score were associated significantly with a higher incidence of chest pain, physician visits and hospitalizations.

Conclusions: The results of the study are consistent with these of other studies suggesting the value of DS14 in predicting major cardiovascular events, but also chest pain, cardiac and non-cardiac. It is always difficult to differentiate cardiac chest pain from somatization, even more when DS14 is associated with both cardiac and non-cardiac symptoms. It’s the individual’s health experience that leads a person to an excessive use of medical services and since GHQ 12 scale seems to be a useful tool in recording this experience, the high correlation of GHQ-12 with DS14 indicates that Type D personality existence may probe to higher somatization symptoms.

Work (dis)Ability and Age: Trends and Perspectives from the Industry
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There are a growing number of aging workers in manufacturing industries all across Europe due to the increase of the aging index and the decrease of the global birth rate. This global context in tandem with socio-economic trends leads to significative changes in the concept and context of work. Emerging factors, until present non-existent, less studied or unknown, are now risk factors for the decrease of work ability (WA) within the active population.

WA is a dynamic and individual characteristic that has been systematically and negatively correlated with age, but systematically and positively correlated with quality of work-life, productivity, healthy workplaces and general well-being.
Maintaining and promoting WA is therefore an imperative for countries/regions/organizations that want to maintain a productive, healthy and satisfied workforce.

With the present paper we intend to present and discuss a research project in progress that aims to evaluate WA and design Interventions for Maintaining and Promoting WA (IMPWA) in the metal working sector in Portugal. The project will detail and explore: a) the WA profile of Portuguese metal workers; b) The role of these data for the design and implementation of sectorial interventions; c) The role of these data for the design of onsite interventions; d) The role of neuropsychological stimulation packs to the maintenance and enhancement of workers WA; e) General principles for the design of IMPWA; f) Test interventions on organizational settings.

Some of the questions raised and studied within the project scope are: 1) what factors contribute the most to the decrease of WA? 2) what activities to IMPWA are cost effective? 3) why implement IMPWA? 4) how to design IMPWA? 5) what is the role of the workers as individuals in the process of IMPWA?

**Data-based Dissemination of Worksite Tobacco Prevention - Experiences from the Canton of Zurich**

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A growing body of literature provides evidence for the efficacy of workplace health promotion (WHP). However, any WHP intervention must be disseminated across and adopted by the relevant organizations. Thus, WHP practitioners need to know how to implement WHP measures but also how to disseminate them.

Dissemination means “a series of planned activities intended to encourage and enable adoption and implementation of proven approaches” (Maibach et al., 2006, p.2.). Dissemination includes awareness raising of target groups, spreading tailored information, and adoption of WHP measures by companies.

For a workplace tobacco prevention project in Switzerland, a data-based dissemination strategy was developed by an established research-practice partnership. Dissemination included a combination of bulk mailing and intra- and intercompany assessment via questionnaire to 3749 companies, followed by information events, and telephone marketing. This step-wise WHP dissemination strategy was evaluated while using the RE-AIM framework (Glasgow et al., 1999) in an applied setting.

Results of the assessment indicate that the bulk mailing provided objectively tangible clues for tailoring. For tailoring, interests and needs of companies were identified as main criteria. Information events met with little response (participation
in 26 of 947 interested companies). Instead, telephone marketing was expanded to personal and telephone consultations.

Data-based dissemination fosters demand-oriented workplace health promotion. Thus, it permits adaptation of dissemination strategies according to limited resources of workplace health promotion practitioners and companies. The WHP consultants reported that both the recruitment for the consultation process and the process itself were facilitated by the structured consulting material and by their ability to build on the detailed information from the initial questionnaire.

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Objectives: Recent years have seen a lot of research publications investigating and debating the roles of industrial and organisational psychologists (IOP) in the South African context. These publications showed that there is still a great deal of confusion and uncertainty as to what exactly the contributions of IOP practitioners in the workplace should be. Research evidence suggests that IOP practitioners are mostly fulfilling the roles of human resource (HR) management practitioners in the workplace as opposed to their own envisaged roles. This may be the result of some universities in South Africa that still accept an academic dispensation where I/O Psychology is taught under the discipline of human resource management. In addition, there also seems to be a denial of the connection between I/O psychology with psychology, both in practice and academia (Watkins, cited in Rothmann & Cilliers, 2007, Strumpher, 2007) which further manifests in the role confusion between I/O psychologists and HR practitioners.

Against this background, the main objective of the research is to critically analyse the undergraduate and postgraduate curricula in I/O Psychology as currently presented by South African higher education institutions (HEIs). This research specifically investigates the perceived similarities and differences between the curricula and also the relevance of these curricula to different stakeholders. The research is motivated by the fact HEIs are accountable for building the theoretical knowledge and skills required for professional practice within a chosen field and contribute to the employability of graduates (Bates, 2008; Costley, 2007; Heerde & Murphy, 2009). In addition, Higher Education South Africa recently also called for a closer alignment of the curricula of the various HEIs in South Africa.

Methods: A case study approach is followed in this research. This research is executed over three phases. Phase 1 includes a document analyses on the content of all the IOP undergraduate and postgraduate programmes as currently presented in South African HEIs. Phase 2 includes interviews with stakeholders (i.e. academics, employers, IOP professional bodies) and phase 3 surveys (academics, employers and students).
Results and implications: It is anticipated that the findings of this research will provide valuable inputs into curriculum redesign and alignment between the different South African HEIs. In addition, the findings of this research will also contribute to IOP programmes that are more aligned with employer needs.

Conclusions: This poster concludes with new proposed curricula for both undergraduate and postgraduate programs in industrial psychology for South African HEIs.

Quality of stress management interventions
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Background: The quality of stress management interventions is related to a few issues such as: the measurement of objective stress indicators; the comparison to control sample; the measurement of stress level; its sources; and techniques of coping with it, both before and after the intervention, with the same methods (surveys, interviews or tests).

Research: This research was conducted in Polish organizations between 2009 and 2010. About 700 surveys were sent to human resources managers in large and medium companies or the owners of small-sized organizations. The return was 200 surveys.

Results: Out of 200 organizations only 17% implemented some forms of stress interventions. In 28 companies (15%) there were organizational level interventions such as improving work conditions and ergonomics of workstations, better definition of job roles, altering shift or work practices, participating management. In 36 other organizations (19%) individual level interventions were made. The most common were: training to cope with stress, exercise and relaxation sessions, counseling and therapy and health promotion programs. 34 organizations implemented both types of intervention.

The analysis of the quality of those interventions was based on four indicators. The first was the assessment of the level of stress before and after the interventions. The second was the analysis of financial costs of absenteeism, decrease of productivity, turnover and staffing processes, and work accidents. The third considered psychological costs, such as psychosomatic illness, conflicts, overall fatigue, irritability, sleeping problems and anxiety. The last indicator was related to the precise measurement of sources of stress before the intervention was made.

The results show clearly that the quality of interventions is rather low. Only 10 companies had assessed the level of stress before they made the intervention. In the whole research sample it is about 5%. Among the organizations which have done some kind of intervention it is about 30%. The analysis of financial costs was
made in 1 company and the analysis of psychological ones in 4 of them. The sources of stress were being analyzed in 14 organizations. This is 7% of all organizations.

