ILLNESS BEHAVIOUR QUESTIONNAIRE (IBQ): TRANSLATION AND ADAPTATION IN INDIA.

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SUMMARY

The Illness Behaviour Questionnaire (IBQ) of Pilowsky and Spence (1981), which was developed as a self-report instrument to record aspects of "Illness Behaviour" particularly those attitudes that suggest inappropriate or maladaptive modes of responding to one's state of health (Pilowsky 1971), was translated into Hindi and adapted. Factor analysis of the data revealed four meaningful factors which correspond with the four out of seven factor reported by original authors.

Introduction

Mechanic (1962) introduced the concept of illness behaviour to refer to the ways in which symptoms may be differentially perceived, evaluated and acted (or not acted) upon by different kinds of persons. Taking lead from this concept Pilowsky (1969) has proposed that a number of psychiatric syndromes (such as hypochondriasis, conversion reaction, neurasthenia, malingering, etc.) may be viewed as forms of abnormal illness behaviour. This report pertains to the translation and adaptation of the Illness Behaviour Questionnaire in India.

Material and Method

Two hundred consecutive patients suffering from chronic intractable pain and seeking consultation at various clinics of the Postgraduate Institute of Medical Education and Research, Chandigarh, India, were given IBQ. The characteristics of sample and detailed methodology have already been reported elsewhere (Varma et al. 1983, Chaturvedi et al. 1984).

The sample consisted of 113 males and 87 females with a mean age of 38.24 ± 11.89 years. The commonest site of pain was in the head, neck and face followed by the chest and abdomen; extremities, backache, and whole body. Other details regarding pain characteristics have been described previously by Varma et al. (1983).

Stages of Analysis

1. At the initial stage IBQ English version was administered to one hundred pain patients and was subjected to factor analysis. The computer was a DEC System-20 and the programme was from Scientific Subroutine Package (SSP). The method of principal component with iteration was employed for the analysis using the varimax criteria for rotation. As many orthogonal factors were rotated as there were eigen values greater than 2.0 (Pilowsky 1983, personal communication).

2. Test-retest reliability of English version was worked out on twenty pain patients with a time gap of 4-6 weeks.

3. Hindi version of IBQ was given to 20 pain patients (who knew only Hindi) and the same was repeated at the interval of 4-6 weeks.
4. Another set of twenty pain patients was identified who knew both the languages, i.e., Hindi and English. In a random fashion, ten patients were given Hindi and rest English IBQ. At the interval of 4-6 weeks, English version to the previous Hindi and Hindi version to the previous English group was administered.

5. At the final stage, IBQ was administered on 200 pain patients (English - 114 and Hindi - 86) and data was subjected to factor analysis.

Results

The initial analysis on 100 pain patients yielded five rotated factors with eigenvalues greater than two and accounted for 50.09% of the variance. For the meaningful interpretation of the factor, it was decided to interpret only those factors having minimum of four items with loadings greater than 0.40. Using this criteria, four factors were interpreted which account for 45.04% of the variance. For the purpose of interpretation, composite factor scores were generated from the major loadings of four factors on similar lines as reported by Pilowsky and Spence (1975).

From stage 2 to 4, test-retest reliability was worked out, Table 1 indicates 'r' value.

| Stage       | Factors  | I     | II    | III   | IV    |
|-------------|----------|-------|-------|-------|-------|
| 2 English IBQ | .927     | .913  | .896  | .939  |
| 3 Hindi IBQ  | .884     | .874  | .861  | .906  |
| 4 English and Hindi IBQ | .895     | .713  | .706  | .922  |

All the correlations significant at .01 level

Stage 2 Test-Retest (English) factors from Stages 2-4

Table 1

Table showing Test-Retest 'r' from Stages 2-4

| Stage       | Factors  | I     | II    | III   | IV    |
|-------------|----------|-------|-------|-------|-------|
| 2 English IBQ | .927     | .913  | .896  | .939  |
| 3 Hindi IBQ  | .884     | .874  | .861  | .906  |
| 4 English and Hindi IBQ | .895     | .713  | .706  | .922  |

All the values are significant beyond .01 level. Table 2 indicates pre and post mean scores for all the three groups. Student 't' test was applied and no significant differences emerged at any stage. Variation in scores on four factors in three groups was mainly due to the independent sample across groups.

