

## Oral Presentation

### Risk Assessment

#### 0065 SLEEP QUALITY AMONG HEALTH SCIENCES STUDENTS LIVING IN DORMITORY

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10.1136/oemed-2017-104636.47

**Introduction** Sleep disturbances have been associated with an increased risk of health problems among higher education students. The purpose of this survey was to determine the prevalence and identify the factors that influence the sleep quality in dormitory students.

**Materials and Methods** We applied a descriptive and cross-sectional survey. The participants consisted of 249 health sciences students at Semnan University of Medical Sciences. Data were collected through a self-reported reliable and validated questionnaire.

**Results** the students aged  $21.7 \pm 1.1$  years. In overall, 80.7% of female and 72.1% of male students revealed insufficient sleep. Mental engagement commonly reported as a frequent risk factor for sleep disturbance (53.8%). Uncomfortable sleeping environment in dormitories ( $p=0.03$ ) and behaviours that cause arousal till midnights ( $p=0.05$ ) were significantly associated with poor sleep quality. Approximately half of students perceived daytime somnolence as sleep disorder consequence.

**Conclusion** Our results indicated high prevalence of poor sleep quality among university students. Sleep disorders should be considered a major health concerns among dormitory students. Providing better environmental conditions, training and advisory programs may help to improve students' sleep quality and academic achievement.

## Oral Presentation

### Cancer

#### 0066 MATERNAL OCCUPATIONAL EXPOSURE TO BENZENE INCREASES THE RISK OF CHILDHOOD LEUKAEMIA IN OFFSPRING – A PROSPECTIVE STUDY IN THE NORWEGIAN MOTHER AND CHILD COHORT STUDY

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10.1136/oemed-2017-104636.48

**Introduction** There is an established causal relationship between benzene exposure and acute myelogenous leukaemia in adults, but the association between parental benzene exposure and childhood leukaemia in offspring remains inconclusive.

**Objective** Using the prospective population-based Norwegian Mother and Child Cohort Study (MoBa) comprising 1 13 754 offspring (1999–2009), we investigated the association between parental exposure to "gasoline or exhaust" as a proxy to benzene exposure and childhood leukaemia.

**Method** Around the 17th gestational week mothers and fathers responded to questions on a range of occupational exposures during the last 6 months and pre-conception, respectively. Exposure to benzene was assessed through self-reported exposure to "gasoline or exhaust" ("never exposed", "ever exposed" and "exposed>30 days"), the latter interpreted as being occupational. Development of subsequent childhood leukaemia ( $n=70$ ) were identified through linkage with the Cancer Registry of Norway. The risk was estimated by odds ratios (OR) with 95% confidence intervals (95% CI) comparing the offspring from exposed and unexposed parents using a logistic regression model, adjusting for maternal smoking and birth weight.

**Results** Maternal exposure was associated with an increased risk of childhood leukaemia (OR 2.6; 95% CI 1.03, 6.50). The risk increased with number of days being exposed during the last 6 months categorised in "0", "1–30", "31–180" ( $p$ -value for trend=0.03). No excess risk of leukaemia was found for paternal exposure.

**Conclusion** We found an excess risk of leukaemia in children having a mother reporting being exposed to benzene-containing "gasoline or exhaust" prior to and/or during pregnancy.

## Oral Presentation

### Migrant Workers

#### 0068 USING WORKERS COMPENSATION DATA TO ESTIMATE INJURY PATTERNS IN INTER-PROVINCIAL WORKERS

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10.1136/oemed-2017-104636.49

**Background** The western Canadian province of Alberta attracts skilled workers from across Canada to work in the oilfields. We investigated whether information from Workers Compensation Board (WCB) claims would provide unbiased estimates on the rate of injury in such migrant workers. Work injuries in Alberta are compensated by the Alberta WCB regardless of province of residence.

**Methods** The Alberta WCB provided claims data with home province, sex, age, industry and time lost from work. Denominator data came from Statistics Canada, linking census and taxation information. We also recruited a cohort of workers in Fort McMurray, the hub city for oil and gas, and followed them for 4 months to record work injuries.

**Results** From Statistics Canada, we had 1,720,716 people working in Alberta in 2012 whose home was Alberta and 10403 whose home was Newfoundland. The overall rate of injury (with no correction possible for days employed) was lower in the migrant workers, after adjustment for age, sex and industry. Within claims, the pattern of time loss differed importantly: those from Newfoundland had a marked deficit in claims with time loss 1-28 days (OR=0.18; 95%CI 0.12-0.27). WCB reporting among the 151 cohort members was lowest among those from out of province or recently settled: overall only 38% of loss time injuries were reported. Those in precarious employment were more likely to self-medicate or quit their job to avoid being labelled with a history of injury.

**Conclusion** Injury risk in inter-provincial workers could not be estimated using only WCB data.