

0242 IMPACT OF OCCUPATION ON BLOOD LEAD LEVELS IN PREGNANT WOMEN

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Objectives To examine the relationship between occupation and blood lead levels in pregnant women of Durango, Mexico.

Method A cross sectional study was conducted with 299 pregnant women. Information on occupation, risk factors and socio-demographic data was collected by means of a structured questionnaire. Blood lead concentration was tested by graphite furnace spectrometry. Women were divided into three groups according to occupation: working in places with potential source of lead exposure (exposed group), working in places without lead exposure (control group I), and non-working women (control group II). The X² test was used to assess statistical differences between the groups, and one way ANOVA was applied for comparisons. Logistic regression was performed using blood lead < 5 µg/dL or ≥ 5 µg/dL as dependent variable, and adjusted for jurisdiction, income, gestational age, and abortions.

Results Only 24(8%) women worked in places with potential source of lead exposure, 47(15.7%) worked in other places, and 228(76.3%) did not have a remunerated job. Mean blood lead concentration in the study sample was 2.79 µg/dL. However, blood lead ≥ 5 µg/dL accounted for 25% of exposed women, 2.1% of control group I, and 6% of control group II (X² = 13.04; p .001). Mean blood lead level was 4.24 µg/dL in the exposed group, 2.31 µg/dL in the control group I, and 2.74 µg/dL in the control group II; those differences were statistically significant (0.001). Logistic regression confirmed that blood lead ≥ 5 µg/dL is associated with occupational exposure (p = 0.036). **Conclusions** Our findings suggest that surveillance for occupational exposure to prevent health damages during pregnancy is needed.

0243 SCREENING AND DISABILITY PREVENTION FOR MUSCULOSKELETAL DISORDERS OF HIGH-TECH INDUSTRY WORKERS IN TAIWAN

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Objectives In Taiwan, 40–60% of the working population is affected by musculoskeletal disorders (MSD). MSD may lead to reduced productivity, decreased work ability, and even disability. The aim of this study was to describe the effects about occupational health medical team preventing and management of MSD.

Method The design was prospective study describing the high-tech industry workers screening and disability prevention for MSD. The quantitative analysis of the questionnaire was conducted through descriptive statistics and pair-t test in order to indicate the direction and relationship between the two sets of occupational health medical team intervention program.

Results Of the 386 high-tech industry workers who completed the questionnaire. The use of pair-t test comparing two months of occupational health medical program, individual symptom scores significantly decreased 1.99 points to 6.12 points. The degree of functional subjects increased from 57% to 74%, a significant improvement. Work ability index before treatment was 38.49 to 39.36 points after treatment improved, particularly in

the self-evaluation and self-ability and physical work / effort needs very significant improvement in symptoms improve work ability index, increased efficiency and productivity. Subjects original degree of disability is about 22.33%, significantly decreased to 18.1% after treatment.

Conclusions Early worksite screening and intervention for MSDs performed by occupational health medical team intervention program were effective on improving the work ability and the functional level. This service may also prevent worsening of the MSDs, and lead to significant reductions in occupational disorders, decreased health care costs, and improvements in production efficiency.

0246 WEEKEND WORK AND PSYCHOSOCIAL WELL-BEING IN KOREAN WORKERS

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Objectives To identify association between weekend work and psychosocial well-being in a representative sample of Korean workers.

Method We analysed the associations between weekend work and psychosocial well-being in 29 711 workers using data from the 2011 Korean Working Conditions Survey. Weekend work was defined by working one or more day on Saturday or on Sunday over the last month. Psychosocial well-being was measured by WHO well-being index. Multiple logistic regression analysis was performed adjusting age, education, income, regular/non-regular work, working time with stratifying sex and shift-work.

Results The prevalence of weekend work was higher in male (62.4%) than in female (54.8%). The longer working time per week, the more employees worked weekend [<40 (42.6%), 40–48 (45.3%), 49–60 (80.6%), ≥61 (94.9%)]. Shift workers (87.3%) worked more than non-shift workers (56.2%) on weekend. In non-shift workers, weekend work group (≤4 days) [OR=1.34 (95% CI 1.22–1.48), OR=1.17 (95% CI 1.05–1.31)] and weekend work group (>4 days) [OR=1.19 (95% CI 1.03–1.38), OR=1.30 (95% CI 1.10–1.52)] were significant risk factors associated with lesser psychosocial well-being in male and female respectively.

Conclusions Weekend work is associated with a significant increase in lesser psychosocial well-being among Korean non-shift workers.

0247 EVALUATION OF SHIFT FATIGUE AND PHYSICAL HEALTH INTERVENTION IN PAPER MANUFACTURER OF WORKERS

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Objectives Shift and fatigue is one the most easily neglected health issues in occupation safety. The purposes of the study were to develop convenient method to evaluate the sources of fatigue in worksite and develop a physical health promotion program.

Method The design was prospective study describing the paper manufacturer workers. Use myoton measurement muscle stiffness and elasticity. The quantitative analysis of the three