Conclusions: According to the European Commission, the yearly cost of work-related stress in the EU15 was about EUR 20,000 million. This is the main motivation to implement stress management programs. The responsibility for high quality interventions is on entrepreneurs and organizational psychologists.

Organizational behaviour management (OBM) as an intervention in occupational health psychology
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Organizational behaviour management (OBM) is the application of behavioural principles to individuals and groups in organizations. OBM has its roots in the field of applied behaviour analysis and focus on behaviour and the contingencies that influence behaviour. OBM has traditionally been used to increase organizational performance, but as the field develops other employee behaviours such as safety and satisfaction are increasingly studied as well. This makes OBM a potential candidate as an effective intervention in occupational health psychology. The purpose of this study is to examine the effects of an intervention based on OBM, which aims at increasing not only production but also safety climate and organizational learning climate.

The intervention: This OBM intervention has just been launched in a company in the forest industry in Sweden. The intervention is designed as a leadership training program with focus on production, safety and learning. All leaders and engineers in the company are attending the program, which includes 24 days of training divided in three different blocks over a period of 18 months. The training is gradually shifting focus from theory of behaviour analysis to applying and using the principles of behavioural change in their leadership role. Before training all leaders are given multi source feedback (MSF) on their leadership behaviours, which is later used as a starting point in their individual action plan.

This study employs a quasi-experimental design with a pre-test and two follow ups and control group from the same industry and region. At all three waves of data collection, both self-rated measures of leadership behaviours, learning climate, safety climate, health and productivity are collected, together with objective measures of productivity, accidents and sick leave. The first wave of data collection has been completed in November 2011. The second wave is planned in December 2012 and the last time point in June 2013. We anticipate reporting our results at future conferences and hope at this point to get valuable feedback from colleagues at the conference.
Mental Health and psychosocial interventions: dynamics of recognition in work teams
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There is increasing evidence suggesting that work plays an important part in people’s lives as it provides financial means and also the opportunity for self-expression and professional achievement. Having a job is associated with better mental health and well-being. However, poor-quality jobs can be as harmful for a person’s mental health as being unemployed. An extensive body of the scientific literature and numerous psychosocial interventions reveal that lack of recognition is a risk factor which can lead to several work-related mental health problems as psychological distress and even cardio-vascular diseases. Why is lack of recognition so harmful for mental health? Which aspects explain the lack of employee recognition?

This communication presents several factors that explain lack of recognition in three work teams (n1= 15, n2 = 25, n3 = 7) facing a deteriorating work environment. The study compares three different organizations. For each organization, the intervention concerned only one team whose members were facing great difficulties in working together. Thus, conflicts, violent behaviours, lack of motivation and solidarity, depression, sickness absence and reduced productivity at work, were the warning signs that initiate the psychosocial intervention. In this study three data collection methods were used: document review of the existing preventive actions and practices, face-to-face interviews with team members and team leaders and focus group interviews.

Results indicate that several factors which explain lack of recognition are common to the three work teams (depreciation, invisibility and ignorance) and that other factors are specific to one or two work teams. This study allows us to analyze the role and dynamics of recognition in work teams in crisis, in three different organizations.

The DISCovery method: A participatory action approach for diagnosis, implementation, and evaluation of workplace interventions
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Because a systematic and theory-driven analysis of work-related risk factors is often lacking in stress intervention research, we have developed the so-called DISCovery method. The aim of this method is (1) to get insight into employee health, well-being, and performance; (2) to investigate hindering and stimulating (work/person) factors which are associated with these outcomes; and (3) to implement workplace interventions to increase these outcomes.
The DISCover method consists of three successive steps, i.e. (1) a psychosocial risk diagnosis, based on a (digital) survey and (digital) daily surveys using the Demand-Induced Strain Compensation (DISC) Model as a theoretical framework; (2) a participatory action research (PAR) approach in which both employees and management were responsible for the initialisation and development of interventions; and (3) an intervention program -- product and process evaluation inclusive.

First, a so-called DISC risk profile (consisting of job demands, job resources, and recovery at/after work) will be developed based on baseline survey results, which will be the starting-point to generate ideas for workplace interventions.

Second, a PAR approach consisting of (1) feedback meeting about the results of the diagnosis with a steering and project group; (2) feedback meeting for each experimental unit about the results as presented in the DISC risk profile; (3) brainstorm session for each experimental unit about possible interventions. Final outcome is a Top-3 intervention list by voting; (4) consultation with the steering and project group about the several Top-3 intervention lists, and actions to be taken to implement the interventions; (5) report to the experimental units and ask for their commitment; and (6) higher management decides in consultation with employees, lower management and researchers, which interventions will be implemented on each experimental unit.

Third, workplace interventions will be actually implemented. Next to process evaluation, effects of interventions will be investigated with follow-up surveys.

The DISCover method is currently been tested in the healthcare sector, but can also be applied to other organisations. It seems to be a very promising tool, and fulfils a strong need for systematic and theory-driven workplace intervention and evaluation research.

Psycbical risks prevention at work: a model of analysis for psychosocial preventive practices
Sabrina Rouat, Ofelia Petric Tatu, Yves Grasset

This communication presents a new psychosocial intervention methodology based on a research conducted in an international chemical company. An extensive body of the scientific literature presents different models that are used for risk assessment and promoting health in the workplace. However, those models aren't always adequate to the psychosocial intervention context. Thereby, this research presents a new psychosocial prevention model based on evaluation of preventive actions and practices in seventeen divisions of the company.
A questionnaire was sent to 157 occupational health key actors (managers and human resources managers, occupational health professionals, health and safety managers, members of the committee for health and safety at work, union representatives), of whom 125 (79%) returned the completed forms. Then 17 focus-group interviews were organized in every subsidiary of the company, with the same actors, in order to understand their approach and the specificity of prevention activities.

The results highlight the limits of a three level prevention model and of primary preventive intervention that focuses exclusively on the causes of hazards. Moreover, results indicate that one of the key factors in psychosocial risks prevention at work is cooperation of occupational health key actors. Furthermore, this research enables us to question the psychosocial preventive approaches engaged by the different divisions of the company.

**Employees’ extra effort and transformational leadership: The role of procedural and distributive justice**

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The functional consequences of transformational leadership in organizations are supported in many single studies and meta-analyses. One challenge in the research on transformational leadership is the conceptual overlap between the facets of leadership and consequently the convergent and discriminant validities of the measurements.

Given this, we investigated the impact of transformational leadership on employees’ extra effort using a different conceptualization of transformational leadership which distinguishes between vision, inspirational communication, intellectual stimulation, personal recognition, and supportive leadership, and measured these forms of leadership by a new validated inventory.

We argue that these five types of transformational leadership influence the employees’ perceived procedural justice and perceived distributional justice differently which enhances employees’ extra effort. We tested our model with a sample of $n = 310$ employees from different Austrian organizations of different sizes and sectors. Regression analyses as well as structural equation modeling support our argument.

**Organisational Health Development – Capacity Building as a Key Mechanism**

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Organizational Health Development (OHD) is a targeted change process within organisations that builds on and develops individual and organisational health capacities.
Following this idea, we will show how the capacity building (CB) approach gainfully can be adapted as a key mechanism of OHD. CB for OHD covers both the development process and its outcomes, comprising health oriented interventions on multiple levels. CB refers to systemic thinking as it considers organisations as complex social systems and enables the organisation and its members to deal with health relevant issues and gain autonomy on this issue.

