

## Assessment of disability in bipolar affective disorder and alcohol use disorder – a descriptive study

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### Background

Bipolar affective disorder (BPAD) and alcohol dependence syndrome (ADS) are two common psychiatric disorders. Available evidence from international studies suggests that BPAD disorder is associated with significant disability. Disability in persons with ADS is a little researched area. The aim of the present study was to assess the disability in patients suffering from BPAD and ADS.

### Method

Patients attending the psychiatry clinic of Teaching Hospital of Jagadguru Jayadeva Murugarajendra Medical College, Davangere, India, who were diagnosed to be having BPAD or ADS as per DSM IV diagnostic criteria, were included in the study. A total of 63 patients was enrolled, of whom 30 were suffering from BPAD and 33 had ADS. Disability was assessed

in both the groups using Indian Disability Evaluation Assessment Scale (IDEAS).

### Results

Patients with BPAD had moderate to severe disability whereas ADS patients had mild to moderate disability. Self care, interpersonal activities, communication and understanding and work were affected in BPAD group. Among ADS patients work was more affected followed by self care and interpersonal activities.

### Conclusions

Both BPAD and ADS is associated with significant disability. Further research is indicated regarding effective measures to minimize this disability.

**Key words:** disability, bipolar affective disorder, alcohol dependence syndrome

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## Introduction

According to the International Classification of Impairment, Disability and Handicap (ICIDH, 1980), disability is defined as interference with activities of the whole person in relation to the immediate environment (1). Within this definition of disability, under the Persons with Disabilities Act 1995, mental illness refers to a disorder of the mind that results in partial or complete disturbance in a 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 (2). In India, as per the National Sample Survey Organisations (NASSO) 2002 statistics, 1755 persons per 100,000 population suffer from disability, and about 105/100,000 were disabled due to mental illness (3). Psychiatric disorders account for about 31% of world's disability and these disorders impact negatively on the academic, occupational, social and familial functioning of the patients (4).

Psychiatric disorders, by virtue of their very nature, are associated with different patterns of disabilities when compared to that of physical illness. Social and work related functioning is more likely to be impaired in those

with mental illnesses. It is also compounded by stigma and discrimination (5).

In India, research in the area of psychiatric disability has focused on disability associated with schizophrenia (6). There is a paucity of data regarding disability associated with bipolar affective disorder (BPAD) and alcohol dependence syndrome (ADS). Therefore the aim of the present study was to describe the disability associated with these disorders in India.

## Methodology

A cross sectional, hospital based study was conducted in the Teaching Hospital of Jagadguru Jayadeva Murugarajendra Medical College, Davangere, India. The study was conducted from January 2006 to December 2006. Consecutive patients aged between 18 to 60 yrs with a diagnosis of either BPAD or ADS for a duration of at least 2 years were included in the study. Patients were clinically interviewed by a specialist in psychiatry based on the Diagnostic and Statistical Manual IV (DSM IV) criteria. Those with concomitant mental retardation, physical illness, personality disorders, and other psychiatric illness were excluded from the study. Those suffering from both ADS and BPAD were also excluded from the

study. Those who gave informed written consent were included in the study.

### Tools and outcome measures

Socio-demographic details were collected via a semi structured proforma. Disability was assessed using the Indian Disability Evaluation Assessment Scale (IDEAS) (8). The IDEAS assesses disability in 5 domains – namely that of self care, interpersonal activities, communication and understanding, work and duration of illness. The Short Alcohol Dependence Data (SADD) Questionnaire (9) was used to measure the severity of alcohol dependence.

Ethical approval for the study was obtained from the ethical committee of the Jayadeva Murugarajendra Medical College.

## Results

The study sample consisted of 30 BPAD patients and 33 ADS patients. Socio demographic characteristics of the patients were comparable in both groups except for gender, where males outnumbered females in the ADS group (Table 1).

The degree of disability was significantly greater in BPAD patients compared to those with ADS. The scores in all the domains of the IDEAS were greater in BPAD patients compared to ADS patients, except for the duration of illness which was more in ADS patients (Table 2).

Among the BPAD patients, scores in all domains of IDEAS were significantly higher during an episode of illness, compared to the one month period prior to an episode. Among BPAD patients, during the episode

Variables		BPAD n = 30	ADS n = 33
Age (yrs) (Mean and standard deviation)		33.97 ± 9.8	37.76 ± 7.84
Sex	Male	14 (47%)	30 (91%)
	Female	16 (53%)	39 (9%)
Place	Rural	1 5 (50%)	19 (58%)
	Urban	15 (50%)	14 (42%)
Religion	Hindu	27 (90%)	30(91%)
	Muslim	3 (10%)	3 (9%)
Education	No education Upto 10	13 (43%) 13(43%)	9 (28%) 18 (54%)
	Above 10	4 (14%)	6 (18%)
	Occupation	Housewives Skilled job Unskilled job Unemployed	5 (16.6%) 3 (10%) 17 (56.6%) 5 (16.6%)
Type of family	Nuclear	21 (70%)	23 (70%)
	Joint	9 (30%)	10 (30%)
Marital status	Unmarried	10 (33.3%)	4 (12.12%)
	Married	14 (46.6%)	28 (84.84%)
	Separated / Divorced	6 (20%)	1 (3.03%)
Socioeconomic status	High	7 (23%)	7 (21%)
	Middle	5 (17%)	8 (24%)
	Low	18 (60%)	18 (55%)

(Figures in parenthesis are percentages)

16.6% had mild disability, 50% moderate disability and 33.3% had severe disability. One month before the episode 86.6% had mild disability and 13.3% had moderate disability. Interpersonal activities were more affected during manic and mixed episodes, where as work was affected during manic and depressive episodes, but these differences were not statistically significant (Table 3). During manic episodes, 9.52% of those with BPAD had mild disability, 61.9% had moderate disability and 28.57% had severe disability. During mixed episodes, 33.3% had mild disability, 33.3% had moderate disability and 33.3% had severe disability. During depressive episodes, 33.3% of those with BPAD had mild disability, 16.66% had moderate disability and 50% had severe disability.