The final data on 200 pain patients (now under reporting) was subjected to factor analysis by using the same criteria as described earlier yielded five factors out of which four were interpreted and accounted for 47.94% of the variance. Test items, their factor loadings and per cent variance are shown in Table 3.

| Stage       | Factors  | I     | II    | III   | IV    |
|-------------|----------|-------|-------|-------|-------|
| 2 Test-Retest (English) | Pre 4.65 ± 2.81 | 6.45 ± 2.77 | 2.75 ± 2.87 | 4.55 ± 2.87 |
|              | Post 5.45 ± 2.16 | 6.20 ± 2.19 | 2.50 ± 1.57 | 4.10 ± 2.55 |
| 3 Test-Retest (Hindi)  | Pre 6.45 ± 2.16 | 5.50 ± 2.31 | 2.85 ± 1.60 | 5.10 ± 2.88 |
|              | Post 6.50 ± 2.19 | 5.50 ± 2.19 | 2.70 ± 1.42 | 4.95 ± 3.09 |
| 4 Test-Retest (English/Hindi) | Pre 5.95 ± 2.39 | 6.75 ± 1.83 | 3.25 ± 1.45 | 5.95 ± 2.26 |
|              | Post 6.25 ± 2.51 | 6.00 ± 1.97 | 3.30 ± 1.42 | 5.88 ± 2.35 |

No significant differences were noticed.
Table 3

IBQ 62 ITEMS
ITEM LOADINGS FOR 200 PATIENTS

| Item No. | Question                                                                 | Loading | % variance |
|----------|--------------------------------------------------------------------------|---------|------------|
| 1-15     | **FACTOR-I  GENERAL HYPOCHONDRAISIS**                                     |         |            |
| 1.       | Do you worry a lot about health?                                         | .61     |            |
| 2.       | Do you think there is something seriously wrong with your body?          | .67     |            |
| 3.       | Does your illness interfere with your life a great deal?                 | .66     |            |
| 17.      | Does your illness affect the way you get on with your family or friends a great deal? | .52     | 19.84      |
| 21.      | Are you afraid of illness?                                               | .58     |            |
| 28.      | Do you care whether or not people realise you are sick?                  | .50     |            |
| 34.      | Do you often worry about the possibility that you have got a serious illness? | .63     |            |
| 35.      | Are you sleeping well?                                                   | -.54    |            |
| 37.      | Do you often think that you might suddenly fall ill?                     | .53     |            |
| 46.      | Is your bad health the biggest difficulty of your life?                  | .63     |            |
| 50.      | Do you often have the symptoms of a very serious disease?                | .55     |            |
| 5.       | **FACTOR-II  DENIAL OF PROBLEMS**                                        |         |            |
| 5.       | Does your family have a history of illness?                              | -.47    |            |
| 15.      | Does it upset you to talk to the doctor about your illness?              | -.62    | 11.91      |
| 17.      | Except for your illness, do you have any problems in your life?          | -.54    |            |
| 29.      | Do you find that you get jealous of other people's good health?          | -.61    |            |
| 31.      | Do you have any financial problems?                                      | -.46    |            |
| 32.      | Are you upset by the way people take your illness?                       | -.40    |            |
| 43.      | Do you have any family problems?                                         | -.40    |            |
| 49.      | Are you always a cooperative patient?                                    | .40     |            |
| 60.      | Do you have personal worries which are not caused by physical illness?    | -.55    |            |
ILLNESS BEHAVIOUR QUESTIONNAIRE (IBQ)

| Item No. | Question                                                                 | Loading | % variance |
|----------|---------------------------------------------------------------------------|---------|------------|
| 22.      | Can you express your personal feelings easily to other people?            | -.51    |            |
| 36.      | When you are angry, do you tend to bottle up your feelings?               | .53     |            |
| 42.      | Do you frequently try to explain to others how you are feeling?           | -.66    |            |
| 53.      | Do you prefer to keep your feelings to yourself?                          | .58     | 8.58       |
| 58.      | Is it easy for you to let people know when you are cross with them?       | -.56    |            |
| 62.      | Is it hard for you to show people your personal feelings?                 | .64     |            |

