for workers. Some culture-specific coping behaviors to combat work-related fatigue such as the use of betel nuts, alcoholic energy drinks and substances will be addressed. In the second part, I will describe policy-level intervention strategies which have been adopted in response to work stress in Taiwan and compare that with policy actions adopted in other East Asian countries. Unique features in terms of the nature of psychosocial work environment and social attitudes and reactions toward work stress from an international perspective will be explored.

1587 PREVENTION OF SLEEP DISORDERS AMONG SHIFT WORKERS AND DRIVERS

Pierluigi Cocco. *Department of Medical Sciences and Public Health, University of Cagliari, Cagliari, Italy*

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Introduction Sleep is a vital function regulated by a circadian rhythm. Its restriction results in daytime sleepiness, which disrupts social life and affects behaviours that have survival value, particularly for occupations requiring a high level of alertness, such as shift workers and drivers.

Methods Data from published reports and unpublished preliminary results will be used to illustrate the genetics of the sleep/wake cycle and the mechanisms underlying the health consequences of sleep loss.

Result Shift-work can alter the sleep/wake cycle and the circadian rhythm of biological functions, which results in daytime sleepiness and disruption of social life. About 10% shift workers complain daytime sleepiness or insomnia, impairment in their performance, and cardiovascular, digestive and neuropsychiatric symptoms. Polymorphisms in genes expressing the proteins that regulate the circadian functions result in different chronotypes with diverse capability of adapting to shift rotation schedules. Circadian genes also regulate the maintenance of energy balance; sleep loss is a contributor to the development of metabolic disorders, which in turn, are a major risk factor for obstructive sleep apnea syndrome (OSAS). Day time sleepiness is frequently consequent to OSAS, a major cause of deadly road accidents, and an occupational hazard for drivers of commercial and public transport vehicles and commuters to work, but also for the general public. Early detection of OSAS symptoms shall be part of health surveillance protocols of workers in commercial and public transport trades.

Discussion Several approaches are suggested to detect and monitor daytime sleepiness and OSAS among shift workers and long haul drivers, including specific questionnaires, and biomonitoring the salivary concentration of melatonin and cortisol level at a specific day time. A carefully designed biomonitoring protocol would help to reduce the health burden of sleep disorders and to save lives.

1588 EMERGENCY IN OCCUPATIONAL HEALTH: FROM PREPAREDNESS AND RESPONSE TO WELL-BEING?

^{1,2,3}Alexis Descatha. ¹AP-HP, EMS (Samu92), Occupational Health Unit, University hospital of Poincaré site, Garches, France; ²University Versailles St-Quentin, Versailles, France; ³Inserm, UMS 011 UMR1168, F-7, Villejuif, France

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Many occupational practitioners have to face emergencies in occupational setting, from life-threatening emergencies to current urgent care. Actually, workplace emergencies have singularities that usual emergency teams are not aware of – like use of hazardous substances, dangerous working conditions. Furthermore, responders and emergency professionals have to face to major hazards requiring prevention.

In the context of a new scientific committee created in ICOH in 2015 about Emergency Preparedness and Response in Occupational Health (EPROH), we aimed to take different examples to illustrate the importance for workers and population health and well-being, including emergency responders. Perspectives and challenges for next decades will be discussed.

1592 WORK STRESS, CAPITALISM AND THE IDEA OF PSYCHOSOCIAL SAFETY CLIMATE PSYCHOSOCIAL SAFETY CLIMATE: CAUSES AND COSTS OF PSYCHOSOCIAL RISKS AT WORK

Maureen F Dollard. *Asia Pacific Centre for Work Health and Safety, University of South Australia, A World Health Organisation Collaborating Centre in Occupational Health, Adelaide, Australia*

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Introduction The driving beat of most modern societal structures is economic rationalism under capitalism. Relentless demands for increased profits, performance and productivity coupled with reduced resources, predispose workers to poor quality work conditions. In turn, poor quality work conditions can lead to mental and physical ill-health, with significant costs to organisations such as high rates of sickness absence and reduced performance, and costs to society such as loss of potential labour supply and high rates of unemployment. Organisations characterised by a good psychosocial safety climate (PSC) offer a point of resistance to these pressures.

Psychosocial safety climate concerns the value and priority given to worker psychological health compared to productivity imperatives likely achieved through economic rationalist approaches such as downsizing and lean structures. Far from undermining productivity we expect that pro-social options embodied in high PSC organisations that value worker psychological health will lead to better quality work options, increased meaningfulness, increased possibility for creativity and innovation, and reduced productivity costs associated with sickness absence and presenteeism. This presentation responds to a public health priority and a call from the OECD to prevent and manage mental ill-health and promote health and well-being by drawing attention to the connexion between work and mental health.

Methods Multilevel evidence from around the globe will be presented to show that PSC precedes work quality (demands, resources) and the social-relational aspects of work (harassment and bullying, social support). Evidence supporting the expansion of work stress theories to include national (e.g., culture, legislation and regulation, corrupt values, welfare regimes, union representation), organisational (e.g., PSC) and team level factors will be explored. International research showing the impact of PSC on working conditions, health and productivity; cost estimates for improving PSC at work; PSC benchmarks for job strain and depression; and implications for work systems improvements will be discussed.

