Abstracts

P-86 PSYCHOSOCIAL WORK EXPOSURES OF THE JOB STRAIN MODEL AND ALL-CAUSE AND CAUSE-SPECIFIC MORTALITY: RESULTS FROM THE STRESSJEM PROJECT

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Objectives Very little literature is available on the effects of psychosocial work exposures on mortality. The aim of the STRESSJEM project was to explore the prospective associations between these exposures and all-cause and cause-specific mortality.

Methods The STRESSJEM project was based on a French national representative sample of 798,547 male and 697,785 female employees for which data on job history on the 1976–2002 period were linked to mortality and causes of death data from the national registry. Job strain model exposures were imputed using a job-exposure matrix and three time-varying exposure measures were constructed: current, cumulative, and recency-weighted cumulative exposure. The prospective associations between these exposure measures and mortality were explored using Cox proportional hazards models.

Results 88,521 deaths occurred among men and 28,921 among women between 1976 and 2002. Low decision latitude, low social support, job strain, iso-strain, high strain, and passive job were found to be risk factors for all-cause mortality, cardiovascular mortality, suicide, and preventable mortality (including smoking- and alcohol-related mortality as well as external causes of death). The model with current exposure was the highest relative quality model. The fractions attributable to job strain were 5.64% and 4.13% for all-cause mortality, 5.64% and 6.44% for cardiovascular mortality, 5.29% and 9.13% for suicide, and 5.1% and 3.1% for preventable mortality, among men and women respectively (though non-significantly different from zero for cardiovascular and preventable mortality among women).

Conclusion Our findings underlined the role of the job strain model exposures on all-cause and cause-specific mortality. The burden of mortality attributable to these exposures may be substantial, especially for suicide among women. Prevention oriented towards the psychosocial work environment may reduce mortality among working populations.

P-87 UNEMPLOYMENT DURING PREGNANCY AND EXCESSIVE GESTATIONAL WEIGHT GAIN MEDIATED THE ASSOCIATION BETWEEN MATERNAL SHIFT WORK STATUS AND POSTPARTUM WEIGHT RETENTION

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Introduction Shift work is associated with higher risk for mothers during pregnancy and increases future obesity risk for both mothers and children. However, only limited literature examined the effect of shift work on maternal body weight changes during pregnancy and after delivery.

Objectives To examine the association between maternal shift work and body weight changes during pregnancy periods, and to identify possible mediating factors.

Methods We extracted maternal weight and body mass index (BMI) during pregnancy and maternal shift work status from a population-based cohort study. The associations between maternal shift work and maternal weight retention at six months were evaluated with multivariable linear models, and we examined the mediation and interaction effect from excess gestational weight gain.

Results We included 13,575 mothers giving birth to term singleton in the study population, and maternal shift work before pregnancy was associated with a 0.25-kilogram higher postpartum weight retention at six months after adjusting for confounders (95% CI: 0.11–0.40, p=0.001). Meanwhile, this association was mediated by excess gestational weight gain (Natural indirect effect: 0.12-kilogram increase, 95% CI: 0.07–0.17, p-value < 0.001) and nonemployment during pregnancy (Natural indirect effect: 0.02-kilogram increase, 95% CI: 0.00–0.03, p-value 0.006). Lastly, a 0.39-kilogram additive interaction (95% CI: 0.12–0.65, p-value 0.005) was identified for excessive gestational weight gain on the association between maternal shift work and postpartum weight gain at six months.

Conclusion Maternal shift work before pregnancy is associated with increased postpartum weight retention at six months, and this association was mediated by nonemployment status during pregnancy. Meanwhile, excessive gestational weight gain exacerbates the effect through additive interaction and mediation.

P-90 MUSCULOSKELETAL DISORDERS BY GENDER AMONG WORKING SYRIAN REFUGEE CHILDREN IN LEBANON

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Background Due to the Syrian war, a massive number of Syrian refugees migrated to Lebanon, which forced children to engage in harmful jobs, mainly agriculture in the Bekaa Valley in the east of Lebanon. Children working in the agricultural sector experience ergonomic hazards associated with musculoskeletal disorders (MSDs).

Methods A survey of 4090 working Syrian refugee children between 8 and 18 years in the Bekaa Valley of Lebanon documented the variation in reporting MSDs between male and female working children. Data were collected on demographic, occupational, and socioeconomic indicators and musculoskeletal disorders. Statistical analyses were done using Stata V.15.0. Means and standard deviations were generated for continuous data, and frequencies and percentages for categorical data. Chi Square and independent t-test were used to test significant differences between males and females.

