A comparative study of quality of life and disability among schizophrenia and obsessive-compulsive disorder patients in remission

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Mental, behavioral, and social health problems are increasingly problematic all over the world. Persons with long-term psychiatric disorders are more vulnerable to stress, are more dependent, have greater deficits in living skills, and suffer from disability in several areas particularly in marital, occupational, emotional, and social functioning.[3] Although the burden of illness resulting from psychiatric disorders is enormous, it is grossly underrepresented in conventional public health statistics, which generally tend to focus on mortality rather than morbidity or dysfunction.[3]

The quality of life (QOL) refers to the subjective satisfaction experienced by an individual with regard to his physical, mental, and social sphere in the context of culture and value system. The concept of QOL is perhaps more important in those disorders which run a chronic and debilitating course and where the treatment is mostly of a noncurative nature and continues over a long period. QOL is a complex and broad-ranging concept incorporating an individual’s physical health, psychological state, independence level social relations, personal beliefs, and relationship to a salient feature of the environment.[3] The emerging concept of QOL is completely different from disability or impairment because different group of patients reacts differently with the same level of disability or impairment.[4] QOL of chronic psychiatric patients (schizophrenia, mood disorder, personality disorders, substance abuse disorder,

Background: Persons with long-term psychiatric disorders have greater deficits in living skills as well as greater problems in employment and relationship to their social environment. Thus, chronic psychiatric illnesses have psychosocial consequences such as disability and impaired quality of life (QOL) due to their symptomatology and chronic course. Objectives: Assessment and comparison of disability and QOL of patients suffering from schizophrenia and obsessive-compulsive disorder (OCD) in remission phase. Materials and Methods: A cross-sectional study carried out in the psychiatry outpatient Department of Mental Health Institute, S.C.B. Medical College and Neuropsychiatric Consultation Centre, Cuttack. The study sample consisted of fifty cases of each groups (schizophrenia and OCD), which included both males and females. All of them were assessed through the World Health Organization-QOL BREF and Indian Disability Evaluation and Assessment Scale. Results: Results revealed that schizophrenics have poor QOL and greater disability burden than patients of OCD. Conclusion: These psychiatric illnesses, i.e. schizophrenia and OCD, affect all areas of daily functioning leading to greater disability, and thus increasing the burden on the family, imposing greater challenges for the rehabilitation of these patients and their inclusion in the mainstream of the family and society.

Keywords: Disability, obsessive-compulsive disorder, quality of life, schizophrenia
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and obsessive-compulsive disorder (OCD), etc.) are impoverished, especially in the domains of social network, family environment, housing sectors, financial circumstances, safety, and practical skills.[8]

In 1980, the World Health Organization (WHO) defined disability “as an individual limitation or restriction of an activity as the result of an impairment.” Persons with disability are the poorest of the poor and weakest of the weak, who have been socially, educationally, and economically disadvantaged. In 1990, the worldwide global burden of disease for neuropsychiatric disorders, as measured by disability-adjusted life years (DALYs), was estimated to be 6.8%.[9] Psychiatric disorders are one of the most common and prevalent illnesses that widely affect world population accounting for nearly 31% of total disability population. It was found that five of the ten leading causes of disability worldwide are in the category of mental illnesses: Major depression, alcohol dependence, schizophrenia, bipolar affective disorder, and OCD.[6] Psychiatric disorders account for five of the ten leading causes of disability as measured by years lived with a disability.[9]

Schizophrenia is a chronic debilitating disorder, which affects general health, functioning, autonomy, subjective well-being, and QOL in the long-term course of the disease. Schizophrenia is listed as the fifth leading cause of loss of DALYs worldwide in the age group 15–44 years schizophrenia causes disability leading to restrictions on many domains of daily life such as hygiene, self-management, vocational, leisure activities, family, and social relationships.[7] Despite 50 years of pharmacological and psychosocial intervention, schizophrenia remains one of the top causes of disability in the world.[6] By improving the psychopathological symptoms is not the outcome measure, rather improvement of social functioning and QOL of chronic schizophrenic patients is regarded as the basic parameter of intervention in the modern days after long years of research.[8]

OCD has emerged from being considered as neglected, untreatable, and trivial illness which is one of the five most prominent mental disorders and one of the ten medical illnesses associated with greatest worldwide disability.[6] However, OCD has not received proper attention of the clinicians, policy makers, and researchers because it is a nonpsychotic illness. The disease entity OCD, which was included in the anxiety disorders in Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR), has subsequently taken the place of a separate entity as OCD spectrum disorders in DSM, Fifth Edition because of long-term research on psychopathology, disability burden, course, and prognosis of the disease. Available research evidence suggests that OCD patients have generally impairments in their social and occupational functioning and report poor QOL.[9,10] More severe OCD symptoms are associated with greater disability burden and poor QOL because of the long-term course and impairment of social, familial, and occupational functioning with the addition of burden of comorbidity. Moreover, OCD patients suffer from disability in several areas such as emotional, marital, occupational, and social functioning. Despite its well-known morbidity, few studies have attempted to measure the impact of OCD on QOL. Koran et al. studied QOL in OCD and found out that the disorder has a marked negative impact on QOL.[11]

The present study has been conducted to assess, quantify, and compare the disability and QOL in patients suffering from schizophrenia and OCD during their remission phase.

