

Original research article

## A Comparative Study of Insight in Schizophrenia and Mania

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### Abstract

**Background:** Impaired awareness of illness has been known for hundreds of years. In 1604 in his play, "The Honest Whore", Thomas Dekker has a character say: "That proves you mad because you know it not". Among neurologists, unawareness of illness is well known since it also occurs in some individuals with stroke, brain tumors, Alzheimer's disease and Huntington's disease.

**Methodology:** This is a descriptive study, of naturalistic design done in the acute ward of psychiatry department. Patients attending the out patient department at GMCH Purnea and NMCH Patna. Hospital, at psychiatry department, Bihar. Study duration of two years. who were psychotic and required admission and hence hospitalized in the acute ward (family ward) studied.

**Conclusion:** A group of 30 patients with schizophrenia who were hospitalized were compared with 30 patients with mania who were hospitalized on sociodemographic profile and clinical variables. Validated scales were used to assess insight, psychotic severity and overall functioning at admission and discharge. It was found that insight in schizophrenia and mania did not have substantial differences. We found that insight improves during hospitalization and treatment in both the groups. We also conclude that some aspects of insight may be state dependent in both these groups.

**Keywords:** schizophrenia, Alzheimer's disease and Huntington's disease.

### Introduction

Impaired awareness of illness has been known for hundreds of years. In 1604 in his play, "The Honest Whore", Thomas Dekker has a character say: "That proves you mad because you know it not". Among neurologists, unawareness of illness is well known since it also occurs in some individuals with stroke, brain tumors, Alzheimer's disease and Huntington's disease. The term "anosognosia" was first used by a French neurologist in 1914 (Prigatono and Schacter, 1991). The Oxford English Dictionary defines Insight as "an inner sight, a discernment, a wisdom (or) glimpse of you beneath the surface". To put it simply, it means the capacity to understand the hidden truth. Insight, as a concept of a symptom, got introduced during the later part of the 19<sup>th</sup> century by Dagonet (1881). In 1934, Aubrey Lewis provided a temporary definition of Insight: "a correct attitude to morbid change in oneself",

but warned that the words 'correct', 'attitude', 'morbid' and 'change' each called for discussion. He also said, "All questions of the judgment of reality, such as.... the consideration of insight, go to the root of the psychopathology of different conditions" The usage of the word by Gestalt psychologists for an "aha" experience (Harre and Lamb, 1983; Conrad, 1958) and the psychoanalytic classification into 'emotional' and 'intellectual' is avoided here (Zilborg, 1952; Sandler et al., 1973). Our study is restricted to the usage of the word for recognizing one's own mental disorder, medication effects, social consequences, awareness and attribution of signs and symptoms. Even in our clinical setting, some patients with schizophrenia do accept that they have something wrong in them even though they decline to accept that they have a psychiatric illness. Probably their sociocultural and religious matrix colors their expression. At times even if the patient denies mental disorder, he accepts distress and accepts drugs without protesting. So, here is the question whether insight is an all (or) none phenomenon. Insight is a multidimensional and not a unitary phenomenon (Amador, et al., 1993). The component dimensions of insight are continuous rather than dichotomous phenomena. In other words one can have partial insight.

Insight into mental disorder may be modality specific i.e. the level of insight can vary across the many manifestations of illness. For example a patient may be aware of his flat affect, but he may be unaware of his asociality. Insight comprises of the processes of awareness and attribution. Awareness is the recognition of signs or symptoms of illness, while attribution refers to explanations about the cause or source of the signs or symptoms. A patient may be aware of "alogia" but may not attribute the decrease in verbal abilities to a mental disorder. A patient may deny that he is currently mentally ill, but may accept that he was mentally ill in the past.

### **Aim**

To describe the various components (dimensions) of insight, To measure the prevalence of insight in schizophrenia and mania, To find the relationship between insight and severity of psychosis, To find the relationship between insight and overall level of functioning, To study the change that occurs in insight during hospitalization and treatment, To clarify if insight deficits differ in the two groups-schizophrenia and mania.

