

Conclusions This study documents the annual incidence of NSIs among HCWs showing important potential exposure to viral hepatitis and HIV, as well as the improvement in needlestick prevention over the years in Taiwan. In addition, the provision of safety engineered devices became a law in December 2011 in Taiwan. It is worth observing the influence of the new act to HCW's occupational health.

46 BURNOUT SYNDROME AND COMMON MENTAL DISORDERS IN PEDIATRIC NURSING WORKERS

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Objectives Burnout syndrome is characterised by chronic stress related to work, in which there has been a gradual physical and mental strain process. The consequences to workers are related to their professional, familiar and social relationship. The nursing care in paediatric cardiology has been reported as very painful and distressing, and thus generating mental disorders. Aimed to identify the presence of burnout and common mental disorders (CMD) in nursing workers of a paediatric cardiology unit.

Methods This study was conducted with 92 nursing workers of a paediatric cardiology unit of a public Brazilian University Hospital. The Maslach Burnout Inventory (MBI), the Self Reporting Questionnaire (SRQ-20) and a questionnaire to characterise socio-demographic data were used to data collection. Data analysis considered chi-square test and Pearson correlation coefficient to associate the SRQ-20 and socio-demographic variables, and the SRQ-20 with the three dimensions assessed by the MIB.

Results The results showed that the nursing workers have on average 31 years old, 93.5% were female, 3% worked less than 10 years in a paediatric and neonatal cardiology unit, and 79.3% have only one employment. It was observed burnout in 8 nursing workers (8.7%) and 41 (45.0%) with CMD. Considering the socio-demographic variables, the chi-square test didn't show significant association with burnout and CMD. However, the chi-square test showed significant association between burnout e CMD ($p < 0.005$). The Pearson correlation coefficient showed an correlation between CMD and the three dimensions of burnout, Emotional Exhaustion ($r = 0.59$), depersonalisation ($r = 0.44$) and Reduce Personal Accomplishment ($r = -0.31$), a reverse score.

Conclusions This study showed association between the burnout and CMD and correlation with the three dimensions of burnout with the CMD. Future research should focus upon identifying paediatric nurses with CMD earlier, avoiding the burnout syndrome and abandonment of profession.

47 PRELIMINARY STUDY OF OCCUPATIONAL STRESS IN A MOROCCAN HOSPITAL

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Background Occupational stress has an impact on health of medical and paramedical staff, on their productivity and on their relationship with the patients.

Aim The aim of this study is to evaluate stress among medical and paramedical staff and compare the degree of this parameter between these groups.

Methods The study is realised in hospital in Rabat, Morocco, among 20 doctors and 54 paramedical staff. The test used is a numeric test which consists on capacity of person to join 11 points for drawing 2 squares and 1 triangle in every 15 subtests. Every subtest remains 40 seconds; the totality of the test lasts 600 seconds. The tested person must put headphones linked to the laptop, and hears during the test different noises. The degree of this noise pollution increases from a subtest to another. Number of write response during each subtest and the total scores are calculated.

Results The preliminary results show that the mean score of write responses obtained under noises among doctors are 47/90, among nurses in anaesthesia and resuscitation are 44/90, among nurses of laboratory are 43/90, among polyvalent nurses are 32/90 and among radiology nurses are 30/90. These scores are significantly different between doctors and all specialties of nurses ($p < 0.01$). Moreover, the most affected groups by stress are polyvalent and radiology nurses compared to doctors ($p < 0.01$) and compared to nurses in anaesthesia and resuscitation ($p < 0.05$), and to nurse of laboratory ($p < 0.05$).

Conclusion Nurses are more affected by occupational stress than doctors, especially polyvalent and radiology nurses. Several factors could be involved in this occupational pathology. So, deeper investigations are needed.

48 HEALTH INDICATORS OF HEALTH WORKER IN A UNIVERSITY HOSPITAL: PRELIMINARY DATA

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Introduction Partial results of a dissertation of the Graduate Program in Nursing, Federal University of Parana - Brazil.

Objective To analyse the health indicators of a hospital worker in the year 2011.

Methods Retrospective epidemiological study conducted at a university hospital in southern Brazil whose data was collected through the database Monitoring System of Occupational Health Nursing (SIMOSTE) which consists of a technological tool developed by nursing researchers, with support from the Foundation to support research in São Paulo, aimed at monitoring the health of workers in a hospital environment.

Results Women (80.8%) and workers aged 31 to 40 years (34.2%) had more records of absences from work. The total absence corresponded to 2478 days, and 1526 (61.6%) relative to the nursing staff. The highest average absence was observed among nursing technicians ($M = 2.63$ days) and work sector with the highest proportion of registers was the Intensive Care Unit (23.2%). The workload was the biological prevalent (39.4%) and is also the main cause of attrition reported for 15 of the 23 occupational categories. Diseases of the respiratory system were the most away (19.62%) and also in higher frequency registries (19.62%). The highest number of days of sick leave (360 days) was due to diseases of the musculoskeletal system and connective tissue and the damage resulting from mental and behavioural disorders on average 5.76 days away. Nurses had 33 days of leave for respiratory diseases and an average of 4.71 days away from external causes. The nursing staff had more

absences due to mental and behavioural disorders (162 days) with an average of 10.13 days. Other health workers were farthest from diseases of the musculoskeletal system and connective tissue (263 days).

