

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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10.1136/oemed-2013-101717.49

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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10.1136/oemed-2013-101717.50

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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10.1136/oemed-2013-101717.51

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,

discriminate between workers at a wider range on each scale, and detect changes in IWP. In conclusion, the IWPQ seems to be a suitable instrument to study IWP in occupational epidemiology.

52 ASSOCIATION OF PSYCHOTHERAPY WITH LONG-TERM DISABILITY BENEFIT CLAIM CLOSURE AMONG PATIENTS DISABLED DUE TO DEPRESSION

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10.1136/oemed-2013-101717.52

Objectives To evaluate the effect of psychotherapy for depression in patients receiving disability benefits.

Methods Using administrative data from a large Canadian, private, disability insurer, we evaluated the association between the provision of psychotherapy and other potentially predictive factors with time to long-term disability (LTD) claim closure.

Results We analysed 10,338 LTD claims in which depression was the primary disabling complaint. Depression management included psychotherapy in 1580 (15.3%) LTD claims. In our adjusted analyses, receipt of psychotherapy was associated with faster claim closure (hazard ratio [HR] = 1.42; 95% confidence interval [CI] = 1.33 to 1.52). Older age per decade (0.83 [0.80 to 0.85] respectively), a primary diagnosis of recurrent depression (0.80 [0.74 to 0.87]) versus major depression, a secondary psychological (0.77 [0.72 to 0.81]), or non-psychological diagnosis (0.66 [0.61 to 0.71]), a longer time to claim approval (0.995 [0.992 to 0.998], and an administrative services only policy (0.87 [0.78 to 0.96] or refund policy (0.73 [0.69 to 0.77]) versus non-refund policy were associated with longer time to claim closure. Residing in the Prairies (1.46 [1.35 to 1.57]) and Quebec (1.93 [1.82 to 2.05]) versus Ontario were associated with faster LTD claim closure.

Conclusions We found multiple factors, including psychotherapy, which were predictive of time to LTD claim closure. Our findings may however be influenced by selection bias and other biases that present challenges to the analysis and interpretation of administrative data, and highlight the need for well-designed prospective studies.

53 ASSOCIATIONS OF THE PSYCHOSOCIAL WORK ENVIRONMENT FACTORS WITH THE MENTAL HEALTH DISORDERS IN NURSING PROFESSION

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10.1136/oemed-2013-101717.53

Objective This study examined the associations of work environment factors with the mental health disorders in nursing profession.

Methods A cross-sectional survey was carried out among registered nurses in the Tartu University Hospital. The electronic questionnaire was sent to all 906 full staff nurses working in hospital. The Estonian translation of the Copenhagen Psychosocial Questionnaire, version II (COPSOQ II) was used to measure psychosocial work environment dimensions and mental health disorders. Data were analysed using the SPSS version 18 and Statistical Software R. Descriptive statistics was used to assess means and standard deviations for psychosocial risk factors and mental health disorders. Binary logistic regression analysis was used to observe relationships between risk factors and mental health disorders. The results were summarised by OR-s with 95% CI-s.

Results A total 404 questionnaires (45%) were used in the analysis. The average age of the study group was 40.2 years (SD 10.8) and most of respondents were women (98.3%). The mental health indicators showed relatively high average values of burnout and stress among nurses. High average scores of positive work characteristics (meaning of work, role clarity, social relationships at work and mutual trust between employees) in a 100 point scale were detected. High average scores were measured also on the negative work characteristics as work-family conflict, work pace, emotional and cognitive demands. The increased risk for mental health disorders was caused by work-family conflict, above-average quantitative and emotional demands and other factors. Risk for mental health disorders was decreased by above-average justice and respect, commitment to the workplace, job satisfaction and other factors.

Conclusions Our study confirmed that there are strong relationship between psychosocial risk factors and mental disorders. The present study refers to the urgent need for preventive strategies to reduce the psychosocial stress factors as the main causes of mental health problems.

Session: H. Cancer epidemiology I

54 OCCUPATIONAL CANCERS RISK PERCEPTION IN IRANIAN INDUSTRIAL WORKERS

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10.1136/oemed-2013-101717.54

Objectives This cross sectional study examined the occupational cancer risk perception among 269 Iranian industrial workers according to their knowledge, job titles hazard and demographical properties.

Methods The structured questionnaire was used to measure participants knowledge and perception toward occupational cancers ($\alpha = 0.72$). There was significant difference in both knowledge and perception about occupational cancers in different age, and educational groups.

Results It was significant relation between knowledge and perception (p -value = 0.001, $r^2 = 0.323$). True answer to some questions was less than 20 percent. An optimistic bias was found in participant's perception. We developed a path analytical model for occupational cancers risk perception according to these findings.

Conclusions Our findings prove that cancers risk perception in industrial workforces is affected by several factors. Another important finding in our results is the differences between our findings and other studies about cancer risk perception in general population. It seems that there is different model for perception of occupational cancers in workforces. Further efforts should be placed in the training of workers to enhance their knowledge and subsequently their perception toward occupational cancers.

55 AN HISTORICAL COHORT STUDY OF WORKERS IN THE UK HARD-METAL INDUSTRY

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10.1136/oemed-2013-101717.55