### **Review of literature**

The relationship between schizophrenia and poor insight was identified even when the disorder was first named by Bleuler<sup>4</sup> (Bertschinger, 1916; Mayer-Gross, 1920 as cited by Wciorka,<sup>21</sup> 1988). Poor insight as a symptom is a consistent accompaniment of schizophrenia (Carpenter et al.<sup>5</sup>, 1973). In fact lack of insight was the most frequent symptom occurring in the world health organization (WHO), International pilot study of schizophrenia (IPSS) in 1973. Assessing insight is involved with a lot of controversies. Insight is assessed as part of standard mental state examination, but no guidelines exist as how to quantify or qualify it. (Markova & Berrios,<sup>18</sup> 1992). Among all the parameters of the mental status examination, it has the poorest construct validity, with little consensus among different authors on its clinical implications. Lack of insight is considered to be characteristic of psychotic disorders. Interest in the concept of insight in psychosis has been revived recently (David,<sup>8,9</sup> 1990; Amador et al., 1991; Ghaemi & Pope, 1994; Cuesta & Peralta,<sup>6</sup> 1994; Amador & David, 1996; David et al.<sup>1,2,3</sup>, 1995). The clinical importance of insight is now being studied. Certain themes have been examined such as: the relationship between insight and treatment compliance (McEvoy et al., 1989a; Buchanan,<sup>7</sup> 1992); the specificity of poor insight for the diagnosis of schizophrenia (Wing et al., 1974; Amador et al., 1994); the link between insight and cognitive impairment (young et al., 1993; Cuesta & Peralta 1994; Lysaker et al.<sup>15,16</sup>, 1996); cerebral ventricular enlargement

(Takai et al.<sup>19</sup>, 1992) and In general, the approaches used in the assessment of insight can be divided into a) categorical *i.e.*, insight is viewed as an all or none phenomenon (described as present or absent), or categorized into more groups (described as present, partially present or absent) and b) continuous *i.e.*, insight is conceptualized as a continuous process and assessed in terms of scores from structured schedules based on an unitary concept (McEvoy et al.<sup>17,18</sup>, 1989a) or on multidimensional models (Amador et al., 1991; David, 1990). Problems beset the categorical approach. A common one is that anchor points such as full, partial or absent are rarely defined as in Eskey<sup>11</sup> (1958), Heinrich et al.<sup>14</sup>, (1985), Van Putten et al.<sup>20</sup>, (1976), Cuesta & Peralta (1994) and Takai et al.<sup>19</sup>, (1992) where more or less structured methods of mental state examination were used but the scalar criteria were not specified. Furthermore, the categorization approach is based on narrow definitions of insight, generally couched in terms of recognition or awareness of mental illness, with some adding awareness of need for treatment. Narrow definitions entail a view of insight as a “discrete entity” or “symptom” that is not semantically coterminous with the idea of “awareness”, with which it is often combined. This standardized instrument yields insight scores but is based on a fairly narrow definition of insight and focuses on the degree of correlation between attitudes of patients and staff rather than on patients’ subjective views. More recently, some have viewed insight as “multidimensional” (Amador et al., 1991; David, 1990; Greenfield et al., 1989), *i.e.*, as consisting of related dimensions susceptible to assessment and quantification by standard schedules. Thus, David (1990) proposes three dimensions: awareness of mental illness, awareness of the need for treatment and the ability to relabel psychotic experiences as abnormal. Amador et al., (1991), on the other hand, suggest a broader multidimensional construct of insight as comprising of: a) awareness of the signs, symptoms and consequences of illness, b) general attribution about illness and specific attribution about symptoms and their consequences, c) self- concept formation and d) self-defensiveness. In their empirical work, however, Amador et al., (1993) base their assessment of insight on different dimensions, namely, awareness of illness (general and particular symptoms), attribution regarding illness and symptoms, achieved effects of medication and awareness of social consequences of having a mental disorder. They also include retrospective views. Lysaker et al.<sup>15,16</sup>, (1998), suggest that poor insight into mental illness may interfere with one’s social relationships due to discrepancy between how persons with mental illness see themselves and how others view them. He also found that persons with impaired insight had significant lower scores on interpersonal relatedness (*e.g.* frequency of social contacts) and basic interpersonal skills. (*e.g.* empathy, rapport). In a similar vein, others have found relationships between decreased awareness of mental disorder and increased social isolation, decreased social activities, lower social functioning and smaller social networks (Amador et al., 1994; Dickerson et al.<sup>10</sup>, 1997; Smith et al., 1999; White et al., 2000). In a study done by J L Francis et al.<sup>13</sup>, (2001), he concluded that greater insight was associated with better overall social skill, less observed strangeness and a greater self disclosure of one’s mental illness. Ghaemi et al., (1995), examined the clinical correlates of lack of insight in bipolar disorder in 28 acutely manic patients and concluded that like schizophrenia, bipolar disorder appears to be a condition in which poor insight is a prominent characteristic. He also found that the mean scores of insight improved only slightly from admission to discharge despite marked improvement in other psychiatric symptoms.

### Material and methods

This is a descriptive study, of naturalistic design done in the acute ward of psychiatry department. Patients attending the out, at Government medical college and Hospital Purnea, Bihar. at psychiatry department, Study duration of two years. who were psychotic and required admission and hence hospitalized in the acute ward (family ward) studied.

