Original Research Article

A Cross-Sectional Study on the Prevalence of Depression and its Impact on the Quality of Life in Patients with OCD

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Abstract

Background: Obsessive–compulsive disorder (OCD) is a debilitating neuropsychiatric disorder affecting approximately 1–3% of the population, at some point in their lifetime, and is characterized by recurrent intrusive ideas, impulses, or images (obsessions) along with overt or covert behaviors (compulsions) aimed at reducing the distress of obsessions. **Aim:** To study the impact of depression on the quality of life in patients with OCD. **Methods:** It was a hospital based, observational and cross-sectional study conducted in the Outpatient Department of psychiatry, Mental Health Institute, SCB Medical College, Cuttack. The study was a time limited, single-centre study carried out from September 2018 to August 2019. Considering previous similar studies, the number of patients attending our OPD and from the previous statistics, the total sample size was taken to be 100. The study comprised of 100 untreated OCD patients, who were chosen through purposive sampling. **Results:** It was found that both obsession and compulsion affect quality of life negatively, obsession significantly affects physical well-being, psychological well- being as well as social relationships whereas compulsions significantly affect psychological well-being and social relationships. When different domains of QoL were correlated with severity of depression and it was found that all domains had negative correlation with severity of depression which was statistically significant i.e., depression negatively affects physical and psychological well-being, social relationships, and environmental health. The highest level of impairment was seen in psychological well-being. On comparing quality of life of OCD patients with and without depression it was found that those with comorbid depression had significantly poor quality of life in all of the quality-of-life domains than OCD patients without comorbid depression suggesting that comorbid depression is a strong predictor of poor quality of life in OCD patients. **Conclusion:** OCD has a profound impact not only on the patients but also the caregivers. In order to truly understand the effect of OCD on the patient population, one must take into account not only the disabling symptoms but also examine the overall ability of the patients to enjoy their life.

Keywords: Depression, QoL, OCD.

Introduction

Obsessive–compulsive disorder (OCD) is a debilitating neuropsychiatric disorder affecting approximately 1–3% of the population, at some point in their lifetime, and is characterized by recurrent intrusive ideas, impulses, or images (obsessions) along with overt or covert behaviors (compulsions) aimed at reducing the distress of obsessions[1,2,3].

It is twice as prevalent as schizophrenia and bipolar disorder, and is the fourth most common psychiatric disorder[2]**.** OCD has a significant negative impact on the patient's social and occupational functioning, self-esteem, as well as it is associated with increasing risk of depression, suicidality, and alcohol and illicit drug abuse[1,2].

Obsessive–compulsive disorder was initially considered as a sub-dimension of depression, the so-called "ananchastic depression. However, in the last few years, there has been an important paradigm shift, with neurotransmitter systems other than serotonin playing a decisive role in the putative pathophysiological mechanisms underlying OCD, such as dopamine, glutamate, noradrenaline, and GABA. This leads to the crucial hypothesis that OCD may be an etiologically heterogeneous condition being affected by a wide spectrum of comorbidities. Individuals with OCD frequently have additional psychiatric disorders concomitantly or at some time during their lifetime[1].

Until the early 1980s, OCD was thought to be a rare disorder but the notion changed with the Epidemiologic Catchment Area (ECA) reporting a prevalence rate ranging from 1.9% -3.2% across the 5 ECA sites[2]. Twelve months prevalence rate ranges from1% to 1.2% of the U.S adult population[1] and from 0.1% to 2.3% of the European adult population[1]. An epidemiological study from India found lifetime prevalence of OCD to be 0.6%[1]. Overall, studies indicate that those with OCD had diminished quality of life across all domains relative to normative comparison subjects[2]. Thus, this paper attempts to study the impact of depression on the quality of life in patients with OCD.

Aim and Objectives

- To evaluate the socio-demographic profile of patients diagnosed with Obsessive and compulsive disorder.
- To assess the phenomenology of patients with OCD.
- To assess the prevalence of depression in OCD patients.
- To assess quality of life in patients with OCD.
- To study the differential impact of obsessions and compulsions severity on quality of life in patients with OCD.
- To correlate depression severity with quality of life in patients with OCD.