FACTOR-III
AFFECTIVE INHIBITION

| Item No. | Question                                                                 | Loading | % variance |
|----------|---------------------------------------------------------------------------|---------|------------|
| 12.      | Do you have trouble with your nerves?                                     | .50     |            |
| 18.      | Do you find that you get anxious easily?                                  | .63     |            |
| 20.      | Are you more sensitive to pain than other people?                         | .60     |            |
| 24.      | Do you think that you worry about your health more than most people?      | .63     |            |
| 47.      | Do you find that you get sad easily?                                      | .85     | 7.61       |
| 48.      | Do you worry or fume over small details that seem unimportant to others?  | .77     |            |
| 51.      | Do you find that you get angry easily?                                    | .76     |            |
| 54.      | Do you often find that you get depressed?                                 | .85     |            |
| 57.      | Do you think that your symptoms may be caused by worry?                   | .69     |            |
| 61.      | Do you often find that you lose patience with other people?               | .67     |            |

FACTOR-IV
AFFECTIVE DISTURBANCE/DYSPHORIA

| Item No. | Question                                                                 | Loading | % variance |
|----------|---------------------------------------------------------------------------|---------|------------|
| 14.      | Do you often feel that you lose patience with other people?               | .67     |            |

Table 4
Distribution of 200 patients with chronic interactable paid on four composite factor scores

| Factor scores | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---------------|---|---|---|---|---|---|---|---|---|---|----|----|
| Factor I      | 7 | 11| 7 | 17| 23| 21| 28| 22| 22| 17| 13 | 12 |
| Factor II     | - | 5 | 12| 23| 24| 32| 22| 28| 21| 33|----|----|
| Factor III    | 14| 27| 43| 34| 39| 19| 24|----|----|----|----|----|
| Factor IV     | 14| 13| 16| 28| 17| 20| 22| 28| 20| 13 | 9  |
Discussion

The four factors correspond with Pilowsky and Spence (1975) factors of 1. General Hypochondriasis, 2. Denial, 3. Affective Inhibition, and 4. Affective Disturbance. Table 4 shows distribution of scores on four factors of 200 pain patients.

The first factor of General Hypochondriasis constitutes a general factor (accounting for 19.84% of the variance) marked by phobic concern about one's state of health. Associated with a high level of arousal or anxiety with some insight into inappropriateness of attitudes. This factor indicates persons preoccupation with illness and seems to interfere in his life a great deal e.g. he may suddenly fall ill; fear of illness; and symptoms of a serious disease etc. Pilowsky (1969) describes this similar dimension as 'disease phobia' where the patient has some insight into his fears and asks anxiously for reassurance about a condition which he will often admit he does not really believe that he is suffering from. Factor 2 deals with the problems in one's life in general and here denial of such problems is the cardinal feature. Where patient except his illness (with which he is occupied) does not recognize and give importance to anything else. This meaningful dimension indicates that since patients who manifest so called conversion reaction often refuse to admit other difficulties in life. The factor corresponds with the ‘Denial’ factor of Pilowsky and Spence (1975).

Factor 3 corresponds with the factor of Affective inhibition of original IBQ Scale and is limited in content to items describing difficulty in expressing personal feelings, especially negative ones to others.

The loadings that constitute factor 4 deal with acknowledgement of anxiety, depression and irritability and correspond with the Affective Disturbance Scale of IBQ. However, a component of irritability also gets attached to this factor e.g. item No. 51 and 61 which can go very well with the anxiety and depression. Merskey and Spear (1967), and Sternbach (1968) have documented the prevalence of depressed affect in patients with persistent pain.

“Disease conviction” factor characterised by symptom preoccupation, and possible rejection of the doctors' opinion have merged partly with the first factor. While part of “irritability” factor got attached with factor four. Only factor of “Psychological vs Somatic Perception of Illness” which derives from the attitude that the patient is somehow responsible for (and in fact deserves) his pain to the degree that he perceives himself to be in need of psychiatric rather than medical help, could not be replicated in the present study. Factors which could not be replicated seem to have their basis in large socio-cultural differences and possibly can be explained e.g. rejection of doctors advice and persons perception that he is in need of psychiatric rather than medical help do not go with our conditions. As a matter of fact, in India rejection of doctors opinion does not take place though patient keeps shunting around to various sects of treatment modalities i.e. medical, Unani, Ayurveda, faith healing and Homeopathy. Population at large is not sensitized enough to realise that even a condition like chronic pain syndrome can have psychological basis with which present suffering is related. Factor of Irritability could once again be partially attached to factor 4. Irritability and angry feelings tend to sublimate as the conditions progress towards chronicity. Surprisingly, majority of the patients during various sessions expressed hopelessness about cure even then had a strong conviction that ‘God’ would help them to overcome their problems. These types of beliefs do help the persons to cope with the illness and change his life style to adapt to it rather than reacting to it.
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