### Inclusion Criteria

Of them 30 consecutive patients who satisfied the ICD-10 criteria for schizophrenia were compared with 30 consecutive patients who satisfied the ICD-10 criteria for bipolar affective disorder- current episode mania. The diagnoses were done by two persons (investigator and a consultant psychiatrist) independently. Age greater than 16 years.

### Exclusion criteria

Substance induced psychosis, Epilepsy, Dementia, Cerebrovascular disease. Patients not communicative and hence with whom a meaningful interview was not possible.

The instruments namely semi structured proforma for sociodemographic and clinical variables, the scale to assess unawareness of mental disorder, brief psychiatric rating scale and global assessment of functioning scale were administered twice, first at the time of admission and again at the time of discharge. During the stay in hospital, the patients were accompanied by a close relative. Treatment given was mainly pharmacotherapy- antipsychotic drugs were used to treat schizophrenia and a combination of antipsychotics and mood stabilizers were used for mania. Parenteral injections of haloperidol, lorazepam and promethazine were also used whenever necessary. No attempt was made to control the treatment variables, as our aim was to do a naturalistic study that would give a real world picture of evolution of symptoms. All scores range from 1-5 with scores indicating awareness or attribution. It is to be noted here that higher the SUMD score, higher the unawareness. A score of 1 would mean patient is aware. A score of 3 would mean patient was somewhat aware. A score of 5 would mean patient is unaware. A score of 0 is given, when the symptom is absent or not applicable (for items 4-20). Thus higher scores in SUMD imply poorer insight. The limitations of the BPRS include somewhat ambiguous criteria for the various levels of severity with potential for overlap in some of the items that are most broadly defined. Strengths of the scale include its brevity, ease of administration, wide use and well-researched status.

### Results

There were 30 Schizophrenia patients and 30 mania patients.

**Table 1: Sociodemographic variables of the patients**

Sociodemographic variable	Schizophrenia	Mania	p value
Age- Mean	28.6	33	0.078
Sex- Males	25(83%)	25(83%)	1.00
Marital status- Married	8(26.7%)	12 (40.0%)	0.39
Religion- Hindu	27(90.0%)	25(83.3%)	0.08
Handedness- Left	27(90.%)	30(100.0%)	0.08
Family type- Joint	16(53.3%)	10(33.3%)	0.12
Prior treatment- Nil	13(43.3)	13(43.3)	0.55

The mean age of the schizophrenia patients was 28.6 and that of the mania patients was 33 years. 83.3% of patients were male. Of the schizophrenia patients 8 (26.7%) were married and of the mania patients 12 (40%) were married. Of the schizophrenia patients, 27 were Hindu and 3 were Muslims. Of the mania patients, 25 were Hindus, 1 was Muslim and 4 were Christians. Of the schizophrenia patients, 3 were left-handed and of the mania patients none were left-handed. Of the schizophrenia patients, 53% were living in a joint family, whereas of the mania patients 33.3% were living in a joint family. Of the schizophrenia patient, 43.3% were not on treatment and of the mania patients, 43.3% were not on treatment. The differences in these sociodemographic variables were not statistically significant between these two groups.

**Table 2: Employment status of the patients**

<b>Employment</b>	<b>Schizophrenia</b>	<b>Mania</b>	<b>Total</b>
	<b>Count (%)</b>	<b>Count (%)</b>	<b>Count (%)</b>
Unemployed	25 (83.3)	10 (33.3)	35 (58.3)
Employed	5 (16.7)	20 (66.7)	25 (41.7)

\*p&lt; .001

Of the schizophrenia patients, 83.3% were unemployed whereas only 33.3% of the mania patients were unemployed. This difference was statistically significant with a p value<0.001, when analyzed using the chi-square test.

Prevalence of retrospective insight at admission based on SUMD item 2p (awareness of achieved effects of medication in the past)

Of the schizophrenia patients, 40% were unaware, 10% were somewhat aware and 50% were aware of achieved effects of medication in the past. Of the mania patients 53.3% were unaware, 10% were somewhat aware, and 36.7% were aware of achieved effects of medication in the past. These differences were not statistically significant with a p value of .55 when analysed using the chi-square test. Prevalence of retrospective insight at admission based on SUMD item 3p (awareness of social consequences of mental disorder in the past), Of the schizophrenia patients, 56.7% were unaware, 3.3% were somewhat aware and 40% were aware of the social consequences of mental disorder in the past. Of mania patients, 60% were unaware, 10% were somewhat aware and 30% were aware of the social consequences of mental disorder in the past. These differences were not statistically significant with a p value of .48, when analysed using the chi-square test. On analyzing the item 4 of SUMD, using the t-test, it was found that schizophrenia patients had a poorer retrospective insight (higher the sumd score, poorer the insight) with respect to both awareness as well as attribution of hallucinations, compared to patients of mania. On analyzing the item 20 of SUMD, using the t-test, it was found that schizophrenia patients had poorer current & retrospective attribution of poor social relationships to mental disorder, compared to patients of mania.

