

# Assessment of Mental Disability using Indian Disability Evaluation Assessment Scale in Obsessive Compulsive Disorder and Dysthymic Disorder

ROOPESH NV GOPAL<sup>1</sup>, SATHISH SV KUMAR<sup>2</sup>

## ABSTRACT

**Introduction:** Obsessive Compulsive Disorder (OCD) is characterised by recurrent obsessions or compulsions that are severe enough to be time-consuming or cause marked distress or significant impairment and is given disability benefits as per the existing Indian disability act. Dysthymic Disorder (DD) is a chronically depressed mood that occurs for most of the day, more days than not for at least two years and may also lead to disability for which benefits are not given. In view of limited research and the paucity of data, the current study was conducted to address these lacunae.

**Aim:** To assess mental disability in OCD and compare it with DD for benefits under the Indian disability Act.

**Materials and Methods:** The present study was a cross-sectional hospital-based comparison study conducted in two group of 30 patients each diagnosed to have OCD and DD during October 2009 to September 2011 in a medical institution in Karnataka, India.

Diagnostic and Statistical Manual of Mental disorders (DSM)-IV criteria were used for diagnosis of OCD and DD. Yale-Brown Obsessive Compulsive Scale (Y-BOCS), Hamilton Depression

Rating Scale (HAM-D) and Indian Disability Evaluation and Assessment Scale (IDEAS) were used. Statistical Package for Social Sciences (SPSS) version-16.0 software was used for analysis. For continuous data, student's t-test and for categorical data, 'chi-square test' was used respectively.

**Results:** The mean disability score was 6.39 (SD=1.5) and 6.13 (SD=1.14) in OCD and DD respectively. Disability score was not found to be different within the various groups, of socio-demographic parameters like age, sex, occupation, residence education, socioeconomic status in OCD and DD conditions. The percentage of moderately disabled patients were more in the DD group (53.3%) than in the OCD group (36.7%). In the domain of self-care and duration of illness, there was a significant difference between the OCD and DD group ( $p < 0.05$ ). Mild ( $n=19$ ) and moderate ( $n=11$ ) disability in obsession and compulsion categories showed no statistical significance.

**Conclusion:** Disability in DD was similar to that of OCD as total disability score had no significant difference between the two groups. However, further research is needed to assess the extent of disability in non-psychotic disorders for disability benefits.

**Keywords:** Hamilton depression rating scale, Yale brown obsessive compulsive scale

## INTRODUCTION

Disability associated with psychiatric disorders is considered an important public health problem in developing countries like India [1]. Disability due to psychiatric illness refers to dysfunction or inadequate performance in specific activities of daily living which are normally expected from a person according to his age, sex and societal role [2]. About one-third of patients having Major Depressive Disorder (MDD) and Bipolar Affective Disorder (BPAD) have a severe disability. Self-care and work were the dysfunctional areas in MDD while BPAD affected all areas of functioning [3,4].

Non-psychotic disorders such as OCD, anxiety disorders, DD, and somatoform disorder also run a chronic course and can cause disability. It is reported that about 16-17% OCD and anxiety disorders result in significant disability [3]. However, Olfson M et al., did not observe any significant disability in OCD [5]. OCD is the only non-psychotic illness for which the government of India sanctions disability benefits. Effective treatment and the issue of monetary benefit for the disabled by the government assume importance in this context. In this background, it is important to assess the extent of disability in OCD and compare it with another non-psychotic illness, DD.

There is limited available literature which assessed disability among non psychotic illnesses in Indian setup. However, there are some community-based studies to assess mental disability in mental disorders [6]. Hence, the present study was planned to assess disability in OCD and compare it with another non-psychotic illness, DD.

## MATERIALS AND METHODS

### Setting and Sample Size

This was a cross-sectional hospital-based comparison study conducted in the Department of Psychiatry attached to a medical institution in central Karnataka, India. The sample size consisted of two group of 30 patients each diagnosed to have OCD and DD. The consecutive sampling method was used to select the study subjects.

### Inclusion and Exclusion Criteria

All the subjects between 18-45 years age group with duration of at least two years illness of OCD (as OCD has bimodal onset with late adolescent and adult onset of illness, the subjects were recruited in the above age group) and DD (as it may be early onset i.e., before 21 years and late onset i.e., after 21 years) period were included in the study. Patients having co-morbid organic brain syndromes, psychosis, bipolar affective disorder, manic depressive disorder, alcohol and substance dependence, personality, disorder and mental retardation, patients having a concomitant chronic physical illness, past history of psychiatric illness and family history of psychiatric illness were excluded from the study.

### Ethical Clearance

The study was approved by the Ethical Committee of the medical institution. Informed consent was obtained after explaining the study details to the subjects. This part of the study presented the comparison of mental disability in OCD and DD.