Conclusions To know the health profile of the worker helps in developing policies and strategies for promoting worker health.

49 SICKNESS ABSENTEEISM IN BRAZILIAN NURSING STAFF

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Objectives The absenteeism in nursing staff has been the focus of many studies in different countries revealing a serious problematic in occupational health. The absenteeism according the lost workdays highlights the impact on patient care and the costs for the health institutions. Aimed analyse the sickness absenteeism in Brazilian nursing staff.

Methods Descriptive and quantitative study, accomplished after approval by the Ethics and Research Committee, was conducted in seven hospitals located in different Brazilian geographic regions, which constituted the intentional sample. The data were collected by Surveillance System of the Health Nursing Workers -SIMOSTE, on line system, validated and made available to record and capture data about the nursing health problems related to work. The data were sent by the settings, treated quantitatively and analysed by descriptive statistic.

Results Of the 890 occurrences captured by SIMOSTE in one year, there were 8081 days of sick leave, caused by mental disorders (30,75%), work-related musculoskeletal disorders (19,20%), and consequences of external causes (14,90%). The sick leaves, although work-related, were most recorder as medical licences (83,00%). This situation is extremely worrying, due to work overload that generate these absences to nursing staff, and the impact on quality of care provided to patients.

Conclusions The sick leave days are considered days lost. It means that in one year were 22 years of work. The mental disorders and diseases of the musculoskeletal system were the main causes of absence, confirming the pattern of sickness among nursing staff. This study allow us to disseminate advances in nursing research related to the health system and health services strategies.

Session: G. Hazard identification (psycho social)

50 IMPROVING SAFE WORK PERFORMANCE IN UNDERGROUND COAL MINING OPERATIONS BASED ON WORKERS' OPINIONS

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Objective This study examined the opinions of coal mine workers and managers in relation to safety rules and regulations and safe work procedures in three underground coal mines located in Semnan province in Iran.

Methods Individual interviews were used to find out the opinions and attitudes of workers and managers through the use of a structured questionnaire. Safety staff carried out interviews

mainly investigated the level of workers' awareness and knowledge on rules and regulations and safe work procedures concerning general and specific tasks. Our survey was based on 195 coalmine workers, aged 27–58 years, and 23 managers and supervisors.

Results The study showed that 45% of workers had limited awareness about the general rules and safe work procedures pertaining to mining activities and to their individual tasks. Workers cited fatigue, time saving and the impracticability of rules and regulations as the main causes for ignoring rules and regulations. More than 60% of coal miners stated that they had no opportunity to be involved in making rules and regulations. Managers and supervisors believed that large proportions of accidents and injuries are avoidable as there are written rules and safe practices for many situations and practices. They also commented that in a harsh environment like underground coalmines, risk taking is a common habit. Managers mentioned that reaching production goal is essential for the mine's survival.

Conclusion We concluded that lack of awareness and knowledge, fatigue, the priority of production pressure, and miners' problems with rules were the main causal factors for violating and ignoring rules and regulations and that the management should practically demonstrate its commitment to safety and to take measures to improve the awareness and knowledge of workers and involve them in planning rules, regulations and safe work procedures.

51 IMPROVING THE INDIVIDUAL WORK PERFORMANCE QUESTIONNAIRE USING RASCH ANALYSIS

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Objectives Recently, the Individual Work Performance Questionnaire (IWPQ) version 0.2 was developed. One of its main purposes is to detect changes in individual work performance, for example in worksite health promotion interventions. The IWPQ is a generic instrument, i.e. suitable for blue, pink, and white collar workers, that was constructed using Rasch analysis. The IWP consists of three short scales (task performance, contextual performance, and counterproductive work behaviour). However, it appeared that there were insufficient difficult items for the task and contextual performance scales, and insufficient easy items for the counterproductive work behaviour scale. Thus, targeting was suboptimal. The goal of the current study was to improve targeting of the IWPQ.

Methods It was hypothesised that improved targeting could be achieved by formulating additional items that cover the locations of the scales where there were an insufficient number of items. The IWPQ version 0.3 (including additionally formulated items) was tested in a sample of 1,424 Dutch blue, pink, and white collar workers. The IWPQ 0.2 and 0.3 were compared on model fit, targeting, and reliability.

Results Additionally formulated items that showed misfit or did not improve targeting were removed from the IWPQ 0.3, resulting in a final IWPQ 1.0. The scales of the IWPQ 1.0 showed good model fit and reliability, and satisfied key measurement assumptions. Targeting improved for two out of three scales. Finally, calculation and interpretability of scores were addressed.

Conclusion Compared to its previous version, the final IWPQ 1.0 showed improved targeting for two out of three scales. As a result, it can more reliably measure workers at all levels of ability,