

shortages at a time of growing population, more challenging healthcare delivery and increased societal expectation. This has created a highly challenging psychosocial environment for healthcare workers. Consultants feel undervalued and are concerned about the quality of care they provide. They perceive care to be thwarted by managers being reactive and not focused on longterm planning. As well as feeling undervalued, trainees too have concerns about the quality of care they provide and they struggle to manage both service and training demands.

Method Utilising validated questionnaires, a national cross-sectional survey of hospital doctors, undertaken in 2014, sought responses from consultants and trainees working in the sector. The response rate was 55%.

Results Hospital doctors in Ireland had higher levels of psychological distress than elsewhere. They also had significant symptoms of depression and anxiety as well as high levels of burnout and occupational stress. Self-stigma in relation to mental illness was more common in doctors than in the general population. However, current desire to practice remained high.

Discussion The high levels of personal and workplace distress identified in this study suggest that much needs to be done to highlight the importance of doctors' wellbeing in this country. Self-stigmatisation is likely a barrier to early identification and treatment of mental health problems. Post-graduate training bodies have already begun to address these issues with trainee and trainer members. Occupational health services have a key role to play in ensuring appropriate access to care and in determining necessary workplace restrictions and/or supports for this group.

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OCCUPATIONAL HEALTH AND EPIDEMIOLOGICAL METHODS RESEARCH: CHALLENGES AND OPPORTUNITIES

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Purpose It is widely accepted that there is definite need for strengthening research in developing, validating and refining epidemiological methods for application in Occupational Health, if preventive strategies have to be devised on actual evidence. There is need to further identify and manage the challenges and also diffuse the opportunities available for collaboration in conducting research in Epidemiological Methods for Occupational Health.

Review and discussion Developing improved methods for exposure assessment, statistical analysis, studying migrant workers and other vulnerable populations, the use of biomarkers, and new hazards provide challenges and opportunities.

Issues of challenges due to lack of validated statistical tools, complexity of ethical considerations, lack of training in occupational epidemiological methods, non-clarity in methods for accurate determination of proportion of disease/diseases attributable to occupation, shifting of hazardous industries from developed to developing countries, lack of collaboration mechanisms with veterinary epidemiologists, lack of participatory research, effective and appropriate communicating tools, preventability paradox and maintaining public health perspective to ensure proper population perspective, shall be discussed.

Conclusion and outcome Opportunities for developing, nurturing, financing and implementing local, regional and global collaboration through fair, transparent, democratic and participative consortiums/forums/alliances of people, civil society and public and private institutions and Governments, in the field of epidemiological methods research shall be explored and discussed. A case for germinating an Institute of Occupational Health Metrics and Evaluation in a developing country environment shall be built upon.

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DEVELOPMENT OF OCCUPATIONAL HEALTH NURSING ASSESSMENT TOOLS FOR INDIVIDUAL AND GROUP/ ORGANISATION

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Introduction In order to provide high quality activities in occupational health (OH) nursing, it is essential to assess the worker and the group/organisation. However, these kind of tools have not been available until we developed the OH nursing assessment tools. Methods we have developed the assessment tools for both individual and group/organisation by the task force consisting of 17 OH nurses from 2000 through 2014. In the development of the tool for Individual, we based on the frame work of North American Nursing Diagnosis International (NANDA I), and for group/organisation we referred to the Community as Partner Model by Anderson and the Hanasaari Conceptual Model which was developed in the 1st International Symposium on OH Nursing Education in Finland in 1988.

Results The tool for Individual has been divided into 13 domains with a face sheet. By using the face sheet, we can capture work/life style history of individual effectively. The 13 domains consist of Health Promotion, Nutrition, Elimination, Activity/Rest, Perception/Cognition, Self-Perception, Role Relationships, Sexuality, Coping/Stress Tolerance, Life Principle, Safety/Protection, Comfort and Growth/Development. The tool for group/organisation has been comprised 8 core items (Company Outline, Organisation Outline, Constitution of the Worker, Human Resources/Labour Management/Education, Culture, Labour Condition, Health Status and Safety/Health), which directly related with the worker belonging to the group/organisation, and 5 sub-items (Administration, Economy, Environment, Social Resource and Traffic), which will be indirectly related with the worker.

Conclusion These tools are useful to catch the information about workers and their surroundings including labour standpoint. As the result, currently many OH nurses in Japan utilise these tools in daily work that can help them to assess the worker holistically and to assess the group/organisation comprehensively and systematically.

