Pain Attitudes and Beliefs Scale (PABS)

Description

The PABS is a self-administered questionnaire designed to assess the strength of two treatment orientations of health care practitioners (HCPs) towards low back pain (LBP). The orientations are labelled: 'biomedical', where the HCP believes in a biomechanical model of disease, where disability and pain are consequences of specific tissue pathology and treatment is aimed at treating the pathology; and 'behavioural', where the HCP believes in a biopsychosocial model of disease, in which pain does not have to be a sign of tissue damage and can be influenced by social and psychological factors.

The original PABS (20 items: 14 biomedical, 6 behavioural) was developed and tested in samples of Dutch physiotherapists (Ostelo et al 2003. The amended version (19 items: 10 biomedical, 9 behavioural) was developed and tested in Dutch physiotherapists (Houben et al 2005). It has been used in large samples of UK general practitioners (GPs) and physiotherapists (Bishop et al 2008) and has also been adapted for use in studies of neck pain (Vonk et al 2008). Further versions have been developed in samples of German physiotherapists (Laekeman et al 2008 – 14 items: 10 biomedical, 4 behavioural) and GPs in Jersey (Bowey-Morris et al 201 – 17 items: 12 biomedical, 5 behavioural).

Instructions for completion and scoring: A respondent indicates on a six-point scale ('Totally disagree' = 1 to 'Totally agree' = 6) the extent to which they agree or disagree with each statement. Completion takes around 10 minutes. Subscale scores are calculated by a simple summation of the responses to the subscale items. Higher scores on a subscale indicate a stronger treatment orientation. As the PABS is a recently developed tool recommended cut-offs for high or low scores have not yet been reported.

Clinimetrics: The biomedical subscale has been shown to be stable and robust with only minor variation in the composition of the items between studies and with typically high internal consistency (Cronbach's α 0.73 to 0.84). The behavioural subscale has proved to be more problematic. The different versions that have been developed have largely been attempts to improve the structure of the original behavioural subscale, although internal consistency (Cronbach's α 0.52 to 0.68) has consistently fallen short of recommended levels (Terwee et al 2007).

There is evidence for content and construct validity (Ostelo et al 2003, Houben et al 2005, Bishop et al 2008), although there is no 'gold standard' with which to compare scores on the PABS. There is evidence for satisfactory test-retest reliability for the amended PABS (Bishop 2008) and for the Jersey GP version (Bowey-Morris 2010). Minimum clinically important change is yet to be determined and thus responsiveness of the PABS in detecting change in HCPs treatment orientations is not yet known.

Commentary

LBP is common, resulting in high numbers of consultations with HCPs. Despite a multitude of guidelines for the management of patients presenting with LBP, best-evidence recommendations are often not translated into clinical practice. HCP attitudes and beliefs are associated with the adoption of guideline recommendations. Implementation research has described a range of factors that can act as obstacles and facilitators to the translation of best practice recommendations into clinical practice and one such factor is the attitudes and beliefs that the individual HCP holds. In order to investigate the role of attitudes and beliefs in the adoption of best practice, robust measurement tools are essential. Initially this is likely to be in the context of research studies but use in educational and clinical settings will inevitably follow in due course.

The biomedical subscale of the PABS has been shown to have good clinimetric properties and the composition of items has shown a high degree of consistency when tested in a variety of HCP populations. Users of the PABS should be aware of the varied composition of the behavioural scale in the different reported versions that have been developed in attempts to improve the internal consistency of this subscale. Further work on the behavioural scale is required to achieve similar stability to the biomedical subscale.

The PABS is currently the most thoroughly tested tool available for the measurement of attitudes and beliefs of HCPs towards spinal pain, although gaps undoubtedly still exist in clinimetric testing. As the tool undergoes further testing and development the content and structure of the tool may well be refined, but this is a promising tool for this recently expanding area of research interest.

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References

Bishop A et al (2008) *Pain* 132: 91–101.

Bishop A (2008) *PhD thesis:* Keele University, UK.

Bowey-Morris J et al (2009) *Clin J Pain* 26: 144–152.

Houben RM et al (2005) *Eur J Pain* 9: 173–183.

Jellema P et al (2005) *Pain* 118: 350–359.

Laekeman MA et al (2008) *Clin Rehabil* 22: 564–575.

Ostelo RW et al (2003) *Man Ther* 8: 214–222.

Terwee CB et al (2007) *J Clin Epidemiol* 60: 34–42.

Vonk F et al (2008) *Man Ther* 14: 131–137.