**Table 3: Correlation between severity of psychotic symptoms and unawareness at discharge in Mania**

<b>Unawareness of (SUMD item)</b>	<b>Mental disorder (1c)</b>	<b>Medication efficacy (2c)</b>	<b>Consequences (3c)</b>
<b>Correlation with BPRS</b>	<b>0.220</b>	<b>0.506**</b>	<b>0.183</b>
<b>p</b>	<b>0.244</b>	<b>0.004</b>	<b>0.334</b>

\*\*Significant at p&lt;0.01

A significant positive correlation was seen between unawareness and psychotic severity. i.e more the unawareness, more the severity of psychotic symptoms, at discharge in Mania. The group of mania was divided into those less than 2 episodes and those greater than 2 episodes. The differences in insight between these two groups compared. It was found that mania patients with more than 2 episodes had a better insight compared to patients with less than 2 episodes at admission in the items 1c 1p 2c 2p of sumd. With statistical significance of p value less than 0.05 (t- test) The schizophrenia group had 13 patients who were never treated, 10 regularly treated, and 13 irregularly treated. The insight between these 3 groups did not show any significant difference in the first 6 items of sumd both at admission and discharge. (ANOVA) Among the mania patients, 13 had no prior treatment, 13 had regular treatment and 4 had irregular treatment.

## Discussion

On comparing the sociodemographic variables it was found that both schizophrenia and mania patient groups were similar in most variable like age, sex and marital status except employment. It was found that employment status was significantly better in mania (66.7%), compared to schizophrenia (16.7%). This is in line with the general view that the employment status of mania patients is better than schizophrenia patients.

Prevalence of unawareness, It was found that 70% of schizophrenia patients and 83.3% of mania patients were unaware of their mental disorder at the time of admission (SUMD item 1c). The literature data of the prevalence of unawareness of illness ranges from 50% to 80% in various studies. The prevalence of unawareness in our study also falls within this range. It was noted that although 70% of schizophrenia patients were unaware of mental disorder, only 40% were unaware of medication effects, and only 56% were unaware of social consequences. This means that a person may be unaware of mental disorder but still be aware of medication effects and social consequences. Similarly in mania, it was found that although 83% were unaware of mental disorder at the time of admission, only 53% were unaware of medication effects and 63% were aware of social consequences. The mean insight score at admission was compared and no significant differences were noted between the 2 groups, namely, mania and schizophrenia in the first 6 items of SUMD. Our findings are consistent with findings of Amador et al., (1990) and Pini S, et al.<sup>27</sup>, (2001), who did not find any substantial difference in insight between schizophrenia and bipolar affective disorder. Our study does not lend support to evidence from other studies, which have shown schizophrenia to have a poorer insight compared to mania *e.g.*, a study done by Pini, S in 2004 showed that schizophrenia subjects were much more compromised in insight dimensions than psychotic mania. Studies done by Fennig et al., (1996) also showed that lack of insight was more prevalent in schizophrenia. But our study has shown that in some of the aspects of insight related to awareness and attribution of symptoms, schizophrenia has a poorer insight as compared to mania for *e.g.*, schizophrenia patients have a poorer retrospective awareness as well as retrospective attribution of hallucinations as compared to mania patients. Also schizophrenia Studies suggest that approximately one-third of individuals with schizophrenia improve in awareness of their illness when they take antipsychotic medication. Studies also suggest that a larger percentage of individuals with bipolar disorder improve on medication. David, (1995), showed that 46% of the hospitalised psychotic patients showed improvement in insight during treatment. In our study also, patients had better insight at discharge as compared that at admission. Our findings are consistent with a meta-analysis done by Ghaemi et al.<sup>25,26</sup>, (2004), which showed that insight in mania showed 20% improvement after recovering from acute mania. In other words, insight improves in bipolar mood disorder with resolution of the acute manic episode. This suggests that insight in mania is state dependent. Our findings are also consistent with the studies done by Weiler et al.<sup>24</sup>, (2000), which showed that insight improves across diagnoses (schizophrenia, mania, depression). They too concluded that some aspects of insight are state related during exacerbation of illness in patients with schizophrenia and mania.

## Conclusion

A group of 30 patients with schizophrenia who were hospitalized were compared with 30 patients with mania who were hospitalized on sociodemographic profile and clinical variables. Validated scales were used to assess insight, psychotic severity and overall functioning at admission and discharge. It was found that insight in schizophrenia and mania did not have substantial differences. We found that insight improves during hospitalization and treatment in both the groups.

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