

WORK ABILITY AND EXPOSURE TO WORK DEMANDS AMONG WORKERS WITH NECK PAIN

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i Karl Isaksson, Medicinaregatan 16A, den 4 juni, klockan 9.00

av Stefan Oliv

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Avhandlingen baseras på följande delarbeten

- I. Oliv S, Noor A, Gustafsson E, Hagberg M. A Lower Level of Physically Demanding Work Is Associated with Excellent Work Ability in Men and Women with Neck Pain in Different Age Groups. *Safety and Health at Work*. 2017;8(4):356-63.
- II. Oliv S, Gustafsson E, Baloch AN, Hagberg M, Sandén H. Important work demands for reducing sickness absence among workers with neck pain: a prospective cohort study. *Submitted*.
- III. Oliv S, Gustafsson E, Baloch AN, Hagberg M, Sandén H. Workplace Interventions can Reduce Sickness Absence for Persons with Work-related Neck and Upper Extremity Disorders: A One-year Prospective Cohort Study. *J Occup Environ Med*. 2019.
- IV. Oliv S, Gustafsson E, Baloch AN, Hagberg M, Sandén H. The Quick Exposure Check (QEC) - Inter-rater reliability in total score and individual items. *Appl Ergon*. 2019;76:32-7

Work ability and work demands among workers with neck pain

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Abstract

Neck pain is one of the most common musculoskeletal disorders, which causes sickness absence and early retirement. Manual labor, awkward postures and repetitive work are commonly reported as causes for work-related neck disorders. Both neck pain and heavy physical work have been linked to lower levels of work ability. The overall aim of this thesis was to gain knowledge of how work demands can influence the work ability and sickness absence of workers with neck and upper extremity disorders, and also investigate a method that measures work demands. One cross-sectional study, two longitudinal studies and one experimental study were included in this thesis. Papers I-III uses material from Statistics Sweden (SCB) “Work environment” and “Work related disorders” surveys. Sickness absence data from the Longitudinal integration database for health insurance and labor market studies (LISA) database were also used in these studies. The relationship between exposure to work demands (high or low) or work place interventions (yes or no) were compared to work ability or sickness absence. Paper IV investigated the inter-rater reliability of the summary scores and individual items of a method to measure work demands, the Quick Exposure Check (QEC), by comparing two simultaneous assessments of 51 work tasks. The results showed that a lower level of physically demanding work and having high control over ones work can result in lower levels of sickness absence and promote excellent work ability for workers with neck pain, especially among older workers (Papers I, II). In Paper III it was found that work place interventions that improves neck pain were associated with fewer number of sickness absence days. Paper IV found that the QEC has good reliability in total scores but a few of the individual items showed low reliability. The results from this thesis can be used in different work settings, to promote work ability and prevent sickness absence by employers and occupational healthcare professionals. **Keywords:** work ability, prevention, neck pain, sickness absence, musculoskeletal disorders, exposure, work demands