The Illness Perceptions Questionnaire-Revised (IPQ-R)

Description

The IPQ-R is an 84-item self-completed instrument developed to provide a quantitative measurement of the components of illness representations, as described by Leventhal's Common-Sense Model (CSM) of self-regulation (Leventhal et al 1984, 1997). It is divided into three sections: identity subscale (14 symptoms), causal subscale (18 causes), and a third section which contains 7 subscales, including consequences, timeline acute/chronic and cyclical, personal and treatment control/cure, illness coherence, and emotional representations. Researchers are encouraged to adapt the questionnaire wording to the specific illness under investigation by replacing the word *illness* with the name of the condition under investigation.

Instructions to clients and scoring: For the identity subscale, respondents are asked if they have experienced a number of symptoms since their illness, and if they feel the symptoms are related to their current illness. Response is by circling 'yes' or 'no' to each question. Responses are then summed to give an overall score. For the causal subscale, respondents are asked what they perceive to be the cause of their illness and are asked to respond to each of the listed causes using a 5-point Likert style scale, ranging from strongly disagree to strongly agree. Respondents are also asked to rank the 3 most important factors believed to be the cause of their illness. The third section (7 subscales) is scored by summing responses to each item is on a 5-point Likert style scale, ranging from strongly disagree to strongly agree. All items for each of the subscales are summed to give an overall score.

High scores on the identity, consequences, timeline acute/chronic and cyclical subscales represent strongly held beliefs about the number of symptoms attributed, the negative consequences, and the chronicity and cyclical nature of the illness. High scores on the personal and treatment control and coherence subscales represent positive beliefs about controllability and a personal understanding of the illness. For non-English speaking patients the questionnaire has been translated into a number of languages, including Norwegian, French, and Dutch.

A Brief Illness Perceptions Questionnaire has been developed (Broadbent et al 2006) and comprises 9 questions, one question representing each of the subscales.

Further information on the IPQ-R and the Brief Illness Perceptions Questionnaire can be found on the website, as well as a links to download the questionnaires. (http://www.uib.no/ipq/).

Psychometrics: Internal consistency for each of the subscales in section 3 is good (Cronbach alpha's ranging from 0.79 for timeline cyclical to 0.89 for timeline acute/chronic). The identity subscale has shown a conceptual difference between symptoms experienced and those associated with illness (t (15.94), $p < 0.001$), thus supporting the conceptual difference between somatisation and identity. All symptoms have been endorsed across a range of conditions and Cronbach's alpha is 0.75, suggesting that patients either attribute a relatively high or low number of symptoms to their illness (Moss-Morris et al 2002).

Test-retest reliability using Pearson's correlations showed good stability, with correlations ranging from 0.46 to 0.88 over 3 weeks and 0.35 to 0.82 over 6 months, in samples of patients with renal disease and rheumatoid arthritis patients respectively. (Moss-Morris et al 2002).

The questionnaire has also been found to demonstrate discriminant validity when comparing patients with acute and chronic pain ($p < 0.001$ in the majority of cases), and predictive validity on a sample of patients with multiple sclerosis (Moss-Morris et al 2002).

Confirmatory factor analyses carried out in a cervical screening context (Hagger et al 2005) largely supports the factor structure of the IPQ-R, however, the factor structure has not been confirmed in a sample of patients with atopic dermatitis (Wittkowski et al 2008) and, therefore, results should be interpreted with care in this population.

Commentary

Patients attending for physiotherapy may have functional limitations and pain. Illness perceptions, as described by the CSM, have been found to be associated with clinical outcomes and behaviour (Foster et al 2008, Hagger and Orbell 2003; Hill et al 2007). With the growing recognition that illness perceptions guide coping and outcome, illness perceptions are a useful theoretical framework to help inform patient-centred assessment and interventions (for example, Siemonsma et al, 2008).

Overall, the IPQ-R has good psychometric properties, although caution should be applied in certain clinical populations. One of the limitations of the IPQ-R is its length, especially if it is being used when time is limited, such as in a busy clinic environment, in those with physical limitations, with the elderly, or with those who have writing or reading problems. In these situations, it may be worthwhile considering the Brief Illness Perceptions Questionnaire (Broadbent et al 2006).

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References

Broadbent E et al (2006) *J Psychosom Res* 60: 631–637.

Foster NE et al (2008) *Pain* 136: 177–187.

Hagger MS and Orbell S (2003) *Psychol Health* 18: 141–184.

Hagger MS and Orbell S (2005) *Psychol Health* 20: 161–173.

Hill S et al (2007) *Rheumatology* 46: 944–951

Leventhal et al (1984) In: Handbook of psychology and health IV. Hillsdale: Erlbaum, pp. 219–252.

Leventhal et al (1997) In: Perceptions of health and illness: Current research and applications. Amsterdam: Harwood, pp. 19–45.

Moss-Morris R et al (2002) *Psychol Health* 17: 1–16.

Siemonsma PC et al (2008) *Disabil Rehabil* 30: 1309–1317.

Wittkowski A et al (2008) *Psychol Health Med* 13: 346–359.