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➢ To compare quality of life between OCD patients with depression and OCD patients without depression.

Material and Methods

It was a hospital based, observational and cross-sectional study conducted in the Outpatient Department of psychiatry, Mental Health Institute, SCB Medical College, Cuttack. The study was a time limited, single-centre study carried out from September 2018 to August 2019. Considering previous similar studies, the number of patients attending our OPD and from the previous statistics, the total sample size was taken to be 100. The study comprised of 100 untreated OCD patients, who were chosen through purposive sampling screened on the basis of selection criteria as follows;

Inclusion Criteria

- Patients diagnosed with Obsessive Compulsive Disorder according to ICD-10 criteria who were not treated earlier.
- Patients in the age group of 18- 60 yrs.
- Patients willing to provide informed consent for the interview.

Exclusion Criteria

- Subjects with psychotic, bipolar or substance use disorder.
- Patients with significant medical condition.
- OCD with psychotic features.

Tools Used

- Semi-structured proforma for socio-demographic data
- Yale-Brown Obsessive-Compulsive Scale.
- Yale-Brown Obsessive Compulsive Symptom Checklist
- HDRS-17 (Hamilton Depression Rating Scale)
- WHOQOL-BREF (ODIYA Version of the WHO Quality of life)[3,4]

Interpretation/ Statistics

The data was entered into MS- EXCEL-2007 and was analyzed using SPSS 20 software. Appropriate descriptive statistics such as mean and standard deviation were used to present and summaries the studied variables. The qualitative data variables were presented in frequency tables. Association between the quantitative variables were done using Pearson's correlation. The parametric t-test was used to assess the level of significant difference in quality of life in two groups of OCD patients with and without depression.

Results

Table 1: SOCIO-DEMOGRAPHIC PROFILE OF OCD PATIENTS

Characteristics		**N=100**	**%**
Gender	Male	36	36%
	Female	64	64%
Age	<25 years	21	21%
	26-30 years	41	41%
	30 years and above	38	38%
Religion	Hindu	95	95%
	Muslim	5	5%
Education	Illiterate	2	2%
	Primary	52	52%
	High school	26	26%
	Higher secondary	12	12%
	Graduation and above	8	8%
Marital Status	Married	68	68%
	Unmarried	30	30%
	Separated	2	2%
Occupation	Unemployed	33	33%
	Student	13	13%
	House wife	17	17%
	Employed	37	37%
Family Type	Joint	61	61%
	Nuclear	36	36%
	Extended	3	3%
Residence	Rural	61	61%
	Urban	39	39%
Socio-Economic status	Upper	2	2%
	Upper middle	12	12%
	Lower middle	16	16%
	Upper lower	13	13%
	Lower	57	57%

In our study the total sample size was 100 out of which 64% were females while male OCD patients accounted for 36%. There were 21 subjects in the age group of 18-25 years, 41 subjects in the age group of 26-30 years and 38 subjects above the age of 30. 95% of patients in our study were Hindus and only 5% were Muslims. In terms of educational profile, it was revealed that 52 patients in our study had received primary education, 26 patients went to high school, 12 patients received higher secondary education, 8 patients completed graduation and 2 patients were illiterate. 68 patients in our study were married, 30 patients were unmarried and 2 had separated after marriage. In our study 13 % patients were students, 37 % were employed, 33 % patients were unemployed and 17% patients were housewives. Majority of the patients i.e 61% belonged to rural area and 39% to urban. Regarding the socioeconomic status of our subjects, majority belonged to low socio-economic status that is 57%, 16% to lower middle, 13% to upper lower, 12 % to upper middle and 2% to upper socio-economic class.

