Shift work

O-25 NIGHT WORK AND BREAST CANCER IN A COHORT OF FEMALE HEALTH CARE EMPLOYEES IN STOCKHOLM, SWEDEN

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Introduction If night work is associated with female breast cancer is controversial and of paramount importance. The IARC has classified night shift work as probably carcinogenic to humans, but epidemiological evidence was limited due to problems in the quality of exposure assessments. This study aimed to investigate the risk of breast cancer in a cohort with detailed and registry-based data on night work.

Material and Methods The cohort comprised 25 585 women (nurses and nursing assistants) employed one year or more between 2008 and 2016 in the health care sector in Stockholm. Information on work schedules was obtained from employment records. Breast cancer cases were identified from the national cancer registry and information on childbirths was obtained from the national medical birth registry. Hazard ratios were estimated by a discrete time proportional hazards model, adjusting for age, country of birth, profession, and childbirth.

Results The adjusted hazard ratio of post-menopausal breast cancer in association with ever vs. never working nights was 1.31 (95% CI 0.91–1.85). Eight or more years of night work was associated with an increased risk of postmenopausal breast cancer, HR = 4.33 (95% CI 1.45–10.57), but based on five cases only. There was no trend in risk with number of years of night work or total number of night shifts. No elevated risks were found for premenopausal breast cancer.

Conclusions This study indicated an elevated risk of postmenopausal breast cancer in women after eight years or more of night work and gives some support for a causal association. This finding was based on few cases and should be interpreted with caution. The study is limited by a short period of follow-up, a low number of high-exposed cases, and a lack of information on night work before 2008.

Psychological hazards/Health

O-251 THE ROLE OF WORKING CONDITIONS IN THE RELATIONSHIP BETWEEN EDUCATION AND ALCOHOL-RELATED MORBIDITY AMONG SWEDISH WORKERS

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Introduction Associations between social class and alcohol-related morbidity are well established, but less is known about the explanatory mechanisms. This study aims to investigate the role of working conditions in explaining associations between education and alcohol-related harm.
language. Studies that reported relevant effect estimates (e.g., ORs, HRs, SIRs, and SMRs, considered equivalent to RRs) were eligible upon independent review and consensus by two authors. Results are presented in forest plots with corresponding meta-relative risk (mRR) estimates generated from random effects models to account for study heterogeneity.

Results The systematic review included 193 cohort (80%) and case-control (20%) studies. After the selection of preferred effect estimates as the most informative, 57 studies contributed unique effect estimates to meta-analyses for esophageal cancer; 100 for stomach cancer; and 88 for colorectal cancer. There were elevated mRRs for esophageal [1.17 [95% CI 1.07–1.29]], stomach [1.13 [1.06–1.21]] and colorectal [1.17 [1.09–1.26]] cancers associated with ever versus never occupational asbestos exposure. Unexplained heterogeneity was reduced, and the strength of association increased, in the analyses of studies with better exposure assessment and increased confidence of high asbestos exposures, including among workers in the highest versus lowest exposure-response categories [e.g., mRR=1.31 [1.10–1.57] for stomach cancer]; among workers with a history of significant occupational exposure (e.g., mRR=1.68 [1.19–2.36] for esophageal cancer among insulators/insulating manufacturing workers); and among workers in cohorts with a two-fold or greater increased risk of asbestos-related lung cancer [e.g., mRR=1.51 [1.37–1.66] for colorectal cancer]. Sensitivity analyses indicate minimal influence from any single study on meta-estimates or from publication bias.

Conclusion The evidence synthesis supports a causal link between occupational asbestos exposure and esophageal, stomach and colorectal cancer.

**Intervention studies**

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**TEACHING INTERVENTIONS IN OCCUPATIONAL HEALTH AND SAFETY DURING COVID19 PANDEMIC IN A SMALL EXPORTER AND PROCESSOR COMPANY OF HYDROBIOLOGICAL PRODUCTS IN PIURA, PERU**

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Introduction In Peru there are many companies dedicated to fishing and exporting hydrobiological products that carry out their work informally. Most companies in this sector do not have occupational health and safety (OHS) systems. Accidents at work occur frequently but are not registered in the statistics of the Ministry of Labor. Workers also suffer from diseases such as musculoskeletal disorders, respiratory and skin infections, metabolic and cardiovascular diseases. Interventions of education and training workers and employers in OHS are becoming more important in small workplaces in developing countries as Peru, especially since the covid19 pandemic started. The purpose of the present study was to describe the implementation and its progressive improvement of teaching interventions during 3 years in a small exporter and processor company of hydrobiological products in Peru, including the covid19 pandemic, and to show its impact in the OHS system.

Materials & Methods The unit of this case report study was the indicators of teaching interventions as number of participants, professions, time working in OHS, education methods used and a knowledge assessment at the end of intervention. Besides, it was analyzed the impact of the intervention on the frequency of accidents and illnesses in workers, on absenteeism and the indicators of workers' health (such as frequency of diseases, workers under treatment, etc). The instrument used was Data collection sheet.

Results During 3 years, the teaching intervention implemented included ‘In Person’ and online sessions and tools. Some of the methods included Cases discussion, Role games, Performance-feedback, Video analysis and interactive games. The frequency of accidents was reduced in 20%. Absenteeism was reduced in 33%. Workers with diseases could follow medical exams and start their treatment.

Conclusion Teaching interventions had goods results in OHS system reducing accidents and absenteeism at this small company and improving medical surveillance in workers.