

chronic disease. More psychosocial resources (OR = 3.57; 95% CI:1.33–10.0) were predictive for prolonged work participation in workers with chronic disease only. Age, working hours/week, no functional limitations, depressive symptoms, neuroticism, and sense of mastery were significantly associated with prolonged work participation in workers with *and* without chronic disease.

**Conclusions** Predictors of prolonged work participation were similar for workers with and without chronic diseases, except for physical workload and psychosocial resources at work. This implies that differences between workers with and without chronic disease exist, and that these should be taken into account when identifying high risk groups regarding exit from the workforce.

### 31 EFFICIENCY OF OCCUPATIONAL HEALTH CO-OPERATION IN SMALL FORESTRY ENTERPRISES

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In Finland, employers are obligated by law to organise and pay for OHS for their employees. In the agriculture and forestry industry, only 50% of employers have organised OHS. One reason for this low coverage is that forestry machinery and timber transportation enterprises are usually small. The other, and perhaps the main reason, is that the employers are not familiar with the different tasks of OHS. To assess the efficiency of occupational health co-operation, we need indicators and processes that illustrate co-operation.

**Objectives** The aim of this study was to clarify how co-operation is carried out, and how it is manifested in the actions of enterprises and occupational health units.

**Methods** Five forestry machinery and timber transportation enterprises (n = 5) and their OHS units (n = 5) participated in our study. Employers and employee representatives took part in theme group interviews (n = 5) and we interviewed the enterprises' occupational health nurses (OHN) individually (n = 5). We also analysed OHS documents.

**Results** The interviews revealed that the main OHS tasks were individual work and health check-ups. Real co-operation between enterprises and OHS units was low. Both sides recognised a lack of knowledge concerning the other's work or tasks. Co-operation between enterprise and OHS was rarely mentioned in the various documents. Risks assessments were not carried out, despite being legally obligatory for the enterprises. The main challenges for occupational health co-operation in this field were risk assessments and workplace surveys.

**Conclusions** In order to improve the effectiveness of occupational health co-operation, the employer and OHS must know each other well, agree on the objectives for their joint actions, and commit to them. Successful co-operation requires regular interaction.

### 32 PREDICTORS OF SUCCESSFUL WORK FUNCTIONING

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**Objectives** To help workers to stay at work in a healthy, productive and sustainable way and to develop interventions to improve

work functioning, it is important to have insight in predictors of successful work functioning. The aim of this study is to identify predictors of successful work functioning in the general working population.

**Methods** A longitudinal study was conducted among the working population. Work functioning was assessed with the Work Role Functioning Questionnaire 2.0 (WRFQ). The total score was categorised as: 0–90; > 90 ≤ 95; and > 95–100 (the latter defined as 'successful work functioning'). A stepwise multiple ordinal logistic regression analysis was performed to examine relationships between potential predictors and the dependent variable (successful work functioning). Potential predictors included were mental health, fatigue, decision latitude, work engagement, work ability and baseline work functioning.

**Results** Mental health (OR = 1.09, 95% Confidence Interval (CI) = 1.02–1.17) and fatigue (OR = 0.93, 95% CI = 0.88–0.98) were both significant predictors of successful work functioning. After the addition of decision latitude and work engagement, only fatigue was predictive of successful work functioning. The effect was attenuated when work ability was added. In the final model, work ability (OR = 2.07, 95% CI = 1.22–3.49) and baseline work functioning (OR = 1.16, 95% CI = 1.07–1.25) independently predicted successful work functioning.

**Conclusions** Work ability and baseline work functioning are predictive for future successful work functioning. However, research has shown that it is difficult to change work ability. The concept of work functioning, reflecting the interplay between work demands and health, might provide better information for the design of interventions.

### 33 MEASUREMENT PROPERTIES OF THE 16-ITEM WORK LIMITATIONS QUESTIONNAIRE AMONG INJURED WORKERS WITH MUSCULOSKELETAL DISORDERS - DO DEPRESSIVE SYMPTOMS MAKE A DIFFERENCE?

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**Objectives** Little is known about whether the measurement properties of health-related work functioning instruments vary when applied to injured workers with or without depressive symptoms. The objectives of this study are to examine the reliability and validity of the 16-item Work Limitations Questionnaire (WLQ-16) among injured worker's compensation claimants and to explore whether these measurement properties vary by depressive symptom level.

**Methods** Data were used from the Readiness for Return to Work Cohort Study, a prospective cohort study of Ontario workers filing a Workplace Safety and Insurance Board lost-time injury claim for a musculoskeletal disorder. A total of N = 333 injured workers who had returned to work were included in the analysis. Thirty-four percent reported a high depressive symptom level (HDSL). The WLQ-16 is designed to assess limitations at work due to physical or emotional health problems or associated treatment. The 20-item Center for Epidemiologic Studies Depression scale was used to measure depressive symptoms.

