

MSD prevention, which enables to integrate MSD prevention programs into safety management system in nursing homes. The essential aspects are the established MSD prevention programs have to be a fully integrated into general and safety management system in the organisation and the magnitude of complexity of MSD risk factors (including behavioural-cultural aspects of MSD), like most culturally-based things, must be recognised, acknowledged and be managed.

1314 RISK ASSESSMENT FOR BACK PAIN AND LUMBAR DEGENERATIVE DISEASE IN KOREAN FIREFIGHTERS

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10.1136/oemed-2018-ICOHabstracts.760

Introduction The work of firefighters inflicts a burden on the lumbar spine and may even provoke low back pain. Although ageing could cause degenerative changes in lumbar spine, there have been only few studies about lumbar degenerative changes in firefighters by age. Therefore, we have investigated the risk of lumbar degenerative changes in firefighters by age, while comparing with hospital office workers (HOWs) as our control group.

Methods We selected 490 professional firefighters using random sampling method by gender, age, and job. Then, we surveyed risk factors, job and clinical status, and conducted MRI and physical examinations, which was carried out by radiology specialists. Back pain was classified by NIOSH classification. The degenerative changes of lumbar spine were diagnosed as one of degenerative changes such as, intervertebral disc herniation or degeneration, central canal stenosis, and neural canal stenosis. The odds ratio of age-related lumbar degenerative changes in firefighters and control groups with 20 s years old (reference group) was evaluated using the logistic regression analysis.

Results The odds ratio of lumbar degenerative changes was significantly high only in 50 s among HOWs but in all age groups among firefighters. The central canal stenosis was significantly high prevalence in all age group, and disc herniation and degeneration were significantly high after 40 s among firefighters.

Conclusion The lumbar degenerative changes in firefighters occur at early age. It may be due to occupational factors of firefighter. In essence, further studies are needed to prevent these degenerative changes.

This research was supported by the Field-oriented Support of Fire Fighting Technology Research and Development Program funded by National Fire Agency (‘MPSS-소방안전-2017-87’).

1262 WORK-DISABLING MUSCULOSKELETAL PAIN IN CHILEAN COPPER MINERS: A CROSS-SECTIONAL STUDY

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10.1136/oemed-2018-ICOHabstracts.761

Introduction mining workers are known to be exposed to ergonomic and psychosocial risks, which are related to musculoskeletal disorders. The aim of this study was to determine the prevalence of work disabling low-back pain during the last year among Chilean copper miners, and its relation to ergonomic and psychosocial factors.

Methods a cross-sectional study was conducted during year 2014 in Los Andes, Chile, with 343 miners (response rate 99.7%), classified according to tasks into operative (n=253) and administrative workers (n=79). The adapted survey of Working Conditions and Health in Latin America, Nordic questionnaire of musculoskeletal pain and ISTAS-21 questionnaire of psychosocial risk were applied. The main outcome was disabling neck and/or back pain in the last 12 months (pain that did not allow performing work normally). Descriptive, bivariate (chi² test) and logistic regression (multivariate) analyses controlling for potential confounding factors were performed.

Results from all male workers considered, 94% had complete secondary/higher education. Prevalence of disabling neck and/or back pain in the last year was significantly higher in operative than administrative workers (14.9%; p=0.01), and no difference was observed between workers from the main company and subcontractors. In bivariate analysis, a statistically significant association was found between the presence of pain and low/medium job security (17.8%; p=0.04) and high strain jobs (29.3%; p<0.001). No statistically significant association was found between high ergonomic risk and musculoskeletal pain. In logistic regression analysis, workers in high strain jobs (OR 3.13; 95% CI: 1.20 to 8.18) were at increased odds of disabling back pain, compared to low strain jobs.

Discussion high strain jobs might be related to disabling back pain in Chilean miners. Psychosocial factors could have even a greater importance than ergonomic factors in the development of musculoskeletal pain in Chilean miners. Psychosocial risks surveillance could be as important as ergonomic workplace evaluation in the prevention of disabling musculoskeletal pain.

327 DESCRIPTION OF A SPINAL GROUP PERFORMED BY A VEHICLE ASSEMBLER IN BRAZIL

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10.1136/oemed-2018-ICOHabstracts.762

Introduction Low back pain is considered to be the second most frequent cause of morbidity and disability, leading only to headache. It affects 70%–80% of the adult population at some point in life, especially those who are working in the labour market. By affecting the economically active population, it interferes with family income and company productivity. This is because it brings suffering to patients and their families, and entails costs resulting from falling productivity, unpaid days, medical and legal expenses, insurance payments and disability benefits.

Methods Ergonomic evaluation by the Michigan Biomechanical Model and Analysis of the results obtained in the spinal group formed by a multiprofessional team, created by an automobile industry to treat their workers with spine pathologies in the last 2 years.

Result The ergonomic evaluation confirmed the presence of significant biomechanical overload for the lumbar spine and