Distress and Disability in Subjects Having Obsessive Compulsive Disorder (OCD) and Co Morbid Obsessive Compulsive Disorder with Psychotic Features: A Cross-Sectional Comparative Analysis

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Abstract

Background: Persons with psychiatric disorders have greater deficits, psychosocial consequences such as unemployment and causes disability and distress due to their symptomatology and chronic course. **Objectives:** Assessment and comparison of distress and disability in patients suffering from obsessive-compulsive disorder (OCD) and co-morbid OCD with psychotic features. **Methods**: A cross-sectional study was carried out in the Department of Psychiatry, Institute of Medical Sciences, Banaras Hindu University. The sample was collected both from outdoor and indoor services and consisted of 100 subjects (60 OCD subjects and 40 subjects of OCD with psychotic features).All were assessed through the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), Padua inventory - Washington state university revision (PADUA-WSUR) and Indian Disability Evaluation and Assessment Scale (IDEAS).**Results:** Results revealed that patients of OCD with co-morbid psychotic features had greater disability in all domains than patients of OCD but distress due to obsessive-compulsive symptoms was greater in severity in patients of OCD**. Conclusion**: Psychiatric illnesses, OCD and when OCD is complicated by psychotic features affects all areas of daily functioning leading to greater disability and distress, thus increasing the burden on the family, imposing greater challenges for rehabilitation.

Key words :*Obsession, compulsion, distress, disability.*

Introduction

Psychiatric disorders are widely prevalent and are a major cause of disability; OCD and schizophrenia are among the top 10 leading causes of disability[1]. According to the World Health report published in 2001, neuropsychiatric disorders, account for 30.8% of total disability and 12.3% of the total burden of disease. This latter figure is expected to rise to 15% by the year 2020.[1]

OCD symptoms, anxiety, depression, and the tendency to misinterpret the significance of intrusive thoughts are related to functional disability and distress[2]. A survey revealed that OCD causes significant morbidity, leading to clear distress and Interference with academic, occupational, social and family function[3]. Hollander et al., revealed, 73% of OCD patients had impaired family relationships, 62% had impaired peer interaction, 58% experienced academic underachievement, 47% experience interference with work, and 40% were chronically underemployed[4].

A study assessed disability in schizophrenic patients using IDEAS scale and revealed 83% patients with mild to moderate disability[5]. Gururaj et al., revealed severe OCD may have comparable level of global functioning, family burden, Quality of Life and disability with patients suffering from schizophrenia[6].Rajkumar studied the clinical profile of schizophrenic patients with and

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without co morbid OCD, results revealed co morbid group had lower anergia, higher depression scores, more comorbid personality disorders, and lesser disability[7].

This study has been carried out as an attempt to assess distress and disability caused by OCD and when OCD is having co-morbid psychotic features. The present study is done in a tertiary care general hospital set up located in Varanasi. The study aims to assess the disability in various domains of the patient's life and also to assess the distress associated with it. The results will help us formulate ,understand and plan an appropriate management and rehablitation for patients suffering with OCD and OCD with co-morbid psychotic features.

Materials and Methods

Procedure

One hundred samples(60 patients from the group OCD and 40 patients from OCD with co-morbid psychotic features) were selected on purposive basis and were evaluated cross-sectionally. The present study was conducted in Department of Psychiatry, Institute of Medical Sciences, Banaras Hindu University. The sample was collected both from outdoor and indoor services of Department of Psychiatry. Patients having OCD meeting the criteria according to ICD-10 (DCR) and having coexisting psychotic feature and those giving written informed consent were included in the study. Exclusion criteria were those having any comorbid physical disorder, those having onset of symptoms following substance use except nicotine, those having signs of organicity and acutely agitated patient. The written informed consent was taken from the patients and caregivers.

Tools used

i. ICD-10(DCR) criteria for making the diagnosis.

ii. Yale brown obsessive compulsive scale[8]

This scale is developed by Goodman et . al. It consists of 10-item (clinician-rated) for assessing the severity of obsessive-compulsive symptoms in patients with OCD. Items are rated on a 0–4 point scale (0 = none, 4 = extreme) and based on information obtained as reported and observed during the interview.

iii. Padua inventory – Washington state university revision[9]

