

Introduction Health, safety, wellbeing and work are inextricably linked. In healthcare these are interrelated with patient safety and quality of experience, care and outcomes. The World Health Organisation (WHO) identifies that creating 'Healthy Workplaces' is the right, legal and smart thing to do (2010). What importance is given to this in healthcare?

Methods A recent Masters studies in a large healthcare facility revealed an abundance of evidence of the critical relationships in creating healthy workplaces. These were reinforced through a ground level qualitative audit and ongoing work. They were, aligned with a Maori cultural perspective of health, *Te Whare Tapa Whā* and the WHO 'Healthy Workplaces' definition and action model.

Result Through ongoing collaborative work, using an environmental scan and gap analysis, we have developed a three year strategic, quality improvement strategy with fifteen aims. The thematic analysis from the study is guiding our journey.

Discussion Psychosocial risks are noted as being one of the greatest health and safety challenges of the modern day workplace. Do we have enough focus or understanding on these and how to manage them? What are the effects on healthcare workers?

The international health sector is seeing signs of increasing burnout, stress, moral distress, emotional exhaustion and increasing reports of bullying and harassment. Additionally it has an ageing workforce; known effects on shiftworkers; increasing long term conditions inclusive of poor mental health; new ways of working; changing technology and people having to do more with less. These are already impacting on workers and workplaces.

Where does Occupational Health and Safety fit in? What are we doing and is it time to bridge the gap with more connected, collaborative approaches with public health, organisational health and others? We cannot afford to ignore the critical interfaces, as the cost of inaction is high at many levels.

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SHARP DEVICES INJURIES AMONG RESIDENT PHYSICIANS IN ISMAILIA HOSPITALS

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Introduction Injuries to health-care workers from needle stick and other sharps carry significant risks of transmitting blood borne pathogens such as HBV, HCV and HIV, with serious consequences. The aim was to determine the incidence and assess the context of Exposure Incidents (EI) among residents and nurses at Suez Canal University hospital.

Methods A self-administered questionnaire was distributed to 217 residents who were less than 3 years of work/training experience. The questionnaire included details of exposure incidents of high risk and low risk exposures. 'high risk' exposure includes; a penetrating injury caused by a needle or other sharp object, and causing visible bleeding. 'low risk' as (a) a slight, superficial abrasion caused by a needle or other sharp object without obvious bleeding or (b) an existing skin wound coming into direct contact with blood or other body fluids. Also, activities/procedures leading to exposure incidents, and preventive measures used were recoded. All participants had informed consent.

Results One hundred seventy one (78.8% of the participants) responded to the questionnaire, 117 workers (68.4.8%) reported to have (EI) (either one or more), and two hundred and thirty seven (EI) were recorded over 12 months with corresponding incidence of 0.68 and 2.1 (EIs) per worker/year. Seventy seven of exposure incidents (32.4%) were considered 'high risk', while 67.6% were 'low risk'. Injection needles were the most common device (53.7% of exposure episodes) causing (EI) followed by suture needles (37.8%). Phlebotomy/injection and suturing were the most common procedures of exposure episodes (44.7% and 39.1%, respectively). Workers always recap needles/IV-catheters (47.1%) after use, and only (7.9%) always uses PPE during procedures.

Conclusion Sharp device injuries are common among physicians in their early years of work/training, and are often not reported or lack a reporting system. Improved prevention/safety practices and reporting strategies are needed.

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WORK-RELATED PSYCHOSOCIAL AND PHYSICAL RISK FACTORS AND UPPER LIMB DISORDERS IN HAND-INTENSIVE HEALTH CARE WORKERS – AN APPLIED EPIDEMIOLOGICAL PERSPECTIVE

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Introduction Musculoskeletal injuries are common in health-care workers. Research and prevention have been focussing on back injuries, the scientific evidence on work-related upper limb disorders (WRULDs) is scarce. Physical and psychosocial work exposures are considered as relevant in the aetiology. Hand-intensive health care occupations, e.g. physiotherapists are commonly exposed to physical risk factors including repetitive movements while applying force and sustained awkward positions. The objective was to investigate associations between physical and psychosocial work exposures and ULDs while adjusting for non-work-related explanations.

Methods Cross-sectional with 347 Irish Chartered Physiotherapists, Physical and Athletics Therapists in hospitals and private practice (proportionate cluster and random sampling). Participants completed questions about neck, shoulder, elbow, wrist, thumb and finger symptoms (Nordic Questionnaire); psychosocial work exposures (COPSOQ), rest breaks, scheduling, physical work load, Physical Exertion (Borg scale), lifestyle and mental health. Logistic regression with psychosocial and physical factors and ULDs with adjustment for lifestyle-related issues (bmi, smoking), depression (GHQ) and leisure time injury.