Further guidance for CB is provided by the underlying OHD model that describes six capacities as relevant targets and outcomes of CB for OHD: individual competencies, motivation, and identity, as well as organisational structure, strategy and culture.

Overall, CB contributes to OHD as it offers an appropriate, generic guidance for company driven health intervention planning, program design and communication. In conclusion, we propose that CB can be applied as a key mechanism at the heart of organisational health development.

**Leadership and followership: which perspectives for well-being?**

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Theoretical background and objectives: The role of followers in the "leadership process" has long been recognized (e.g., Hollander, 1992; Shamir, 2007) and the importance of further examination of followership’s core characteristics is today confirmed (Baker, 2007). The interest is extending to the way the roles of “leader” and “follower” are interpreted (Collinson, 2006) and how they may build together a “high quality relationship” that can contribute to people’s well-being at work (Sparr & Sonnentag, 2008).

There is relatively little research that specifically examines these topics in the context of healthcare. This study aims to make an exploratory investigation into the nature of these phenomena in Italian nursing. The focus is on the distinctive elements of followership in relation to leadership and possible well-being outcomes.

Methods: A qualitative study using individual, in depth, interviews (n = 10) focusing on the representation of followership was conducted. Participants were nurses in an “intermediate” position as "group-coordinators". All interviews were digitally recorded and transcribed verbatim. Using Turner’s (1983) Grounded Theory reformulation, a preliminary content analysis was performed.

Results: Collected data allowed for some preliminary considerations. In participants’ words, it is not always easy to distinguish between “real” follower’s characteristics and “ideal” follower’s ones. Moreover, reciprocity was not obvious in the leader-follower dynamic: people tended to keep the “leader-point-of view”
during their interviews. Leadership was more easily defined as if it could be an "absolute", whereas followership/follower was described almost exclusively “in relation to” something/someone else that was, indeed, “followed”. Finally, people in intermediate positions, having to use upward and downward influence according to the role they have to play, linked an increase in their sense of personal well-being to the chances of balancing these roles dynamically.

Conclusions: In line with other work (Carsten et al., 2010; Kean et al., 2011), these early findings describe “following” as a complex process with a range of meanings, suggesting a need to continue with its qualitative exploration in the Italian context. These results have also laid the foundation for a quantitative study currently in progress in which variables of leadership and followership are investigated.

As a first conclusion, it can be hypothesized that, once the construct is more deeply investigated, the synergistic integration of the concepts of “followership” and “leadership” in training programs may contribute to people’s well-being and organizational success.

Time in the workplace: Is it too many demands or too few resources to use our time that are problematic?
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It is a common lament among the working population that there is not enough time in the day for work and family. Using the Job Demand-Resource model, ‘time’ was compared by the demands on the individual (i.e. what is required or fixed) against the resources that the individual could use (i.e. that which allows effective and purposeful management of work and family roles) for burnout, job satisfaction, affective commitment, and negative spillover amongst a large, convenience sample of employed Australian adults.

Demographics were entered first in the regressions, followed by the demands on time, then the resources of time usage. Time demands were measured as hours per week (including overtime), preferred hours (more or less than currently worked), and felt time pressure (i.e. subjective busyness). Time resources were measured as the ability to control time, as job autonomy and skill discretion, and the ability to meet work-life roles, as the responsiveness of their managers and social support generally from colleagues and supervisors. Dividing time into demands and resources significantly explained all the outcomes, although time resources were more broadly important that time demands, except for similar contributions to emotional exhaustion and negative work-to-family spillover. The employee who was able to choose how and when they would work and had social support in general, as well as specifically for work-life matters, reported less emotional exhaustion and cynicism, higher levels of professional efficacy and greater satisfaction and attachment to their work.
Both forms of social support were most useful to reduce negative work-family spillover, as was skill discretion for negative family-to-work spillover. Time demands were better represented as whether work hours were what the individual preferred and how busy they felt, as actual work hours were of limited predictive value. When individuals preferred to work less hours than they were currently working, this was associated with greater emotional exhaustion and cynicism, more spillover between roles and less job satisfaction and affective commitment. Increasing levels of time pressure were strongly associated with negative spillover between roles and with greater emotional exhaustion. Hours alone do not reflect the complexities of the working week, rather how much control the individual has over their time and whether the hours suit the individual, were more important.

An emphasis on providing resources to use time, whilst minimising differences between actual and preferred hours, can promote better work experiences and greater balance between work and family roles.

Health-related leadership behaviour in un- and semiskilled culturally diverse workforces – an empirical study
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One of the most important factors affecting inequitable health opportunities is the individual occupational situation and its general conditions. The respective supervisor exerts direct and indirect influence on the working conditions and therefore on the subordinates’ wellbeing. Guideline-supported interviews with unskilled and semiskilled workers and their supervisors (n = 53) examined health-related leadership behaviour. The large amount of immigrants in low-qualified occupations creates a specific culturally diverse composition of these workgroups. The interviews identified health-related, target-group, specific, supervisor, behaviour as showing interest, as well as simple attendance, and thus perceived approachability of the supervisor at the worksite. Furthermore, the interviews confirmed various common work-specific resources such as social support through appreciative feedback or information. The work design plays a major role for the target group, especially the variability as a result of rotational work and learning opportunities. In relation to stress management a superior is encouraged to set a good example for his or her team although these supervisors suffer themselves under considerable strain.

How the personality of the leader influences organizational culture
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Different organizations have different cultures. In some cases, the innovative organizational culture allows companies to grow; in other cases it leads companies to ruin. Organizations often fail in their change and improvement efforts because of
their inability to bring about culture change and neglect for organizational culture (Cameron & Quinn, 2011). The ultimate organizational culture will always reflect the complex interaction between (1) the assumptions and theories that founders bring to the group initially and (2) what the group learns subsequently from its own experiences (Schein, 1983).

According to Jones (2011), shifting the culture in an organization requires senior leaders to shift their behaviours and responses in the way they interact with one another and with the wider organization. So, does the personality of the leader influence the organizational culture, and is this a crucial factor for the success of the company? If so, how? Moreover, are companies situated in peripheral south areas of Europe, such as Madeira Island, producing a particular type of organizational culture?

To address these questions we prepared a survey that will allow the evaluation of the personality of company leaders and the organizational culture of their companies. The personality of the leaders will be measured by an abbreviation of the Big Five Inventory – BFI-44 – to a 10-item version, BFI-10 (Rammstedt & John). The organizational culture will be analysed by the probably most frequently applied framework in the world for assessing culture (Cameron & Quinn, 2011), the Organizational Culture Assessment Instrument (OCAI). The survey includes also some questions to understand what kind of company the leader runs. The questions are to be answered by the leader itself, and also by some of its peers and subordinates. We aim to collect answers from 10 companies, from different economic sectors.

The answers are still being collected. We expect our data analysis to provide answers to the following questions:

- Is there a dominant personality trait in the leaders of Madeiran companies?
- Is there a dominant organizational culture in Madeiran companies?
- Do the personality traits of the leaders develop, frequently, the same type of organizational culture?
- Is there any relationship between the personality traits of the leaders and the organizational culture type?