The Padua Inventory (PI), a self-report measure of obsessive and compulsive symptoms. Freeston, Ladouceur, Rheaume, Letarte, Gagnon and Thibodeau (1994). The revision was constructed to measure five content dimensions relevant to OCD i.e. (1) obsessional thoughts about harm to oneself or others; (2) obsessional impulses to harm oneself or others; (3) contamination obsessions and washing compulsions; (4) checking compulsions; and (5) dressing/grooming compulsions. It is a 39-item self-report measure of obsessions and compulsions. Each item is rated on a 5-point scale according to the degree of disturbance caused by the thought or behavior (0= "not at all" to 4= "very much").

iv. Indian disability evaluation and assessment scale[10]

IDEAS is best suited for the purpose of measuring and certifying disability. The IDEAS measures disability across 4 domains: self-care, interpersonal activities, communication understanding, and work. Each item is rated from 0 to 4, and a fifth item measures the duration of the illness, ranging from 0 (<2 years of illness) to 4 (>10 years of illness).Scores range from 0 -(no disability) to 20- (profound disability). The IDEAS has a high inter rater reliability and has been used previously in patients with OCD and schizophrenia.

Method of data analysis

Data analysis was done by SPSS, version 16.0 for windows .Chi-square was used to test the significance of difference between two groups on various categorical variables. In case of total score of scale like YBOCS, IDEAS, PADUA-WSUR where continuous values was obtained, mean, standard deviation were calculated and unpaired t-test was applied. And wherever the data did not satisfy the assumptions of the parametric test the corresponding Mann-Whitney test was applied. The significance was set at $p<0.05$ (two-tailed).To measure the strength of association between two continuous variables the Spearman Rank correlation coefficient was calculated and its statistical significance was also tested.

Result

Table 1shows a total of 100 patients of (40 with OCD with co-morbid psychotic features and 60 with obsessive-compulsive disorder) were included in this study. Mean age of patients suffering from OCD with co-morbid psychotic features was 28.1±9.66 year and that of patients with OCD was 30.4±9.42 year. Majority patients were of 21–30 years of age. Most of the patients were male (55%)in OCD with co-morbid psychotic features group, whereas in OCD group, female participants were predominant (53.3%).The majority of patients were Hindus in case of both groups. The majority of OCD with co-morbid psychotic features patients(37.5%)had a minimum qualification of matriculation and (30%)were graduate. Most of OCD patients(43.3%) were graduate. The majority of OCD with co-morbid psychotic features patients were unmarried(50%) whereas in OCD group the majority were married (53.3%).Majority of patients in both the group were belonging to urban background. Majority of patients were unemployed/homemakers in both the groups. There was no statistically significant difference between these two groups with respect to socio-demographic variables.

Table2 shows that OCD patients were having higher mean scores than OCD with co-morbid psychotic features in domains of the scale PADUA-WSUR to measure the distress; ie Contamination Obsessions and Washing Compulsions (z value:2.802 ;p<0.05), Dressing/Grooming Compulsions (z value:0.513; p>0.05), Checking Compulsions (z value:1.791;p>0.05);Obsessional Thoughts of Harm to Self/Others(z value:0.367;p>0.05), Obsessional Impulses to Harm Self/Others(z value: 2.795;p<0.05).

Although the mean scores in the domains of Dressing/Grooming Compulsions and Obsessional Impulse of Harm to Self/Others came higher in the group OCD with co-morbid psychotic features owing to variation in number of participants among groups. But the total mean score of the scale was higher in the OCD group(p=0.003). Also when different domains of scale were graded in severity (not at all to very much), distress was more in OCD group as maximum participants lie in very much severity except in the domain Obsessional thought of Harm to Self/Others where equal severity was seen among both groups, and in the domain Obsessional Impulse of Harm to Self/Others where distress was more in the co-morbid group.

Table 3 shows that OCD with co-morbid psychotic features patients have higher mean scores than OCD patients in all domains of IDEAS scale to measure disability, i.e., self-care (z value: 6.232 ; p< 0.05), Interpersonal Activities (z value:5.584; p< 0.05), communication and understanding (z value:6.867; p< 0.05), and work (z value:6.274; p< 0.05), suggesting that OCD with co-morbid psychotic features patients were more disabled than OCD patients.

Table 4 shows the correlation between scales YBOCS, IDEAS and PADUA-WSUR by applying spearman rank correlation coefficient. Positive correlation could be established between YBOCS and PADUA-WSUR, IDEAS and PADUA-WSUR in both the study groups.

