ABSTRACT

25 inpatients with schizophrenia were examined to explore the relationship between insight and psychopathology and illness severity over a four-week period. The average degree of insight improved irrespective of the type of recovery. There was no consistent relationship between the changes in insight and changes in psychopathology. The severity of mental illness and awareness of mental disorder showed a semi-independent pattern of association. It is concluded that insight operates to some extent independent of psychopathology and severity of illness.

Key Words: Insight, psychopathology, schizophrenia

Insight involves the process of awareness or the recognition of signs and symptoms of illness and attribution or explanations about the cause or source of these signs and symptoms (Amador et al., 1993). Insight is a quality, which has been highly valued because of its strong link with a better quality of life (McGorry and McConville, 1999). The above has been described six decades earlier by Aubrey Lewis as "a correct attribute to morbid change in oneself" (Lewis 1934). Recently a consensus has emerged that the concept of insight is both a multidimensional and a continuous construct (David, 1990, Amador et al., 1993).

The association between dimensions of insight and socio demographic variables, psychopathology and severity has received attention of late (McEvoy et al., 1989; David et al., 1992; Kulhara et al., 1992, Amador et al., 1993; Aga et al., 1995, Anna & Saravanan, 2000). McEvoy et al. (1989), failed to identify any relationship between the degree of insight and severity of psychopathology. Further the changes in insight scores during hospitalisation did not vary consistently with changes in acute psychopathology. The only significant finding was that there was an overall relationship between insight and clinical outcome in schizophrenia. The authors concluded that the deficiency in insight could not be explained on the basis of psychopathology. David et al. (1992) has reported a moderate correlation between insight and severity of illness in schizophrenics in a subsequent study. Amador et al. (1993) reported moderate correlation between insight and course of illness, age at onset, number of hospitalization. Education did not influence the level of insight. No significant relationship was identified between total insight score and psychopathology. The only exception was that there was a moderate correlation between current awareness of mental disorder and positive symptoms. A recent study (Cuesta et al., 2000) investigated whether insight changes with time and how it relates to psychopathology. Though certain dimensions of insight improved over time, the insight and psychopathology were largely independent of each other.

In India, Kulhara et al. (1992), had shown consistent negative correlation between BPRS scores and Schedule for Assessment of Insight
scores in a mixed sample of schizophrenia and affective disorder patients and the correlation was significant only after two weeks of treatment. Aga et al. (1995), demonstrated a significant positive association between insight and number of episodes of illness and treatment taken in the past. Further on a regression analysis psychopathology was found to explain significantly a third of the variability of insight. Anna & Saravanan (2000) found significant positive correlation between psychopathology and dimensional measure of awareness of the abnormal experiences like hallucinations and delusions. A similar relationship with global measures of insight could not be demonstrated.

Majority of the above studies have attempted to study the relationship of insight and psychopathology at a single point of time. Such a measure ignores the dynamic aspects of insight and psychopathology. This study is designed to explore the relationship between insight and psychopathology over a four-week period in a group of hospitalised schizophrenic patients and to study whether any change in insight if present was related to change in psychopathology.

**MATERIAL AND METHOD**

The study was conducted at the department of Psychiatry between January 2000 and December 2000. Patients were recruited from the inpatient unit of psychiatry department who fulfilled diagnostic criteria of schizophrenia ICD-10 DCR. History of substance abuse/dependence, presence of organic brain disorder, absence of a reliable attendant or lack of informed consent were the exclusion criteria. All the patients had received treatment in the past from the outpatient department though not on a regular basis. The admission was required essentially to control excitement, florid delusions or hallucinations. For a significant number, reliable information regarding past treatment was not available.

The following instruments were used to collect the data:

a) A semi structured proforma to collect information on demographic and clinical characteristics of patients.

b) Scale to assess Unawareness of Mental Disorder (SUMD, Amador et al., 1993). This 20 item scale measures current and past awareness of 1) having a mental disorder, 2) the effect of medication, 3) the consequences of mental illness and 4) awareness and attribution of seventeen symptom items (e.g., delusions, hallucinations). Each item is scored on a 6 point scale, higher scores indicating poorer insight. Insight rating is done by asking probe questions initially which are always open-ended (e.g., Do you think you have any mental or emotional problems?). If answered negatively, more challenging questions are asked (e.g., Why would the doctors admit you to a psychiatric ward if you did not have any problems?). In this study only the current awareness for items 1, 2, & 3 were assessed.

c) Positive and Negative syndrome scale (Kay et al., 1987).

d) Clinical Global Impression scale for severity of illness, CGI-SI, (Guy, 1976).

The SUMD ratings were confined to the level of awareness for three general items during the current episode. This was done, blind to measures of psychopathology (RC). PANSS was administered to assess positive symptoms, negative symptoms and general psychopathology and CGI to measure severity of illness (LA). All the ratings were done on day 1 after admission. The ratings were repeated after four weeks of admission. The inter-rater agreement for SUMD scale as measured by k varied between .64 to .75 for the three items. Analysis was done using statistical package for social sciences, version 6.

**RESULTS**

25 patients were included in this study. 13 were men and 12 were women. The mean age of the patients was 32.5 (2.4) years (Range 20-50 years). Most had completed high school education. Duration of illness varied from 3 years.
to 25 years (Mean 5.68 years, SD 5.9). There was almost equal number of married and single subjects.

