Assessing Abnormal Illness Behavior in Post-Stroke Patients: A Preliminary Report

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ABSTRACT

**Background:** Abnormal illness behavior (AIB) can contribute poor functioning in an individual along with significant increase in health care utilization. It has been studied in various disorders. This study examined the feasibility of assessing abnormal illness behavior in individuals with stroke who were undergoing treatment in a psychiatric and neurological rehabilitation center. **Materials and Methods:** Subjects who were admitted to the department of psychiatric and neurological rehabilitation ward for post-stroke rehabilitation treatment were assessed using screening version of Illness Behavior Questionnaire (SIBQ). **Results:** The total number of subjects who were screened was eight. The mean score of SIBQ was 6.125 ± 1.35. With the cut off score of 7, five subjects had abnormal illness behavior. **Conclusions:** The above study highlights that it is feasible to screen individuals with stroke undergoing rehabilitation for possibility of abnormal illness behavior.

**Key words:** Abnormal illness behavior, post-stroke, rehabilitation

INTRODUCTION

The concept of illness behavior was introduced by Mechanic in 1962[1] who defined it as ‘the ways in which given symptoms may be differentially perceived, evaluated, and acted (or not acted) upon.’ In 1964, Parsons[2] described the concept of sick role, which has some overlap with the concept of illness behavior. The sick role is characterized by features, such as recognition that the individual is not held responsible for the primary illness, normal social functioning is modified proportionate to the severity of the illness, the ill person is obligated to strive to return to a healthy state, and for the above, the person has to seek help and cooperate in the process of getting well. Sick roles are dynamic, changing with severity and phase of illness. The person may move in and out or between various phases. Also, what may be acceptable at one stage may be abnormal in another.

On the other hand, in ‘normal’ illness behavior, the type of sick role accepted or sought by the patient is proportionate to the clinician’s assessment of objective pathology and congruent with the sick role assumed. However, if the patient’s illness behavior is disproportionate to the clinician’s assessment of objective pathology and patient persists in the sick role, then this is a form of abnormal illness behavior. The concept of abnormal illness behavior (AIB) was introduced in 1969 by Issy Pilowsky.[3] AIB was described as “The persistence of a maladaptive mode of experiencing, perceiving, evaluating, and responding to one’s own health status despite the fact that a doctor has provided a lucid and accurate appraisal of the situation and management to be followed (if any) with opportunities for discussion,
is a tertiary care for specialties in mental health, neurology, and neuurosurgery and specializes in rehabilitation for both individuals with neurological and mental health problems. Subjects who were admitted to the department of psychiatric and neuro rehabilitation ward for post-stroke rehabilitation treatment were approached for the study. Informed consent was sought from the participants. The assessment was done by a qualified psychiatrist using screening version of Illness Behavior Questionnaire (SIBQ). This screening version of the Illness Behavior Questionnaire (SIBQ) is derived from two subscales of the Illness Behavior Questionnaire and has 11 items disease conviction and psychological versus somatic focusing. The responses are rated as yes or no. A semi-structured form was used to collect the demographic details and other psychiatric diagnosis. The study was approved by the Institutional ethics committee.

RESULTS

The total number of subjects who were screened was eight. The details of the subject are provided below. There were two women and six men in the sample. The mean age of the sample was 37 ± 15.8 years. The details of the diagnosis, neurological findings at the time of assessment are given in Table 1. Four of the subjects had alcohol dependence syndrome and nicotine dependence syndrome before the onset of the stroke. Two subjects had a diagnosis of depression.

The mean score of SIBQ was 6.125 ± 1.35. The maximum score was 10, and the minimum was 2. With the cut off score of 7, five subjects had abnormal illness behavior. The details of the items of SIBQ are given in Table 2. The mean score of disease conviction was 5 ± 1.26 in patients who had abnormal illness behavior and 3 ± 1.26 in patients who did not have abnormal illness behavior. The mean score for psychological versus somatic focusing in patients who had AIB was 4.6 ± 0.89 and 3.4 ± 0.89.

MATERIALS AND METHODS

The study was conducted at National Institute of Mental health neurosciences, Bangalore, India, which

| Gender | Age | Diagnosis | Neurological Status | Psychiatric diagnosis | SIBQ Score |
|--------|-----|-----------|---------------------|-----------------------|------------|
| Male   | 48  | Left MCA territory stroke | Reduced arm swing, global deficits on neuropsychological Assessment | Severe depression | 10         |
| Male   | 18  | Right side hemorrhagic stroke | Power- Lt. side power 3/5, | Nil | 5          |
| Male   | 45  | Chronic right MCA infarct | Spastic paraparesis of Lt. UL power- 3/5 and Lt. LL power 3/5 | Nil | 6          |
| Female | 65  | Left tempo-parietal ICH | Power- Rt. UL 3/5 and Rt. LL 2/5 | Nil | 7          |
| Female | 25  | Right ICH temporal lobe, right hemorrhagic infarct and CVT | No neurological deficits | Bipolar disorder recovering from depression | 2          |
| Male   | 38  | Left basal ganglia ICH (post-craniotomy and evacuation) | Spasticity in Rt UL and LL and power- 2-3/5 | Alcohol dependence syndrome currently abstinent | 7          |
| Male   | 35  | Right basal ganglia infarct | Power Lt. UL- 0/5 and Lt. LL- 2-3/5 | Alcohol dependence syndrome currently sleep disturbances | 8          |
| Male   | 25  | Rt. frontal hemorrhagic infarct | Lt side- 3-5 | Alcohol dependence syndrome | 8          |
DISCUSSION

