Psychosocial exposures

EFFECTS OF PSYCHOSOCIAL WORK FACTORS ON MEDICALLY CERTIFIED SICK LEAVE DUE TO MENTAL DISORDER IN HOME CARE EMPLOYEES

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Introduction A large proportion of the high level of sick leave in the home care services is due to common mental disorders, and a substantial number of such cases can be attributed to psychosocial risk factors at work. Knowledge about occupation-specific risk factors for sick leave is needed to develop targeted preventive measures.

Objectives Determine the most prominent psychosocial factors affecting sick leave due to mental disorder.

Methods Norwegian home care workers (N=1,819), distributed across a random sample of 130 Norwegian home care services, were surveyed at baseline and followed up for two years in registries on medically certified sick leave. Two models were analysed; the sick leave outcome variable in model 1 included all mental disorders, whereas in model 2 it only included common mental disorders. Predictors in both models were 15 psychosocial factors. Risk ratios (RR) and 95% confidence intervals (CIs) were calculated using negative binomial regression with robust standard deviations.

Results In model 1, emotional dissonance (RR 1.32, CI95% 1.08–1.61) was associated with an excess risk of sick leave. In model 2, emotional dissonance (RR 1.30, CI95% 1.05–1.60) was associated with an excess risk, while control over work intensity (RR 0.78, CI95% 0.62–0.98) was associated with a reduced risk of sick leave.

Conclusion Emotional dissonance was consistently associated with excess risk of sick leave episodes with mental disorder in the home care services, whereas control over work intensity was found to be a protective factor against common mental disorders.

Return to work/Work capability assessment

UNDERSTANDING LABOUR MARKET PARTICIPATION TRAJECTORIES AFTER RETURNING TO PART-TIME WORK FROM SICKNESS ABSENCE: A NATIONWIDE COHORT STUDY FROM FINLAND

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Introduction The use of part-time sickness absence (pSA) enables return to part-time work from full sickness absence. Subsequent labour market outcomes of pSA users depend on various work-related and individual characteristics. While previous studies have examined average participation in different labour market states after pSA, only little is known of the potentially heterogeneous paths and factors associated with them.

Material and Methods Based on a 70% random sample of the Finnish working-age population, we identified 9896 pSA users aged 45–56 in 2010–2014. We constructed labour market trajectories (LMTs) based on the proportion of time spent in different states over three years after the pSA spell using multitrajectory analysis. We will examine how different covariates, including work exposures based on job exposure matrices, are associated with assignment to the different LMT groups using multinomial logistic regression analysis.

Results Three LMT groups were identified.

In the first group (60.2%), the proportion of time spent working was at a high level throughout the follow-up. In the second (12.3%) and in the third (27.5%) group, working was initially at a medium level, then declined and was replaced by an increase in the time spent with partial work disability (second group) or full work disability and other labour market states (third group). Based on descriptive results, lower education and exposure to physically demanding work and lower job control were more common in the two less favorable LMT groups than in the first group. Moreover, differences in distributions of age, employment sector and certain industrial sectors separated specific LMT groups. Next, we perform the regression analysis.

Conclusion LMTs after pSA are diverse and the LMT groups differ by various work-related and individual factors. Information on factors associated with following certain paths after the use of pSA can help direct work-promoting interventions and utilizing remaining work capacity.

Health disparities

TOWARDS OCCUPATIONAL HEALTH EQUITY METRICS ESTIMATING THE BURDEN OF LUNG CANCER ATTRIBUTED TO THREE OCCUPATIONAL CARCINOGENS BY SOCIO-ECONOMIC POSITION

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Introduction Lung cancer was the most common type of cancer attributed to occupational exposures in France in 2015, with 5621 cases in men (89%) of all work-related cases and 294 cases in women (80%). Some of the main lung carcinogens, like silica dust and diesel exhausts, are part of contemporary working environments. Moreover, such exposures were still ten times more frequent among skilled workers than among managers in 2017 in France. Our aim was to quantify the impact of known occupational carcinogens depending on socio-economic position (SEP) in order to integrate exposure inequalities into burden of disease estimates.

Material and Methods We used the population-based ICARE case-control study that included 2926 lung cancer cases and 3355 frequency-matched controls covering 13% of the French population. Applying the distributive property of attributable risk, we compared the burden of lung cancer according to SEP taking into account asbestos, silica, diesel motor exhaust (DME), and smoking. We used different modelling strategies to compare R and Stata packages and other sources of variation in the estimates (exposure metrics and SEP indicators).
Results In men, partitioning the attributable fraction by SEP showed that the burden largely concentrated among less qualified and lower SEP groups, even after adjusting for smoking. Based on socio-occupational group, the combined AF (for 3 occupational carcinogens) was as high as 26.7% (95%CI 22.5;30.8) for blue-collar workers and as low as 0.2% (95% CI -1.35;1.64) for managers. The disparities were also large based on education, occupational social prestige and occupational trajectory. The exposure profiles of women did not allow to make reliable estimates.

