

The pain self-efficacy questionnaire

Description

The Pain Self-Efficacy Questionnaire (PSEQ) is a 10-item questionnaire, developed in the 1980s by Michael Nicholas to assess the confidence people with ongoing pain have in performing activities while in pain. The PSEQ is applicable to all persisting pain presentations. It covers a range of functions, including household chores, socialising, work, as well as coping with pain without medication. It takes two minutes to complete, has a high completion rate, is available at no charge, and can be used in assessment, treatment planning, and outcome evaluation (Nicholas 2007). Normative data have been established for a pain clinic population (Nicholas et al 2007).

Instructions to the client and scoring: Clients are asked to rate how confidently they can perform the activities described, at present, despite their pain. They answer by circling a number on a 7-point Likert scale under each item, where 0 = not at all confident and 6 = completely confident. A total score, ranging from 0 to 60, is calculated by adding the scores for each item. Higher scores reflect stronger self-efficacy beliefs.

Reliability and validity: Internal consistency is excellent

(0.92 Cronbach's α) and test-retest reliability is high over a 3-month period (Asghari and Nicholas 2001). Validity is reflected in high correlations with measures of pain-related disability, different coping strategies, and another more activity-specific measure of self-efficacy beliefs, the Self-Efficacy Scale (SES) (Kaivanto et al 1995). However, the PSEQ is more strongly associated with perceived work capacity in injured workers with chronic pain than is the SES, which does not incorporate the presence of pain as a context (Gibson and Strong 1996). The evidence of the PSEQ's sensitivity to change provides support for its construct validity.

High PSEQ scores are strongly associated with clinically-significant functional levels and provide a useful gauge for evaluating outcomes in chronic pain patients (Nicholas 2007). Scores around 40, as found in injured workers who had returned to work (Cohen et al 2000, Adams and Williams 2003), are associated with return to work and maintenance of functional gains, whilst lower scores after treatment (eg, 30) tend to predict less sustainable gains (Coughlan et al 1995).

Commentary

Bandura (1977) conceptualised self-efficacy as a reflection of a 'resilient self-belief system' in the face of obstacles. By specifying the nature of the obstacle to be faced (pain), the PSEQ provides more clinically-useful information than simply asking someone about their confidence in performing an activity. It provides the clinician with a quick and easy guide as to how a client might respond to an activity upgrade or exercise program. Low scores (< 20) indicate the client is more focused on the pain (seeking pain relief first). Unless this belief is addressed it is likely to limit willingness to exercise independently. High scores (> 40) indicate the client is likely to respond well to an exercise program (Frost et al 1993). A client's pain self-efficacy can be changed in three main ways – by experience, where they can upgrade their activity levels (despite pain), by observing others with similar problems do the same, and by education. The evidence from studies with the PSEQ is that once clients with persisting pain reach scores over 40 they are likely to sustain, or build on, their functional gains (Nicholas 2007).

Low pain self-efficacy is a predictor of people being at risk of long-term disability and depression (Arnstein 1999). In general, higher self-efficacy appears to enhance and maintain the long-term effects of rehabilitation (Keefe et al 2004).

The availability of normative data assists in the interpretation of scores in individual cases, treatment outcome research,

and in assessing the clinical significance of the score (Nicholas et al 2007). For example, a PSEQ score of 42 before treatment would mean that a person would be more confident of his or her ability to manage the pain than 85% of a sample, with pain in the similar body area, attending the tertiary-referral centre described (Nicholas et al 2007b).

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The Impact of Event Scale (IES)

Description

The Impact of Event Scale (IES) was developed to measure current subjective distress related to a specific life event (Horowitz et al 1979). Two response states are reported to be associated with psychological reactions to stress – avoidance and intrusion (Drottning et al 1995). The IES has 15 items, seven of which measure intrusive symptoms such as thoughts, nightmares, feelings, and images associated with the specific event. Five of these items reflect intrusive symptoms whilst awake and two reflect intrusion during sleep (nightmares, insomnia). The avoidance subscale has eight items such as numbing of responsiveness, and avoidance of feelings and situations. The intrusion and avoidance components are combined to produce a total score (Horowitz et al 1979). The IES does not include a hyperarousal subscale, the third major symptom cluster of posttraumatic stress, and in view of this a revised version of the scale was developed (IES-R) (Weiss and Marmar 1997) but this version is more difficult to interpret with no cut-off scores available.

The IES is free and available from the Victims' Web site at Swinburne University and in the NSW Motor Accident Authority Guidelines for the Management of Acute Whiplash.

Instructions to the client and scoring: The questionnaires take 5–10 minutes to complete and score, and requires no

special training to administer. Respondents are asked to rate the frequency on a 4-point scale with which each symptom has occurred over the last week. The 4 points are: 0 (not at all), 1 (rarely), 3 (sometimes), and 5 (often). Scores range from 0 to 35 for intrusion, 0 to 40 for avoidance, and 0 to 75 for the total score. The total score can be interpreted according to the following dimensions of post-traumatic stress symptoms: 0 to 8 (subclinical range), 9 to 25 (mild range), 26 to 43 (moderate range), 44+ (severe range). It is suggested that the cut-off point is 26, above which a moderate or severe impact is indicated.

Reliability, validity and sensitivity to change: Test-retest reliability ($r = 0.79$ to 0.89) and internal consistency (Cronbach's $\alpha = 0.78$ to 0.82) has been demonstrated to be satisfactory (Horowitz et al 1979, Joseph 2000). The IES was originally devised as a measure of subjective distress and is a valid measure of such (Joseph 2000). However its content validity is severely limited as a measure of post-traumatic stress disorder and alternative instruments should be used if this condition is suspected (Joseph 2000). In other words, there is evidence supporting the use of the IES as a measure of trauma-related distress, although a diagnosis of PTSD cannot be made on the IES alone (Joseph 2000). The IES has been shown to be sensitive to detecting changes in clinical status over time (Corcoran and Fischer 1994).

Commentary

The IES has been used widely to investigate trauma-related distress following whiplash injury (Sterling et al 2005), other injuries following road traffic accidents (Stallard and Smith 2007), war veterans and following natural disasters (Joseph 2000), as well as survivors of intensive care admission (Richmond and Kauder 2005), and following breast cancer diagnosis (Koopman et al 2005). There is some evidence to suggest that in the case of whiplash injury, trauma-related stress symptoms (IES scores) were superior predictors of persistent pain and disability when compared to general psychological distress and fear avoidance beliefs (Sterling et al 2005).

Physiotherapists are often involved in the management of people following traumatic events. In some cases, the physiotherapist may be the first health care provider to see the patient, for example whiplash injury following a motor vehicle crash. Physiotherapists may be more familiar with using psychological questionnaires that relate to pain and/or disability and it should be noted that the IES measures distress related to an event (eg, accident, motor vehicle crash) rather than reported pain *per se*. This is an important point to note when administering the questionnaire. A cut-off score of 26 or above on the IES would be grounds for psychological referral. However referral may be deferred in the first few weeks after injury in order to allow natural recovery to occur (Forbes et al 2007). The physiotherapist's role in this regard would be to monitor symptoms with the IES and instigate referral if trauma symptoms persist. The optimal time frame for referral is debated but current guidelines suggest that trauma-related symptoms should

be present for at least two weeks before trauma-focussed treatment is provided (Forbes et al 2007).

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Websites

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<http://www.swin.edu.au/victims/resources/assessment/ptsd/ies.html>
- NSW Motor Accident Authority
<http://www.maa.nsw.gov.au/default.aspx?MenuID=95#415>