

## 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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10.1136/oemed-2017-104636.73

**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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10.1136/oemed-2017-104636.74

**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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10.1136/oemed-2017-104636.75

**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.

Estimation of PAR showed that higher personal and client-related burnout, and always felt stressed at job were the most crucial factors and accounted for 12.2%, 9.3%, and 7.7% suicidal ideation among nurses.

**Conclusion** A significant proportion of nurses developed suicidal ideations. Poor psychological work environment and long working hours were relevant factors for suicidal ideation. A good psychological work environment is warranted to dissuade nurses from developing suicidal ideations.

## Poster Presentation Specific Occupations

### 0100 CHILDHOOD IN BACKSTAGE: REPERCUSSIONS, RISKS AND CHALLENGES OF ARTISTIC CHILD LABOUR

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10.1136/oemed-2017-104636.76

In Brazil, despite constitutional prohibition of labour before 16 years and absence of law that sets limits to protect the young artist health, court orders have authorised children and adolescents participation in artistic productions, based on the international standard and the judge's subjective criteria.

The study aims to describe and analyse the young artist activity and its possible impact on the child's development, according to the reports from such youth and their parents.

This qualitative exploratory research collected data using 25 individual interviews: 10 junior artists, aged between 10–13, and their mothers, in semi-structured individual interviews. Open mode Interviews were conducted with 5 adult professional of artistic segment working with child artists. This survey also made 3 days of observation in soap opera backstage with characters being played by children.

The results show that child participation in the artistic segment have characteristics of labour and that there is no special care to adapt the production process observed to the young artist needs; relationships are established in atmosphere of pressure, competition and vanity, and the accompanying mothers are aware of the presence of risks. Bio-psycho-social health effects have been reported both, positively: increased self-esteem, improved learning skills, higher culture acquisition; and negatively: low self-esteem, elevated self-criticism, poor nutrition, sleep disorders, deficits in school performance and damages to relationships.

The law is often disregarded due to lack of court permits or due to accompanying parent is not allowed to remain in set to supervise the child during testing, recording or presentation.

## Poster Presentation Working Conditions

### 0101 OCCUPATIONAL EXPOSURES AND DEPRESSIVE SYMPTOMS OF PREGNANT WORKERS IN TAIWAN

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10.1136/oemed-2017-104636.77

**Objectives** This study aimed to describe the prevalence of exposures to occupational hazards among pregnant workers and examine the prevalence of depressive mood and the associated underlying risk factors.

**Materials and Methods** Subjects were recruited during their regular prenatal screening at 12 weeks gestation in one medical centre and one local clinic in Northern Taiwan. Data were obtained through questionnaires containing demographic characteristics, workplace exposures, occupational burnout inventory, job content questionnaire, and Edinburgh Postnatal Depression Scale (EPDS).

**Results** Of 172 women screened, the most commonly encountered exposure was to prolonged standing (30%), followed by repetitive movements (26%) and noise (26%). 65% reported that consultation services on maternity protection or right were not provided in the work place, but those who were exposed to four or more hazards had more access to these services ( $p=0.0157$ ). 13% of pregnant workers scored above the cutoff point ( $=10$ ) on EPDS; in addition, higher work-related burnout, lower job control, and lower workplace support were significantly associated with antenatal depressive symptoms (adjusted odds ratio of 1.50, 0.68, and 0.89, respectively).

**Conclusion** These data revealed that pregnant workers suffered a substantial amount of occupational hazards and experienced depressive symptoms in Taiwan, and their work conditions may require increased monitoring and better improvement.

## Poster Presentation Specific Occupations

### 0103 FARMING AND MORTALITY FROM NON-HODGKIN'S LYMPHOMA IN TAIWAN

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10.1136/oemed-2017-104636.78