

## Poster Presentation

### Musculoskeletal

#### 0097 RISK FACTORS FOR OCCUPATIONAL LOW BACK PAIN (LBP), MEDICINE USE, AND SEEKING CARE FOR LBP: RESULTS FROM A PROSPECTIVE COHORT STUDY

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**Objective** The aim of this study was to evaluate relationships between job physical demands and risk of low-back pain (LBP), using medication to treat LBP (M-LBP) and seeking care for LBP (SC-LBP).

**Methods** Worker demographics, LBP history, psychosocial factors, hobbies, job physical demands (using the Revised NIOSH Lifting Equation) were assessed at the time of enrollment (551 workers). There were 258 incident-eligible workers (a continuous pain-free period of at least 90 days at the time of enrollment) and were followed monthly for up to 4.5 years to determine new LBP, M-LBP, and SC-LBP cases. Changes in job physical demands were measured. Associations between risk factors and LBP outcomes were modelled using proportional hazards regression with time varying covariates.

**Results** LBP and M-LBP were fairly common affecting 47.7% and 37% workers, respectively. SC-LBP much less common affecting 1 in 11 workers. Peak Lifting Index (PLI) and Peak Composite Lifting Index (PCLI) were associated with all three outcomes of LBP ( $p < 0.05$ ). PLI and PCLI had peak Hazard Ratios of 4.3 and 4.2 for LBP, 3.8 and 4.3 for M-LBP, and 23.0 and 21.9 for SC-LBP, respectively. LBP history was associated with all three outcomes of LBP. Age, gender, BMI, hobbies, and psychosocial factors showed inconsistent relationships with the three outcomes of LBP.

**Conclusion** Job physical demands are associated with increased risk of LBP, M-LBP and SC-LBP. The PLI and PCLI are useful metrics for estimating job physical demands.

## Poster Presentation

### Shift Work

#### 0098 EVALUATION OF SLEEP PROBLEMS AND SLEEP HYGIENE FOR SHIFT WORKERS IN KOREAN STEEL MANUFACTURING COMPANY

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**Objectives** To estimate self-reported sleep health of shift workers and construct plans to minimise harm of the shiftwork.

**Methods** A cross-sectional survey was conducted by using structured questionnaires on workers who were employed in a steel company. They divided into 3 groups (daytime workers,

4 teams 3 shifts, and other shifts). The survey contains questionnaires about demographic characteristics, sleep hygiene, condition of their work place, Insomnia Severity Index (ISI) and the Epworth Sleepiness Scale (ESS) to evaluate workers' sleep disorder and daytime sleepiness. Among shift-workers, 'insomnia group' is compared to 'normal sleep group' with chi-square test. The multiple logistic regression analysis was performed to explore risk factors of 'severe insomnia'.

**Results** Workers with severe insomnia were 6.7% in other shifts group, and 2.3% in 4 teams 3 shifts group. There was no severe insomnia in daytime workers. Among 4 teams 3 shifts group, 12.9% workers complained severe daytime sleepiness. With the practice of sleep hygiene, generally the items for improving environment to sleep well showed higher rate in 'severe insomnia group' than 'normal sleep group'. It might be that the workers who suffered from insomnia tried to overcome it. The items which disrupt sleep were concordantly higher in 'insomnia group' than in 'normal sleep group', suggesting that such kind of adverse sleep habits are negatively affect sleep of shift workers.

**Conclusion** The results of present study suggest relationship between sleep hygiene and sleep disorders among shift workers. To minimise shift worker's sleep problem, proper sleep hygiene is necessary.

## Poster Presentation

### Psychosocial

#### 0099 PSYCHOLOGICAL WORK ENVIRONMENT AND SUICIDAL IDEATION AMONG NURSES IN TAIWAN

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**Background** Nurses are exposed to poor psychological work environment which in turn may cause poor mental health. Poor mental health is a risk factor for suicidal ideation.

We intended to understand the association between psychosocial work environment and suicidal ideation among hospital nurses in Taiwan.

**Method** A self-reported questionnaire including demographic data, psychological work environment, and the question of suicidal ideation was sent to our participants- female nurses working in hospitals. Multiple logistic regression and population attributable risks (PARs) were performed to assess the effect of psychological work environment on reporting having suicidal ideation.

**Results** A total of 2492 (72.6%) returned the questionnaires and were eligible for final analysis. The prevalence of reporting suicidal ideation was 18.3%. Higher risk of suicidal ideation was found associated with age between 36 and 40, educational level of Junior college or below, working for more than 60 hours per week, higher personal burnout, higher client-related burnout, and always felt stressed at job.