

# Disability In Schizophrenia and Bipolar Affective Disorder

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## Abstract

**Background & Objectives:** Schizophrenia and bipolar affective disorders are known for the increased level of disability to the sufferer in various areas to an individual and through that worsen the burden on the caregivers. Although both are chronic illnesses the level of disability may vary.

**Aim:** The present study was undertaken to assess and compare the disability in patients with schizophrenia and bipolar affective disorder (mania).

**Methodology:** The present study was a cross-sectional study conducted at the outpatient department of Central Institute of Psychiatry, Ranchi with a sample size of sixty individuals consisted of thirty participants in schizophrenia and thirty participants in bipolar affective disorder (mania) diagnosed as per ICD-10-DCR criteria. Indian Disability Evaluation

Assessment Scale (IDEAS) was used for assessing the disability.

**Results:** The study findings were the majority of the patients with the bipolar affective disorder were from rural areas and schizophrenia was from semi-urban areas. There was significantly more disability in patients with schizophrenia with more than 5 years duration than with 2-5 years duration across all domains of IDEAS except the domain of interpersonal activities. Whereas significantly more disability was found in patients with the bipolar affective disorder with 2-5 years duration than with more than 5 years duration across all domains of IDEAS.

**Conclusion:** Disability in patients with schizophrenia have significantly higher level of disability in all domains than bipolar affective disorder. In order to rehabilitate from disability, along with pharmacotherapy, psychosocial rehabilitation for these patients should become a major component of treatment programme for this population

**Keywords:** Disability, IDEAS, Schizophrenia, Bipolar affective disorder.

## INTRODUCTION

'Disability' is an umbrella term that includes impairments, activity limitations or participation restrictions. The older concept of 'disability' along with the terms 'impairment' and 'handicap', as described by The International Classification of Functioning (ICF) Disability and Health, have been subsumed under the concept of 'Activity and Participation' (WHO, 2001a). According to the International Classification of Impairment, Disability, and Handicap, disability is interference with activities of the whole person in relation to the immediate environment (WHO, 2001b). Disability is also the major evil effect of chronic, debilitating and relapsing severe mental disorders like schizophrenia and mania. Patients develop a severe level of incapacity in every sphere of life functioning, starting from personal and social skills, cognitive abilities (attention and concentration, memory, interpretation abilities, understanding the stimuli from the environment and react accordingly, language processing skills, problem-solving, and executive function), etc. Within the ambit of the definition of disability under the Persons with Disabilities Act, 1995, mental illness means a 'disorder of the mind that results in partial or complete disturbance in the person's thinking, feeling and behavior which may also result in recurrent or persistent inability or reduced ability to carry out activities of daily living, self-care, education, employment and participation in social life' (PWD Act, 1995).

Persons with psychiatric disability are usually idle in their homes and require assistance or prompting even to do activities of daily living (Ismail et al., 1998). This eventually becomes a challenge for the caregivers who have to bear additional duties of assisting the unproductive family member. This made the family functioning deteriorated and it helps to develop negative expressed emotions in primary caregivers due to their distress. It may promote their revolving door syndrome which ultimately poorly progresses into disability (Bonnewyn et al., 2005). Persons with severe mental illness experience higher level of disability. Some skills and functions like self-care and understanding-communicating that are lost in the course of the mental illness show recovery with treatment also further aging domains of understanding and communicating; and self-care also gets affected (Ramaprasad et al., 2015).

People with schizophrenia experience and develop a wide and diverse array of psychosocial difficulties reaching far beyond the symptoms of the disease. People often experience very recalcitrant symptoms and longer presence of those symptoms lead to significant reduction in all spheres of their socio-occupational, personal and intellectual skills. They develop marked impairments in myriad cognitive and intellectual skills and abilities, affect and emotions, interpersonal and social living skills so on (Marwaha & Johnson, 2004; Eack & Newhill, 2007; Cohen & Minor, 2010; Meesters et al., 2010; Figueira & Brissos, 2011).

Schizophrenia and bipolar affective disorder have been identified as one of the most disabling conditions known to mankind. As per the estimates for global burden of a disease study, schizophrenia is the fifth leading cause of years lived with disability and bipolar affective disorder as the sixth leading cause of years lost due to disability in young adults (Murray & Lopez, 1997; WHO, 2007). It has been demonstrated that in the patients with schizophrenia, mood and anxiety disorders, residual disability and poor quality of life continue even after

completion of symptom-linked treatment and the significant disability often associated with chronic mental disorders (such as schizophrenia and bipolar affective disorder-depression) have an important goal of mental health care for these disorders to recovery from their disabling effects (Lehman, 1996; Bowie et al., 2010; Adegbaaju, Olagunju, & Uwakwe, 2013).

The present study was conducted to assess and compare the disability in patients suffering from schizophrenia and bipolar affective disorder (mania) by using Indian Disability Evaluation Assessment Scale (IDEAS) in a tertiary care hospital in east India. This study has been carried out as an attempt to assess the impact of mental illnesses on different domains of patient's life. This would help to understand, plan and expect accordingly and appropriately as far as their management and rehabilitation are concerned.

