again" to "daily" over the past 6 months. For the latter purpose all participants were identified with their work-unit (471 work units, number of employees ranging between 1 and 161). The work-units were grouped according to the proportion of employees. who had witnessed workplace bullying within their work units. New cases of depression were diagnosed at the end of two-year follow-up periods using Schedules for Clinical Assessment in Neuropsychiatry (SCAN) interviews and the Major Depression Inventory questionnaire.

Results During the follow-up period, we identified 177 new cases of depression. The odds ratio for newly-onset depression among participants reporting bullying occasionally was 1.62 [95% CI 0.95–2.77] and among those reporting bullying often it was 5.73 [95% CI 2.37–13.90]. The risk of newly-onset depression by percentage of employees witnessing bullying in work-units was for 1–20%: 0.83 [95% CI 0.48–1.43], 21–30%: 0.87 [95% CI 0.49–1.55], and >30%: 1.08 [95% CI 0.61–1.90].

Conclusions Self-reported frequent bullying predicts development of depression but a work environment defined by witnesses of bullying does not. These findings have implications for the understanding of workplace bullying and options for preventive actions.

293 SEX DIFFERENCES IN MUSCULAR LOAD AMONG HOUSE PAINTERS PERFORMING IDENTICAL WORK TASKS

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Objective The aim of the present study was to estimate possible differences in upper body muscular load between male and female house painters performing identical work tasks. Sex-related differences in muscular activity may help explain why female house painters, and females in general, have more musculoskeletal complaints and disorders than men do.

Methods In a laboratory-setting, 16 male and 16 female house painters performed nine standardised work tasks common to house painters. Unilateral EMG recordings were obtained from the supraspinatus muscle by intramuscular electrodes and from the trapezius-, extensor- and flexor carpi radialis muscles by surface electrodes. Maximum voluntary contractions were performed, and both relative muscular load in%EMG_{max} as well as exerted force in Newton were assessed. APDF curves were obtained for each subject, and load distributions were characterised by the 10^{th}, 50^{th} and 90^{th} percentiles; sex differences were tested using a mixed model approach.

Results Women were exposed to a significantly ($P = 0.05$) higher relative muscular load than men in the supraspinatus and forearm muscles in all tasks. Men exerted significantly ($P = 0.05$) more absolute force in the trapezius muscle at the 50^{th} percentile in all tasks, and in a single task also at the 10^{th} percentile. The differences between men and women were independent of tasks.

Conclusion Female house painters had a higher relative muscular load than their male colleagues, even though the men exerted more absolute force compared to the women. The effects of a higher relative muscular load, accumulated over years of work, may in part explain why musculoskeletal complaints and disorders in the upper body occurs more frequently among female than male house painters.

294 DOES DEPRESSION SEVERITY PREDICT DIFFERENCES BETWEEN INDIVIDUAL AND WORK-UNIT AVERAGED MEASURES OF THE PSYCHOSOCIAL WORK ENVIRONMENT?

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Objectives It is debated if results from epidemiological studies on psychosocial factors at work and risk of depression are affected by the common rater problem, thus inflating associations by introducing reporting bias. Because depression is associated with cognitive distortions it is expected that severity of depression affects the level of reported exposures. The present study aims to investigate the possible dose-effect relationship between diagnosed severity of depression and differences between individual and work-unit averaged measures of the psychosocial work environment in a large epidemiological study.

Methods In 2007 4291 Danish public employees within 378 different work units were enrolled in the study. Mean levels of psychological demands were computed for each work unit. Screening for depressive symptoms (SCL-DEP6) 329 persons scoring above cut-off were invited to a diagnostic interview (SCAN), resulting in 40 cases with mild, 43 with moderate, and 17 with severe depression, and 229 cases with no diagnosis of depression. Differences were analysed with ANOVA statistics.

Results For quantitative demands the mean score difference was 0.08 points for participants with mild depression compared to their work-unit average, 0.28 points for participants with moderate depression and 0.36 points for participants with severe depression ($p = 0.40$).

Conclusions The data indicate a dose-effect pattern between severity of depression and divergence from work-unit averages. However, the results are not statistically significant and our initial hypothesis is not supported. Future perspectives involve including two follow-up waves to gather more cases and provide additional statistical power, and also allow adjustment for relevant confounders and changes in reporting over time. These results have implications regarding the need for exposure measures that are independent of reports from participants diagnosed with depression, but may also be explored as indicators of social marginalisation as a mechanism relevant to the development or maintenance of depression.

295 ERGONOMIC EXPOSURE ASSESSED BY PRODUCTION STATISTICS

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