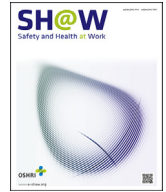




Contents lists available at [ScienceDirect](#)

Safety and Health at Work

journal homepage: www.e-shaw.org



Original Article

A Lower Level of Physically Demanding Work Is Associated with Excellent Work Ability in Men and Women with Neck Pain in Different Age Groups

Stefan Oliv*, Adnan Noor, Ewa Gustafsson, Mats Hagberg

Department of Occupational and Environmental Medicine, University of Gothenburg and Sahlgrenska University Hospital, Gothenburg, Sweden

ARTICLE INFO

Article history:

Received 29 April 2016
Received in revised form
8 November 2016
Accepted 1 March 2017
Available online xxx

Keywords:

aging workers
Work Ability Index
work demands

ABSTRACT

Background: The aim of this study was to investigate which physical and psychosocial work demands were associated with excellent work ability in individuals with neck pain, and to investigate age and sex differences in these associations.

Methods: The study sample was obtained from the Statistics Sweden cross-sectional Work Environment survey and consisted of workers who reported neck pain after work ($N = 3,212$).

Results: The findings showed an association between excellent work ability and self-reported *low exposure* to lifting, twisted work posture, working with hands in shoulder level or higher, and leaning forward without support and combination of exposures containing these work demands. *Low exposure* to seated work and high demands showed a reversed association. The associations were present mainly among older workers and were generally stronger for men than for women.

Conclusion: This study indicates that a lower level of physically demanding work is an important element to maintain excellent work ability, especially for the older worker with neck pain.

© 2017, Occupational Safety and Health Research Institute. Published by Elsevier. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Musculoskeletal disorders, such as neck pain, are one of the most common disorders causing sick leave and early retirement [1–4]. The prevalence of neck pain is high among workers in industrial countries [1,4], and it has been shown that having neck pain is one risk factor for developing long-term sick leave [5]. These disorders are one of the main causes of sick leave and disability pensions, leading to high costs for both the individual and society [4,6–8]. Regardless of the cause, musculoskeletal disorders can lead to reduced work ability, reduced productivity, work disability, and early retirement [9–12]. It has been shown that workers with a high level of physical work demands have a higher risk of work-related disability compared with workers in less physically demanding jobs [13,14]. Manual handling, awkward postures, and repetitive work are commonly reported as causes for work-related neck disorders. Psychosocial factors such as high job demands, low support from supervisors and coworkers, and low job control have also been reported as important contributors to musculoskeletal problems [15–19]. Recent studies have shown

that workers with pain report lower work ability and also lower work performance and productivity [20,21] compared with workers without pain. The Work Ability Index (WAI) was constructed as a method to measure work ability in an occupational setting [22]. It combines the individual's subjective assessment of his/her own ability to handle physical and mental work demands with information on diseases and consequent functional limitations. The index is sensitive to changes in work conditions, health status, and physical fitness [23]. The first question in the WAI has been used in epidemiological studies to investigate work ability. This question, also called the “work ability score,” has been compared with the total WAI and has shown a strong association and an equally good predictive value with regard to sick leave, health, age, job content, and reported pain [24,25]. Both sex and age have been shown to affect the prevalence of neck pain. It has been reported that women have higher prevalence of neck pain compared with men, which is partly explained by differences in work exposure between men and women [26–29]. Neck pain has also been reported as being more prevalent among older workers [27].

* Corresponding author. Arbets och miljömedicin, Box 414, 405 30 Göteborg, Sweden.
E-mail address: stefan.oliv@amm.gu.se (S. Oliv).

Many Western countries face an aging workforce, which places demands on the workplace to accommodate problems associated with aging, such as decreased muscle strength and decreased physical fitness [30–32]. Studies have shown that there is an association between older age and self-reported lower work ability; also, the association between physical work demands and work ability is stronger in workers closer to retirement than in younger workers [14,33].

Several studies report the effects of work-related physical and psychosocial factors and individual characteristics on work ability [34,35]. However, these studies have not addressed the effects of different work demands on the work ability of individuals with neck pain. When prioritizing interventions in the workplace, it is of value to know which work demands are associated with lower or higher levels of work ability. Most studies on work ability have focused on factors associated with poor work ability, and very few on which factors are associated excellent work ability [36].

The aim of this study was to investigate which physical and psychosocial exposures and combinations of these exposures were associated with excellent work ability, defined as self-reported work ability score of 10, among men and women with neck pain, and to investigate age and sex differences in this association.