Results Evidence supports PSC as a ‘cause of the causes’ of work stress, and a theoretical precursor to many job design-based work stress theories.

Discussion This presentation will discuss contemporary economic policies, work stress issues, PSC theory and evidence-based implications for organisations and national level, policy, practices and procedures for worker psychological health. The presentation will highlight how PSC affects working conditions, employee health and well-being, and organisational outcomes, with evidence from around the globe.

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FROM FRAGMENTATION TO A HOLISTIC VIEW OF THE WORKING LIFE: CHALLENGES, POSSIBILITIES AND SOLUTIONS

Pauli Forma. *Keva, Helsinki, Finland*

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The working life is changing significantly especially due to technological development. Among the most important technological drivers are digitalization, development of artificial intelligence and increasing role of the platform economy. These trends have substantial impact on the different areas of the working life. Entire industries will be under disruption, skills and competencies needed in different occupations are going to change and totally new occupations and job functions will be created. The development also has many consequences to the occupational safety and health. Improving occupational safety and health has always been based on data and cumulated knowledge. However, technological development and changing working life is going to change the utilisation of the data. Challenges as well as possibilities can be identified here. When it comes to challenges, first, the relevant data is fragmented. At the national level, different institutions, organisations and authorities have data concerning some part of the working life. Different data-sets can include information on work disability, work accidents, occupational health or well-being at work. Due to this fragmentation, the picture concerning the working life is incomplete. The second challenge is that the traditional data and classifications may be inadequate. For example, new categories of employment (e.g. platform workers) are created and traditional datasets do not provide information on their risks, work ability and wellbeing. We might even need a totally new segmentation model for the occupational safety and health. Third, we lack data concerning the new risks on occupational safety and health due to digitalization and other aspects of the changing working life.

However, possibilities can also be identified. Because of the digitalization, data is produced in almost every action we take before, during and after the working day. This data can be related for example to working hours, productivity, wellbeing, health, stress and recovery. In a way, the entire ‘digital working day’ can be measured and this information can be used to improve occupational safety and health. Sources for this type of data can be HR-systems, registers, platforms and employees’ own devices (My Data). Thus, in addition to traditional data-sources we have to use also new sources of data on occupational safety and health. It is also evident that due to digitalization we have more tools to analyse the data. When it comes to solutions, the Finnish project ‘National Working Life Indicators’, which tries to overcome these challenges and benefit these possibilities, will be demonstrated. The aim of the

project is to provide near online information concerning the Finnish working life and occupational safety and health. In the project, relevant data focusing on different aspects of the working life will be collected to one data-base. Both traditional data-sources and big data will be used. Based on the data, key-indicators describing development of the Finnish working life will be identified. The data-base will include traditional data (e.g. survey-data and registers) as well as ‘big data.’ The portal makes it possible for the different stakeholders to access the data through the dashboard. The aim of the database is to support decision-making, research and improving occupational safety and health.

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THE ROLE OF EDUCATION AND TRAINING TO SUSTAIN AND DEVELOP AN OCCUPATIONAL HEALTH WORKFORCE FOR THE BENEFIT OF WORKING PEOPLE

^{1,2}John Harrison. ¹National School of Occupational Health, Health Education England, London, UK; ²Business School, Brunel University, Uxbridge, London, UK

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Introduction The world of work in the twenty-first century presents a number of challenges to occupational health practitioners. Why should organisations invest in occupational health provision? What are the political, economic and social drivers and how will changes in technology and the environment influence the competencies and composition of future occupational health workforces? Education and training must prepare practitioners for practice that is relevant and marketable to improve the reach and efficacy of occupational health, as well as underpinning attractive careers. This talk will review work that is on-going to address these issues.

Methods Consideration of different initiatives globally, with particular reference to work in the United Kingdom regarding the development of a multidisciplinary occupational health workforce.

Discussion Education and training must address structural differences in occupational health provision, as described in the basic occupational health services model. Future occupational health workforces will be multidisciplinary and viewed holistically as part of a public health provision. Wellbeing at work is contingent on assessing and meeting a hierarchy of workplace and organisational needs and practitioners will need the requisite competencies to meet market demands. Consideration is necessary as to how established training provision will adapt to deliver accessible, timely, affordable and effective educational resources.

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NATIONAL SURVEY OF WELLBEING OF HOSPITAL DOCTORS IN IRELAND

^{1,2}Blanaid Hayes. ¹Dean, Faculty of Occupational Medicine, Royal College of Physicians in Ireland, Dublin, Ireland; ²Consultant Occupational Physician, Beaumont Hospital, PO Box 1297, Dublin, Ireland

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Introduction Doctors’ wellbeing is increasingly attracting the attention of researchers. It is of interest of itself and because of its potential impact on the health of others. In the wake of the global recession of the past decade, Ireland dramatically cut its healthcare expenditure resulting in significant staff