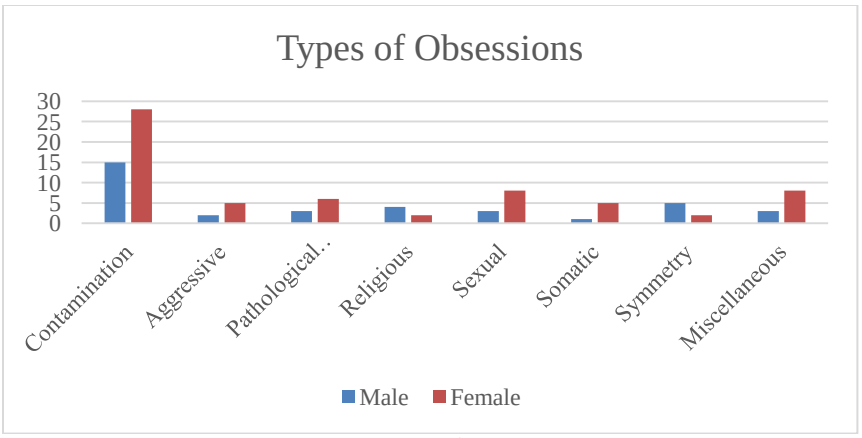

Figure 1: types of obsessions

The figure 1 depicts the various types of obsessions in OCD patients. The most common obsession in our study was obsession of contamination (43%) which comprised of 15 male and 28 female patients. It was followed by sexual obsession in (11%), miscellaneous (11%), pathological doubt (9%), aggressive obsessions (7%), symmetry (7%), religious (6%) and somatic (6%).

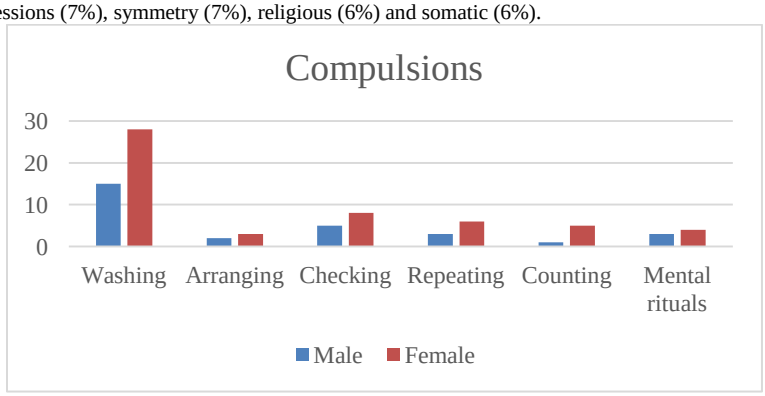

Figure 2: types of compulsions

The figure 2 depicts the various types of compulsions in OCD patients. The most common compulsion was washing and cleaning (43%) that comprised of 28 female and 15 male patients, followed by checking (13%), repeating (9%), mental ritual (7%) and counting (6%).

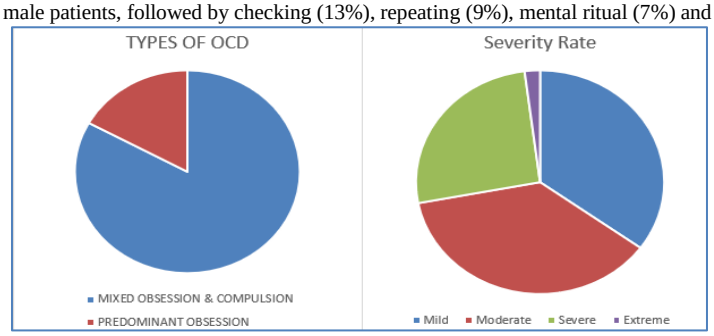

Figure 3: Types and Severity Rate of OCD

The above figure 3 denotes the types of OCD patients. Most of the patients were presented with mixed obsession and compulsion (83%) and few had predominant obsessions (17%). Further, it was found that most of the patients were within moderate category of OCD severity (37%), followed by mild (35%), severe in (26%) cases and extreme in (2%) cases.