**Results** In HDSL participants, the Cronbach's alphas were markedly lower for time management demands and physical demands when compared to participants with low depressive symptom

level (LDSL). Moreover, the correlations of the WLQ-subcales with functional disability and physical health were lower or similar in HDSL participants compared to LDSL participants.

**Conclusion** This study provides the first evidence that measurement properties of the WLQ-16 may vary by depressive symptom level in workers who returned to work after musculoskeletal disorders. More research is needed to better understand how health-related work functioning measures perform in workers with depressive symptoms.

### 34 DETERMINANTS OF HEALTH, WORK ABILITY AND SICKNESS ABSENCE: THE INFLUENCE OF LIFESTYLE, WORK-RELATED FACTORS, AND WORK ENGAGEMENT

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**Objectives** To identify the role of lifestyle factors, work-related factors, and work engagement on health, work ability, and sickness absence.

**Methods** Employees from two companies were invited to participate in a longitudinal study with questionnaires at baseline and six-month follow-up ( $n = 612$ , response: 40%). Lifestyle-related factors (physical activity, fruit and vegetable intake, body mass index), work-related factors (work demands, decision authority, skill discretion, physical job demands), and work engagement were assessed at baseline. At six-month follow-up, health, work ability, and sickness absence were assessed. Logistic regression analyses were performed to identify determinants of ill health, low work ability, and sickness absence. Additionally, additive interaction analyses were performed.

**Results** A low work engagement at baseline was associated with ill health (OR: 2.02, 95% CI: 1.04–3.92) less than good work ability (OR: 3.51, 95% CI: 2.01–6.12), and sickness absence (short: OR: 1.51, 95% CI: 1.02–2.23, long: OR: 1.79, 95% CI: 0.99–3.24) at follow-up. A lack of vigorous physical activity (ORs 2.46–2.96) and obesity (ORs: 2.34–3.02) at baseline were associated with ill health, low work ability, and long-term sickness absence at follow-up. Frequently working in awkward postures (ORs: 4.85–5.25) was related with a low work ability and long-term sickness absence. Unhealthy lifestyle and unfavourable physical work-related factors were associated with a low work engagement at baseline. The interaction effects of lifestyle or work-related factors and work engagement on work ability were stronger than the sum of the single effects.

**Conclusion** This study indicates that a low work engagement predicts ill health, a reduced work ability, and sickness absence. Furthermore, employees with an unhealthy lifestyle or unfavourable working conditions a low work engagement have a higher risk on a low work ability than their engaged colleagues. Hence, programs in occupational health should pay attention to both getting employees positively engaged in work and healthy in order to promote a productive work force.

### 35 WORKING CONDITIONS AND HEALTH IN CENTRAL AMERICA

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**Objective** To describe the initial results of the first Central American Survey of Working Conditions and Health, completed in 2011.

**Methods** A cross-sectional survey of a representative national sample of 12,024 workers (2004 per country) was performed in Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama, by completing an interviewer-administered questionnaire in the homes of the participants. Questionnaire items addressed worker demographics, employment conditions, occupational risk factors and self-perceived health.

**Results** Among the most salient results, women worked mainly in the tertiary sector (78%), while men were distributed between the tertiary (44%) and primary sectors (37%). Over 70% of both women and men were not insured by their country's social security system. Among salaried workers, 24% of women and 20% of men had a written contract, approximately 13% of both had an oral contract and 3% had no contract. About 67% of workers reported having very good or good health status, but at the same time 40% of women and 35% of men self-reported poor mental health. Around 3% of women and 5% of men had sustained an occupational injury in the previous 12 months.

**Conclusions** In Central America there is a dearth of information on working conditions and health; the available information is generally considered unreliable, of poor quality and scant distribution, especially for the informal sector. The establishment of reliable information systems is a priority for several global health and development programs. Although more detailed analyses are underway, this survey already represents significant progress towards the development of a simple, representative and reproducible regional information system in occupational health and safety that could better inform national and regional planning and assessment, and the creation of public policies directed at preventing occupational risks and promoting the health of both formal and informal workers.

### 36 OCCUPATIONAL HEALTH SERVICES FOR SMALL-SCALE INDUSTRY WORKERS IN A DISTRICT OF SRI LANKA

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**Objectives** To describe the provision of occupational health services to workers in small scale industries in a district of Sri Lanka

**Methods** A cross-sectional study was conducted among workers in selected small scale industries in Gampaha district in Sri Lanka. A small scale industry was defined as a work setting with less than 20 workers. The study population consisted of workers in four selected small scale industry categories namely food and beverages, apparel, non metallic mineral products and fabricated metal products. Full time, permanent, workers between the ages of 18–65 years with at least 6 months were selected. Pregnant and temporary workers were excluded. The Census of Industry 2003/2004 was used as the sampling frame. The required sample size was 640 and sampling was done using cluster sampling using probability proportionate to size of workers with a cluster size of eight and 80 clusters. Data was collected using an interviewer administered questionnaire.