### Tools

- Diagnostic and Statistical Manual for mental disorders (DSM-

IV-TR) criteria for OCD and DD [7];

- Yale Brown Obsessive Compulsive Scale (Y-BOCS) [8];
- Hamilton Depression Rating Scale (HAM-D) [9];
- Indian Disability Evaluation and Assessment Scale (IDEAS) [10].

### Method of Data Collection

Following the inclusion of the patients in the study the socio-demographic details like age, sex, urban/rural, address, type of family, number of persons in the family, education, occupation, and income of family from all sources was collected by interviewing the patient using a standard structured questionnaire. Socioeconomic status was assessed by modified Prasad classification scale. The duration of illness in OCD and DD was taken from the history given by the patients. This was followed by the administration of Yale Brown Obsessive Compulsive scale. The Hamilton depression rating scale was used to measure depression. The IDEAS was used to quantify disability.

### STATISTICAL ANALYSIS

The scores were tabulated using SPSS version-16.0 software. For continuous data, Student's t-test was used. For categorical data 'chi-square test' was used. Information was presented in proportion; mean score value and its Standard Deviation (SD) and 95% confidence interval. A p-value of less than 0.05 was considered significant.

### RESULTS

The baseline characteristics were comparable to most of the variables in both the groups [Table/Fig-1]. Mean disability score was not found to be different within the various groups of socio demographic parameters in OCD and DD conditions [Table/Fig-2,3]. The percentage of moderately disabled patients was more in the DD group than in the OCD group though the difference was not statistically significant [Table/Fig-4].

In the domain of self care of IDEAS there was significant difference between the OCD and DD group. In the domains of interpersonal relationship communication and work there was no significant difference between the two groups. Duration of illness in OCD group was more compared to DD and this difference was statistically significant [Table/Fig-5]. Mild (n=19) and moderate (n=11) disability

Characteristics		Subjects with OCD (n=30) (%)	Subjects with DD (n=30) (%)
Age in years (Mean±SD)		27.33±7.49	32.33±9.97
Sex	Male	14 (46.7)	12 (40.0)
	Female	16 (53.3)	18 (60.0)
Place	Rural	7 (23.3)	14 (46.7)
	Urban	23 (76.7)	16 (53.3)
Religion	Hindu	28 (93.3)	23 (76.7)
	Muslim	2 (6.7)	7 (23.3)
Type of Family	Nuclear	23 (76.7)	26 (86.7)
	Joint	7 (23.3)	4 (13.3)
Education	Upto class 10	10 (33.3)	22 (73.3)
	Above class 10	20 (66.7)	8 (26.7)
Occupation	Unemployed	15 (50)	6 (20.0)
	House wife	7 (23.3)	8 (26.7)
	Agriculture	1 (3.3)	8 (26.7)
	Business	6 (20)	6 (20.0)
	Employed	1 (3.3)	2 (6.7)
Socioeconomic Status	Higher Class	11 (36.7)	7 (23.3)
	Middle Class	11 (36.7)	12 (40.0)
	Lower Class	8 (26.7)	11 (36.7)
Marital Status	Married	15 (50.0)	21 (70.0)
	Unmarried	15 (50.0)	9 (30.0)

[Table/Fig-1]: Socio-demographic profile of subjects with OCD and DD.

Socio-demographic features		Mean disability score	p-value
Age	<30 years (n=22)	6.57±1.65	1.04 NS
	>30 years (n=8)	5.92±0.96	
Sex	Male (n=14)	6.25±0.84	0.47 NS
	Female (n=16)	6.52±1.94	
Place	Urban (n=23)	6.5±1.65	0.72 NS
	Rural (n=7)	6.03±0.95	
Education	<SSLC (n=10)	6.76±2.4	0.92 NS
	>SSLC (n=20)	6.21±0.81	
Marital status	Married (n=15)	6.19±0.96	0.73 NS
	Unmarried (n=15)	6.59±1.93	
Socioeconomic status in OCD	Higher Class (n=11)	6.26±0.7	0.682 NS
	Middle Class (n=11)	6.8±2.27	
	Lower Class (n=8)	6.01±0.97	

[Table/Fig-2]: Comparison of socio-demographic features and disability in OCD. NS: Not significant

Socio-demographic features		Mean total score	p-value
Age	<30 years (n=16)	6.31±1.08	0.92 NS
	>30 years (n=14)	5.93±1.21	
Sex	Male (n=12)	6.42±0.99	1.12 NS
	Female (n=18)	5.94±1.2	
Place	Urban (n=16)	6.0±1.15	0.68 NS
	Rural (n=14)	6.28±1.14	
Education	<SSLC (n=22)	6.0±1.11	1.07 NS
	>SSLC (n=8)	6.5±1.19	
Marital status	Married (n=21)	6.0±1.14	0.98 NS
	Unmarried (n=9)	6.4±1.13	
Socioeconomic status in OCD	Higher Class (n=7)	6.43±1.5	2.63 NS
	Middle Class (n=12)	5.58±0.79	
	Lower Class (n=11)	6.55±1.3	

[Table/Fig-3]: Comparison of socio-demographic features and disability in DD.

