

TEST REFERENCES

1. Wilson-Barnett, J., & Trimble, M. R. (1983). An investigation of hysteria using the Illness Behaviour Questionnaire. *British Journal of Psychiatry*, 146, 601-608.
2. Claver, J. R., Bookless-Pratz, C. L., & Ross, M. W. (1986). The evaluation of illness behaviour and exaggeration of disability. *British Journal of Psychiatry*, 148, 296-299.
3. Kellner, R., Wiggins, R. G., & Pathak, D. (1986). Hypochondrial fears and beliefs in medical and law students. *Archives of General Psychiatry*, 43, 437-439.

Review of the Illness Behaviour Questionnaire, Second Edition by MICHELLE T. TOSHIMA, Ph.D. candidate, and ROBERT M. KAPLAN, Professor of Community and Family Medicine, Acting Chief, Division of Health Care Services, University of California, San Diego, La Jolla, CA:

The 62-item Illness Behaviour Questionnaire (IBQ) is designed to assess inappropriate or maladaptive health attitudes. The yes/no items represent seven aspects of illness behavior: General Hypochondriasis, Disease Conviction, Psychological vs. Somatic Concern, Affective Inhibition, Affective Disturbance or Dysphoria, Denial, and Irritability.

The Illness Behaviour Questionnaire was used initially to detect abnormal illness behavior patterns in pain clinic patients. A sample of 100 pain patients referred from a large metropolitan hospital was used for the initial item analysis. More recently, the instrument has been used in assessing a variety of patient populations. Factor analyses using a principal components method with orthogonal rotation are reported in the manual for several patient groups, including myocardial infarction, coronary artery by-pass surgery, and general practice patients. According to the manual, the derived factors were similar across the groups.

Test-retest reliabilities over a 12-week period for the seven scales ranged from .67 to .87. The validity of the IBQ has been assessed through spouse-patient correlations, discriminative studies, and concurrent validity studies. The correlations between the patient's responses and the spouse's perception of the patient's responses ranged from .50 to .78. Discriminant validity studies indicated that pain patients respond differently in comparison to either general practice or psychiatric patients. Concurrent validity was examined only for the Affective Disturbance Scale. Comparisons between the IBQ and the Zung scale ($r = .54, p < .001$), the Levine-Pilowsky Depression scale ($r = .56, p < .001$), and the Spielberger State Anxiety (r

[146]

Illness Behaviour Questionnaire, Second Edition. Purpose: "To record aspects of illness behaviour, particularly those attitudes that suggest inappropriate or maladaptive modes of responding to one's state of health." Pain clinic, psychiatric, and general practice patients; 1983; IBQ; self-report instrument; 8 scores: 7 factors (General Hypochondriasis, Disease Conviction, Psychological vs. Somatic Perception of Illness, Affective Inhibition, Affective Disturbance, Denial, Irritability) and Whitely Index of Hypochondriasis; price data available from publisher for questionnaire and manual ('83, 60 pages); administration time not reported; I. Pilowsky and N. D. Spence; I. Pilowsky [South Australia].*

= .59, $p < .001$), and Trait Anxiety ($r = .76$, $p < .001$) Scales were statistically significant.

The manual presents normative data for a variety of patient populations broken down by sex. Also included for each scale are score frequencies for the patient groups, making it possible for users of the questionnaire to adjust the cutoff points, depending on the specific population being considered. The scoring system, based on the item loadings from the factor analysis can be easily computed by hand or with a computer program. In its final form, scores for the IBQ are summarized graphically in a profile.

CRITIQUE. Using the Science Citation Index, we identified a sample of studies that cited the IBQ. Evaluations of the IBQ were mixed in these studies. McFarlane and Brooks (1988) administered the IBQ and a measure of disease severity to 40 patients diagnosed with rheumatoid arthritis. Two of the IBQ scales (Scale 6—Personal problems caused by disease, and Scale 2—Disease Conviction) were significant correlates of poor health outcomes. In addition, two other scales had lesser associations with poor health outcomes. In a related study, McFarlane and colleagues (1987) administered the IBQ to 30 rheumatoid arthritis patients at entry to a clinic and 3 years later. In contrast to McFarlane and Brooks' (1988) study of arthritis patients, the IBQ did not forecast better or poorer outcomes. Other psychological measures included in the study, however, did differentiate the outcome groups.

Clayers, Bookless, and Ross (1984) administered the IBQ to 164 employees of a public utility and 82 patients who had reported to a hospital in pain, but were diagnosed as neurotic. The public utility employees were divided into two groups: those instructed to exaggerate their symptoms, and those given no such instructions. Although the IBQ differentiated these groups on four scales, it is unclear what a study of such disparate groups actually means.

Several studies have failed to find significant differences between groups responding to the IBQ. For example, Cooper, Wise, and Mann (1985) found that vegetarians and family practice patients did not differ on IBQ scales. Horgan, Davies, Hunt, Westlake, and Mullerworth (1984) were unable to demonstrate pre- and post-operative changes in coronary artery bypass patients using the IBQ. Bassett and

Pilowsky (1985) found no differences between groups of pain patients who received either psychodynamic or supportive psychotherapy treatment. Failure to find treatment or group differences is not necessarily grounds for criticizing measures. Some treatments do not work and some groups do not differ. Yet, the meaning of differences, when they are observed, is important to evaluate.