This project has been developed as part of the doctoral program in psychology, in the University of Madeira – Portugal, that has started in February 2011.

Psychological burden at work among plant workers in Japan: Moderating role of organizational climate
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Objectives: Several industries have a growing concern about the issues of psychological burdens among their workers, i.e., increased feelings of forced obligation and decreased feelings of whether their work is worthwhile. Therefore,
identification of factors influencing psychological burdens and development of effective management strategies are required to resolve these issues. The purpose of this study was to investigate the effects of demanding operational situations and organizational climate on psychological burdens among plant workers in Japan.

Methods: A questionnaire survey was conducted on 490 respondents, who worked in two plants in Japan. Psychological burden was measured in terms of two aspects of feelings experienced while at work: feelings of “forced obligation” and “worthiness.” Demanding operational situation was measured by four characteristics: “insufficient explanation, cooperation, evaluation”; “urgency”; “mismatch between required and acquired knowledge and experience”; and “complexity.” Organizational climate was measured by three factors: “clarity of operational policy and plan,” “open communication,” and “supervisor support.”

Results and conclusion: To examine the relationships among these study variables, a series of multiple regression analyses including interaction terms (i.e., products of operational situation and organizational climate) were performed. Results revealed that, as a whole, demanding operational situations had adverse effects on psychological burdens. However, some of these effects were moderated by organizational climate. For instance, in the workplace where workers perceived their organizational climate as positive, the adverse effects of demanding operational situation were changed into non-adverse or beneficial ones. These findings suggested that activities that create a healthy workplace to improve organizational climate are essential measures to prevent psychological burdens among plant workers.

Job demands and job resources as predictors of dispositional employability in a mining company
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Objectives: One of South Africa’s greatest riches is the availability of a number of mineral resources that provide for a plush mining industry. The mining industry in general is notorious for its extreme working conditions, high mortality rate, small margin for error and very high production goals. The job demands of the mining industry are therefore high. Job resources can be used to alleviate the adverse impact of job demands on employees.

The main purpose of this study is to determine the impact of job demands and job resources on the dispositional employability of employees in the mining industry. Dispositional employability refers to the collection of individual differences that influence and enable individuals to proactively adapt to situations specific to work and career (Fugate & Kinicki. 2008). More specifically this study will evaluate the characteristics of employees’ dispositional employability, i.e. openness to change, work and career resilience, work and career pro-activity, career motivation and
work identity in relation to the job-demands and job-resources they currently experience in their work context.

Methods: A quantitative research design is adopted for this study. A Job Characteristics Inventory and Dispositional Measure of Employability will be distributed among employees in a large South African Mining Company (n=1000).

Results: We anticipate that job resources will be positively related to the components of dispositional employability and job demands negatively related.

Implications: This research will identify those job demands and job resources that have a significant impact on the employability states of employees in the workplace. The results of this study will also contribute towards retaining the core and critical skills of employees in the mining industry by enhancing their dispositional employability.

Conclusions: Job demands and resources are important facets of the workplace that can have a significant impact on an employee’s level of employability. It is therefore important to diagnose and address those job demands that have a negative impact on the employability states of employees and also identify those job resources that can enhance the dispositional employability of employees.

**Ethical Organisational Culture as a Context for Managers' Personal Work Goals**
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The aims of this study were to investigate what kinds of personal work goals managers have and whether ethical organisational culture is related to these goals. The sample consisted of 811 Finnish managers from different organisations, in middle and upper management levels, aged 25-68 years. Eight work-related goal content categories were found based on the managers’ self-reported goals: (1) organisational goals (35.4%), (2) competence goals (26.1%), (3) well-being goals (12.1%), (4) career-ending goals (7.3%), (5) progression goals (6.8%), (6) prestige/influence goals (4.2%), (7) job change goals (4.2%), and (8) employment contract goals (3.9%). Ethical organisational culture operated as a context for personal goal setting: Those managers who evaluated their organizational culture as more ethical were more likely to report organisational goals (e.g., goals toward the success or performance of the organisation). However, if managers gave lower ratings regarding ethical culture, then they named job change and career-ending goals in more cases. Therefore, investing into ethical virtues of the organisational culture can promote managers' personal work goals, which also benefit the organisation.
The Development of the Field of Organisational Energy: An Illustrative Timeline
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Background: In recent years the significant escalation in the dissemination and use of information in the organisation, more complex work, and the new global business environment have necessitated major shifts in the way in which employees are viewed and managed (Lawler & Mohrman, 2003). This has led to an escalating interest in the effects that positive psychological states can have in the workplace (Luthans & Avolio, 2009), aimed at fostering the employee activities and behaviours that are needed to implement the organisation's strategy effectively (Lawler, 2005). The concept of energy in the organisational setting is a relatively recent development. Although some early work does elaborate minimally on energy conceptualised in relation to the organisation (see Katz & Kahn, 1963, Etzioni, 1968 and Stodgill, 1972, as cited in Vogel & Bruch, 2011), the bulk of research carried out in organisational energy has occurred within the last 17 years (Bruch & Ghoshal, 2003; Bruch & Vogel, 2011; Cameron, 2007; Cameron & Caza, 2004; Cameron & Levine, 2006; Cameron & Spreitzer, 2011; Cole et al., in press; 2005; Cross, Baker, & Parker, 2003; Quinn & Dutton, 2005; Schiuma, Mason, & Kennerly, 2007; Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005; Tosey, 1994; Tosey & Llewellyn, 2002; Tosey & Smith, 1999).

The purpose of this poster is to present a chronology of the events in the development of the concept of organisational energy, based on the available literature with the aim of contributing to the current body of knowledge on the theme. The timeline illustrates the progression of early and contemporary OE research. Although a clear theoretical foundation for organisational energy has yet to be adopted, attention is given to the various proposed theoretical foundations of OE, specifically systems and complexity theory, organisational climate and culture, positive psychology, positive organisational behaviour and positive organisational scholarship. Consideration is also given to multiple definitions of energy and organisational energy, and important studies in the field of OE are highlighted, with specific emphasis being given to the progression of research on OE in the South African context. It is hoped that this synthesis of information will assist organisations in identifying practices, processes and initiatives which can have a positive impact on organisational energy and, in turn, on the productivity and satisfaction levels of their employees.

Experiences of Training and Occupational Commitment in UK Student Nurses
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Objectives: Despite growing problems retaining students on nursing courses (Waters, 2006; 2008), little is yet known about the nature and impact of student
nurses’ work commitment. There have also been calls for more research exploring how commitment is experienced (Becker, Klein and Meyer, 2009). This poster reports the findings of two studies that examined this issue. The first study interviewed student nurses in order to explore student experiences relating to commitment. The second study examined the relationship between occupational commitment, identification, support, wellbeing, and outcomes such as help-seeking behaviours and turnover intentions, based upon previous work integrating commitment theory and social identity theory (e.g. Meyer, Becker and van Dick, 2006). A mixed methods design was utilised.

Method: In study one, semi-structured interviews were conducted with 9 students. The data was thematically analysed. In study two, 215 student nurses were recruited from 21 universities in the UK. Participants were invited to take part in a survey comprising quantitative and qualitative measures. Bivariate correlations and multiple regressions were conducted on the quantitative data.

