Literature examining male/female differences in rates of workplace violence has produced mixed findings. This study examined trends in rates of workplace violence using two population level data sources. These were: workers' compensation claims for assaults that required time off work; and emergency department visits for assaults or accidental contact from another person, where the treating physician determined that the payer should be workers' compensation. For both data sources, denominator information of the population at risk was generated by sex, age groups and time period using the Labour Force Survey.

Over the period 2002 to 2014 rates of assault among men remained stable, from 31.5 per 100,000 FTEs to 32.5 per 100,000 FTEs. Conversely among women rates of lost-time claims due to workplace violence increased from 38.9 per 100,000 FTEs to 59.1 per 100,000 FTEs - an absolute increase of 20.2 assaults per 100,000 FTEs, and a relative increase of 52%. These divergent trends were mirrored in the emergency department records, with rates of ED presentations among men remaining stable between 2004 and 2014 (38.2 to 39.8 per 100,000 FTEs); while among women rates of presentation increased from 34.9 per 100,000 FTEs to 52.9 per 100,000 FTEs - a relative increase of over 50%. In both time periods rates of assaults were relatively stable for men and women up till about 2008/09, after which point rates diverged between men and women. Using two data sources this study demonstrates increasing male/female inequalities in workplace violence in Ontario.

Poster Presentation

Specific Occupations

0383

CARING FOR CARE-GIVERS: TESTING THE IMPACT OF A MANAGEMENT-DRIVEN HEALTH INTERVENTIONS ON JOB SATISFACTION AND RETENTION OF ELDER-CARE EMPLOYEES

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In the United States, the dramatic growth in the ageing population is predicted to place increased demand on long-term care facilities in the coming decades. The work of employees providing direct care to the elderly in these facilities is characterised by long or variable work shifts, physical and emotional strain from caring for the aged, and low wages. An important challenge facing long-term care employers is focused on increasing retention among employees. Researchers at the University of Minnesota are collaborating with leadership at a non-profit elder care organisation with facilities in Minnesota and Iowa to implement and evaluate management-led interventions to 1) improve employees' health behaviours, and 2) increase workplace social and managerial support with the intended outcome of improved job satisfaction and retention.

Components of the intervention include provision of Fitbits to participating employees and initiation of management driven health activities. The study will evaluate effects of the intervention on health behaviours, perceptions of organisational support, and job satisfaction. Baseline survey results indicate that management differs from other direct care workers in the measures of organisational support and job satisfaction, but does not differ in health behaviours. Upon completion of the 9 month intervention, the influences of change in health behaviours and change in perceptions of organisational support will be evaluated in association with measurements of job satisfaction and compared to job retention information. Findings will be used to inform internally sustainable, management-driven interventions to maintain a healthy and happy workplace. Preliminary results will be presented.

Poster Presentation

Respiratory

0384

ENDOTOXIN EXPOSURE AND LUNG DISEASE IN SAWMILL WORKERS: A COHORT STUDY

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Objectives Previous studies have linked endotoxin exposure with increased risk of COPD, but a decreased risk for lung cancer. We examined these associations in a cohort of British Columbia (BC) sawmill workers followed between 1950 and 1995.

Methods The cohort comprised all male production and maintenance workers (n=25,685) at 14 BC sawmills employed for at least one year between 1950 and 1995. Lung cancer cases were identified through the provincial cancer registry, and COPD cases through the provincial hospital discharge data. We assigned cumulative endotoxin exposure for each subject based using a job-exposure matrix built on measurement data obtained at 4 of the study mills. Subjects were assigned to exposure quintile groups for analysis (groups between <1.5 ng/m³ and >14.7 ng/m³), and adjusted risk estimates for each group were calculated using Poisson regression, controlling for potential confounders (smoking that was indirectly addressed).

Results Relative risk of lung cancer for highest exposed group was 0.73 (95% CI 0.55–0.98) compared to the reference group, with a slight trend of decreasing risk with increasing endotoxin exposure. Relative risk for COPD in the highest exposed group was 1.9 (95% CI of 0.95–3.70) compared to the reference group, with a slightly increasing trend with increasing endotoxin exposure. Results did not change when different lag times were examined.

Conclusion Our findings of a protective effect for endotoxin exposure and lung cancer, and a positive association between endotoxin and COPD are consistent with previous studies, but at lower exposure levels.