

were 44.3 years old and 7.0 years. Shoulder (77.9%) was the most commonly reported affected area, followed by the lower back (75.7%), neck (69.2%), wrist and hand (62.5%), ankle (59.1%), elbow (57.2%), knee (56.3%) and thigh (46.2%). In work-related risk factors, 60% NAs reported more than 8 hours standing per day, and 34.3% NAs had to lifted over 10 Kg heavy more than 20 times a day. 37.7% NAs reported that they were injured or had disease from this job in this year. The presence of shoulder pain was significantly related to tenure (OR 2.3), awkward postures (OR 2.5), inadequate height of work desk/chair (OR 3.2). Low back pain was related to awkward postures (OR 2.7) and standing hours per day (OR 4.7). Neck pain was related to awkward postures (OR 2.3) and inadequate height of work desk/chair (OR 3.1). Wrist and hand pain was related to awkward postures (OR 3.7).

Conclusion The prevalence of LBP among NAs in Taiwan is high. Any MSD reduction interventions that aim to improve ergonomic and work environments for NAs should take this information into consideration.

RF-424 SICKNESS ABSENCE AND MECHANICAL AND PSYCHOSOCIAL WORK EXPOSURES ACROSS OCCUPATIONAL GROUPS IN NORWAY

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Introduction The working environment may contribute strongly to the development and manifestation of health problems leading to reduced work participation. To maintain high workforce participation, it is important to target workplace interventions to occupational groups at high risk of sickness absence (SA).

Objectives To identify occupational groups with excessive SA and develop occupation-specific knowledge about the contribution of work-related factors to SA and the potential for prevention.

Methods We performed a register-based study on employees aged 25–59 in 2013 (N=1,331,547) and calculated gender- and occupation-specific (4-digit ISCO codes) one-year incidence of all-cause and cause-specific SA. We selected the following job exposures: heavy physical work, high job demands and low job control, assessed by a Job Exposure Matrix and compared the gender-specific risk of SA among exposed workers to non-exposed workers. Lastly, we compared the gender-specific risk of SA in ten occupational groups to professionals (reference), controlling for (i) age and (ii) age and job exposures. We used Cox proportional hazards model for all analyses.

Results Workers exposed to heavy physical work or low job control had higher risk of SA (RR=3.65; 95% CI 3.54–3.78 and RR=1.41; 95% CI 1.39–1.42, respectively). The ten selected occupational groups all had higher risk of SA, relative to professionals. The relative risk was particularly high among male drivers and mobile plant operators (RR=2.57; 95% CI 2.49–2.64) and female personal care workers (RR=1.43; 95% CI 1.41–1.45). Adjusting for job exposures resulted in attenuation of the RR estimates, most for male building and related trade workers (37% attenuation) and female personal care workers (84%).

Conclusion We identified occupational groups with high risk of SA and the selected job exposures. Excess risk of SA in ten selected occupational groups, as compared to professionals, could partly be attributed to the job exposures.

RF-4 INTER-RATER RELIABILITY OF OCCUPATIONAL EXPOSURE ASSESSMENT IN A CASE-CONTROL STUDY

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Objective To estimate inter-rater reliability of expert assessment of occupational exposures.

Methods A population-based case-control study conducted in Montreal was used to obtain detailed information on lifetime occupational histories. Two trained industrial hygienists assessed the 4,362 reported jobs to assign exposures using a checklist of 258 agents. The jobs were divided between the two experts for evaluation (initial coding); then, each reviewed the others' to reach a consensus. A job was considered 'exposed' to an agent if that agent was present at levels above the non-occupational environment. Experts rated exposure for each job/substance combination according to confidence that the exposure occurred (possible, probable, definite), and to concentration (low, medium, high), where, low and high represented the extremes in the range of levels encountered in a work environment. An inter-rater reliability sub-study was conducted among a random sample of 185 jobs. Each expert coded the 185 jobs (1st coding); then, 6 months later, a 2nd coding occurred, whereby each expert coded the other's evaluation but did not have access to their own 1st evaluation. The statistical unit of observation was each job/substance decision (185 jobs×258 substances=47,730 decisions/expert). Chance-corrected weighted kappa statistic and Gwet's AC1 estimated the concordance between the experts in the 1st and 2nd coding.

Results Over 98% agreement was found and >97% (n=36,497) of decisions were to attribute no exposure to a particular job/substance combination by both experts. Restricting to combinations rated as exposed by both experts (n=508), Kappa=0.44 (95%CI: 0.37–0.50) and Gwet=0.55 (0.48–0.61) was found for confidence; while, Kappa=0.30 (0.15–0.45) and Gwet=0.92 (0.90–0.95) was found for concentration. After the 2nd coding, agreement improved for both confidence (Kappa=0.68, 0.63–0.73; Gwet=0.70, 0.65–0.75) and concentration (Kappa=0.65, 0.50–0.80; Gwet=0.96, 0.95–0.98).

Conclusion This sub-study provides some evidence supporting the reliability of expert assessment of occupational exposures in large-scale epidemiologic studies.

RF-285 THE EXPOSURE RESPONSE RELATION BETWEEN OCCUPATIONAL EXPOSURE TO WOOD DUST AND SINONASAL CANCER

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