Result Work tempo (OR=1.17), predictability (OR=0.76), peer support (OR=0.81) and supervisory support (OR=0.71) were significantly associated with UL symptoms in the past 12 months, work predictability (OR=0.82), influence at work (OR=0.91), supervisory support (OR=0.81) and peer support (OR=0.77) were significantly associated with incapacitating symptoms. Therapists who did not schedule their appointments were twice as likely for ULDs in a least one body site (OR=2.3), those with rests breaks below 5 min after each treatment were at increased odds for incapacitating symptoms. (OR=2.3), physical exertion and repetitive movements were associated with 12 month prevalence (OR=1.3). All analyses adjusted for confounders.

Discussion Comprehensive guidance beyond patient handling policies and training is needed for prevention of work-related ULDs that address physical and psychosocial exposures. Work organisation changes such as increased control over work, scheduling and rest breaks emerge as simple interventions to manage physical and psychosocial exposures. Examples will be provided.

723 OCCUPATIONAL HEALTH HAZARDS, HEALTH PROBLEMS ENCOUNTERED AND PERSONAL PROTECTIVE EQUIPMENT USED IN HEALTHCARE WORKERS IN HOSPITALS, THAILAND

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Introduction Healthcare workers usually expose to chemical, physical, biological and ergonomic hazards in their everyday life. The objectives of this cross-sectional study are to evaluate chemical, physical, biological and ergonomic hazards and health problems of healthcare workers in hospitals, accidents, contact with chemicals and body fluids and personal protective equipment used among healthcare workers in Thailand.

Methods The self-administered and interviewed questionnaires were distributed or collected from healthcare workers proportion to size of five hospital staffs in five regions of Thailand.

Results Healthcare workers have been working very hard for 9 to 11 hours/day on average, including overtime work ranging 13–18 hours/day. More than half of the inpatient, surgery and anaesthesia, nutrition service department did shift work. Healthcare workers at nutrition service department reported highest musculoskeletal disorders, respiratory symptoms and hearing loss than other departments. In surgery and anaesthesia department, they reported highest skin problem due to highest chemical exposure and biological hazards; they exposed to radiation, vibration from equipment and tools, glare and inadequate lighting leading to eye irritation, eye pain and blur vision and reported highest non-specific symptoms. The regular compliance with safety rule and protocol of healthcare workers were not so high, inpatient (65.8%), outpatient (65.9%), surgery and anaesthesia (77.6%), nutrition service (78.4%) and hospital supporting service (66.9%). The regular correct working posture of them was not high either (51% or lower). Regarding hazard control and personal protective equipment provided in workplace, inpatient department reported highest, followed by surgery and anaesthesia, outpatient, nutrition service and hospital supporting service.

Conclusion The healthcare workers were exposed to many occupational health hazards, high risk of accidents, working very hard; they need more attention to reduce or control the occupational health hazards in the workplace.

74 CARDIOVASCULAR RISK FACTORS AND COMORBIDITIES IN HEALTH CARE WORKERS – IS THERE A GENDER DIFFERENCE?

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Introduction Health care workers experience the implications of health and disease every day, including the crucial role of health-damaging behaviour on morbidity and mortality. This study was conducted to analyse the health behaviour and comorbidities in health care workers with focus on gender differences.

Methods In this study we analysed the clinical data of n=273 health care workers (166 males, 107 females) who presented in our occupational medicine outpatient unit. The focus of this study was to assess cardiovascular risk factors, such as obesity, smoking, or physical inactivity as well as diseases of the musculoskeletal system and mental illness.

Result Female health care workers presented a higher trend of smoking in comparison to male health care workers (43,0% vs 32,5%). Furthermore, female health care workers showed significant less physical activity in comparison to their male colleagues (49,0% vs 71,8%, p>0,001). Musculoskeletal diseases were common in both groups (19,6% for female vs 18,1% for male), but mental illness was significantly more frequent in females (6,5% vs 0,0% for males, p<0,05).

Discussion Female health care workers need special consideration in the implementation of preventive measures to reduce health-damaging behaviour. The higher proportion of mental illness in female in comparison to male workers might be due to a selection bias.

740 SEASONAL INFLUENZA VACCINATION IN HEALTH CARE WORKERS AND STUDENTS. SURVEY IN A LARGE ITALIAN UNIVERSITY HOSPITAL

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Introduction Vaccination is an important measure for preventing influenza. Its importance in healthcare settings is twofold: it does not only protects Health Care Workers (HCWs) – possibly reducing disease-related work absenteeism and the consequent disruption of health services – but vulnerable patients too. The aim of the study was to evaluate the influenza vaccination coverage among HCWs and students in a large Italian university hospital.

Methods We collected data on influenza vaccination among HCWs and healthcare students in the period 2012–2016. Data included sex, age, work unit, and job title (HCWs)/degree course (students). We applied chi-square test and t-test for statistical comparisons. The level of significance adopted was 5%.