2. Methods

2.1. Source population

This was a cross-sectional study using material obtained from the National Work Environment survey conducted by Statistics Sweden (SCB) from 2007 and 2009. The Work Environment survey is part of the larger Swedish Labour Force survey. The Swedish Labour Force survey is conducted by a telephone-based interview with a representative sample of the general Swedish population between 16 years and 74 years old. Those who answered the survey and were between 16 years and 64 years old, employed, and not on long-term sick or maternity leave were asked 25 extra questions with regard to their work environment. They also received an additional questionnaire sent by mail. A total of 19,839 individuals from the Labour Force survey answered the telephone interview (86% of the source population), and were sent the Work Environment survey questionnaire. Of this total, 14,082 answered the questionnaire (72% response rate; Fig. 1).

2.2. Study sample

The study sample for the present study was selected by including those reporting pain in the “upper back or neck” (neck pain) after work at least 2 days per week during the past 3 months (Fig. 1). Those who reported no pain in “upper back or neck” (no neck pain) were used as a reference group.

2.3. Neck pain

Neck pain were measured using self-reported questions from the SCB Work Environment survey asking about pain in the “upper back or neck” after work during the past 3 months. The categories were as follows: “every day,” “a few days per week (1 day out of 2),” “one day a week (1 day out of 5),” “a couple of days a month (1 day out of 10),” and “not at all or seldom.” For this study, “neck pain” was defined as self-reported pain in the neck or upper back “a few days per week (1 day out of 2 days)” or more often. The workers who reported pain in neck or upper back “not at all or seldom” and “a couple of days a month (1 day out of 10 days)” were categorized as having “no neck pain.”

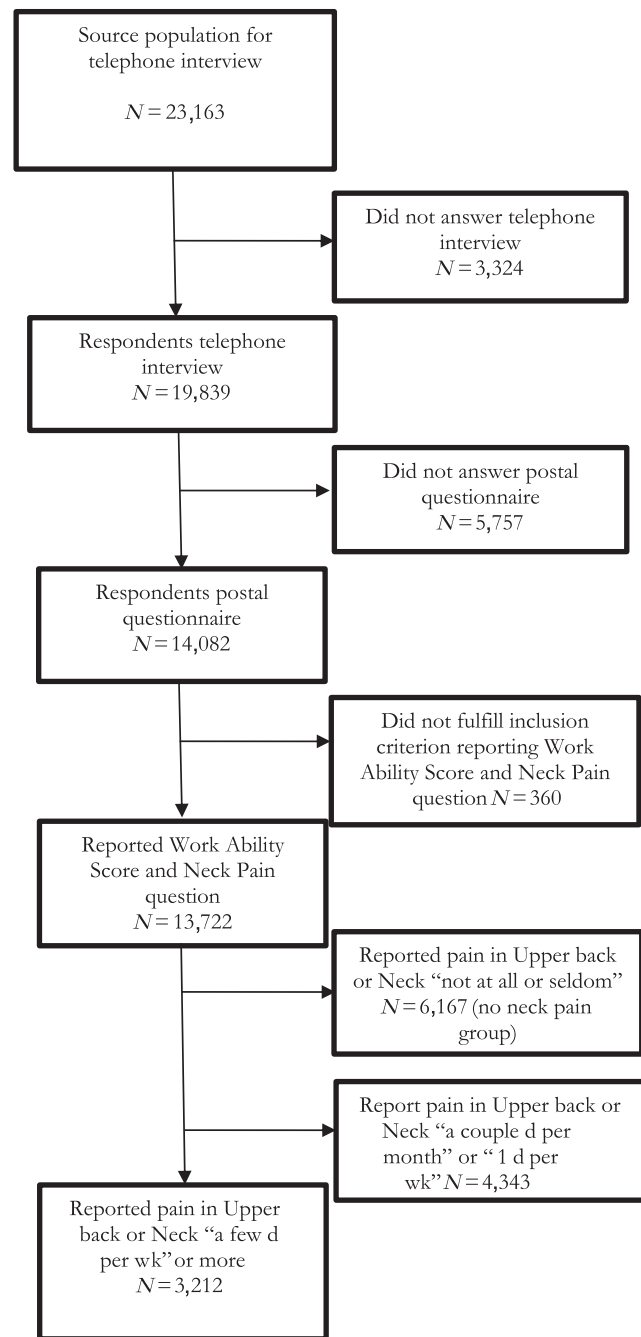


Fig. 1. Flowchart of inclusion in and dropout from the study (Swedish Workforce Survey 2007 and 2009; N = number of workers).

2.4. Work ability

Work ability was measured with the work ability score question: “Assume that your work ability at its best has a value of 10 points. How many points would you give your current work ability?,” with a score range of 1–10. This question was asked during the telephone interview conducted by the SCB. Studies [24,25] have shown that the work ability score question has good validity and reliability when compared with the total WAI. In this study, the work ability score was categorized into three levels: 1–7 (poor/moderate), 8–9 (good), and 10 (excellent). In the statistical analysis, excellent work ability was compared with poor work ability.

Download English Version:

<https://daneshyari.com/en/article/7527477>

Download Persian Version:

<https://daneshyari.com/article/7527477>

[Daneshyari.com](https://daneshyari.com)