Results: Analysis of the interview data in study one suggests that experiences of placement, and social support from higher education institutions and peers, will be particularly crucial to understanding student commitment to their future professions. Data from study two indicates that support is strongly linked to satisfaction with training experiences and affective commitment. Both support and affective commitment were linked with student nurses’ reported help-seeking behaviours. Qualitative responses from this study suggest that what are perceived as negative staff behaviours towards student nurses have strong implications for student commitment and wellbeing.

Conclusions: In order to enhance wellbeing, satisfaction and retention rates in student nurses, more insight is required into the nature of job commitment. The findings of this research have the potential to inform the development of interventions that aim to improve the experiences of support for students. In particular, more support for student nurses on placement may be necessary.

Stability and change in work engagement and job resources
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Introduction: Previous longitudinal studies on work engagement show that job resources are positively related to work engagement and that in order to enhance work engagement it seems essential to increase job resources. However, these studies have also shown that this relationship might also be reversed or reciprocal – not only may job resources influence work engagement, but work engagement may also impact job resources over time. Furthermore, these studies have revealed that work engagement is a stable phenomenon, and that to a varying degree the perceptions of job resources are also stable. In this study we utilize a
sophisticated statistical model, the Stability and Change model (Ormel & Schaufeli, 1991), to investigate the extent to and the direction in which job resources and work engagement influence each other, when their stability is taken into account and excluded.

Methods: The sample consisted of Finnish dentists \((n = 1,964)\) in a seven-year follow-up study (2003–2010) with three waves. Following the stability and change model, the actual levels of work engagement and job resources were both divided separately into one latent stable level factor, representing common variance (i.e., stable personality and stable environmental conditions) over a seven-year time-period, and into three latent change level factors, representing temporary and changing variance in the three investigated time periods. Then these two models were combined, and the causal, reversed and reciprocal relationships between the change level factors of work engagement and job resources were estimated.

Results: The results showed that about 70 percent of the variance of dentists’ work engagement was accounted for by the stable level factor and about 30 percent by the change level factors. In addition, the proportion of the variance of job resources accounted for by the stable and change level factors were practically even. Furthermore, the relationship between work engagement and job resources was both causal and reversed. However, in this study, it was impossible to determine the primary direction of the causality.

Conclusions: Work engagement is a stable state of mind as the majority of its variance is accounted for by the stable level factor, whereas the perceptions of job resources are equally influenced by the stable and change factors. Furthermore, the direction of the relationship between work engagement and job resources works both ways, i.e., it is possible to boost both work engagement via job resources and job resources via work engagement over time.

The study of job-resilience and team-resilience in nurse teams
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The purpose of this study was to examine the factors that promote resilience in nurses at each individual-level and team-level, and to assess consequences of the resilience on their mental health during job roles. In recent years, considerations of resilience have become significant in multiple fields, in terms of the ability to recover from temporal shock as a result of negative events.

This study examined job-resilience of nurses in order to assess how the job-resilience enables them to maintain their mental health for a long-term period at work. This study also examined resilience at team-level. As team conditions significantly influence individuals in team-work environments, it is important to consider the team-resilience for the particular environment. Although many
researchers have supported the importance of team-resilience, there has not been any empirical study.

Therefore in this study, we took a study by defining the team-resilience as “the ability of teams to overcome and to achieve the recovery of positive atmosphere from complex issues which depressed the whole team temporarily”. Firstly, as for preliminary process of research, we conducted the open-ended questionnaire survey on 36 nurses. By following the results of the survey, we constructed a job-resilience scale, team-resilience scale, negative event coping scale, and team negative event coping scale.

In our research, the questionnaire survey was conducted on 24 teams composed of 470 nurses with valid response rate of 86.2 percent. By using structural equation modelling, the results suggest that optimistic and deliberative behaviours contribute to job-resilience at an individual level when individuals face negative events. It is demonstrated that the built job-resilience would lead to higher work motivation and self-efficacy regarding nurses’ work, and a lower burnout trend. At a team-level, in the event of a negative event which depressed the whole team temporarily, the team-resilience is facilitated by cooperation, team-learning, and a member with ability to motivate other colleagues. In addition, it enhances the members’ team satisfaction and job-resilience as a result of the built team-resilience.

The relationship between 'stress of options', decision latitude and work engagement among employees working in knowledge intensive business sector

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Background: Previous studies have shown positive effects of decision latitude on employee work engagement. The concept 'stress of options' intents to capture the reverse of the medal, namely having too much and complex decisions to take and too many options to choose from. The purpose of this contribution is to investigate the association of stress of options, decision latitude and work engagement among employees working in knowledge intensive companies.

Study design: The current study is based on data from the PraeKoNet study funded by the German Federal Ministry of Education and Research. Employees (n= 575) of six information and communication technology (ICT) companies were invited to participate in an online survey from February 2009 to March 2010.

Measures: Work engagement was measured with the Utrecht Work Engagement Scale (UWES, 17 items). Three short measures of 'stress of options' were employed, information overload (3 items), qualitative decision overload (3 items), and decision latitude stress (3 items).
Results: A total of 336 employees participated (58.4% response rate). Multiple regression analysis \((R^2=0.28)\) showed a positive association of decision latitude with work engagement \((p<.001)\). Decision latitude stress was negatively related to work engagement, but qualitative decision overload was positively associated with work engagement \((p<.05)\).

Discussion: Findings indicate that different aspects of stress of options yield different relationships to work engagement. Future research may advance the concept ‘stress of options’ particularly through a longitudinal approach.

**How can employees overcome job demands? The mitigating role of recovery experiences in the health impairment process**

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Recovery from job has been considered as a process opposite to the building up of stress, since it allows the individual to replenish lost resources (e.g., energy) after effort expenditure. Lately, scholars have recognized that it is not a specific activity but the underlying psychological experience which facilitates the recovery process. Within this framework, Sonnentag and Fritz proposed four recovery experiences (i.e., psychological detachment from work, relaxation, control over leisure time, and mastery experiences), which provide the opportunity to restore and to gain new resources. Moreover, the Job Demands-Resources (JD-R) Model (Bakker & Demerouti, 2007) and subsequent developments of this theory consider job and personal resources as important characteristics playing a role in the strain-stress relationship, known as the “health impairment process”.

Based on this model, we propose that personal strategies used by people to recover from job demands may mitigate its negative effects on several outcomes. Thus, the present study examines the moderating role of recovery experiences on the relationship between role conflict and work- and health-related outcomes.

Results from a sample of 990 employees working in the security sector provided partial support for our main hypothesis. Specifically, psychological detachment from work buffered the negative effects of role conflict on workplace bullying, work-family conflict and anxiety. We also found that relaxation mitigated the negative impact of role conflict on bullying and somatic symptoms. However, mastery and control did not play a moderating role in this process. Overall, our findings suggest the existence of a differential role of the recovery experiences in the health impairment process proposed by the JD-R model. Whereas psychological detachment and relaxation seem to be the most protective strategies against the negative effects of role conflict, mastery and control do not to mitigate these effects.
Future research is needed to elucidate the role of each recovery experience not only in the health impairment process but also in the motivational process, which takes into account positive aspects of the job. Our findings also have some practical implications, such as the necessity to take specific organizational measures (e.g. reorganizing schedules and tasks to facilitate recovery) as well as to provide the individual with strategies to recover (e.g. relaxation techniques).

