Oral Presentation

Shift Work

0447 NIGHT SHIFT-WORK AND RISK OF PROSTATE CANCER IN THE DANISH MILITARY

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Objective The majority of studies on night shift work and cancer have only involved women due to the focus on breast cancer. It has been suggested that mechanisms similar to those for breast cancer may occur for prostate cancer. However, only few studies have been reported for this cancer, which is the most frequent cancer in men.

Methods We conducted a nested case-control study within a historical cohort of 238,068 men employed in the Danish Military at the earliest in 1964 or later. Study subjects were obtained from the Supplementary Pension Fund database, including a unique personal ID provided to all residents in Denmark. We linked based on this ID with the files of the nationwide Danish Cancer Registry, and men aged less than 75 years old with first primary prostate cancer were retrieved for the period 1990 to 2003 (n=157). For each case, we randomly selected 10 cancer free controls frequency matched based on the age distribution of the cohort cases. Study subjects returned a structured questionnaire or were interviewed about their entire work history, including night work, diurnal preference and potential confounders, e.g. education and physical activity. We estimated odds ratios (RR) by logistic regression conditional on age.

Results The overall adjusted RR for prostate cancer after ever having night shifts was 1.3 (0.8–2.1). The RR for the subgroup with longest duration of night shifts (≥ 15 years) was 2.2 (1.1–3.4).

Conclusion We add further evidence to the association between night shift work and prostate cancer.

Poster Presentation

Psychosocial

0448 EFFECTS OF ORGANISATIONAL CHANGE ON WORKPLACE SOCIAL CAPITAL: A LONGITUDINAL STUDY OF HOSPITAL WORK UNITS

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Background Organisational change is associated with adverse health outcomes for employees. The association may be mediated by changes in the psychosocial work environment. Workplace social capital (WSC) is a recent construct, which has been shown predictive of health outcomes when studying the psychosocial work environment. Currently, there is no epidemiological evidence concerning the impact of organisational change on WSC. This study examines the impact of organisational change on WSC in public hospitals in Denmark.

Method An open cohort-study of hospital employees in the Capital Region of Denmark provided longitudinal data on 1639 work units within 11 hospitals. WSC was assessed by employees during workplace evaluations in 2011 and 2014 (41,710 responses, 81% response rate). WSC was rated on 8 items using 5–7 point Likert-scales, and then transformed to a 0–100 scale. Exposure data were provided by work unit leaders, recollecting four types of organisational change from 2011 to 2014; mergers, layoffs, relocations and downsizing. A multilevel model was used to analyse the change of WSC-scores within each work unit. The model estimated the effect of organisational change and adjusted for changes in the size of the work unit and the vocation, age, gender and seniority of the employees.

Preliminary results In work units exposed to one or more organisational changes in the three year period, WSC decreased by 1.5 points (95% CI: (–2.2; –0.7)). Mergers had the biggest impact, decreasing WSC by 1.9 points (95% CI: (–2.8; –1.0)).

Conclusion Organisational changes adversely impacted the workplace social capital, possibly mediating the effect on employee health.

Poster Presentation

Policy/Impact

0449 LEADING AND LAGGING INDICATORS FOR THE PREVENTION OF VIOLENCE TOWARDS WORKERS IN HEALTH CARE

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Objectives Violence towards health care workers is a pressing occupational health concern internationally. There are few frameworks and metrics developed to monitor and track the effectiveness of violence prevention activities. This study's aim was to develop leading and lagging indicators to be used in violence prevention activities in the health care sector in British Columbia, Canada.

Methods A systems framework identifying potential leading and lagging indicators was developed from a review of quantitative and quantitative research literature and from focus groups and key informant interviews with managers and front-line staff in two large health authorities. Evidence was synthesised using a realist review approach and priority indicators were developed in consultation with an employer/labour advisory panel. Data sources for potential indicators were identified and selected indicators were validated using incidence data on violence.

Results Indicators were identified across socio-political, organisational, environmental, patient and caregiver domains. The research literature tended to emphasise patient and caregiver factors, while manager and staff interviews emphasised organisational and environmental factors. Priority indicators were identified in areas of hazard identification and management, staffing and staff mix, communications, and education and training.