Research Article

A comparative study of psychosocial dysfunction between schizophrenia and obsessive-compulsive disorder patients on remission

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ABSTRACT

Background: Psychosocial function of an individual which includes one's personal, social, and occupational spheres is affected by a person's physical as well as psychological well-being. Persons suffering from mental illness always have some kind of psychosocial dysfunction, affecting the quality of life. **Objective:** The objective of the study was to compare the level of psychosocial dysfunctions between remitted patients of schizophrenia and obsessive-compulsive disorder (OCD) and to assess the influence of disability burden between these two groups. **Materials and Methods:** A total of 100 samples (50 patients of each group) fulfilling the inclusion criteria purposively selected from Mental Health Institute (COE), Cuttack, Odisha, and Neuropsychiatric Consultation Center, Cuttack, Odisha. Dysfunction analysis questionnaire was administered on each patient to find out the level of psychosocial dysfunctions in various spheres of day to day life. Data analysis was done by SPSS by using *t*-test to assess the level of significant difference between the two groups. Chi-square was used for sociodemographic variables. **Results:** Statistical significant differences ($P < 0.05$) were found between these two groups in domains of psychosocial dysfunction (i.e., social, vocational, personal, familial, and cognitive). The result also showed increasing severity of disability in patients with schizophrenia than OCD. **Conclusion:** For mental health professionals, it's important that psychosocial functioning and disability should be properly evaluated and managed accordingly during dealing with these patients.

KEY WORDS: Psychosocial Dysfunction; Schizophrenia; Obsessive-compulsive disorder; Disability

INTRODUCTION

Psychosocial dysfunction is defined for an individual with respect to his age, sex, race, and culture, referring to change in a particular period from the previous level of functioning. The functioning of an individual is always compared with the previous level, before the treatment of the illness.[1,2] Psychosocial dysfunction refers to dysfunctions in the domains of personal, familial, social, and vocational/occupational, which ultimately depends on the cognitive functioning of an individual.

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It has been observed that five of the 10 leading causes of disability worldwide are in the category of mental illnesses: Major depression, alcohol dependence, schizophrenia, bipolar affective disorder, and obsessive-compulsive disorder (OCD).[3] The psychiatric disorders account for the five of the 10 leading causes of disability as measured by years lived with disability.[4,5] The World Health Organization defines disability as "an individual limitation or restriction of an activity as the result of an impairment." In 1990, worldwide global burden of disease for neuropsychiatric disorders as measured by disability-adjusted life years was calculated to be 6.8%.[4] Because psychiatric disorders are most common

and prevalent illness that widely affect world population accounting for nearly 31% of total disability population, hence a detailed evaluation and comparison is always in focus about disability and psychosocial dysfunction in different psychiatric disorders.[5] All the five domains of psychosocial dysfunctions are intrinsically correlated with each other in such a way that a particular area cannot be advocated by excluding another area. However, cognitive dysfunction is the predominant area on which another functioning is mostly dependent. Schizophrenia is a chronic debilitating disorder which affects one's thought, feelings, and acts, even after treatment for some years, it leads to a substantial change in the cognitive impairment, personality, poor general health, functioning, autonomy, subjective well-being, and occupational disability.[6]

Similarly, although OCD was considered as one of the anxiety disorders in DSM-IV-TR, subsequently after long years of research, it has been placed as a separate entity as OCD spectrum disorder in DSM-V by taking into consideration of its psychopathology, disability burden, course, and prognosis of disease. Recent researches evidence implicates that OCD patients have generally impairments in their social and occupational functioning which ultimately report poor quality of life.[7,8] Although since long years OCD has considered as a neglected, untreatable and trivial illness, it is one of the five most prominent mental disorders and one of the 10 medical illness associated with greater worldwide disability. The level of disability in the psychosocial sphere always differs from person to person in the different phase of the disease spectrum which became more pronounced after OCD was renamed as an obsessive-compulsive spectrum disorder.

However, it has not been given proper care by the mental health professionals, policymakers and researchers, because it is a nonpsychotic illness. In the recent years, OC spectrum disorder when defined with poor insight and psychotic features which even after treatment is associated with greater disability burden and psychosocial dysfunction due to long-term course and impairment in social, familial, and occupational functioning with addition burden of comorbidity. In addition to dysfunctions in all domains of psychosocial functioning, OCD patients suffer from disability in several areas, such as emotional, marital, and occupational functioning.[7,8]

Despite long years of pharmacological and psychosocial interventions, schizophrenia and OCD both are in the leading causes of mental disability in the world. By improving the psychosocial and pharmacological interventions, the outcome measure of both the diseases in the remission phase has been altered with a substantial impact on the quality of life of these patients.