The above study highlights that it is feasible to screen individuals with stroke undergoing rehabilitation for possibility of abnormal illness behavior. Abnormal illness behavior could be due to underlying motor deficits, emotional problems, depression, and anxiety. Presence of AIB in stroke patients could lead to poor recovery and longer duration of stay in the rehabilitation centers. The caregiver burden may be enhanced by the presence of abnormal illness behavior.

In a sample of eight subjects, half of them possibly had abnormal illness behavior; however, were not recognized. Further studies are being planned to include duration of stay, participation the activities, and long term outcomes. Since this is a cross-sectional study, we don’t have details in terms of its interference in participation of the patients in the intervention that was being provided.

For health professionals, presence of AIB could be frustration and also could lead to poor doctor-patient relationship and increased utilization of services. Early identification of AIB could lead to proper management of these cases and thus reducing the disability and also improving therapeutic relationship. AIB could also result in multiple consultation and increased use of health resources. Hence, early recognition should help the clinicians to manage better.

Prospective studies in the area of stroke rehabilitation and illness behavior are essential to establish its role in rehabilitation process in the Indian setting. It is also essential to study the care givers in the role of abnormal illness behavior in the patients.

REFERENCES

1. Mechanic D. The concept of illness behavior. J Chronic Dis 1962;15:189-94.
2. Parsons T. Social Structure and Personality. London: Collier MacMillan; 1964.
3. Pilowsky I. Abnormal illness behaviour. Br J Med Psychol 1969;42:347-51.
4. Pilowsky I, Spence ND, Waddy JL. Illness behaviour and coronary artery by-pass surgery. J Psychosom Res 1979;23:39-44.
5. Savastano M, Maron MB, Mangialaio M, Longhi P, Rizzardo R. Illness behaviour, personality traits, anxiety and depression in patients with Menière’s disease. J Otolaryngol 1996;25:329-33.
6. Schweitzer R, Robertson DL, Kelly B, Whiting J. Illness behaviour of patients with chronic fatigue syndrome. J Psychosom Res 1994;38:41-9.
7. Varma VK, Malhotra A, Chaturvedi SK. Illness behaviour questionnaire (IBQ): Translation and adaptation in India. Indian J Psychiatry 1986;28:41-6.
8. Pilowsky I, Spence ND. Patterns of Illness behaviour in patients with intractable pain. J Psychosom Res 1975;19:279-87.
9. Grassi L, Righi R, Makoui S, Sighinolfi L, Ferri S, Ghinelli F. Illness behaviour, emotional stress and psychosocial factors among asymptomatic HIV-infected patients. Psychother Psychosom 1999; 68:31-8.
10. Grassi L, Rosti G. Psychiatric and psychosocial concomitants of abnormal illness behaviour in patients with cancer. Psychother Psychosom 1996;65:246-52.
11. Clark MS, Smith DS. Abnormal illness behaviour in rehabilitation from stroke. Clin Rehabil 1997;11:162-70.
12. Clark MS, Smith DS. The effects of depression and abnormal illness behaviour on outcome following rehabilitation from stroke. Clin Rehabil 1998;12:73-80.
13. Clark MS, Smith DS. Psychological correlates of outcome following rehabilitation from stroke. Clin Rehabil 1999;13:129-40.
14. Chaturvedi SK, Bhandari S, Beena MB, Rao S. Screening for abnormal illness behaviour. Psychopathology 1996;29:325-30.

| SIBQ Items                                                                 | AIB present | AIB absent |
|---------------------------------------------------------------------------|-------------|------------|
| Do you think there is something wrong with your body?                      | 5           | 3          |
| Does your illness interfere with your life a great deal?                   | 6           | 2          |
| If the doctor told you that he could find nothing wrong with you, would you believe him? | 6’          | 3          |
| Do you find that you are often aware of various things happening in your body? | 6           | 3          |
| Do you ever think of your illness as a punishment for something you have done wrong in the past? | 4’          | 4          |
| Are you bothered by many aches and pains?                                 | 4           | 4          |
| Are you sleeping well?                                                    | 4’          | 4          |
| Do you find that you are bothered by many different symptoms?             | 3           | 5          |
| Do you think there is something the matter with your mind?                 | 6’          | 2          |
| Is your bad health the biggest difficulty of your life?                    | 5           | 3          |
| Do you think that your symptoms may be caused by worry?                    | 4’          | 4          |

*No* responses are scored as being present.