MATERIALS AND METHODS

Type of research design
The design of the present study is ex post facto design. This is a comparative study between patients with schizophrenia and OCD in remission.

Procedure
One hundred samples (fifty patients in each group from schizophrenia and OCD) were selected on purposive basis by following the inclusion and exclusion criteria. The patients were taken from the outpatient department (OPD) of Mental Health Institute, (COE) SCBMCH and Neuropsychiatric Consultation Centre, Cuttack, Odisha. They were assessed twice in the interval of 2–3 months by the respective measurements (i.e., Positive and Negative Syndrome Scale [PANS] and Yale–Brown Obsessive Compulsive Scale [Y-BOCS]) for 6 months before the final assessment of QOL by WHOQOL BREF and disability by Indian Disability Evaluation and Assessment Scale (IDEAS). The informed consent was taken from the patients and caregivers. Patients who had been earned a cutoff score of remission on their respective measurements were selected for research study. Through semi-structured interview, all information were recorded in a carefully designed structured pro forma. Thereafter, all the patients were subjected to detailed evaluation using WHOQOL-BREF and IDEAS.

Sample design
Here, the sample design was purposive sampling. The sample size was 50 from each group.

Inclusion criteria
i. The diagnosed cases of schizophrenia and OCD according to the International Classification of
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Diseases, Tenth Revision (ICD-10) by the consultant psychiatrist at OPD, who were in the follow-up service at regular intervals, were selected

ii. Those who were in between age range of 30 and 45 years
iii. Five to ten years of duration of illness
iv. Those who fulfilled the Andreasen criteria for schizophrenia in remission
v. Those who earned a score of 14 or less (posttreatment) in Y-BOCS are included as OCD in remission\(^\text{[12]}\)
vi. Education level of 10\(^{th}\) standard to Graduation was included in the study.

Exclusion criteria
i. Persons with other comorbid psychiatric conditions and organic mental conditions
ii. Persons with comorbid substance use
iii. Persons with other comorbid physical illnesses.

Tools used
i. ICD-10 criteria for the diagnosis of Schizophrenia and OCD
ii. Nancy Andreasen criteria\(^\text{[13]}\) for patients with schizophrenia in remission: Defined remission according to PANSS operational criteria setup 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 \(\leq 3\). The duration criterion is symptomatic remission maintenance over 6 consecutive months
iii. 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.\(^\text{[14]}\) 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 the increasing levels of psychopathology: 1 = absent, 2 = minimal, 3 = mild, 4 = moderate, 5 = moderate-severe, 6 = severe, and 7 = extreme
iv. Y-BOCS: 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
v. WHO-QOL Bref: This scale is developed by the WHO. This consists of 26 items that concern with the four domains (physical, psychological, environmental, and social relations) of QOL of a person.\(^\text{[5]}\) Higher the score in each domain better will be the QOL
vi. IDEAS: IDEAS was developed by the Rehabilitation Committee of Indian Psychiatric Society. It has 4 items: self-care, interpersonal activities (social relationship), communication and understanding, and work. Each item is scored between 0 and 4. The global disability score is calculated by adding the total disability score (i.e., total score of the above 4 items) and the Duration of Illness (DOI) score (score 1 for a duration of illness <2 years, score 2 for 2-5 years, score 3 for 6-10 years, and score 4 for > 10 years).\(^\text{[5]}\)

Method of data analysis
Data analysis was done by SPSS, version 11.0 (SPSS Inc., Chicago, Illinois, USA). By 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.

RESULTS

A total of 100 participants were included in this study. Majority patients were 30–35 years of age. Most of the patients were male (56%) in schizophrenia group, whereas in OCD group, female numbers were more (52%). The majority of patients were Hindus in case of both groups. The majority of schizophrenic patients (46%) had minimum qualification of matriculation and 26% were graduated. Most of OCD patients (40%) were graduated. The majority of schizophrenic patients were married (62%). Most of the OCD patients were belonging from urban area (62%), whereas the majority of schizophrenic patients (54%) were belonging from rural area. There was no statistically significant difference exist between these two groups with respect to sociodemographic variables [Table 1].