## METHODS

### Design

This was a cross-sectional study examining the difference in disability in patients with schizophrenia and bipolar affective disorder (mania). In this study, purposive sampling was used to select the sample. The study was carried out at the Central Institute of Psychiatry, which is a Government of India owned tertiary mental hospital situated in the state of Jharkhand, India.

### Participants

The sample consisted of 60 patients (30 schizophrenia and 30 bipolar affective disorder current episodes mania) with the diagnosis as per ICD-10-DCR. Age of the caregivers was more than 18 years. Age, gender, and education were appropriately matched in the either group.

### Procedure

Written informed consents were taken from all the participants after considering the inclusion and exclusion criteria stated in this study. First, Positive and Negative Syndrome Scale (PANSS) (Kay, Flszbein, & Opfer, 1987), and Young Mania Rating Scale (YMRS) (Young, Biggs, Ziegler, & Meyer, 1978), were applied in order to screen the patients as per their symptoms severity. Then, sociodemographic data and Indian Disability Evaluation Assessment Scale (IDEAS) (Thara, R., 2002) were collected from the participants.

### Measures

The measures used in the present study include a specially designed Socio-demographic data sheet and Indian Disability Evaluation Assessment Scale (IDEAS).

### Analysis

Statistical Package for Social Science (SPSS) version 22 Windows was used in the present study. In the present study, descriptive statistics were used to calculate percentage profiles of different socio-demographic and clinical variables of the population. Chi-square tests used to compare categorical variables across two groups. Independent sample t-test was also used to calculate the significance of Indian Disability Evaluation Assessment Scale (IDEAS) items and various clinical variables across two groups for continuous variables.

## RESULTS

Table 1 shows the comparison of the socio-demographic profile of either group which comprised of 30 patients with schizophrenia and 30 patients with bipolar affective disorder (mania). Socio-demographic data finding shows that mean age of patients suffering from schizophrenia was  $32.03 \pm 5.68$  and bipolar affective disorder was  $30.30 \pm 5.7$ . Majority of the patients were males, Hindu by religion, received primary education from class 6 to 10, and more from rural areas in bipolar affective disorder and whereas more from semi-urban areas in schizophrenia.

### Table – 1; Sociodemographic Data

		Schizophrenia n= 30 (%)	Bipolar affective disorder n=30(%)
Age		32.03 ± 5.68	30.30 ± 5.7
Gender	Male	25 (83.3)	21 (70.0)
	Female	5 (16.7)	9 (30.0)
Religion	Hindu	27 (90.0)	27 (90.0)
	Muslim	2 (6.7)	2 (6.7)
	Christian	1 (3.3)	1 (3.3)
Educational Qualification	<10	15 (50)	14 (46.7)
	10 + 2	10 (33.3)	12 (40)
	>+2	5 (16.7)	4 (13.3)
Habitat	Rural	12 (40)	20 (66.6)
	Semi-urban	15 (50)	5 (16.7)
	Urban	3 (10)	5 (16.7)

Table 2 shows the comparison of 2-5 years and more than 5 years duration of illness of the patients with schizophrenia. There was significantly more disability in patients with schizophrenia with more than 5 years duration than with 2-5 years duration across all domains of IDEAS and global disability score except the domain of Interpersonal activities.

**Table – 2; Duration and disability in schizophrenia**

IDEAS	Schizophrenia		t- score	p
	2-5 years	>5 years		
Self-care	.69 ± .63	1.1 ± .48	-2.091	.046*
Interpersonal activities	.92 ± .49	1.05 ± .24	-.992	.330
Communication and understanding	1.0 ± .577	1.70 ± .587	-3.284	.003**

Work	1.23 ± .599	1.82 ± .528	-2.873	.008**
Global score	6.0 ± 1.53	8.05 ± 1.67	-3.462	.002**

\* Significant at <0.05 level

\*\* Significant at <0.01 level

Table 3 shows the comparison of 2-5 years and more than 5 years duration of illness of the patients with the bipolar affective disorder, which significantly more disability was found in patients with the bipolar affective disorder with 2-5 years duration than with more than 5 years duration across all domains of IDEAS and global disability score.

**Table – 3; Duration and disability in bipolar affective disorder**

IDEAS	Bipolar affective disorder		t- score	p
	2-5 years	>5 years		
Self-care	.705 ± .47	.23 ± .438	2.824	.009**
Interpersonal activities	.941 ± .242	.538 ± .518	2.832	.008**
Communication and understanding	1.23 ± .437	.769 ± .599	2.466	.020*
Work	1.41 ± .507	1.07 ± .277	2.142	.041*
Global score	6.35 ± 1.17	4.92 ± 1.04	3.481	.002**

\* Significant at <0.05 level

\*\* Significant at <0.01 level

Table 4 shows the comparison of schizophrenia and bipolar affective disorder. Which indicates while comparing both patients of schizophrenia and bipolar affective disorder, patients with schizophrenia showed significantly high mean value on all domains of IDEAS and global disability score. Of the 30 patients suffering from schizophrenia, 9 had a mild disability, 16 had a moderate disability and 5 had a severe disability, while the majority of bipolar affective disorder patients had a mild disability which was 16, and moderate & severe disability are 11 and 3 respectively.

