

changes (on group and individual level), and percentage observed, positive and negative agreement. Responsiveness was calculated with area under the curve (AUC) obtained from receiver operation characteristic (ROC).

**Results** A sample of 52 participants on test-retest reliability and agreement and a sample of 223 on responsiveness were included in the study. Of the iPCQ-VR, ICCs ranged from 0.52 to 0.90, kappa ranged from 0.42 to 0.96, and AUC ranged from 0.55–0.86. The ICC of total healthcare utilisation of the TiCP-VR was 0.81 and kappa values of the single healthcare utilisation items ranged from 0.11 to 1.

**Discussion** The iPCQ-VR showed good clinimetric properties on working status, number of hours working per week and long term sick leave, and low measurement properties on short term sick leave and presenteeism. The TiCP-VR showed adequate reliability on all healthcare utilisation items together and medication use, but showed low clinimetric properties on the single healthcare utilisation items.

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### PROGNOSTIC FACTORS FOR WORK PARTICIPATION IN PATIENTS WITH SCIATICA: A SYSTEMATIC REVIEW

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**Introduction** Sciatica is usually self-limiting with pain and disability decreasing over time, but not all patients fully recover. Prognostic evidence could assist clinicians to better define high risk groups and inform both clinicians and patients with regard to counselling and treatment choices to promote return to work. The objective of this study was to review and summarise prognostic factors of work participation in patients with sciatica.

**Methods** We searched MEDLINE, CINAHL, EMBASE and PsycINFO till May 2016. Cohort studies, using a measure of work participation as outcome, were included. We used the QUIPS tool for risk of bias assessment and GRADE to rate the quality of the evidence.

**Results** Based on five studies describing four cohorts (n=983 patients) that assessed 19 potential prognostic factors, favourable factors for return to work at long term-term follow up (up to 10 years) included: younger age, better general health, less low back pain or sciatica bothersomeness, better physical function, positive SLR-test, a physician expecting surgery to be beneficial, better pain coping, less depression and mental stress, low physical work load. Study results could not be pooled. Using GRADE, the quality of the evidence ranged from moderate to very low.

**Discussion** Five studies describing four cohorts identified a wide range of factors: general health, pain and disability, psychological factors and work related factors. Although the number of studies was low and the quality of evidence ranged from moderate to very low, prognostic (modifiable) factors may be used to assist clinicians and occupational healthcare professionals in guiding high risk patients and consider referral for additional care or vocational rehabilitation, or in managing patients' expectations regarding return to work.

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### VALIDATION OF A CONCEPTUAL MODEL FOR SHOULDER PAIN RISK FACTORS IN THREE INDEPENDENT FRENCH WORKING POPULATIONS

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**Introduction** The aims were to explore the direct and indirect relationships between workplace risk factors, perceived stress and shoulder pain in a sample of male workers from various companies of the industrial sector and to validate the results in workers from two large companies located in France.

**Methods** Three working populations were analysed: a surveillance network based on a longitudinal design (Cosali) and two samples from companies based on a cross-sectional design. All workers completed a self-administered questionnaire about musculoskeletal symptoms, individual factors and exposure to work constraints. A conceptual model was defined drawing from the literature and the expertise of the authors. Structural equation modelling was used to test the direct and indirect relationships among the variables.

**Result** Results obtained in the two companies were in majority consistent with those observed in Cosali. In the three samples, industrial constraints influenced physical factors and psychosocial factors whereas market constraints influenced only psychosocial factors. Psychosocial factors and physical factors were correlated and physical factors increased shoulder pain. Shoulder pain was influenced directly by perceived stress only in one sample.

**Discussion** The results provide a better comprehension of the complexity of the distal and proximal determinants of shoulder pain and highlight that workplace interventions should act on multiple dimensions (i.e. organisational, psychosocial and physical factors) to be more effective.

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### EFFECTS OF PARTICIPATORY ERGONOMIC INTERVENTION PROGRAM (PEIP) ON MUSCULOSKELETAL AND HEALTH OUTCOMES AMONG HOSPITAL ORDERLIES

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**Introduction** The participatory ergonomic (PE) approach has been widely used to improve the health outcomes. The purpose of this study was to assess the effects of the participatory ergonomic intervention program (PEIP) can reduce musculoskeletal and health outcomes among hospital orderlies.

**Method** The randomised controlled trial (RCT) was conducted at tertiary care hospitals during July to December 2014. There were 100 orderlies participated in this study. Data collection was carried out by self-reported questionnaire and Quick exposure check (QEC) technique.