Schizophrenic patients showed lower mean scores than OCD patients in social relationship (mean: 50.38; \(t\)-value: −3.46; \(P < 0.05\)) and environment domains of QOL (mean: 44.86; \(t\)-value: −5.21; \(P < 0.05\)) suggesting that schizophrenic patients have poor QOL than OCD patients in remission phase [Table 2].

Table 3 shows that schizophrenic patients have higher mean scores than OCD patients in all domains of disability, i.e., self-care (\(t\)-value: 2.074; \(P < 0.05\)), Interpersonal Activities (IPA) (\(t\)-value: 6.31; \(P < 0.05\)), communication and understanding (\(t\)-value: 5.481; \(P < 0.05\)), and work (\(t\)-value: 6.124; \(P < 0.05\)), suggesting that schizophrenics are more disabled than OCD patients [Table 3].

DISCUSSION

This study was carried out to assess the impact of mental illness on different domains of patients’ life. Schizophrenia
is being a psychiatric disorder of chronic course and OCD, being a neurotic disorder of chronic course, were chosen to compare the burden of illness on QOL and creation of mental disability due to chronic burden of illness among both.

The QOL is an essential element of better functioning of a person. Analysis of various domains of QOL in this study revealed that there is no statistically significant difference in both physical health and psychological health domain of QOL between these two groups which is also found in other studies.\[^{15}\]

It is found out that the schizophrenic patients have more impaired or disturbed social relationships as compared to OCD patients. This is due to negative symptoms of schizophrenia such as asociality, avolition, apathy, and stigma of illness for which social relationship is being broken down, which excludes them from social life.\[^{16-18}\] In OCD patients, social relationship is also affected to a lesser

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**Table 1: Comparison of sociodemographic profiles of patients with schizophrenia and obsessive-compulsive disorder**

| Age groups (years) | Schizophrenia, n (%) | OCD, n (%) | $\chi^2$ | Degrees of freedom | $P$ |
|--------------------|----------------------|------------|----------|--------------------|-----|
| 30-35              | 24 (48)              | 29 (58)    | 1.030    | 2                  | 0.598* |
| 36-40              | 13 (26)              | 11 (22)    |          |                    |     |
| 41-45              | 13 (26)              | 10 (20)    |          |                    |     |

**Sex**

|       | Schizophrenia, n (%) | OCD, n (%) | $\chi^2$ | Degrees of freedom | $P$ |
|-------|----------------------|------------|----------|--------------------|-----|
| Male  | 28 (56)              | 24 (48)    | 0.641    | 1                  | 0.423* |
| Female| 22 (44)              | 26 (52)    |          |                    |     |

**Religion**

|       | Schizophrenia, n (%) | OCD, n (%) | $\chi^2$ | Degrees of freedom | $P$ |
|-------|----------------------|------------|----------|--------------------|-----|
| Hindu | 43 (86)              | 45 (90)    | 0.379    | 1                  | 0.538* |
| Muslim| 7 (14)               | 5 (10)     |          |                    |     |

**Education**

|       | Schizophrenia, n (%) | OCD, n (%) | $\chi^2$ | Degrees of freedom | $P$ |
|-------|----------------------|------------|----------|--------------------|-----|
| Matriculation | 23 (46) | 16 (32) | 2.741    | 2                  | 0.254* |
| Intermediate | 14 (28) | 14 (28) |          |                    |     |
| Graduation | 13 (26) | 20 (40) |          |                    |     |

**Marital status**

|       | Schizophrenia, n (%) | OCD, n (%) | $\chi^2$ | Degrees of freedom | $P$ |
|-------|----------------------|------------|----------|--------------------|-----|
| Married | 31 (62) | 25 (50) | 1.461    | 1                  | 0.227* |
| Unmarried | 19 (38) | 25 (50) |          |                    |     |

**Domicile**

|       | Schizophrenia, n (%) | OCD, n (%) | $\chi^2$ | Degrees of freedom | $P$ |
|-------|----------------------|------------|----------|--------------------|-----|
| Rural | 27 (54)              | 19 (38)    | 2.576    | 1                  | 0.108* |
| Urban | 23 (46)              | 31 (62)    |          |                    |     |

*P>0.05 (statistical nonsignificance at 0.05 level). Values are shown as n (%) of patients. OCD – Obsessive compulsive disorder

**Table 2: Comparison of quality of life scores between schizophrenia and obsessive-compulsive disorder groups**

| Domains (WHO-QOL BREF) | Schizophrenia (n=50) | OCD (n=50) | t   | $P$ |
|------------------------|----------------------|------------|-----|-----|
| Physical health        | 52.1400 (12.013)     | 56.08 (12.899) | −1.580 | 0.117 |
| Psychological health   | 52.38 (15.566)       | 51.24 (12.963) | 0.328 | 0.744 |
| Social relationship    | 50.38 (17.874)       | 61.42 (13.733) | −3.463 | 0.001* |
| Environment            | 44.86 (13.173)       | 59.9 (15.568) | −5.215 | 0.000* |