Table 2: percentage of patients with depression

Severity of depression	Percentage of patients
MILD	3%
MODERATE	14%
SEVERE	26%
VERY SEVERE	9%
TOTAL	52%

The table-2 denotes the prevalence and severity of depression. The prevalence of depression was found to be 52% in our study out of which 3% had mild depression, 14% had moderate depression, 26% had severe depression and 9% had very severe depression.

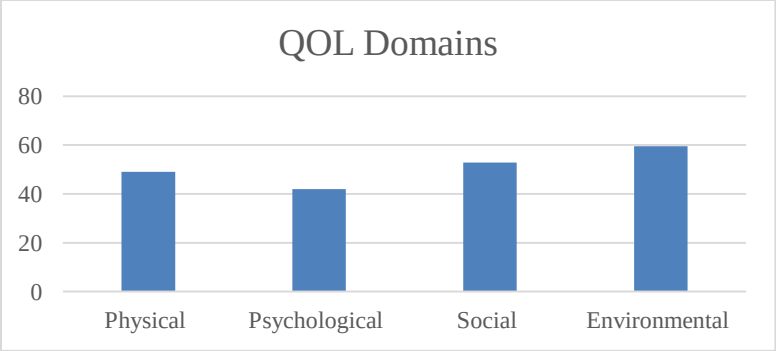

Figure 4: quality of life in OCD

The figure 4 depicts the quality of life in OCD patients. The mean and standard deviations of various domains of quality of life are depicted in the figure. It shows OCD affects various domains of quality of life negatively, the most affected is the psychological well-being followed by physical, social and environmental with mean values as 42.02, 49.10, 52.83 and 59.50 respectively.

Table 3: correlation of quality of life with various parameters

QOL DOMAINS	Severity of OCD		Obsession Score		Compulsion Score		Severity of Depression	
	r	p value	r	p value	r	p value	r	P value
Physical	-0.203	0.043	-0.201	0.045	-0.154	0.126	-0.275	0.006
Psychological	-0.248	0.013	-0.228	0.022	-0.21	0.036	-0.328	0.001
Social	-0.277	0.005	-0.27	0.007	-0.212	0.035	-0.313	0.002
Environmental	-0.173	0.085	-0.171	0.089	-0.135	0.179	-0.259	0.009

There was negative correlation between severity of OCD with all domains of quality of life namely physical well-being, psychological well-being, social relationships and environmental health with r values -0.203, -0.248, -0.277, -0.173 respectively. However, the correlation with physical, psychological and social QoL with severity of OCD was found to be significant with p values <0.05.

On correlating obsessional scores with QoL domains it was found that obsession had negative impact on all the domains of quality of life namely physical, psychological, social and environmental health with r values -0.201, -0.228, -0.270 and -0.171 respectively while the correlation was significant for physical, social and psychological domains with p values (<0.05) However the environmental domain was not significantly affected.

On correlating compulsion scores with QoL domains it was found that compulsion had negative impact on all of the domains of quality of life namely physical, psychological, social and environmental with r values -0.154, -0.210, -0.212, -0.135 respectively but significantly affects psychological well-being and social relationships with p values 0.036 and 0.035 respectively.

Finally, it was found that all aspects of QoL were negatively affected with increasing severity of depression i.e., physical well-being, psychological well-being, social relationships and environmental health with r values -0.275, -0.328, -0.313, -0.259 respectively. All domains namely physical, psychological social and environmental QoL had significant negative correlation with severity of depression with p values 0.006, 0.001, 0.002 and 0.009 respectively.

Table 4: comparision of quality of life in OCD with and without depression

QoL Domains (WHOQOL- BREF)	OCD with Depression (n=52)	OCD without Depression (n=48)	t value	p value
Physical health	62.04±15.335	70.08±11.185	2.986	0.004
Psychological health	32.89±14.380	70.79±10.219	15.125	0.001
Social relationships	42.06±15.184	72.44±9.428	11.932	0.003
Environmental health	70.32±7.253	73.00±5.849	2.030	0.045

The table-4 shows comparison of quality of life in OCD patients between those with depression and those without depression. The table depicts that OCD patients with depression showed lower mean scores than OCD patients without depression in all domains of quality of life namely physical health (mean:62.04; t value 2.986; p<0.05); psychological health (mean:32.89; t value 15.125; p<0.05); social relationships (mean:42.06; t value 11.932; p<0.05) and environmental health (mean:70.32; t value 2.030; p<0.05) suggesting that OCD patients with depression have poor quality of life than OCD patients without depression.