**Table – 4; Comparison of disability in schizophrenia and bipolar affective disorder.**

IDEAS	Schizophrenia (n-30)	Bipolar affective disorder (n-30)	t-score	p
Self-care	.933 ± .583	.500 ± .508	3.067	.003**
Interpersonal activities	1.0 ± .37	.766 ± .430	2.249	.028*
Communication and understanding	1.4 ± .67	1.03 ± .556	2.297	.025*
Work	1.56 ± .626	1.26 ± .449	2.132	.037*
Global score	7.16 ± 1.89	5.73 ± 1.31	3.406	.001**

\* Significant at <0.05 level

\*\* Significant at <0.01 level

## DISCUSSION

The present study was conducted among total respondents of 60 samples, consisting of 30 patients diagnosed with schizophrenia, 30 patients diagnosed with the bipolar affective disorder (mania) as per ICD-10 Diagnostic Criteria for Research and those who were willing to participate in the study and fulfilling inclusion and exclusion criteria have been selected in the study. The socio-demographic data sheet had been used for collecting sociodemographic details of the patients with schizophrenia and bipolar affective disorder (mania) and the sociodemographic details such as gender, age, marital status, educational qualification, occupation, family income, duration of illness, and history of medical and psychiatric illness in the family. Many patients suffering from bipolar affective disorder were from a rural background in our study. The increased representation of rural population may be due to that rural setting is associated with greater impairment, and stigma correlated poor quality of life. It has been shown that bipolar affective disorder produces a significant impact on daily living (Wallace, Weeks, Wang, Lee, & Kaziz, 2006).

Most of the patients with schizophrenia having a duration of illness >5 had moderate to severe disability. There was no improvement in disability over the long-term duration of illness. Therefore, it could be possibly inferred that impairments remain increased further in daily activities, participation and quality of life (Ali, 2009). Longer duration of time spent in schizophrenia was directly correlated with a disability while less duration and the remission patients the time spent after return to pre-morbid functioning was in-reversely related (Johnson, Sathyaseelan, Charles, & Jacob, 2014). Disability has been found to be affected by characteristics like the age of onset, duration of illness, severity, and type of symptoms, duration of untreated psychosis, cognitive deterioration, and intellectual functioning (Alptekin et al., 2005). Our study findings were contradictory to the findings of Mohan et al. (2005) that schizophrenia had a significant disability in the duration of illness between 2-5 years. However, in their study, screening assessments were not used to assess the severity of symptoms in schizophrenia.

In our study, the disability in patients with the bipolar affective disorder with the duration of illness 2-5 years was more than in patients with duration >5 years duration. Disability level also moderate to severe was more of 2-5 years duration of illness in bipolar affective disorder. Although, the longitudinal symptomatic course of bipolar disorders expressed as a dimensional continuum of affective symptoms severity which causes poor

outcomes as prognosis than the less duration causes more symptoms which causes more severity and psychosocial disability fluctuates together during the course of illness (Judd et al., 2005; Huxley & Baldessarini, 2007). And also, Huxley and Baldessarini (2007) reported that bipolar affective disorder in less duration, minimize the mortality and disability rates by first-line treatment is insufficient without encouraging the development of adjunctive psychological treatments and rehabilitation to achieve full social and occupational functional recovery in less than 5 years of duration of illness. McMurrich et al. (2012) reported that the first episode mania and bipolar affective disorders are having high dysfunction in daily activities and cause significant functional impairments when it is untreated then the long duration bipolar affective disorders.

When patients with schizophrenia and bipolar affective disorder were compared with the matched duration of illness, significantly greater disability was seen in the patients with schizophrenia in the areas of self-care, interpersonal activities, communication and understanding, work and global disability score. Bipolar disorder is ranked immediately behind schizophrenia, the fifth most disabling disease, even though the bipolar affective disorder causes more disability in multiple relapses, the schizophrenia affects more in functional impairments and social disability (Gitlin, Swendsen, Heller, & Hammen, 1995). Chaudhury et al. (2006) reported that schizophrenia tends to significantly affect all the four core areas of functioning such as self-care, interpersonal activities, communication and understanding, and work. Our study findings are contradictory to Sanderson and Andrews (2002) that bipolar affective disorder had more disabilities in all the areas.

## CONCLUSION

Based on the findings in our study, patients with schizophrenia have significantly higher level of disability in all domains than bipolar affective disorder. In order to rehabilitate from the disability caused in the patients with schizophrenia and bipolar affective disorder, along with pharmacotherapy, psychosocial rehabilitation for these patients should become a major component of a treatment programme for this population.

## LIMITATIONS

In the present study have some limitations. The severity of illness even at a mild level in both disorders could able to pick up the disability with IDEAS. However, results of our study should be interpreted with caution. This was a cross-sectional small sample study, based on an exclusively hospital-based outpatient sample, and therefore, is not likely to be a representative sample of patients in the community.

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