*P<0.05 (statistical significance at 0.05 level). Values are shown as mean (SD). WHO-QOL BREF – World Health Organization Quality of Life instrument, BREF version; SD: Standard deviation; OCD – Obsessive-compulsive disorder

**Table 3: Comparison of global disability scores between schizophrenia and obsessive-compulsive disorder groups**

| Items (IDEAS)          | Schizophrenia (n=50) | OCD (n=50) | t   | $P$ |
|------------------------|----------------------|------------|-----|-----|
| Self-care              | 0.36 (0.721)         | 0.12 (0.385) | 2.074 | 0.041* |
| Interpersonal activities| 1.68 (0.586)         | 0.94 (0.585) | 6.310 | 0.000* |
| Communication and understanding | 1.10 (0.707) | 0.38 (0.602) | 5.481 | 0.000* |
| Work                   | 1.64 (0.984)         | 0.66 (0.557) | 6.124 | 0.000* |
| Global score           | 7.62 (2.423)         | 4.64 (1.36) | 7.574 | 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
The social relationship and the environment domains of QOL are two vital parameters for the existence in the society as a human being. When these two components are impaired, a disharmony occurs in the family structure leading to increase in the family burden, financial burden, and disruption of family routines ultimately causing a cost-effective burden on the family and the society.\(^\text{[19,20]}\)

Hence, these two components should be properly assessed in the psychosocial rehabilitative measures and corrective measures to be adapted to maintain the better QOL and decrease disease burden.

Most QOL studies have been conducted in developed countries, but very few published studies from developing countries.\(^\text{[15,17]}\) In India, most psychiatric patients live with their families in the community. There is some evidence to suggest that the perception of QOL by Indians differs from that of persons living in developed countries.\(^\text{[21]}\)

In case of both schizophrenic and OCD patients, the chronic course of their illness creates significant disability and imposes a significant burden on their families. In this study, both chronic schizophrenia and OCD patients have assessed by taking into consideration of all four domains of disability (IDeAS).\(^\text{[9]}\) The present study revealed that there is statistical significant difference found in all the four domains of disability among these two groups of patients (i.e., self-care, IPA, Communication and understanding, work). Impaired self-care, interpersonal activities, communication and understanding as well as occupational disability is more in case of schizophrenics than OCD patients during the remission phase. This finding is in agreement with the study conducted by Mohan \textit{et al.} done in India found that patients with schizophrenia have significantly greater disability in all domains than patients with OCD.\(^\text{[8]}\) Again, these study findings are not consistent with a study done by Gururaj \textit{et al.},\(^\text{[22]}\) 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 findings.\(^\text{[9]}\) Another study done by Negm \textit{et al.}\(^\text{[17]}\) had also concluded that disability is comparable in both the groups by using WHO-DAS-II for disability.

The OCD patients are found to have lower mean scores that are statistically significant on all domains of disability, indicating that they were less disabled than the schizophrenic patients. This finding is consistent with the study conducted by Mohan \textit{et al.},\(^\text{[8]}\) but contrary to the study conducted by Bobes \textit{et al.},\(^\text{[18]}\) who found higher level of disability in OCD patients than schizophrenics in the area of social and occupational functioning.

Psychosocial rehabilitation for these patients should become a major component in the course of treatment as the disability burden is much higher for these patients as well as caregivers. In the present study even the duration of illness is 5–10 years, all domains of disability were seriously affected in both the groups. It implicates that in the long-term course of the disease, the disability burden will be very high on family, community, and ultimately on the society. In both the illnesses, the QOL and disability burden increases with long-term course of the disease creating a burden in psychosocial rehabilitation.

**CONCLUSION**

Schizophrenic patients have poor QOL than OCD patients. Social relationship and environment domain of QOL are more affected in schizophrenia patients than patients with OCD in remission phase. Mental disability is more in schizophrenics than the patients with OCD. Self-care, interpersonal relationships, communication and understanding, work and global disability score are much more affected in chronic schizophrenia patients than OCD patients.

This study has limitations of small sample size, cross-sectional study, and hospital-based study, which can be eliminated in the future studies by taking larger sample size and involving patients from various sociocultural background.

These psychiatric illnesses, i.e., schizophrenia and OCD, affect all areas of daily functioning leading to greater disability, and thus, increasing the burden on the family, demands greater challenges for the rehabilitation of these patients, and their inclusion in the mainstream of the family and society.

**Financial support and sponsorship**

Nil.

**Conflicts of interest**

There are no conflicts of interest.
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