Discussion

The present study aimed at studying the prevalence of depression in OCD patients and its impact on their quality of life. It was found that there was a predominance of younger persons in our sample with a majority i.e., 62 % subjects were of less than 30 years of age. Studies have reported that older adolescents and young adults are particularly prone to develop OCD whereas older individuals may display OCD less frequently[2]. In the study by[2], older individuals were significantly less likely than those in younger age groups to have OCD. In our study there was a female predominance of 64% over male OCD patients that accounted for 36%. In clinical samples of adult OCD there is roughly equal presentation of men and women,

however in epidemiological samples, there is somewhat higher representation of OCD in women (1.5%) compared to men (1%)[2]. Fontenelle et al. (2004)[2] found that clinical samples of adult OCD, with a few exceptions, are almost universally characterized by a relative predominance of females, a feature depicted by most of the epidemiological studies[2,3].

The most common obsession in our study was obsession of contamination (43%) followed by sexual (11%), miscellaneous (11%), pathological doubt (9%), aggressive obsessions (7%), symmetry (7%), religious (6%), somatic (6%). Some Indian studies have shown similar type of results[2,3]. A study by Rajashekharaiah and Verma (2016)[1] on phenomenology of obsessions and compulsions in Indian patients reported contamination as the most common obsession found in (60%) cases, followed by sexual obsession in 26 % cases, symmetry in 20% and somatic obsession in 6% cases.

In present study, hoarding obsession and compulsion were not present among OCD patients. Some Indian studies reported lower prevalence of hoarding obsession and compulsion[21,5]. Ganesan, Kumar and Khanna (2001)[5] reported pathological doubt as the most common type of obsession in their study. In western population too dirt and contamination obsession were found in 45-60% of patients[5,6].

The most common compulsion in the present study was washing and cleaning (43%), followed by checking (13%), repeating (9%), mental ritual (7%), and counting (6%). Several Indian studies have reported washing as the most common type of compulsion[20,5]. Few studies have looked at mental rituals or cognitive compulsions, and found them as being significant. Mental rituals are often pursued to ward off unpleasant expectations or superstitions and their presence should be actively explored since they often obstruct in the conduct of cognitive behavior therapy.

Tezcan and Milllet (1997)[5] and Dowson (1977)[5] were two western studies that also found washing as the most common form of compulsion. Another western study reported checking as the most common type of compulsion. In another study conducted on Egyptian adolescents by Okasha (2004)[5], repeating ritual was reported as the most common type of compulsion. These varying findings across studies reflect the socio-cultural influences on the phenomenology of OCD.

In present study 83% patients reported mixed obsessions and compulsions, and the rest 17 % had predominant obsession. OCD patients often have multiple obsessions and compulsions as found in an Indian study by Ganesan, Kumar and Khanna (2001)[24] where 59.4% patients reported mixed type, 37.6% patients had predominant obsessional symptoms while 3% had predominant compulsions. Foa et al. (1995)[1] in their DSM IV field trial study, noted 91% patients with mixed obsession and compulsion, 8.5% had predominant obsession and 0.5% had predominant compulsion.

In present study the prevalence of depression was found to be 52%, out of which 3% had mild depression, 14% had moderate depression, 27% had severe depression and 9 % had very severe depression.

An Indian study conducted by Chaudhary, Kumar and Mishra (2016)[6] on 50 patients with OCD, diagnosed as per ICD-10 criteria found comorbid depression in 80 % of the cases. The study reported Mild depression in 40% cases, 16% patients were having moderate depression, 10% and 14% patients had severe and very severe depression respectively.

