

illness play an important role in the context. Leaders serve as role models and therefore tend to have a huge impact on the pressure perceived by employees. Moreover, support from management, leadership qualities as well as leadership style tend to be an issue. Correlations often were no longer significant when other variables such as health problems, demographic variables or organisational factors were incorporated.

Discussion Results from quantitative and qualitative studies suggest that there is a correlation between leadership and presenteeism. However, results are not conclusive. Moreover, significant correlations disappeared when multivariate analyses were undertaken. Thus, results have to be interpreted with care.

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NIGHT WORK AND COMMON MENTAL DISORDERS: ANALYSING OBSERVATIONAL DATA AS A NON-RANDOMISED PSEUDO TRIAL

¹MS Beltagy*, ¹J Pentti, ²J Vahtera, ^{1,3,4}M Kivimäki. ¹Department of Public Health, University of Helsinki, Helsinki, Finland; ²Department of Public Health, University of Turku, Turku, Finland; ³Department of Epidemiology and Public Health, University College London, London, UK; ⁴Finnish Institute of Occupational Health, Helsinki, Finland

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Introduction This paper investigates the relationship between working regularly in night shifts for long periods and common mental disorders, including depression, anxiety disorders, severe stress, adjustment disorders, neurotic disorders and insomnia. The investigation of this association can help position intervention policies concerned with regulations of work schedule and workers' mental health.

Methods A non-randomised pseudo trial was conducted on two populations of social and healthcare employees (the Finnish Public Sector Study) for a duration of eight years. Study one tested the effect of moving from continuous day work to work in night shifts on the development of common mental disorders for 30 019 employees and study two examined the recovery rate from mental disorders when 944 night workers with common mental disorders changed their working schedule to day shifts. Data were analysed using logistic regression with GEE.

Result Study one showed a 3% higher odds of acquiring common mental disorders among night workers compared to day workers; (odds ratio 1.03, 95% CI: 0.82 to 1.30) whereas study two showed a 99% higher odds of recovery from common mental disorders among night workers who changed their work schedule to day shifts compared to night workers who continued to work night shifts (odds ratio 1.99, 95% CI: 1.20 to 3.28). Both results were adjusted for several covariates.

Discussion Our paper introduces a novel approach to analyse observational repeat data on night work which is closer to randomised controlled trials than conventional epidemiologic analyses. The results from study one could not support a causal association between night work and the development of common mental disorders. However, study two shows increased recovery rates from common mental disorders when night workers change their work schedule back to day work. These findings suggest that change in work schedule may have a role in the prognosis of common mental disorders.

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HEALTHY ENTERPRISE STANDARD (HES) EVALUATION: IMPACT ON ADVERSE PSYCHOSOCIAL WORK FACTORS AND PSYCHOLOGICAL DISTRESS

^{1,2}M-C Letellier*, ²C Duchaine, ³M Vézina, ^{1,2}K Aubé, ³M-M Mantha-Bélisle, ⁴H Sultan-Taieb, ⁵F St-Hilaire, ^{1,2}C Brisson. ¹Faculty of Medicine, Laval University, Quebec City, Canada; ²CHU de Québec Research Centre, Population Health and Optimal Health Practices Unit, Quebec City, Canada; ³Institut national de santé publique du Québec, Quebec City, Canada; ⁴Université du Québec à Montréal, Montreal, Canada; ⁵Management School, University of Sherbrooke, Sherbrooke, Canada

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Introduction Adverse psychosocial work factors are recognised as a significant source of psychological distress. The *Healthy Enterprise Standard* (HES) targets four intervention areas: *Lifestyle*, *Work-life balance*, *Workplace environment* and *Management practices*; this latter area referring to interventions aimed at improving the psychosocial work environment. The aim of this study was to evaluate the impact of implementing the HES on exposure to adverse psychosocial work factors and the prevalence of psychological distress among ten Quebec organisations.

Methods This was an intervention study with a before-after design derived from secondary data. Organisations adopted the standard of their own initiative and were responsible for implementing interventions. All active employees were solicited to participate before (T1=2849) and 24–38 months (T2=2560) following the standard's implementation. At both time points, participants completed a questionnaire. Psychosocial work factors were assessed with the validated demand-control-support and effort-reward imbalance models. Psychological distress was assessed with the validated K6. Intervention exposure was measured by questionnaire and complemented by qualitative analyses.

Result The prevalence of low social support at work and high psychological distress decreased among all participants between T1 and T2. In organisations that were less exposed to interventions in the *Management practices* area, an increase in the prevalence of several adverse psychosocial work factors was observed while a decrease in the prevalence of these adverse factors was observed in organisations more exposed to *Management practices* interventions. Moreover, a more important decrease in high psychological distress was observed in organisations more exposed compared to those less exposed to interventions in this area.

Discussion These results suggest that organisational psychosocial interventions implemented in the context of this standard may be effective in reducing both adverse psychosocial work factors as well as high psychological distress and may therefore be an effective means to improve the mental health of workers.

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THE INFLUENCE OF WORKPLACE SOCIAL CAPITAL ON HBA1C LEVELS AMONG JAPANESE WORKERS: A 2-YEAR PROSPECTIVE COHORT STUDY (J-HOPE)

¹Hisashi Eguchi, ¹Akizumi Tsutsumi, ¹Akiomi Inoue, ²Ichiro Kawachi. ¹Department of Public Health, Kitasato University School of Medicine, Sagami-hara, Japan; ²Department of Social and Behavioural Sciences, Harvard T.H. Chan School of Public Health, Boston, MA, USA

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Introduction Workplace social capital (WSC) is hypothesised to be beneficial for employee health. We sought to examine the association between changes in WSC in relation to changes in HbA1c levels.

