

533-S

CHARACTERIZING WORKER INCIDENTS OF PSYCHOLOGICAL TRAUMA IN BRITISH COLUMBIA HEALTHCARE FACILITIES. *R Kling, E Smailes, A Yassi and M Koehoorn (University of British Columbia, Vancouver, BC Canada)

Psychological trauma is an individual's physical and psychological response to a sudden, potentially life threatening event over which the person has no control. Psychological trauma incurred in the workplace is often associated with an employee experiencing a natural or human-made disaster, physical assault, or sexual assault which can lead to a range of effects including physical health problems, post traumatic stress disorder, or depression. The identification of specific workplace events associated with worker reports of psychological trauma can be helpful for developing prevention strategies. The purpose of this study was to document the rates and causes of reported psychological trauma incidents in the healthcare sector in British Columbia. All employee occupational incident reports for psychological trauma throughout British Columbia between 2003–2005 were identified through the Workplace Health Indicator Tracking and Evaluation (WHITE™) database. Rates were calculated (per 100 employees) by type of health care facility and occupational group. Reported causes and contributing factors were also examined. Rates ranged from 0.12 incidents per 100 employees in large and teaching hospitals to 3.4 incidents per 100 employees in mental health and addictions facilities; registered nurses had the highest reported rate of psychological trauma at 0.83 incidents per 100 employees. Patient aggression or resistance was cited most often as the factors contributing to the incident; violence, in particular verbal threats, was cited most often as the cause of the incident. Interventions that target patient aggression are necessary in order to reduce claims for psychological trauma and its associated morbidity.

535-S

CARPAL TUNNEL SYNDROME AND ASSOCIATED PSYCHOSOCIAL FACTORS IN A COHORT AT BASELINE. A GARG, *M S Thiese, K T Hegmann, S J Oostema, R Kendall, E Wood, E B Holmes, B Held, D Drury, J Foster, G Deckow-Schaefer, J Kapellusch (University of Utah, Salt Lake City, UT, 84108)

Few studies have reported on the relationship between Carpal Tunnel Syndrome (CTS) and psychosocial factors. Baseline data from an ongoing cohort (n = 913) in 15 diverse plants in Wisconsin and Utah are reported. The workers are 66.5% female, 28.2% current and 23.6% former smokers, with a mean age of 41.8 ± 11.3 years and mean Body Mass Index (BMI) of 29.6 ± 6.9 kg/m. All workers underwent a questionnaire, structured interview, measured height and weight, physical examinations and a nerve conduction study (NCS). Using an a priori case definition of CTS of abnormal NCS and numbness/tingling in 2+ digits in the right hand, the prevalence of right CTS was 112/866 (12.9%). 38 participants were excluded for prior CTS surgery, and 9 were excluded due to missing data. Multiple logistic regression (SAS 9.1) found self reported family problems; "Always", "Often", "Seldom" vs "Never" [OR = 5.89 (95% CI 2.26, 15.34), OR = 2.70, (95% CI 1.22, 5.97), and OR = 1.47 (95% CI 0.70, 3.09) respectively] and Marital Status; "Single (Never Married)", "Widowed/Divorced/Separated" vs. "Married" [OR = 0.61 (95% CI 0.32, 1.16) and OR = 0.40 (95% CI 0.22, 0.74) respectively] to be statistically significantly associated with a case definition of CTS after adjustment for age, gender, BMI, and personal factors. These data demonstrate an increasing dose response relationship between family problems and a prevalence of CTS. Conversely, even after adjustment for age and other associated or suspected factors, married individuals are at significantly increased risk for CTS. Job Satisfaction was not associated with CTS (OR range = 1.00–1.20 p = 0.95)

534-S

CARPAL TUNNEL SYNDROME AND ASSOCIATED PERSONAL FACTORS IN A COHORT AT BASELINE. A GARG, *M S Thiese, K T Hegmann, S J Oostema, R Kendall, E Wood, E B Holmes, B Held, J Foster, D Drury, G Deckow-Schaefer, J Kapellusch (Univ. of Utah, Salt Lake City, UT, 84108)

Carpal Tunnel Syndrome (CTS) is relatively common but not well studied on a population basis. Baseline data from an ongoing cohort (n = 913) in 15 diverse plants in Wisconsin and Utah are reported. The workers are 66.5% female, 28.2% current and 23.6% former smokers, with a mean age of 41.8 ± 11.3 years and mean Body Mass Index (BMI) of 29.6 ± 6.9 kg/m². All workers underwent a questionnaire, structured interview, measured height and weight, physical examinations and a nerve conduction study (NCS) of both extremities. Using an a priori case definition of CTS of abnormal NCS and numbness/tingling in 2+ digits, the prevalence of right CTS was 112/866 (12.9%). Multiple logistic regression (SAS 9.1) was performed and found increasing age {Odds Ratio (OR) = 1.03 [95% Confidence Interval (CI) 1.00,1.05]}, BMI [OR = 1.05 (95% CI 1.02, 1.08)], high cholesterol [OR = 1.69 (95% CI 1.00, 2.86)], highest quartile of wrist depth to width ratio compared to other three quartiles [OR = 2.68 (95% CI 1.42, 5.05)], family history of CTS [OR = 2.59 (95% CI 1.61, 4.17)], and playing the piano [OR = 3.91 (95% CI 1.41, 10.79)] to be statistically significantly associated with a case definition of CTS after adjustment for gender and psychosocial factors. Diabetes Mellitus [OR = 1.92 (p = 0.11)], Osteoarthritis of the wrist [OR = 2.20 (p = .28)] and thyroid disease [OR = 1.71 (p = 0.15)] were trending. These results show a broad spectrum of personal factors associated with CTS in a large population. This research was funded by CDC (NIOSH), Arun Garg (PI) and were collected by teams at Univ. of Wisconsin-Milwaukee, Univ. of Utah, and Medical College of Wisconsin.

536

LUNG CANCER MORTALITY AMONG EMPLOYED U.S. WOMEN BY INDUSTRY SECTOR. *C F Robinson, P A Sullivan, and J T Walker (CDC/NIOSH, Cincinnati, OH 45255)

Trends in lung cancer mortality were evaluated for women employed in all sectors of U.S. industry. Analyses of 3,974,622 deaths from 28 U.S. states for 1984–1998 revealed elevated proportionate mortality ratios (PMRs) for lung cancer among 194,382 U.S. white, 18,225 black, and 1,515 Hispanic women by usual industry sector. The highest significantly elevated proportionate mortality was experienced by women in a striking number of manufacturing sub-sectors—sawmills and planing mills (PMR = 142), household appliance manufacturing (PMR = 135), motor vehicle and motor vehicle equipment manufacturing (PMR = 130), and in the wholesale machinery and equipment sector (PMR = 145). When trends were evaluated, mortality increased over the fifteen year interval for only the trucking service sector and the household appliance manufacturing sector. For black women, mortality was highest among workers usually employed in the transportation sector (trucking PMR = 244, bus services and urban transit PMR = 182, and the U.S. Postal Service PMR = 139); utilities (electric light and power PMR = 199); and in the communications sub-sector, telephone, wire and radio (PMR = 149). Among black women, the public administration sector experienced a 47% excess mortality. While based on a small number of deaths, the highest excess lung cancer mortality among Hispanic women occurred in the banking industry (PMR = 333) and the manufacturing sector (industrial chemicals (PMR = 590); rubber and plastics (PMR = 278); and printing and publishing (PMR = 330). Smoking prevalence by sector was reviewed in the context of these results. Further follow-up is recommended to investigate mortality in industrial settings where lung cancer mortality appears to be increasing or has remained consistently elevated.