It was found in the present study that all aspects of quality of life are impaired in OCD but psychological, physical wellbeing and social relationships are affected more than environmental health. The greatest level of impairment was found in psychological wellbeing. OCD patients tend to have negative feelings about themselves and lowered self-esteem which affects their concentration and memory disrupting their social and occupational life. A longitudinal study from India by Srivastava, Bhatia, Thawani & Jhanjee (2011)[6] also reported significant impairment in all domains of quality of life in OCD as compared to healthy controls and patients with MDD.

As per the present study, all domains of quality of life i.e., physical health, psychological health, social relationships and environmental health are negatively affected with increasing severity of OCD. However, the physical, psychological, and social dimensions of QoL were significantly affected with p values <0.05. The greatest impairment was found in the domain of social relationships followed by psychological domain.

Some Western studies have shown similar results i.e., patients with OCD tend to have greater impairment in psychological and social wellbeing attributed to disruption of their careers and their relationships with family and friends[6]. However, some studies did not find any association between YBOCS scores with QOL domains[6]. Gururaj et al. (2008)[6] also reported no correlation in physical, social and environmental domain scores and YBOCS scores. In contrast Huppert et al. (2009)[6] had reported significant associations between QoL and YBOCS.

On correlating obsessional scores with QoL domains it was found that obsession had negative impact on all the domains of quality of life with significant p values (<0.05) on physical, social and psychological domains. However, the environmental domain was not significantly affected.

On correlating compulsion scores with QoL domains it was found that the severity of compulsions had negative impact on all of the domains of quality of life but significantly affects psychological well-being and social relationships with p values <0.05). Maselis et al. (2003)[6] reported it is the severity of obsessions which predict poor QoL than compulsions. On the other hand, Stengler-Wenzke et al. (2007)[6] reported that compulsions severity predicts poor quality of life. Lochner et al. (2003)[6] also reported in their study that it is the severity of obsession and comorbid depression that predicts a poor quality of life in OCD patients.

In the present study it was found that all aspects of QoL were negatively affected with increasing severity of depression i.e., physical wellbeing, psychological wellbeing, social relationships and environmental health. But the physical, psychological and social quality of life domains were significantly affected with increased severity of depression with p values <0.05. These findings are in line with many studies that comorbid depression is an important predictor of poor quality of life in OCD patients[10,6]. Presence of depression in OCD further adds to the quality-of-life impairment by affecting social, academic and familial functioning in the patients.

It was found that OCD patients with depression have significantly poor quality of life than OCD patients without depression. OCD patients with depression had statistically significant lower QoL domain scores in physical health, psychological health, social relationships and environmental health as compared to patients without depression. However, the greatest impairment was found in psychological well-being followed by social relationships.

These findings are consistent with several studies that have reported comorbid depression as an important predictor of decreased quality of life in OCD patients[6,7,8]. Studies have shown that those without comorbid depression have higher scores on quality-of-life domains mainly psychological health and social relationships than those without depression[36,41].

Limitations of the Study

- The current study was carried out on a hospital-based population attending the outpatient services, thus the results cannot be extrapolated to the community at large.
- Not all forms of OCD were well-represented in the study
- Other factors that affect quality of life like individual factors and social support were not assessed.

Conclusion

OCD has a profound impact not only on the patients but also the caregivers. In order to truly understand the effect of OCD on the patient population, one must take into account not only the disabling

symptoms but also examine the overall ability of the patients to enjoy their life. Treatment of OCD should specifically target obsessions and depressive symptoms, given their impact on quality of life. Treatment of OCD should include psychosocial interventions targeting specific quality of life domains in addition to pharmacotherapy. Quality of life assessment and improvement should be made an important component of treatment outcome in clinical settings and research studies, both at baseline and during follow-up in the treatment course in order to assess treatment effectiveness and to monitor patients' progress toward the goal of full recovery. Longitudinal follow up studies should be undertaken to measure QoL before and after treatment and a broad range of individual and environmental factors that affect QoL to ensure that the patients have regained satisfaction and functioning in their daily lives.

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