



Editorial

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Return to work and job retention - increasingly important outcomes in occupational health research

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Return to work and job retention – increasingly important outcomes in occupational health research

It is excellent news for population health that life expectancy is increasing steadily in most countries around the world. However, the ageing of society has decreased the ratio of employed people to dependent ones. This unfavorable dependency ratio has become one of the most significant concerns in many Western societies. Increasing work participation at all stages of working age has therefore been placed on the agenda of a number of governments. Preventing health-related job loss and increasing return to work (RTW) will facilitate a productive workforce (1). This background was reflected in the scientific papers that were submitted to the *Scandinavian Journal of Work Environment & Health* for the Best Paper Competition that the Journal sponsored in association with the 7th Conference on Prevention of Work-Related Musculoskeletal Disorders (PREMUS) in Angers, France in the fall of 2010. In addition to the more traditional look at risk factors of disorders, many studies looked at work-related outcomes, and some of them assessed how the health resource factors affected such outcomes. The PREMUS conference was organized in conjunction with the First Scientific Conference of Work Disability Prevention and Integration; however, the topic of the latter conference was well represented also at the PREMUS Conference.

The paper that won the *first prize* in the competition is the first report on risk factors for the incidence of tendon disorders of the wrist from the large collaborative project on work-related upper-extremity disorders carried out by several universities and research institutes in the United States (2). The paper deals with work-related and individual risk factors for wrist tendinosis based on a prospective study with a follow-up time of 28 months. Although these disorders have been described as cases among manual workers by Ramazzini (3) more than 300 years ago and as an illustrative case series by Thompson et al (4) from the British auto industry already 60 years ago, their risk factors have been poorly quantified and rarely addressed in prospective studies. The study by Harris et al (2) reports an incidence rate of 5.4 cases per 100 person years, ranging from 0–14% in the studied workplaces. The incidence rates correspond to the incidence rates of tenosynovitis or peritendinitis reported by Kurppa et al (5) in various jobs in the meat-processing industry and are also in the same range with the incidence rates of rotator cuff tendinitis (6) and carpal tunnel syndrome (7) within different manufacturing industries and the healthcare sector. A particular strength of the study is the detailed exposure assessment for each individual worker based on different techniques for observation at the workplace (8). The well-known index for physical exposure of the hand–arm system, the American Conference for Governmental Industrial Hygienists' Threshold Limit Value (ACGIH TLV) for hand activity was a strong predictor for the onset of wrist tendinosis. The exposure parameter time spent in pinch grip with high force also predicted wrist tendinosis, whereas time spent in power grip was not a risk factor, nor were any of the measures of repetition. The study is an important contribution as it serves as a source for reference values for physical workloads in work-related upper-extremity disorders.

RTW interventions often do not show the desired effects. One reason may be that the intended measures have been only partially implemented (9). The authors of the paper that won the *second prize* of the competition have made a courageous and innovative approach to attempt to develop a framework for barriers and facilitators of the RTW process according to the Sherbrooke model (10) at individual, worker team, and organizational level (11). After developing a preliminary conceptual framework based on a literature review, Fassier et al (11) made an attempt to validate this framework with a multiple case study with embedded analysis in two regions in France. For this purpose, semi-structured interviews

and focus group discussions were carried out with professionals in both the healthcare and insurance systems and with workers at various workplaces. The analysis revealed that some categories of barriers or facilitators were too broad and needed to be broken down, while others did not seem to have a correspondence in practice and were therefore deleted. A revised conceptual framework was suggested as the product of the field work. The framework may help researchers and professionals to improve uptake and sustainability of RTW programs.

While the majority of workers on sick leave due to low-back pain can return to work relatively quickly, the proportion of those returning to work decreases as the time off work increases. In a population with a fast RTW curve after a spell of sickness absence due to low-back pain, about 59% returned to work after 2 weeks and 93% after 3 months. In populations with a much slower curve, the RTW is about 43% after 2 weeks and 79% after 3 months (12). It is therefore important to be able identify early indicators that predict successful RTW. The paper by Shaw et al (13) that won the *third prize* of the competition studied an inception cohort of workers seeking medical advice for acute, non-specific low-back pain. The study looked at the psychometric properties and predictive validity of a self-efficacy tool that addressed three conceptual domains related to the barriers in RTW: managing pain, obtaining help, and meeting job demands. The generation of the items and identification of domains were based on an earlier qualitative study (14). Upon inclusion in the study and after one week, the subjects responded to the questionnaire; RTW status was assessed at one week and again at three months. The results showed that the instrument – when used at inception – was able to predict the RTW status at one week but not very well at three months. However, when the questionnaire was completed for the second time one week later, the rate ratio of those that had returned to work at three months was almost fourfold for those with high self-efficacy compared to those with low self-efficacy. Comparisons of self efficacy scores between the first and second assessments (with an interval of one week) showed slight improvement with time and only moderate correlation, suggesting that self-efficacy beliefs were still evolving possibly as a result of employer interactions, discussions with family and friends, and the development of the symptoms. These findings demonstrated that self-efficacy, an important measure in theories of planned behavior, is not a fixed trait, but influenced by the social environment of the worker.

The jury of the competition feels that research in musculoskeletal disorders is moving forward, extending to areas of high societal relevance, and filling knowledge gaps where needed. Tendon disorders in the wrist have been recognized in certain types of jobs for centuries, however prospective studies on their determinants utilizing in-depth exposure assessments at individual level are almost non-existent. New instruments to assess behavioral factors, such as self-efficacy, that enhance RTW, could be of use in identifying subjects with less favorable prognosis. Furthermore, by including relevant domains such as managing pain, meeting job demands, and obtaining help, a self-efficacy tool might be able to reveal potentially modifiable factors. The new tools and conceptual models have been developed and chosen for publication in order to enhance their use. It has been seen that especially in papers on healthcare interventions, no theoretical framework has been mentioned as the basis of the intervention (15). It would definitely be time to test the few models that exist in future studies and report their feasibility and usefulness. Such models may need adaptations when applied in different societal circumstances, workplaces, and healthcare systems.

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