By reviewing the previous literatures, we found out that there is a scarcity of research studies related to psychosocial dysfunctions of mentally ill patients, i.e. schizophrenia and OCD patients during their remission phase. The present study has been conducted to compare the psychosocial dysfunctions between patients of schizophrenia and OCD during their remission phase.

Objective of the Study

The objectives of the study are as follows:

- To compare the level of psychosocial dysfunctions between remitted patients of schizophrenia and OCD.
- To assess the influence of disability burden between these two groups of remitted schizophrenic and OCD patients.

MATERIALS AND METHODS

Type of Research Design

The study was a cross-sectional descriptive study design.

Procedure

This study was conducted in the OPD of Mental Health Institute (COE), S.C.B. Medical College, Cuttack, and Neuropsychiatric Consultation Centre, Cuttack, Odisha, India. A total of 100 samples (50 patients of each group) were selected on the purposive basis by following the inclusion and exclusion criteria. The patients, who already have been diagnosed as schizophrenia and OCD as per the ICD-10 criteria, having duration of at least 5 years, were screened out using remission criteria of schizophrenia and OCD patients.The remission patients of schizophrenia and OCD were finally selected after fulfilling the cutoff score of Andreasen criteria and Yale-Brown obsessive-compulsive scale (Y-BOCS) respectively in two successive assessments in OPD, twice at three months of interval. The information was collected from the patients as well as from the caregivers. Those who had interested in taking part in this study were included. Through semi-structured interview, all information were recorded in a scientifically designed structured pro forma, i.e., sociodemographic data sheet. Then dysfunction analysis questionnaire (DAQ) was administered on each patient to find out the level of psychosocial dysfunctions in various spheres of day to day life. The consent was taken from the patients and the caregivers to take part in the study.

Sample Design

Purposive sampling method was used for selecting the patients for the study. A total of 100 patients (50 patients in each group) were taken for the study.

Inclusion Criteria

1. The diagnosed cases of schizophrenia and OCD by the consultant psychiatrist at OPD, who was in the follow-up service at regular intervals, were selected.

2. Those who were in between age range of 20 and 50 years.
3. Five to ten years of duration of illness.
4. Those who were fulfilled the Andreasen criteria for schizophrenia in remission.[9]
5. Those who earned a score of 14 or less (post-treatment) in Yale-Brown Obsessive Compulsive Scale (Y-BOCS) are included as OCD in remission.[10] Key relative/caregiver is defined as a family member living with the patient for minimum 1 year and present during onset of abnormal behavior and actively involved in patient care.
6. Those who were willing to provide informed consent to participate in the study.
7. Education level of 10th standard to graduation or above was included.

Exclusion Criteria

The following criteria were the exclusion criteria of the study:
1. Persons with other comorbid psychiatric conditions and organic mental conditions.
2. Persons with comorbid substance use.
3. Persons with other comorbid physical illness.

Tools Used

(1) Sociodemographic data sheet: A structured proforma was developed and used in this study to collect information about various sociodemographic variables, i.e. age, sex, education, religion, occupation, marital status, monthly income, and socioeconomic status. (2) B.G. Prasad's Socioeconomic Status Scale (As per Consumer Price Index for Industrial Workers of Nov 2015): This scale was used to determine the socioeconomic status of these patients. (3) ICD-10 criteria[11] for the diagnosis of schizophrenia and OCD. (4) Nancy Andreasen *et al*. criteria[9] for patients with Schizophrenia in Remission: Defined remission according to positive and negative syndrome scale (PANSS) operational criteria set up by the remission in schizophrenia working group. The symptomatic criterion includes eight core PANSS items (delusion, unusual thought content, hallucinatory behavior, conceptual disorganization, mannerism/posturing, blunted affect, social withdrawal, and lack of spontaneity) with a score ≤3. The duration criterion is symptomatic remission maintenance over 6 consecutive months. (5) PANSS: This is a 30 item, 7-point rating instrument that evaluates positive (7 items), negative (7 items), and general psychopathology symptoms (16 items) of an individual. It was published in 1987 by Kay *et al*.[12] The PANSS is a relatively brief interview, requiring 45–50 min to administer. Each item on the PANSS is accompanied by a complete definition as well as detailed anchoring criteria for all seven rating points, which represent increasing levels of psychopathology: 1 = Absent, 2 = minimal, 3 = mild, 4 = moderate, 5 = moderate-severe, 6 = severe, and 7 = extreme. (6) Y-BOCS: This scale is developed by Goodman *et al*.[13] It consists of 10-items (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. (vii) DAQ: The original scale of Hindi version has been developed by Pershad *et al*.[14] This scale is used to assess various psychosocial dysfunctions of an individual. This scale has highly satisfied test-retest and split half reliabilities that ranged from 0.77 to 0.97. In this study, Odia version DAQ has been used. This scale consists of 50 items grouped into five areas, i.e. social, vocational, personal, familial, and cognitive. Each item has five alternate answers, and these are scored in accordance to the scoring system. Higher the score, greater is the dysfunction.