Table 1:Comparison of socio-demographic profiles of patients obsessive-compulsive disorder(OCD) with co-morbid psychotic features and OCD

Sub scale	OCD with psychotic features, No. (%)	OCD, No. (%)	c2	P
Age group(years) 10-20 21-30 31-40 >41	10 (25.0%) 21(52.5%) 3(7.5%) 6 (15.0%)	6 (10.0%) 34 (56.7%) 13(21.7%) 7(11.7%)	6.67	0.083
Sex Male Female	22 (55.0%) 18 (45.0%)	28 (46.7%) 32 (53.3%)	0.667	0.414

Cont... **Table 1:Comparison of socio-demographic profiles of patients obsessive-compulsive disorder(OCD) with co-morbid psychotic features and OCD**

Religion Hindu Muslim	37 (92.5%) 3 (7.5%)	55 (91.7%) 5 (8.3%)	0.226	0.880
Education Professional Graduate Matriculation Illiterate	12 (30.0%) 12 (30.0%) 15(37.5%) 1 (2.5%)	11 (18.3%) 26 (43.3%) 22(36.7%) 1 (1.75%)	2.630	0.452
Marital status Married Unmarried Divorced	17 (42.5%) 20 (50.0%) 3(7.5%)	32 (53.3%) 26 (43.3%) 2 (3.3%)	1.640	0.440
Occupation skilled Semi-skilled/unskilled Homemaker/unemployed	4 (10.0%) 4 (10.0%) 32 (80.0%)	17 (28.3%) 3 (5.0%) 40 (66.7%)	5.291	0.071
Domicile Rural Urban	18 (45.0%) 22 (55.0%)	28 (46.7%) 32 (53.3%)	0.027	0.870

*P<0.05 (statistical significance at 0.05 level). Values are shown as N(%) of patients. OCD – Obsessive compulsive disorder

Table 2:Comparison of global distress score

Domains(PADUA-WSUR)	OCD with psychotic features (Mean±S D)	OCD(Mean±S D)	z	P
Total score	13.45±17.413	26.23±21.672	2.936	0.003*
Contamination Obsessions and Washing Compulsions	7.70±11.636	16.87±15.039	2.802	0.005*
Dressing/Grooming Compulsions	0.62±2.459	0.50±2.221	0.513	0.608
Checking Compulsions	2.62±6.088	6.52±9.864	1.791	0.073
Obsessive Thought of harm self / others	1.35±8.73	1.85±4.783	0.367	0.713
Obsessive Impulse to harm self / others	1.30±3.502	0.00±0.00	2.795	0.005*

*P<0.05 (statistical significance at 0.05 level). Values are shown as Mean±SD. PADUA-WSUR-Padua inventory-Washington state university revision; SD-Standard deviation; OCD – Obsessive−compulsive disorder

Table 3: Comparison of global disability scores

Domains(IDEAS)	OCD with psychotic features (Mean±S D)	OCD (Mean±S D)	z	P
Self care	1.08±1.228	0.05±0.287	6.232	0.000*
Inter-personal activities	2.00±1.240	0.77±0.963	5.584	0.000*
Communication and understanding	2.15±1.231	0.62±0.993	6.867	0.000*
Work	3.18±1.130	1.77±1.079	6.274	0.000*
Total score	8.45±3.922	3.15±2.661	8.058	0.000*
Global score	10.78±4.323	5.57±3.175	5.583	0.000*

*P<0.05 (statistical significance at 0.05 level). Values are shown as Mean±SD. IDEAS – Indian Disability Evaluation and Assessment Scale; SD-Standard deviation; OCD – Obsessive−compulsive disorder

Table 4:Correlation between clinical variables

OCD with psychotic features	OCD with psychotic features	
	PADUA-WSUR	p
IDEAS	0.191	0.23
YBOCS	0.549	0.00*

OCD	OCD	
	PADUA-WSUR	p
IDEAS	0.180	0.169
YBOCS	0.658	0.00*

*P<0.05 (statistical significance at 0.05 level). IDEAS – Indian Disability Evaluation and Assessment Scale; PADUA-WSUR- Padua inventory – Washington state university revision; YBOCS- Yale-Brown Obsessive Compulsive Scale

Discussion

In the present study, distress has been assessed in OCD and OCD with psychotic features groups of patients by applying the PADUA-WSUR scale and its all five domains.. The current study revealed that there is difference in distress due to obsessive –compulsive symptoms among the two groups of patient. Distress was more in the OCD group, as compared to the OCD with psychotic features group, except in the domains of obsessional Thoughts of Harm to Self/Others, Obsessional Impulses to Harm Self/Others. We got statistically significant results in the two domains of the scale. this finding could be interpreted by considering the presence and absence of insight. We had not formally assessed insight; however presence of psychotic features is usually associated with impaired insight.