Engagement and patterns related to work among Russian university staff: the moderating role of emotional intelligence
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Introduction: Psychological aspects of occupational health among academics such as work-related stress and engagement are of increasing relevance. The aim of this study was to investigate the role of emotional intelligence in the associations between engagement and work-related behaviour and experience patterns of university staff working in high education system in Russia. It was hypothesized that the high level of emotional intelligence (self-awareness, self-regulation, self-motivation, empathy, and social skill) would increase engagement and occupational health.

Methods: This study examined occupational health among a cross-sectional sample of 121 academic staff members of two departments of a large Russian university. In addition to a set of demographic questions, we used the questionnaire Work-Related Behaviour and Experience Pattern (AVEM) for the evaluation of professional commitment, resistance to stress and emotional well-being. The three aspects of work engagement (vigor, dedication and absorption) were assessed by the Russian version of Utrecht Work Engagement Scale (UWES). Also we used N.Hall questionnaire for the evaluation of basic characteristics of emotional intelligence (EI). To answer the research questions we used the SPSS program package (Version 15.0) for descriptive statistics, correlation and variance analysis of the data. We also used regression analysis as our analytical model to explore the relationship between socio-demographic factors or emotional intelligence (independent variables) on academics engagement or work-related patterns (dependent variables). The influence of the independent variables on the academicians’ engagement were analyzed with stepwise linear regression models with cut-off scores of $P<.05$ for inclusion and $P>.10$ for exclusion.

Results: After conducting a Spearman’s correlation, results showed relationship between dedication (aspect of work engagement) and work-related behaviour and experience patterns such as career ambition ($r = -.518$), tendency to (over)exert ($r = -.542$), emotional distancing ($r = -.516$) and satisfaction with life ($r = .415$). For academic staff members high level of absorption was related to less tendency to (over)exert ($r = -.547$), less striving for perfection ($r = -.506$) and more satisfaction with work ($r = .433$). Correlations of vigor with work-related patterns did not reach
the level of significance (p > .05). Additionally, the relationship between work engagement and work-related behaviour and experience patterns was mediated by emotional intelligence.

Conclusions: Theoretical and practical implications of the study will be discussed. Findings may have implications for a resource-based model of occupational health and for intervention programs that enhance successful coping in academic staff members, in particular.

The prediction of job performance and job-related well-being using the Generalised PsyCap scale
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Psychological Capital (PsyCap) is a second-order construct, formed by a combination of an individual’s hope, optimism, self-efficacy and resilience. Recent research has shown PsyCap, measured using the PCQ-24, to be a significant short term predictor of organisational commitment, workplace performance and job satisfaction (e.g. Luthans, Avolio, Avey, & Norman, 2007). The PCQ-24 has been designed to measure PsyCap as a ‘state-like’ construct, and has a test-retest reliability of .52 over a two week period (Luthans, et al., 2007). However, the PsyCap components have been previously measured as traits, suggesting that there may also be a trait component of PsyCap. This study aimed to assess the test-retest reliability of a scale designed to measure PsyCap as a trait (the Generalised PsyCap scale), as well as its ability to predict concurrent and future job performance and job related well-being of new employees to a potentially stressful work environment.

The participants were trainee prison officers who completed the Generalised PsyCap scale on their first day of a three month training program. Upon completion of the training, they again completed the Generalised PsyCap scale, along with measures of job satisfaction, affective organisational commitment, job engagement and need for recovery. The participants’ trainers rated their performance during the training. Following training, participants were employed as probationary prison officers for six months. At the end of their probation period they completed the same scales as they had completed at the end of training, and their supervisors rated their performance during the probation period. Results showed that the Generalised PsyCap scale is substantially more stable than the PCQ-24. The test-retest reliability of the Generalised PsyCap scale was .71 over a three month period and .54 over a nine month period. However, although the Generalised PsyCap scale demonstrated concurrent validity with job satisfaction, affective organisational commitment, job engagement and need for recovery, the participants’ Generalised PsyCap scores at the beginning of the study were not related to their post-probation ratings of these outcomes.
Generalised PsyCap was not related to supervisor rated performance. Findings suggest that employee well-being may be best enhanced through interventions to increase PsyCap rather than through selection of employees high in Generalised PsyCap.

A qualitative analysis of psychosocial risk factors affecting employment trajectories of breast cancer survivors

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The primary purpose of this project is to build a model of workplace thriving among breast cancer survivors. As the most common form of cancer among women between the ages of 20 and 59 (CCS Steering Committee, 2010), breast cancer is the cancer of working women. Fortunately, most women with breast cancer will survive; however, the negative impact of this disease with regards to employment can persist long after it is in remission. One may assume that reduced hours and unemployment are attributable to fatigue and other negative side effects of cancer and its treatment. However, the vast majority (77%) of survivors are physically able to return to work at full capacity (Hoffman, 2005). Rather than survivor-related factors, per se, psychosocial factors may also be related to the employment context compromising breast cancer survivors’ work trajectories. Focus groups and interviews with breast cancer survivors, employers, and workers without a history of breast cancer survivorship offer insight into how contextual factors in the workplace may affect the well-being and employment trajectory of women with breast cancer.

Interviews with survivors are designed to probe the ten psychosocial risk factors identified by the World Health Organization (Leka & Jain, 2010), and to identify additional factors that may be unique to breast cancer survivors. Employer interviews investigated what were the accommodations typically made for breast cancer survivors, depending on the nature of the work and the specific needs of survivors. Also probed in the employer interviews are psychosocial risk management (Cox & Griffiths, 1996) in an effort to understand how they apply autonomy-supportive or controlling (Sheldon & Krieger, 2007) styles when faced with a worker continuing or returning to work from a serious illness. Interviewing workers without a history of breast cancer is also important in gaining an understanding of how workers react to colleagues who are facing a serious illness, and how to best aid breast cancer survivors in thriving in the workplace versus just surviving. Findings to date and the insights they offer for each of these realms will be discussed.
Exploratory survey of organizational constrictions in Italy
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Introduction: In recent decades the world of work has seen numerous changes that have affected the overall picture of possible risks. Traditional occupational diseases have decreased but emerging risks have increased. Organizational constrictions or constraints now appear to be important — the term refers to managerial actions and decisions that cause unjustified emotional distress at work (Maggi, 1991).

Aims: To describe the number of claims reported and compensation awarded for occupational disease due to organizational constrictions in Italy, by analyzing data from the Italian Workers’ Compensation Authority (INAIL), and to investigate the role played by demographic and occupational variables.

Methods: We studied the INAIL occupational diseases database, examining the claims made in 2000-2007 for mental disorders related to organizational constrictions. We analyzed the workers’ demographic characteristics, indemnities paid, sector of activity and job tasks.

Results: Between 2000 and 2007 INAIL received 1280 claims for occupational disorders related to organizational constrictions. Benefits were awarded to 14.1% of claimants; 58.9% of these were men and 41.1% women. Mean age at the time of the claim was 46.7 years. The proportions were similar for the whole series of reported claims (awarded and not rewarded) - 55.3% and 44.7%.
The sectors of activity with the most claims for these disorders were the public administration (6.6%), post and telecommunications services (5.9%), finance (3.3%), services to enterprise (4.5%), and to persons (3.4%). The proportion of cases receiving indemnity was particularly high in the public administration (11.1%) and in the post and telecommunications services (8.3%). Most of the claimants were office workers and operators.