Method of Data Analysis

Data analysis was done by SPSS, Version 18.0 (SPSS Inc., Illinois, USA) using Parametric statistics, i.e. *t*-test to assess the level of significant difference between the two groups of patients with schizophrenia and OCD. Chi-square was used for sociodemographic variables.

Ethical Clearance

Institutional Ethics Committee clearance was obtained before the commencement of the study.

RESULTS

The study was designed to assess the dysfunction levels in social, vocational, personal, familial, and cognitive spheres of patients with schizophrenia and OCD during their remission phases. A total of 100 patients (50 from each group) were recruited for the study.

The sociodemographic parameters of the study subjects were compared among the two groups. The mean duration of illness for both the groups is 6.78 years. As shown in Table 1, there was no statistically significant difference between the study subjects in the two groups. Among the 100 participants, majority patients were 31–40 years of age (35%), males (59%), and married (58%), having educational qualification of graduation and above (45%) and employed (57%). Majority of patients were belonging from semi-urban area (40%), nuclear family (58%), and upper middle class (26%). 58% of patients had a negative family history of any psychiatric illness.

The psychosocial dysfunctions of these patients were assessed using DAQ. The scores in all five domains of DAQ (social, vocational, personal, family, and cognitive) are compared between schizophrenia and OCD patients. The scores in all five domains are found to be higher for patients with schizophrenia compared to patients with OCD. This difference was found to be statistically significant between these two groups (social domain: $T = 2.78$, $p < 0.05$; vocational domain: $T = 4.37$, $p < 0.05$; personal domain:

Table 1: Comparison of sociodemographic profiles of patients with schizophrenia and OCD

Characteristics	*n*=50		X^2	Degrees of freedom	*P* value
	Schizophrenia	OCD			
Age group (in years)					
20–30	17	16	0.02	2	0.99*
31–40	16	19			
41–50	17	15			
Sex					
Male	29	25	0.64	1	0.42*
Female	21	25			
Marital status					
Married	28	30	2.56	1	0.11*
Unmarried	22	20			
Education					
Matriculation	17	12	4.58	2	0.10*
Intermediate	13	13			
Graduation and above	20	25			
Occupation					
Employed	29	28	1.96	1	0.16*
Unemployed	21	22			
Family Type					
Joint	20	22	2.56	1	0.11*
Nuclear	30	28			
Socioeconomic status					
Lower	15	1	4.10	4	0.39*
Upper lower	16	5			
Lower middle	11	11			
Upper middle	6	20			
Upper	2	13			
Domicile					
Rural	15	14	2.06	2	0.35*
Urban	5	26			
Semi-urban	30	10			
Family history of psychiatric illness					
Yes	22	20	2.56	1	0.11*
No	28	30			

**P*>0.05 (Statistical Non-significance at 0.05 Level). OCD: Obsessive-compulsive disorder

Table 2: Comparison of DAQ Scores between patients of schizophrenia and OCD

Domains	Scores in DAQ			
	Mean±SD		*t* value	*P* value
	Schizophrenia (*n*=50)	OCD (*n*=50)		
Social	53.84±14.55	46.48±11.72	2.78	0.006*
Vocational	58.58±15.72	46.72±10.96	4.37	0.000*
Personal	53.10±10.45	46.2±9.27	3.49	0.001*
Familial	51.1±13.82	43.64±10.96	2.99	0.004*
Cognitive	50.26±10.66	43.46±8.98	3.44	0.001*

**P*<0.05 (Statistical significance at 0.05 Level). DAQ: Dysfunction analysis questionnaire, OCD: Obsessive-compulsive disorder. SD: Standard deviation

T = 3.49, $p < 0.05$; family domain: T = 2.99, $p < 0.05$; and cognitive domain: T = 3.44, df $p < 0.05$) [Table 2].