Disability	OCD	DD	Statistical significance
Mild	19 (63.33%)	14 (46.66%)	$\chi^2=1.68$ df=1, NS
Moderate	11 (36.66%)	16 (53.33%)	

[Table/Fig-4]: Severity of disability in OCD and DD.

IDEAS domains	OCD (n=30)	DD (n=30)	Statistical significance df=58
Self care	0.41±0.28	0.56±0.22	t=2.23 p<0.05
Interpersonal relations	0.66±0.39	0.67±0.30	t=0.08 NS
Communication	1.25±0.46	1.38±0.37	t=1.19 NS
Work	1.45±0.93	1.33±0.89	t=0.88 NS
Duration	2.53±0.73	2.23±0.43	t=1.94 p<0.05
Total score	6.39±1.5	6.13±1.14	t=0.76 NS

[Table/Fig-5]: Comparison of Disability score in OCD and DD.

Y-BOCS	Ideas disability		p-value
	Mild (n=19)	Moderate (n=11)	
Obsession	12.95±3.44	13.0±3.32	0.48 NS
Compulsion	12.63±3.42	13.64±3.0	0.36 NS

[Table/Fig-6]: Comparison of disability score with Y-BOCS in OCD.

when compared with obsession and compulsion score showed no significant significance in the mean score [Table/Fig-6].

### DISCUSSION

Out of the 30 patients with OCD, 19 (63.33%) had a mild disability and

11 (36.66%) had the moderate disability. There was no severe disability in the current study. This finding differs from the findings of other authors who have found significant disability in OCD. Steketee G found disability in OCD was equal to that of schizophrenia [11]. Chaudhury PK et al., noted that about 16% of OCD had significant disability and disability associated with alcohol use disorder and anxiety was comparable to disability on account of OCD [3]. In the current study, work was affected more followed by communication and then interpersonal relationship among those with OCDs. The least to be affected was self-care. This is in accordance with the earlier study which found significant work, social, and family disability using Sheehan's disability scale [12]. Similar findings have been observed by others who noted that OCD with an occupational disability was associated with greater functional impairment in completing household duties and social functioning [13]. OCD patients could be relatively more disabled in the area of work because of interference by obsessions and compulsions in patients work. Self-care domain of disability was least affected because OCD is a non-psychotic disorder where in activities of daily living are not grossly impaired as insight is not lost.

About 14 (46.66%) patients out of 30 patients with DD had mild disability and 16 (53.33%) patients had the moderate disability. None had a severe disability. This finding differs from the earlier studies which have found severe disability. Disability was more in DD than in MDD [14]. Secondary depression in chronic physical illness causes significant disability [15]. DD was more disabling than acute depression (MDD of >2 years without lifetime DD) and the general population [16]. In DD the distress is experienced internally and may not show up in the external behaviour of the patient. Hence, the patient may be compelled to carry on with life due to socioeconomic constraints. In the present study, communication was the most affected domain among subjects with DDs, followed by work and interpersonal relationship. The least to be affected was self-care. Earlier studies in this area have not addressed this issue. DD patients could be relatively more disabled in the communication domain of disability because of interference of depressed mood in communication with others. Self-care domain of disability was least affected because DD is a non-psychotic disorder wherein activities of daily living are not grossly impaired as insight is not lost.

The percentage of people who were moderately disabled was more in the DD group than OCD group. However, this was not statistically significant. When OCD was compared with DD on the domains of self-care, interpersonal relationship, communication and work, there was no significant statistical difference between the two illnesses. There is no available literature as far as present knowledge is concerned in this area comparing the disability between OCD and DD. In the current study, duration of illness had no bearing on the severity of disability in OCD and DD. No study available in this regard. Another study which assessed quality of life and disability among schizophrenia and OCD patients in remission revealed that schizophrenics have poor QOL and greater disability burden than patients of OCD [17].

In a study which examined Association between DD and Disability, with Religiosity as moderator found that there is a statistically significant association between DD and the functional disability and religiosity has not shown a significant effect on the association between DD and functional disability [18]. At present Government of India extends a disability benefit to certain psychiatric categories like Schizophrenia, BPAD, Dementia, and OCD having more than

40% disability i.e., for moderate and severe disability. OCD is the only "non-psychotic" disorder included in the above category. In the present study, since disability in DD was equal to OCD, future research may be warranted to include disability benefits for DD.