Conclusions: This analysis of mental disorders due to organizational constrictions brings to light certain interesting features. Compared to other occupational diseases, women are affected much more, and at a significantly lower average age. Industrial sectors of activity are only partly affected, although they are generally more involved in other occupational diseases (2). The findings for claims and compensation are in line with the introduction of specific regulations reflecting greater awareness of the problem on the part of institutions and insurance agencies, probably also resulting from the increasing scientific evidence. Organizational constrictions, is an area where closer interaction between scientific research and insurance practices is definitely needed.
Coping strategies and psychopathological distress among people exposed to mobbing in a central area of Italy: some correlations
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Introduction: The Center for Detection of Mobbing-compatible Biological Damage, a section of the Rome D Healthcare Unit, is responsible for certifying the relations between pathologies and working conditions. The Center uses a diagnostic protocol that contains a questionnaire for assessing coping as this affects a person’s adaptation in response to stress, slotting in between cause and effect(s).

Aims: To check for statistically significant correlations between coping strategies (situation-, emotion- or avoidance-oriented) and the psychopathological configurations of people attending the Center who report having been mobbed.

Method: The following tests were conducted on 196 people exposed to mobbing to assess their levels of psychopathology and anxiety, and their coping styles: Minnesota Multiphasic Personality Inventory–2 (MMPI-2) (Hathaway, McKinley, 1997), State-Trait Anxiety Inventory-Y (STAI-Y) (Spielberger, 1989), Coping Inventory for Stressful Situations (CISS) (Pedrabissi, Santinello, 1994). Correlation analysis was done with Pearson’s R coefficient.

Results: The situation-oriented factor in the CISS refers to a coping style oriented cognitively towards directly solving the problem, and correlated negatively with the MMPI-2 rating scales for low self-esteem (LSE), depression (DEP), post-traumatic stress disorder (PK;PS), the severity of the symptoms (F, SC), negative attitudes towards psychotherapy (TRT) and anxiety (A). The STAI-Y indicated a negative correlation with trait anxiety. These findings were confirmed by the opposite correlation between emotion-oriented coping in the CISS, relating to a coping style aimed at managing the emotions, which correlated positively with the same scales in the MMPI-2 and the STAI-Y.

Conclusions: These findings confirm the relation between a situation-oriented coping style and better mental health, with greater self-esteem, positive attitudes to the idea of psychotherapy, and less severe PTSD symptoms in response to the trauma; these people also have lower levels of trait anxiety and psychotic symptoms. People who adopt an emotion-oriented coping style had greater psychopathological distress and lower expectations from psychotherapy.

These findings could be useful in diagnosis and secondary prevention for people who have been exposed to mobbing, encouraging closer attention to the development of cognitive skills for coping and better management of emotions.
Civil pilots’ repression/anxiety trait is related to their stress reaction, coping behaviour and job performance
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Introduction: Repression refers to a person’s thoughts, ideas and wishes that are traumatic and threatening to the self so that they are dismissed from consciousness. Freud proposes that repression plays a part in all defense mechanisms. To keep those undesired dismissed from consciousness, constant energy expenditure is required. Accrued evidence has showed associations between a person’s repression trait and cancer (Cox and McCay, 1982; Greer, 1983), heart disease (Siegman, 1993, 1994), immune functioning (Jammer & Leigh, 1999). Pilots’ work is identified as a high risk job which is expected to be sensitive to stress. Pilots’ physical health and, most seriously, flight safety might be compromised if pilots habitually employ a repressive way to cope with their stress. Therefore, it is of importance to understand civil pilots’ repression/anxiety trait and its relation with civil pilots’ stress reactions, coping behaviours, and job performances.

Methods: In an attempt to identify so-called repressors in civil pilots, we adopted Weinberger’s (1979) definition of repressor. That is, repressors were those who had high scores in social desirability and low scores in anxiety. A researcher-made self-report questionnaire, using a 5-point scale, consisting of 80 forced-choice items related to social desirability, anxiety, stress reaction, coping types, and work performance, was used in this study. A total of 829 civil pilots responded to the questionnaire. Most of the pilots were males (97.6%), over 40 years of age (67.1%), over 10 years of work in their current companies (52.8%), and Taiwanese (85.1%).

Results: Participated pilots were divided into three groups, i.e., repressors, high-anxious pilots, and the others, based on their scores on social desirability and anxiety scales. The results showed that repressors had the lowest scores on all stress reactions and highest scores regarding job performances in the three groups. In contrast, the high-anxious pilots had the highest scores on stress reactions and lowest scores on job performances in the three groups. Their scores on coping types, i.e. avoidance, positive thinking, acceptance, seeking for help, and alcohol use, were all significantly different.

Discussion: These results, taken together, suggest that three types of pilots exhibit different levels of stress reactions, differing coping strategies and job performance. Providing the civil pilots proper stress training according to their unique characteristic was suggested.
Psychosocial exposures at work and self-reported health in Europe: are there differences according to occupational categories?

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Objective: The aim of this study was to explore the associations between psychosocial work factors and self-reported health (SRH) and to examine whether these associations were different according to occupational categories.

Methods: Data from the European Quality of Life Survey (EQLS) carried out by the European Foundation for the improvement of living and working conditions (EUROFOUND) in 2007 were used for this study. It is a cross-sectional, nationally representative survey of the European population. The final sample consisted of 17,005 participants (8,484 men and 8,521 women) working at the time of the survey in 31 countries in Europe. SRH was measured using a single item, and dichotomised into good (very good, good) and poor (fair, bad, very bad) health. Occupation was classified into four categories according to the International Standard Classification of Occupations (ISCO-2008). Psychosocial work factors were studied following theoretical concepts and models: job insecurity, psychological demands, decision latitude, reward, work-life imbalance and long working hours. The associations between these factors and SRH were examined using multilevel logistic regression adjusted for age, urbanization level and household size, and stratified by gender and occupational category. Interaction terms were also tested.

Results: Job insecurity increased the prevalence of poor health for both genders (ORmen=1.19, 95%CI: 1.04-1.36; ORwomen=1.22, 95%CI: 1.07-1.39), and especially for male blue collar workers and female technicians/associate professionals. High psychological demands were a risk factor for both men and women (ORmen=1.16, 95%CI: 1.03-1.31; ORwomen=1.23, 95%CI: 1.10-1.38), and especially for male blue collar workers and managers/professionals, and female technicians/associate professionals and managers/professionals. Low decision latitude was associated with poor health among men (ORmen) and not among women. Low reward was associated with poor SRH for both genders (ORmen=1.63, 95%CI: 1.45-1.84; ORwomen=1.51, 95%CI: 1.35-1.70) and for each occupational category. Work-life imbalance was also found to be a risk factor for both genders (ORmen=1.53, 95%CI: 1.35-1.73; ORwomen=1.50, 95%CI: 1.33-1.68) and for all occupational categories. Long working hours was not a risk factor for any genders or occupational groups. Interaction terms between each psychosocial work factor and occupational group were not significant suggesting that the associations between psychosocial work factors and SRH did not differ according to occupational groups.