Methods Analyses included 2778 men and 684 women aged 65 and under working at six companies in Japan from the J-HOPE Study. The first survey was conducted between October 2010 and December 2011, and two follow-up surveys were conducted at approximately annual intervals. Questionnaires inquiring about workplace social capital and other characteristics were administered at each survey. Blood samples were obtained from participants at baseline and at the following two surveys. Linear regression analysis was performed to assess the cross-sectional and longitudinal association between WSC and HbA1c levels using Generalised Estimating Equations.

Result For women, higher level of WSC was cross-sectionally associated with lower HbA1c (standardised regression coefficient (β) -0.020 , 95% CI: -0.033 to -0.007). Longitudinally, similar associations were observed (β -0.016 , 95% CI: -0.030 to -0.003). No association was found among men. All explanatory variables were standardised before inclusion in each analysis.

Discussion WSC may have beneficial effects on glycometabolism in working women. The gender difference in associations may be partially explained by the socio-cultural context. Our findings lend weight to the notion that the pattern of association between WSC and HbA1c is both culturally contingent and gender-specific.

457 AN EVALUATION OF WORKPLACE STRESS IN AN QATARI OIL AND GAS COMPANY

A El Makaty*. *Qatar Engineering and Construction Company, Doha, Qatar*

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Introduction This research aims to identify and to evaluate workplace stress risks in an oil and gas contracting company in the State of Qatar. The study is conducted using a specific work-related stress risk assessment methodology developed by the Italian National Institute for Insurance against Accidents at Work (INAIL). The goal of this research is to propose efficient control measures to tackle such risks and to enhance employee job satisfaction in the company. Moreover, the study focuses on investigating the aspects of work demands, controls and other associated factors with work stress that might be adversely affecting the employees in the core operations of the organisation.

Methods Both qualitative and quantitative methods of research were applied throughout the study using the INAIL approach. The methodology is applied to an intended convenience sample of 210 employees of the Maintenance and Shutdown Department in the company, which observes a work force of 1662 employees, contributing to a sample value of 12.5%.

Results Overall results demonstrate low presence of work stress. However, there is a clear need for improvement in the areas of demands, control, relationships and change with particular minor considerations for managerial support area.

Conclusion The findings from this research established a firm ground intended for applying a work-related stress improvement strategy in the company which includes:

- the application of the INAIL method tailored for the organisation's use. However, this can be done when both checklist and questionnaire are applied, regardless of the low-risk scores, in order to assess critical sub-areas;
- HSE indicator tool questionnaire should be elaborated more for the employees, particularly for the blue collar workers;
- establishing a commitment towards the management of work stress through a clear policy, trainings and education on psychosocial factors is essential for the success of this tool.

1014 IS WORKPLACE BULLYING AN INDEPENDENT RISK FACTOR FOR MUSCULOSKELETAL DISORDERS? A STUDY WITH BRAZILIAN CIVIL SERVANTS

¹Fernando Feijo, ²Eduarda Buriol, ³Cristiane Bunchen, ²Paulo Antonio Oliveira, ³Mayte Amazarray. ¹Federal University Of Pelotas, Pelotas, Brazil; ²Federal University of Rio Grande do Sul, Porto Alegre, Brazil; ³Federal University of Health Sciences, Porto Alegre, Brazil

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Introduction Workplace bullying has been described as an important determinant for many health outcomes, such as depression, suicidal ideation and sleeping problems. However its role as a possible determinant of musculoskeletal disorders is still on discussion. We aimed to evaluate the independent association between workplace bullying and neck/upper limb musculoskeletal pain in a sample of Brazilian civil servants.

Methods Cross-sectional study with a sample of 1616 workers from the Brazilian Federal Judiciary. The Negative Acts Questionnaire (NAQ-r) was used to measure bullying at work and an adapted version of the Nordic Musculoskeletal Questionnaire (NMQ) was used to evaluate neck and upper limb musculoskeletal pain. Poisson and logistic regressions were used to test and estimate associations of interest, controlling for confounders.

Results The overall prevalence of frequent (weekly or daily) neck and upper limb musculoskeletal pain was 49.9%. The prevalence of workplace bullying was 17.0%. In the regression analysis controlling for social, demographic and occupational confounders, workers exposed to bullying (weekly or daily negative acts) presented a 2.04-fold higher prevalence of neck and upper limb musculoskeletal pain than those who did not suffer bullying ($p < 0.001$).

Discussion Our findings suggest that workplace bullying can be an independent risk factor for musculoskeletal pain in workers. New longitudinal studies are needed in order elucidate the role of workplace bullying in determining occupational musculoskeletal disorders.

892 STUDY OF STRESS IN THE WORKPLACE: CASE OF A PORT AUTHORITY IN ABIDJAN

Aka Irel Arnaud, Guiegui Chimene, Tchicaya Francois, Nguessan Linda, Kra Anny, Wognin Barthelemy. *Universite Felix Houphouet Boigny, Abidjan, Côte d'Ivoire*

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Introduction Work stress is defined as the adverse physical and psychological reaction that occurs when the demands of the job do not match the worker's needs, abilities or resources. It negatively impacts the health of workers and the