In those with ADS, 42.4% had mild disability and 57.6% had moderate disability. The global disability score appeared to be more in severe in the dependence group compared to the moderate and low dependence groups, and this difference was statistically significant, whereas the difference between the groups on all other domains was not statistically significant (Table 4).

## Discussion

In our study, most patients were males, aged 30-40 years, and were unskilled workers. A majority belonged to the low socioeconomic group and were married.

In the present study, participants with BPAD had disability in all the domains of IDEAS (self care, interpersonal activity, communication and understanding, work). Similar findings have been reported by Chaudhury et al, Robb et al, and Calabrese et al who reported that patients had difficulties in work, interpersonal activities, and self care (10-12). The other areas which were affected were that of self-expression, self improvement, family relationships, social relationships and work, financial situation, marital relations, sex life, active recreation, health and diet, passive recreation, religious expression and community and civic involvement, social and leisure activities, social and family interactions.

In the present study there was no statistically significant difference in disability experienced by the patients during

Table 2. Indian Disability Evaluation Assessment Scale (IDEAS) score in Bipolar Affective Disorder (BPAD) and Alcohol Dependence (ADS)

Disorder	Self care	Inter-personal activities	Communi-cation and understanding	Work	Duration of illness score	Global disability score
BPAD N=30	2.28 ± 1.04	2.56 ± 0.92	1.33 ± 1.25	3.64 ± 0.90	2.93 ± 0.83	12.64 ± 3.24
ADS N=33	1.15 ± 1.04	1.08 ± 0.90	0	2.45 ± 1.46	3.48 ± 0.48	8.15 ± 3.21

Table 3. Comparison if disability, mania, mixed and depression groups

Items	Mania n = 21	Mixed n = 3	Depression n = 6	Statistical analysis df=2,27
Self care	2.39 ± 1.09	2.13 ± 1.10	2.15 ± 0.99	F = 1.99 NS
Interpersonal activities	2.8 ± 0.71	2.83 ± 1.32	1.6 ± 0.89	F = 0.63 NS
Communication and understanding	1.27 1.41	1.2 0.69	1.56 0.88	F = 1.26 NS
Work	3.83 0.55	2.8 2.07	3.36 0.99	F = 0.74 NS
Duration of illness score	2.80 0.87	3.33 0.57	3.16 0.75	F = 1.08 NS
Global disability score	12.95 2.99	12.3 5.21	11.71 3.59	F = 0.7 NS

Table 4. Comparison of disability based on severity of alcohol dependence

Items	Low n = 3	Moderate n = 12	Severe n = 18	Statistical analysis p<0.05
Self care	0.53 ± 0.61	0.81 ± 0.85	1.46 ± 0.80	F = 3.24 NS
Interpersonal activities	0.53 ± 0.68	1.15 ± 0.92	1.27 ± 0.93	F = 0.59 NS
Communication and understanding	0	0	0	0
Work	1.33 ± 2.3	2.15 ± 1.35	2.84 ± 1.31	F = 1.9 NS
Duration of illness score	3 ± 1	3.16 ± 0.93	3.77 ± 0.54	F = 3.1 NS
Global disability score	5.4 ± 4.41	6.86 ± 2.81	9.47 ± 2.75	F = 3.34 NS

manic, mixed and depressive episodes. This is in contrast to the findings of Judd et al, who reported that each level of depressive symptom severity and psychosocial impairment was equal to or significantly greater than the corresponding level of manic symptom severity (13). Episodes of rapid cycling or mixed polarity were not associated with higher disability compared to periods of pure depression or pure mania.

In those with BPAD, disability was greater during the episode than one month before the episode and this was statistically significant. This is in accordance with Vojta et al who reported that quality of life is higher in bipolar patients who were euthymic, and significantly lower in patients who were experiencing mania or hypomania, major depression or a mixed episode (14). According to Judd et al, when either BPAD-I or BPAD-II become asymptomatic in terms of their mood disorders, their psychosocial functioning normalised (13). But the findings of our study suggest that those with BPAD may also experience decrement in functioning during asymptomatic periods, though much less than compared with periods of illness.

This study also shows that ADS is associated with considerable disability. Work was most effected, followed by self care and interpersonal activities. Chaudhury et al reported that the main area of functioning significantly influenced by alcohol use was interpersonal relations (10). Most participants in our study were unskilled daily wage labourers with severe alcohol dependence, and this is likely to have influenced their work performance. Rehabilitation is an important component of psychiatric care. A better understanding of the specific areas of dysfunction and disability has important implications on promotion of rehabilitation in those with psychiatric disorders.

## Limitations

The sample included in this study was the hospital sample rather than the community sample. This, together with the limited number of study participants prevents the findings from being generalised to the wider community.

## Conclusions

Both those with BPAD and ADS suffer from significant disability. For those with BPAD the disability is greatest during periods of acute illness, but it also appears to effect the inter episodic period. Greater understanding and appreciation of disability associated with these disorders will indicate ways in which to promote rehabilitation and minimize disability among sufferers of these disorders.

## Declaration of interest

None declared

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