Stein et al[3].,assessed distress due to obsessive compulsive symptoms in OCD patients. Storchet al[2]., assessed the relationship between OCD-related distress and functional disability . The findings of the above studies are in concordance with our findings, although

both the studies used different tools for assessment (self reporting questionnaire in Stein et.al and Sheehan disability scale by Storchet et.al.). PADUA-WSUR scale is a comprehensive scale to assess distress in a holistic manner, similar findings using different scales shows that the extent of the problem is significant and similar across various tools.

The present study revealed that there is a statistically significant difference in all the four domains of scale among these two groups of patients. Impaired self-care, interpersonal activities, communication and understanding as well as occupational disability is more in patients of OCD with psychotic features than OCD patients. Among the four domains of IDEAS maximum disability was seen in the work domain and least disability was seen in the self-care domain this can be interpreted in the light of occupational functioning which gets affected by the obsessions and compulsions; however self care is guided by the family members hence is found to be adequate .. Thus work domain was a major contributory factor in causing disability in the OCD patients. This finding is in agreement with the study conducted by Mohan et al[11]., Solankiet al[12].,and Saradaet al[13]., these studies were done in various centers across India and their results revealed that patients with schizophrenia have significantly greater disability in all domains in comparison to OCD patients, as assessed by IDEAS scale. The studies mentioned above looked at OCD subjects with lower scores on the YBOCS scale, hence they showed a lower disability, whereas the subjects suffering with OCD in the present study had higher scores therefore the disability was higher

Our findings were also in accordance Güleç G et al[14].,Braga et al[15].,that disability was more in OC-schizophrenia group, assessment of disability was from Brief Disability Questionnaire and Sheehan disability scale respectively in the above studies. Our study findings are not consistent with a study done by Gururaj et al[6].,where the disability was comparable in schizophrenia and OCD patients, but they have chosen moderately ill patients and used WHO-Disability Assessment Schedule (DAS)-II for the assessment of disability. In addition, they recommended that further studies on a large sample need to be carried out to confirm the findings. Our findings are contrary to the study conducted by Bobes et al[16]., who found higher level of disability in OCD patients than schizophrenics in the area of social and occupational functioning. The patients in our study were severely ill on the YBOCS scale hence the disability scores are higher in the OCD group and since the insight is not affected so they are also distressed. The OC- schizophrenia group has an impairment of insight therefore their distress is lower and the expectation of functioning is also lower.

In co-morbid subgroup distress due to obsessive-compulsive symptoms was less in comparison to OCD patients still this subgroup has more disability, this may be due to poor reality testing, low insight for the disease and also due to the psychosocial factors such as single status, unemployment, disrupted interpersonal activities and lack of understanding of the disease. Our study revealed the majority of participants were male, unmarried and unemployed. Studies showing similar results to us were Faragain et al[17].,Jaydeokar et al [18] The disability at work front is high in our groups which is mirrored in the sociodemographic characteristics of the subjects. There have been studies which have looked at disability among OCD and schizophrenia however none have looked at the distress associated with the disability, our study documents both and also documents the correlation between the two parameters. The distress associated with the OCD and OC-schizophrenia leads to impairment in functioning and other morbidity of anxiety. An assessment of the management plan should consider the distress and disability so as to offer a combination of pharmacological and non-pharmacological interventions for treatment and rehabilitation.

The present study should be assessed in the light of certain limitations. The study is from a tertiary care centre where severely ill subjects are often referred; hence the subjects in our study were more affected ,which is reflected in the results. A heterogeneous mix of subjects could have increased the generalizability of results. Being a hospital based study the reflection in the community is lacking. We need a bigger and heterogeneous sample to increase the applicability of the study. Normal matched controls were not taken in the study which could affect the results. Also we did not control for treatment, so the bias due to treatment heterogeneity cannot be ruled out.

Conclusion

Self-care, interpersonal relationships, communication and understanding, work and global disability score are much more affected in OCD with psychotic features patients than OCD patient. OCD patients were more distressed than the co-morbid subgroups .Cross -sectional nature of the study precludes conclusions regarding the temporal stability of OCD and psychosis.. The identification of OC-schizophrenia subtype is needed to have a better understanding .Studies with good sample size and longitudinal course are required for generalizing the result.

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Conflict of Interest - None

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