Results Around 4.4% of the child workers experienced MSDs. The highest prevalence of MSDs was among children working in agriculture (73.2%), with a higher prevalence among females (84.5%) than males (63.2%). The most common MSDs reported were back pain, feet pain, joint pain, and knee pain. Significantly, more females (1.3%) reported wrist or hand pain than males (0.6%).

Discussion The study showed that females and males were differently burdened with MSDs. Females child workers bore a higher burden than males due to working both inside and outside the house. Interventions and policies protecting children from harmful exposure and working conditions are needed.
HOW CAN WE GET COMPARABLE EXPOSURE DATA ACROSS COUNTRIES? A WORKERS’ SURVEY ON EXPOSURE TO CANCER RISK FACTORS IN EUROPE – AN INNOVATIVE APPROACH

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Introduction With cancer accounting for an estimated 53% of all work-related deaths in the European Union, data on exposure to known cancer risk factors at work are essential to improve the safety and health of workers, support the evaluation of existing policies and foster a productive and sustainable economy.

Objective Recognising the lack of harmonised figures at European level, and having carried out a feasibility study, the European Agency for Safety and Health at Work (EU-OSHA) has started a workers’ survey on exposure to cancer risk factors following the Australian Workplace Exposure Studies (AWES) model. The objective of this initiative, which plans to publish first findings in 2023, is to identify the most prevalent cancer risk factors across occupations and sectors in Europe.

Methods EU-OSHA will initially carry out the survey in six European countries, interviewing a representative sample of workers about their current job. Based on the respondent information on specific tasks performed at work, exposure data to one or more cancer risk factors will be derived for each worker, using the occupational exposure assessment tool for epidemiological studies (OccIDEAS), an algorithm using epidemiological data, workplace measurements and expert assessment, which EU-OSHA is adapting to the European context.

Results The survey looks into the number and characteristics of the workers exposed to a range of cancer risk factors, including asbestos, benzene, chromium, diesel exhaust, nickel, silica dust, UV radiation, wood dust, among others. Information on workers’ multiple exposures and the use of control and protective measures at work will be available. Results can be analysed by activity sector, occupation, country, gender, etc.

Conclusion To provide an overview of the methodology and adaptations of the Australian model to Europe, and to discuss the limitations of the survey and the challenges in adapting it to national contexts.

RELATIONSHIP BETWEEN PRESENTEEISM AND QUALITY OF LIFE: THE ROLE OF SOCIAL SUPPORT

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Sponge iron plant workers are exposed to excessive dust at raw material handling section, fumes emitted during the burning process, and to the noise generated throughout till the formation of final product poured in moulds to form sponge iron.

Objective The study was done to compare the respiratory, auditory and visual impairment among the workers exposed to the dust, fumes and noise with those less likely to be exposed to these hazards in the same work place.

Methods The present study was carried out among all the 578 workers in a sponge iron plant in Goa. The spirometry, audiometry and the near and far vision findings were obtained from the routine annual medical examination records for the year 2019. Data was analyzed to compare the morbidity among the exposed group (n=359) i.e., the workers directly exposed to dust, fumes and noise with those less likely to be exposed (n=219) i.e., the executives and the office staff working in closed air-conditioned offices segregated from the site of hazards.

Results Respiratory impairment among those exposed to dust and fumes was 1.6 times higher than the unexposed. The hearing impairment among those exposed to noise was 1.8 times higher than the unexposed. The impairment in near vision in the exposed was 1.3 times higher than the unexposed whereas the impairment in far vision was 1.3 times higher among the non-exposed as compared to the exposed.


needed to safeguard the health of Syrian refugee child workers.

The purpose of this research is to i) explore the prevalence of presenteeism in higher education professionals, ii) identify the main health problems behind it, and iii) identify personal, professional and social support factors associated with the phenomenon. Additionally, it is intended to evaluate the role of social support at work in relation to presenteeism and quality of life.

The target population will be made up of higher education technicians and it will be developed at the University of Porto, a Portuguese public university located in Porto. The study will be conducted in the form of a survey, with data being gathered via email. We will apply the validated versions for the Portuguese population, the Presenteeism Scale (SPS-6), the subscales, ‘social support from supervisors’ and ‘social support from colleagues’ of the Copenhagen Psychosocial Questionnaire, COPSOQ (to measure social support at work) and the Quality of Life Index (EUROSHIS-QOL-8). A sociodemographic questionnaire (with personal and work-related variables) will also be collected.

We expect with this study to contribute to the identification of reduced activity professional patterns associated with presenteeism and that affect professionals quality of life, as well as alerting institutions to the relevance of promoting social support at work.