Consider, for example, a study by Pilowsky, Crettenben, and Townley (1985). This investigation demonstrated that poor sleepers were higher on General Hypochondriasis and Disease Conviction than were good sleepers. How does one get a high score on a scale of Disease Conviction? A careful examination of the manual reveals that the Disease Conviction scale is comprised of six items. One of these items is, "Are you sleeping well?" Another item is, "Does your illness interfere with your life a great deal?" If an illness interferes with sleep, we would expect the person to answer in the affirmative. The summary of Disease Conviction, as portrayed in the manual, suggests that individuals scoring high on this scale have symptom preoccupation and tend to reject the doctor's reassurance. The implication is that those scoring high on the scale are neurotic and unappreciative of their medical care providers. Take, for example, patients troubled by severe arthritis. They may not be sleeping well because they are in pain. Further, they will most likely report that the illness interferes with their life a great deal. Lastly, they would probably report yes to another item on the scale, "Do you find that you are bothered by many symptoms?" Thus, the arthritic patient may endorse at least three of the six items on the Disease Conviction scale; but, does this imply any sort of inappropriate or maladaptive attitude?

One of the interesting items on the Disease Conviction scale concerns obedience to the doctor. Item 7 states, "If the doctor told you that he could find nothing wrong with you, would you believe him?" A "No" answer contributes to the scale score. Consider again the patient troubled with arthritis. If a suffering arthritic patient was told by a doctor that nothing was wrong; yet, the patient was indeed experiencing calcification of the joints, would that imply some sort of neurotic response? Surely not! In fact, it would be time to find a new doctor.

What we are suggesting is that the interpretations of the scale scores cannot be undertaken without examining the original items. What information does the IBQ convey? The system does provide a series of scales that are relevant to people with physical illnesses. Some of them consider general hypochondriasis and other aspects of anxiety and worry. However, some of these scales are actually quite brief. For example, five of the seven scales are comprised of only five items. Thus, attributes such as "Affective disturbance" or "Denial" are evaluated based upon a small number of items. We wonder about the reliability of these five-item scales.

Lastly, the manual suggests that three discriminant function analyses revealed "separate though similar discriminant functions," separating pain patients from general practice patients. A closer inspection of the functions raises some questions about their similarity. The three studies were performed on three separate pairs of pain and general/family practice groups. The first and third studies were conducted in Adelaide, South Australia, while the second was completed in Seattle, Washington. In the first study, Factor 2 had the highest positive discriminant function coefficient, while in the other two studies Factor 2 had a modest negative coefficient. Factor 4 had the second highest weight in the third study, but did not significantly contribute to discrimination in the other two analyses. Factor 1 had a strong coefficient in the first study, but did not significantly contribute to the functions in the other two studies and so on. Discriminant function analysis capitalizes on change relationships and the high rates of classification are often attenuated in cross-validation studies. The inconsistencies in the functions may indicate that the accuracy in classification may be somewhat less than reported in the manual. Separating patients who are known to be quite different (i.e., pain vs. general practice) may be less difficult than correctly differentiating patients in similar diagnostic categories. Speculand, Goss, Spence, and Pilowsky (1981) did report that at least two IBQ scales separate intractable from odontogenic pain patients. However, Gordon and Hitchcock (1983) had difficulty finding IBQ differences between trigeminal and non-neuralgic facial pain patients.

In summary, the Illness Behaviour Questionnaire covers rather comprehensively the maladaptive/inappropriate attitudes towards health status. In general, the items are well constructed. The authors have done a great deal of work to develop a useful instrument to assist in measuring health attitudes of patient populations. The test manual is quite comprehensive, explaining in sufficient detail the development of the questionnaire; however, it lacks information needed to interpret the results. Perhaps this information will be offered when a larger number of validity studies have been conducted. Because of limited validity data, statements about IBQ scores may be premature at this time. As mentioned by the authors and supported by the reviewers, the Illness Behaviour Questionnaire is not a replacement for the clinical interview/evaluation, but rather an adjunctive instrument to aid in the diagnostic and evaluative process.

REVIEWER'S REFERENCES

- Speculand, B., Goss, A. N., Spence, N. D., & Pilowsky, I. (1981). Intractable facial pain and illness behaviour. *Pain*, 11, 213-219.
- Gordon, A., & Hitchcock, E. R. (1983). Illness behaviour and personality in intractable facial pain syndromes. *Pain*, 17, 267-276.
- Clayer, J. R., Bookless, C., & Ross, M. W. (1984). Neurosis and conscious symptom exaggeration: Its differentiation by the Illness Behavior Questionnaire. *Journal of Psychosomatic Research*, 28, 237-241.
- Horgan, D., Davies, B., Hunt, D., Westlake, G. W., & Mullerworth, M. (1984). Psychiatric aspects of coronary artery surgery: A prospective study. *The Medical Journal of Australia*, 141, 537-590.
- Bassett, D. L., & Pilowsky, I. (1985). A study of brief psychotherapy for chronic pain. *Journal of Psychosomatic Research*, 29, 259-264.
- Cooper, C. K., Wise, T. N., & Mann, L. S. (1985). Psychological and cognitive characteristics of vegetarians. *Psychosomatics*, 26, 521-527.
- Pilowsky, I., Crettenden, I., & Townley, M. (1985). Sleep disturbance in pain clinic patients. *Pain*, 23, 27-33.
- McFarlane, A. C., Kalucy, R. S., & Brooks, P. M. (1987). Psychological predictors of disease course in rheumatoid arthritis. *Psychosomatic Research*, 31, 757-764.
- McFarlane, A. C., & Brooks, P. M. (1988). Determinants of disability in rheumatoid arthritis. *British Journal of Rheumatology*, 27, 7-14.