At admission the mean PANSS positive and negative scores were 21.5 and 20.3 respectively. The mean BPRS scores as derived from PANSS scale was 40.8.

TABLE 1

| Psychopathology | At admission | After 4 weeks |
|-----------------|--------------|---------------|
| BPRS            | 40.8±7.9     | 25.1±3.8***   |
| (As derived from PANSS) |
| PANSS Positive  | 21.5±5.4     | 9.8±1.7***    |
| PANSS negative  | 20.3±7.1     | 12.4±3.2***   |
| CGI             | 5.1±1.8      | 2.4±0.7***    |

*** p<0.001

TABLE 2

| SUMD             | At admission | After 4 weeks |
|------------------|--------------|---------------|
| Item I           | 3.7±1.1      | 3.0±1.1***    |
| Item II          | 2.5±1.8      | 2.8±0.5***    |
| Item III         | 4.1±1.1      | 3.0±0.9***    |

*** p<0.001

TABLE 3

| SUMD             | Pearson's Correlation Coefficient (r) |
|------------------|---------------------------------------|
|                  | General Positive Negative CGI         |
| Item I           | -0.05 -0.11 0.11 0.02                 |
| Item II          | 0.51** 0.44* 0.34 0.42*               |
| Item III         | -0.14 0.01 -0.02 -0.05                |

*p<0.05, ** p<0.01

TABLE 4

| SUMD             | Pearson's Correlation Coefficient (r) |
|------------------|---------------------------------------|
|                  | General Positive Negative CGI         |
| SUMD             | Psychological scores                  |
|                  |                                       |
| Item I           | 0.16 0.39* 0.25 0.56**                |
| Item II          | 0.26 0.05 0.12 0.23                   |
| Item III         | 0.17 0.32 0.12 0.23                   |

*p<0.05, ** p<0.01

At discharge significant correlation was evident between awareness of mental disorder and CGI and PANSS positive scores (Table 4). Change in scores (baseline Vs 4 weeks) of awareness of mental disorder was significantly associated with CGI scores (Table 5).

DISCUSSION

Insight or awareness deficit recently has been viewed as a complex and multidimensional
phenomenon (Amador & Gorman, 1993). It has both descriptive validity and prognostic validity in an illness like schizophrenia (Amador et al., 1998). Our study confirms the findings of previous studies, which failed to identify any association between insight and demographic variables (Kulhara et al., 1992, David et al., 1992). In the present study, psychopathology, clinical global severity and two of the insight items have shown improvements from the baseline to end of week four. In a six point scale of SUMD, means scores for awareness of mental disorder were 3.76 at admission and 3 after four weeks. Though the change observed was statistically significant, the change in scores was not clinically significant as scores falling between 3 & 4 indicate that the patient is unsure whether he or she has a mental disorder but can entertain the idea that he or she might. Similar observation was made with item no.3 that measured the awareness of social consequences of mental disorder. On the other hand, the current awareness for achieved effects of medication was higher at admission and remained stable throughout the study period. In addition, the baseline assessment had shown a significant relationship between awareness of achieved effects of medication and psychopathology, positive symptoms and CGI scores. Though the patients had failed to acknowledge the presence of mental illness, the beneficial effects of drugs on their symptoms in the past may partly explain the better awareness regarding the effect of medication. Willingness to accept medication should be regarded as separate construct, which contributes to insight (David, 1990).

Though there was a significant association between CGI scores and final assessment, this was not evident in the baseline assessment. Further, changes in CGI scores also significantly correlated with changes in insight for awareness of mental disorders. Similar findings have been reported earlier by McEvoy et al (1989). This supports the view that severity of illness and awareness of mental disorder show a semi-independent relationship.

Psychopathology and insight did not show any consistent relationship at two assessment points and no significant correlation was found between changes in psychopathology and insight during the observation period. This is in agreement with other studies which had used standardized instruments (McEvoy et al., 1989, Cuesta et al., 2000). The psychotic episode per-se does not interfere with the patient's ability to recognize the illness. It is likely that the degree of insight fluctuates according to the phases (acute or recovery part of the psychotic episode) in the longitudinal course of the disorder.

In this study, the average degree of insight had increased during the study period irrespective of the type of recovery. The operation of insight is to some degree independent of psychopathology and severity illness. This lends credence to the view that particular brain areas especially frontal lobe may contribute to poor insight. A parallel has been drawn between anosognosia found in neurological disorder and poor insight in schizophrenia. Functional and structural lesions of the frontal lobes and the non-dominant temporal and parietal system implicated in anosognosia are seen in patients with schizophrenia (Amador & Gorman, 1998). A study by Young and his colleagues (1993) showed association between various aspects of poor insight with poor performance on tests sensitive to frontal lobe functions.

Certain limitations of the study deserve to be mentioned. The sample size was small. While measuring SUMD only the global measures of insight were done. Individual items were not scored because of the poor responses of the patients. Though blinding was done to measure insight, it was impossible to assess insight without knowing psychopathological status. Research interest in insight continues to build as it has relevance in enhancing the treatment of persons with schizophrenia. Further work is needed in this area to understand whether insight forms an important core symptom of the schizophrenic syndrome.
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