Conclusions While attempting to quantify the burden of avoidable lung cancer, it is useful to complement population-wide approaches with a focus on specific sub-groups defined by SEP, as the modifiable exposures (behavioural, work-related and others) are not evenly distributed.

Psychosocial exposures

**0-81 LEADERSHIP AT THE WORKPLACE AND EMPLOYEES RISK OF HOSPITAL TREATMENT FOR DEPRESSION OR ANXIETY – A PROSPECTIVE STUDY OF 69,099 EMPLOYEES**

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Introductions There is a consensus in the literature that leadership at work can be associated with well-being, productivity and performance of employees. Few studies, however, have investigated whether absence of leadership is associated with risk of clinical mental disorders, such as depression or anxiety.

Material and Methods We linked information on leadership, obtained from the nationwide Work Environment and Health in Denmark survey, with data on hospital treatment for depression and anxiety, obtained from a national register. The survey data was collected in four waves between 2012 and 2018. We included participants that worked, had a leader, had no missing and were never registered with treatment for any mental disorder at a psychiatric hospital before baseline. The study population consisted of 69,099 participants. We used eight items on leadership behaviours that align with providing resources for the employee, and dichotomized the sum score of the scale as a cutoff. Depression was defined as ICD-10 codes F32 or F33, and anxiety as F41. We used Cox proportional hazards regression, with calendar time as the underlying time scale. Mean follow-up time was 20.6 months. We adjusted for sex, age, educational level, cohabitant, child under age 7, and sampling method.

Results Preliminary results show that 28.6% of the participants reported absence of leadership behaviours. We identified 216 cases of treatment for depression and 87 cases for anxiety. When we compared absence of the leadership behaviours to presence, the hazard ratios were 1.79 [95%-CI,1.36;2.35] and 1.15 [95%-CI, 0.73;1.82] for depression and anxiety, respectively.

Conclusion Absence of leadership behaviours at work was associated with an increased risk of hospital treatment for depression among employees. We did not find a statistically significant association between leadership behaviours and risk of treatment for anxiety disorder.

**Psychological hazards/Health**

**0-82 MENTAL HEALTH AND LIFE SATISFACTION AMONG CANADIAN PARAMEDICS DURING THE COVID-19 PANDEMIC: AN UPDATE**

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Introduction Previous results suggest that COVID-19 adversely impacted a number of health and coping measures among Canadian paramedics, particularly females. Estimated prevalence for meeting screening criteria for mental health disorders and suicidal thoughts were higher than previously reported.

Objectives To provide an update on the impact of the COVID-19 pandemic on the wellbeing of Canadian paramedics with the inclusion of an additional year of participant data.

Methods Self-reported questionnaire data was collected from paramedics across five Canadian provinces as part of the COVID-19 Occupational Risks, Seroprevalence and Immunity among Paramedics (CORSIP) project. Validated psychological assessment tools were used to screen for major depressive disorder (MDD, PHQ-9 questionnaire) and probable post-traumatic stress disorder (PTSD, PC-PTSD-5 questionnaire). Satisfaction with life (SWL) scores were adapted from validated Canadian Census questions and confirmed by reliability analysis. All measures were compared before versus during the pandemic using Wilcoxon signed-ranked, Cliff’s d, and differences in proportions tests where appropriate.

Results Questionnaires from an additional 1662 recruited paramedics were included, now totaling 3568 participants. Prevalence meeting screening criteria remained similar for MDD (31.6%) and PTSD (41.4%), with PTSD risk continuing to not be impacted by COVID-19. Paramedics continued to report higher median SWL scores (20 vs. 17, p<.001) prior to the pandemic, with a large effect size (d=0.58) that suggests a greater probability of reporting higher SWL prior to COVID-19. Suicidal ideation (i.e., ‘thoughts that you would be better off dead, or of hurting yourself in some way’) was reported by 9.0% of paramedics, which was consistent with original findings.

Conclusion Original findings appear stable with the addition of another year of participant data. Future analyses will be employed to investigate whether health and satisfaction measures differed between the original cohort and added participants by adjusting for questionnaire responses with respect to the pandemic timeline.