Table 3 shows the comparison of disability level between these two groups. For each patient, a disability score was calculated by taking average score all five domains. Disability level was categorized as no disability, mild, moderate, severe, and profound level of disability. Higher DAQ scores indicate greater dysfunction or disability. The result shows increasing severity of disability in patients with schizophrenia compared to patients with OCD. This difference was found to be statistically significant (Chi-square =1.39, $P < 0.05$).

DISCUSSION

The summary of the findings indicates that schizophrenic patients have poor functioning in social, vocational, personal, familial, and cognitive spheres in compared to patients with OCD during remission phase of the disease. Besides, these schizophrenic patients are also have more disability in compared to OCD patients in the course of the disease.

It was found out that the schizophrenic patients in remission have been disturbed social relationships compared to OCD patients. This is due to negative symptoms of schizophrenia such as a sociality, apathy, and stigma of mental illness for which social relationships have been broken down, which prevents them to form a strong social networking with families, friends, and relatives ultimately leading to disturbed social life.[15-17] Similarly, the social relationships are also affected in OCD patients although to a lesser extent because of the time taken by the patients to complete their obsessional thoughts which always preoccupy their daily routine activities making them confined to their own spheres rather to socialize with friends and relatives. For existence in the society as a normal human being, social relationship is a vital parameter which directly or indirectly controls the other domains of psychosocial dysfunctions.[3,18] Vocational/occupational dysfunctions in the schizophrenia patients are more in comparison to OCD patients. Because of cognitive dysfunction to a certain extent in all cases, acute exacerbation of symptoms, lack of attention and concentration in a particular job, repeated absent from the job and lack of competencies in any skilled work. The personal and familial relationship of patients of schizophrenia was significant because of lack of interaction with friends, family, and other key persons in the society. The level of disability was also more in schizophrenia patients than OCD patients. Disability was not found in half of the cases of schizophrenia and two-third patients of OCD, because the disability was calculated by taking into consideration of then personal, familial, and cognitive functioning in remission state. In developing countries like India, most of the psychiatric patients because of the cultural ethos, live with their family, which reduce their stress level and increase the level of functioning by reducing disability.[19] Although the schizophrenia patients were evaluated in remission state because of chronic debilitating nature of the disease, it affects the general health, functioning and subjective well-being even after pharmacological intervention.[3] This finding is consistent with other studies done in India conducted by Mohan *et al*.[4] and Swain and Behura[5] The OCD patients are found out to have lower mean scores that are statistically significant on all domains of dysfunction indicating that they were less disabled than schizophrenia patients. This finding is consistent with the study conducted by Mohan *et al*.[4] and Swain and Behura[5] but contradictory to the study conducted by Bobes *et al*.,[17] who found higher level of disability in OCD patients than the patients with schizophrenia. The disability in OCD patients is because of preoccupation with obsessional thoughts and images which ultimately disturb their overall functioning and thus creating disability.

This study is a cross-sectional study which is one of the limitations of the study and further follow-ups of these patients can reveal more information about disability and psychosocial dysfunction at different phases of the disease. A larger sample size can predict better generalizations of the findings. Taking a particular group of the duration of illness (5–10 years) of these patients to maintain the homogeneity of data is another limitation.

CONCLUSION

The study confirms that the level of functioning, i.e. social, personal, vocational, familial, and cognitive function in patients with schizophrenia and OCD is affected with the progress of the illness, and these are more affected in schizophrenia than OCD despite the pharmacological intervention. The disability produced due to schizophrenia is more than OCD even after pharmacological treatment. An important conclusion of this study is that only

Table 3: Comparison of disability according to DAQ Scores between patients of schizophrenia and OCD

Disability by DAQ score	*n*=50		X^2	*P* value
	Schizophrenia	OCD		
No disability	24	42	1.399	0.000
Mild	10	6		
Moderate	12	1		
Severe	3	1		
Profound	1	0		

*$P<0.05$ (Statistical significance at 0.05 Level). DAQ: Dysfunction analysis questionnaire, OCD: Obsessive-compulsive disorder

pharmacological intervention is not sufficient to deal with the different level of dysfunction, which should be intervened by the professionals with the progress of the disease to reduce the disability. For mental health professionals dealing with these patients, an awareness of psychosocial functioning and disability produced in the course of the disease should be evaluated from time to time. Furthermore, intervention for the same should be done at an appropriate time which will improve the future course of the disease and ultimately the quality of life of patients will be improved.

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