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KNEE ARTHROPLASTY AND THE UNFORESEEN IMPACT ON WORK

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Introduction Total knee arthroplasty (TKA) is increasingly being performed among working patients suffering from knee osteoarthritis. As the retirement age is rising and more workers are being overweight or obese, a further increase is expected in the upcoming decade. Unfortunately, limited disorder-specific evidence is available for clinicians to support these patients in return to work (RTW). This semi-plenary provides an interactive overview, using quiz-questions, of what we know now and how to guide these workers to secure a timely and sustainable RTW.

Methods Questions that will be addressed are: how many patients do RTW after TKA?, which TKA patients should be referred to work-directed care?, which work-related knee-demanding activities improve most after TKA?, what do workers expect from TKA before surgery?, do orthopaedic surgeons and occupational physicians provide the same answers regarding prognosis for RTW?, and what kind of vocational rehabilitation is effective for RTW?.

Result Two quiz-questions are already answered.

First, based on a systematic review, 71%–83% of TKA patients in working age returned to work: so 2 to 3 out of 10 did not. The average time varied from 8 to 12 weeks although large differences were noted. Second, the Work, Osteoarthritis or joint-Replacement Questionnaire (WORQ) was used to assess the self-perceived difficulty performing 13 work-related knee demanding activities like kneeling, lifting, and working with hands below knee height. Patients who benefitted most from TKA are those whose work involved operating a vehicle or who have a job which requires periods of standing or walking on level ground.

Discussion In the upcoming decade, more TKA patients will have to RTW after surgery, and expect sound advice and guidance from their physician. Given the limited evidence available and the large group of workers involved, effective interventions to secure a timely and sustainable RTW should be developed.

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UTILISING DIGITAL MEDIA: WHERE ARE WE NOW, WHERE ARE WE GOING AND WHY SHOULD WE CARE? THE GOOD, THE BAD AND THE REALLY UGLY

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This presentation will address the following key factors: How do we best use the new digital technology to deliver our OSH information for engagement and impact?; What techniques and strategies actually work and how do we know?; What might the future look like and how are we adapting? Digital Media is at the very heart of the Fourth Industrial Revolution, changing our approach to communication and increasing the delivery of information with exceptional speed to our audiences. Digital technology is evolving faster than organisations can adapt. It is a fate that challenges most organisations in almost every industry. Digital technology has exploded and is being continually modified especially since the new millennium. We find ourselves skyrocketing into an entirely new world of communication and information sharing. We now reach out and connect to our friends, family and co-workers virtually instantaneously with the touch of a few buttons. This new *constant connexion* has fundamentally changed the way we interact with each other and our target audiences. Because of continual digital modifications we must be agile

and alert to utilising better strategies and techniques to deliver information to improve decision making by our citizens in their working environment not only for today but also for the unforeseeable future.

This presentation using globally derived data will discuss the use of a variety of the most popular digital communication platforms from Facebook and Twitter to Wikipedia, their international effect on Search Engine Optimisation (SEO) and their potential impact for extending the global reach of our OSH health information and expanding the engagement with both health professionals and the general public. This presentation has been organised to highlight the good, and the not so good challenges we face in the advanced digitization environment.

The good:

- The promise of Increased reach of our information with minimal cost and effort;
- The opportunity for closer global collaboration of information generation;
- Easy to use digital impact and engagement measures; and
- A proven mechanism to reach the ever increasing independent work force.

The not so good:

- A lack of imagination and strategy, coupled with unpredictability and poor data quality;
- A lack of agility and insufficient encouragement towards innovation: and
- A lack of pertinent competencies and insufficient strategies to overcome consolidation by information generators whose algorithms tend to favour sensationalism over science, fabricated news over facts and are increasingly monetized ads over meaningful content.

These challenges will be addressed by a selection of case studies which highlight mechanisms and strategies to overcome transformational barriers in the digital environment.

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THE DEVELOPMENT OF A STATE-WIDE FRAMEWORK FOR THE PREVENTION AND MANAGEMENT OF WORK-RELATED MUSCULOSKELETAL DISORDERS: A WESTERN AUSTRALIAN EXPERIENCE

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Introduction In Australia, work-related musculoskeletal disorders (WMSD) is a workplace condition that has been prioritised to be addressed at state and national levels. The cost and burden associated with musculoskeletal disorders workers' compensation claims in Western Australia (WA) as a result of body stressing and slips, trips and falls is high and accounts for approximately 60% of claims. Time trends have demonstrated that on average, each WMSD claim has become more expensive and led to longer periods off work.

Preventing and managing WMSDs are complex, owing to the interaction of multiple risk factors, including workplace physical, workplace psychosocial and individual risk factors. An array of primary, secondary and tertiary prevention level interventions such as ergonomic intervention, risk management, wellness programs, early and appropriate clinical intervention and return to work rehabilitation programs have been