Örebro Musculoskeletal Pain Screening Questionnaire

Description

**General description:** Also known as the Acute Low Back Pain Screening Questionnaire, the Örebro Musculoskeletal Pain Screening Questionnaire (ÖMPSQ) is a 25-item self-administered tool designed to identify people at risk of developing chronic pain associated with psychosocial factors (yellow flags) (Hockings et al 2008, Linton & Boersma 2003, Linton & Hallden 1998). It assesses five categories of risk factors for prolonged disability: pain, perceived function, psychological variables, fear-avoidance beliefs, and patient demographics and background.

**Instruction to the client and scoring:** The ÖMPSQ takes 5–10 minutes to complete and score. Each item is scored on a 0–10 Likert scale with the exception of questions pertaining to background, previous sick leave, pain sites, and pain duration which are category scales. The score on 8 items is reversed. A total score is calculated from individual scores and ranges from 0 to 210 points. A higher score indicates a greater level of risk with each item weighted equally. Linton (2002) has used the following values as a ‘rough estimate’ of the level of risk for persistent pain problems but the cut-off score does seem to vary with the population under investigation: < 90 (low risk); 91–105 (medium risk); > 105 (high risk).

A cut-off score of 105 correctly identified future sick leave of nearly 80% of patients with back, neck, or shoulder pain (Linton & Hallden 1998) while Hurley et al (2000) found a cut-off point of 112 correctly classified 74% of patients with low back pain who received more than six physiotherapy treatments, and 80% who failed to return to work at the end of treatment. Marginson and French (2007) found a score of 147 correctly predicted discharge status (fit to return to work) in workers with a compensable sub-acute musculoskeletal injury (in any body region) after a 6-week physical therapy work-conditioning program. Grotle et al (2006) found a cut-off score of 90 points predicted number of days restricted from usual activity in patients with low back pain.

**Reliability, validity, and predictive ability:** The instrument has satisfactory test-retest reliability (0.83) and validity in a study of 142 patients where the outcome was absenteeism due to sickness (Linton & Boersma 2003, Linton & Hallden 1998). It has good specificity (classifying a healthy person as healthy, 75%) and sensitivity (correctly classifying those on longer duration of sick leave: 77% for those with 1–30 days sick leave and 61% for those with > 30 days sick leave). The overall predictive power of the instrument based on discriminant analyses (73%) is better than chance level of 33% (Linton & Hallden 1998). A Norwegian version of the ÖMPSQ reported similarly high test-retest reliability and internal consistency (0.95) (Grotle et al 2006). It has a moderate correlation with the Roland Morris Disability Questionnaire (r = 0.36 to 0.46) and Fear-avoidance Beliefs Questionnaire (r = 0.33 to 0.64) for patients with acute and chronic low back pain (Grotle et al 2006).

Commentary

The ÖMPSQ is useful in the primary care setting as an adjunct to the usual examination to screen patients for potential psychosocial barriers to progress in the acute and sub-acute phase. The importance of these factors is well known in the transition from acute pain to chronic disability, thus it is imperative these be identified early in the rehabilitation process. It enables the clinician to identify patients at risk of poorer outcomes in terms of function and work status (Grotle et al 2007, Hurley et al 2001, Hurley et al 2000) and to demonstrate the benefits of an intervention (Linton 2002). Although most studies have used the ÖMPSQ in patients with non-specific or work-related musculoskeletal spinal pain, its predictive utility in patients with musculoskeletal pain in any body region has been demonstrated by one study (Margison & French 2007).

Clinicians need to be aware of some limitations in the use of the ÖMPSQ. The cut-off point needs to be adjusted for the patient population and does not correctly predict 100 percent of cases. Thus the clinician cannot rely on the absolute cumulative value but needs to be vigilant to the risk factors for chronicity which is possible by reviewing responses on the sub-scales to determine if further investigation is warranted. However, the predictive ability of individual items of the ÖMPSQ in determining pain, disability or sickness absence have not been established yet (Hockings et al 2008).

In summary, the ÖMPSQ has sound predictive utility for future absenteeism due to musculoskeletal pain, and return to work in a compensable population and patients at risk of persisting pain and disability (Hockings et al 2008). It is a clinically reliable and valid instrument which the clinician may use to identify risk factors for long-term problems and to evaluate the effectiveness of an intervention. Its simplicity and ease of administering makes it a useful inclusion in the physiotherapist’s ‘tool bag.’

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References