Conclusion: Further studies should be performed to confirm the absence of differences in the associations between psychosocial work factors and health outcomes according to occupational groups. Such analyses would be informative in building and implementing prevention programmes.
Associations between adverse working-conditions, blood-pressure, and hypertension among low qualified workers in Germany
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There is a substantial body of literature showing that there is an association between social economic status (SES) and health. Morbidity and mortality rates are higher among individuals with lower SES than among those with higher SES. Individuals with low SES are especially prone to suffer from cardiovascular disease (CVD). They are also more likely to exhibit the typical risk-factors for developing CVD, such as smoking, poor diet, alcohol consumption, obesity and a sedentary life-style. Yet the reasons for the social inequalities in health remain unclear. There is evidence showing that occupational factors play an important role in the differential risks of low and high SES members, for there is a social gradient in work characteristics as well. Workers with low SES often experience high physical demands, low control and low social support at work. Social differences in sickness-absence and self-reported health have been shown to be strongly reduced after adjustment for work factors, such as control, ergonomic and physical work factors, and work-schedules. Yet, there is a scarcity of knowledge on the effect of work characteristics on the physical antecedents for CVD, such as blood-pressure and hypertension among individuals with low SES.

This contribution analyses the relationship between typical job-demands and resources of workers in low-qualified jobs. Job-demands and resources of 315 low qualified workers from three German companies were assessed by questionnaire. Blood-pressure, health status and body-mass-index were collected in a short medical examination on the work site. The preliminary results show that there is a significant positive relationship between physical work-demands and environmental-stress and blood-pressure. There is also a significant negative relationship between blood-pressure and control, social support, and supervisor-feedback, respectively. Control at work, supervisor-feedback and physical-demands are significantly correlated with hypertension. These findings are in line with previous research suggesting that adverse working-conditions contribute to the development of CVD among individuals with low SES.

Characterisation of the occupational thermal environment of operating rooms
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The present study has, as its main objective, to evaluate thermal comfort in two operating rooms. Initially, it used the Computational Fluid Dynamics (CFD) method, having measured, through a weather station, the required boundary conditions for the study. The acquired data were used in a computer model, representative of one
of these rooms, and the simulation data were then compared with experimental measurements in some points of the domain of the corresponding room.

Thermal comfort is a very important issue for the performance of health staff, namely for surgeons. In order to evaluate it, the Fanger index (PMV-PPD) was calculated, using data both from modeling and measurements at workplace, which have been compared.

The evaluation of individual variables, clothing insulation and metabolism, was based on a survey in which respondents have filled the respective fields of a questionnaire, based on the tables contained in the ISO 7730:2005 Standard. Specifically for metabolism, the respondents have described the task they undertook, taking into account posture and movements and activity. More accurate methods, like oxygen uptake, are not feasible in this context. The thermal sensation of the room users was evaluated by a subjective assessment. Statistical tests were performed on the normal curve to assess the quality of values and thus determine whether these could be used for direct comparison with the values of PMV.

Although the PMV values were very close to the subjective evaluation for the two rooms, it was concluded that the survey data were not conclusive, since there was not a good fitness to the normal curve, which is expected for these data.

**Influence of organizational learning implementation on occupational health and safety (OHS) culture**

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Introduction: The management of occupational health and safety has been investigated for many years for economical and ethical reasons, but the ways of approaching the problem have changed. Safety through technical design is still entirely relevant, but obviously it is not enough. We must try to understand better the psychological and social preconditions for worker’s unsafe behaviour and accidents. Organization culture is a concept used to describe shared corporate values, assumptions, beliefs and norms that join organizational members. At the same time, contrasting perspectives on organizational culture can be also used as a framework for appreciating how values, beliefs and attitudes about OHS are expressed and how they might influence directions that organizations take in respect of safety culture. Physical surroundings, or working environment, and conditions of an organization such as the building, layout, machinery, equipment, and uniforms may have a significant impact on the way people work and therefore the way they learn. The causes of accidents at work, occupational and work-related diseases may be based on an economic situation, where due to the steadily decreasing number of workers, the remaining staff do not dare to demand the employer to take sufficient occupational health and safety measures or after finding
work they are more tolerant to perform duties without paying attention to safety issues.

Aim and methods: The aim of the research was to study the influence of economic situation on OHS culture looking how OL can improve it by bringing the methods and model of learning organization implementation into the OSH culture. A multidisciplinary approach for the OL theory, statistical overview of Estonian work environment, and the result of inspection in the field of instruction and training of workers at the workplaces, was carried out in the present study. Many of the most stable procedures in an organization are procedures for responding to economic, social, and political contexts.

Results and conclusions: The results showed that the most frequent causes of serious accidents at work, occupational and work-related diseases are insufficient training and instruction. The cost is high for enterprises, including: sick pay, overtime payments, temporary replacement recruiting new labour, early retirement, retraining, lost production time and business damage to plant, equipment, materials, products, management time to deal with accidents, increased insurance premiums, lawyers’ costs, and lower worker morale. OL interventions produce real economic benefits: productivity increase, absenteeism reduction, and the efficient use of resources. Methods for OHS culture implementation by OL concepts should improve the involvement of educational and training systems, and continue to foster health and safety in the workplace, providing all citizens and workers, in particular, with lifelong learning. Organizational learning in the OHS field includes the provision of specific training for all persons on the job; training on risks and prevention, involving workers and their representatives in the design stage of the intervention in order to bring the characteristics of the work itself; the operations that have to be carried out; and the risks to their safety to the knowledge of the people who actually do the work. As a result of OHS culture implementation by organizational learning process, there should be an improved working environment and working conditions within enterprises and solutions should be shared with other on a regional or country level.

Perceived Risk and Employees’ and Supervisors’ Participation on Work Safety
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Departments of work safety traditionally prefer technical remedies and establish rules for safety problems in the workplace. The increasing percentage rate of so called “behaviour based” accidents opens the door for psychological interventions. Behaviour in the workplace is learned, and this applies for safe as well as for unsafe behaviour. As accidents are seldom events, it is very likely that unsafe
behaviour by means of “negative reinforcement” is being learned (i.e. the expected aversive stimulus does not occur). This leads to most accidents happening in connection with activities which the workers consider to be unrealistically safe — they underestimate the danger of their own “skill-based”, well trained professional activities.

The detection of these misjudgements in risk perceptions is the first step in participating employees and supervisors working on safety and health. The first step in each company was to analyse the accident data by activities for a sufficient period of time. The second step was to assess the employees’ subjective accident frequency for those activities. The comparison of objective accident data and subjective estimation of frequency resulted in the operational definition of “overestimated”, “realistically estimated” and “underestimated” activities.

Our studies show that about 15% of the single activities at a workplace are underestimated, 44% of all accidents happening within these few underestimated activities. The results were reported in subsequent workshops for supervisors. The psychological background, implications of unrecognised near-accidents for the process of learning unsafe behaviour, and the necessity of safety circles were extensively discussed. The evaluation shows high activity in the small groups. After the intervention the underestimated activities were estimated more realistically and the accident rate decreased dramatically.

Continuous work on safety has to be well organised to reach sustainable effects. This has to be done by means of a high degree of employee involvement. The starting point on this is the correction of underestimated activities. Workers and supervisors have to work on these activities with the aim of uncovering unrecognised near-accidents. Successful efforts to correct individual risk perception resulted in a decrease of accidents.

The implications for practice and further research will be discussed.
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