## LIMITATION

The sample size was small hence may not represent the homogeneity of the population in the community. OCD and minor depression subjects of less than two years of illness duration though having a disability have not been included in the study.

## CONCLUSION

The present study found disability in both obsessive compulsive disorder and dysthymic disorder group. Total disability score had no statistical difference between the two groups. However, patients with OCD are getting disability benefits whereas patients who are having dysthymic disorders are not.

Further research are needed to assess the extent of disability in non-psychotic disorders and their consideration for eligibility to get disability benefits from Government of India.

## REFERENCES

- [1] Kumar SG, Roy G, Kar SS. Disability and rehabilitation services in India: issues and challenges. *J Family Med Prim Care*. 2012;1(1):69-73.
- [2] WHO Geneva Lexicon of Psychiatric and Mental Health Terms; 1994. 2<sup>nd</sup> edn.
- [3] Chaudhury PK, Deka K, Chetia D. Disability associated with mental disorders. *Indian Journal of Psychiatry*. 2006;48(2):95.
- [4] Koran LM, Thienemann ML, Davenport R. Quality of life for patients with obsessive-compulsive disorder. *Am J Psychiatry*. 1996;153(6):783-88.
- [5] Olsson M, Fireman B, Weissman MM, Leon AC, Sheehan DV, Kathol RG, et al. Mental disorders and disability among patients in a primary care group practice. *Am J Psychiatry*. 1997;154(12):1734-40.
- [6] Kumar SG, Das A, Bhandary PV, Soans SJ, Kumar HH, Kotian MS. Prevalence and pattern of mental disability using Indian disability evaluation assessment scale in a rural community of Karnataka. *Indian Journal of Psychiatry*. 2008;50(1):21.
- [7] American psychiatric association. (2000). diagnostic and statistical manual of mental disorders: dsm-iv-tr. washington, dc, american psychiatric association.
- [8] Woody SR, Steketee G, Chambless DL. Reliability and validity of the Yale Brown Obsessive Compulsive scale. *Behav Res Ther*. 1995;33(5):597-605.
- [9] Hamilton M. A rating scale for depression. *J Neurol Neurosurg Psychiatry*. 1960;23:56-62.
- [10] Indian Disability Evaluation and Assessment Scale, 2002. Ministry of Social, Justice and Empowerment Notification. New Delhi, 18<sup>th</sup> February.
- [11] Steketee G. Disability and family burden in obsessive-compulsive disorder. *Can J Psychiatry*. 1997;42(9):919-28.
- [12] Kennedy BL, Lin Y, Schwab JJ. Work, social, and family disabilities of subjects with anxiety and depression. *South Med J*. 2002;95(12):1424-27.
- [13] Mancebo MC, Greenberg B, Grant JE, Pinto A, Eisen JL, Dyck I, et al. Correlates of occupational disability in a clinical sample of obsessive compulsive disorder. *Compr Psychiatry*. 2008;49(1):43-50.
- [14] Baune BT, Caniato RN, Arolt V, Berger K. The effects of dysthymic disorder on health-related quality of life and disability days in persons with comorbid medical conditions in the general population. *Psychother Psychosom*. 2009;78(3):161-66.
- [15] Cole SA, Woodard JL, Juncos JL, Kogos JL, Youngstrom EA, Watts RL. Depression and disability in Parkinson's disease. *J Neuropsychiatry Clin Neurosci*. 1996;8(1):20-25.
- [16] Hellerstein DJ, Agosti V, Bosi M, Black SR. Impairment in psychosocial functioning associated with dysthymic disorder in the NESARC study. *J Affect Disord*. 2010;127(1-3):84-88.
- [17] Swain SP, Behura SS. A comparative study of quality of life and disability among schizophrenia and obsessive-compulsive disorder patients in remission. *Industrial Psychiatry Journal*. 2016;25(2):210-15.
- [18] Sandhu RS, Ghosh S, Dellenbaugh T. Association between dysthymic disorder and disability, with religiosity as moderator. *Act Nerv Super*. 2016;58(1-2):13-19.

### PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Psychiatry, Kodagu Institute of Medical Sciences, Madikeri, Karnataka, India.
2. Senior Resident, Department of Psychiatry, Kodagu Institute of Medical Sciences, Madikeri, Karnataka, India.

### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Sathish SV Kumar,  
Senior Resident, Department of Psychiatry, Kodagu Institute of Medical Sciences, Madikeri-571201, Karnataka, India.  
E-mail: svsk666@gmail.com

FINANCIAL OR OTHER COMPETING INTERESTS: None.

Date of Submission: Jun 01, 2018

Date of Peer Review: Jul 13, 2018

Date of Acceptance: Aug 06, 2018

Date of Publishing: Oct 01, 2018