

Prevalence of Obsessive-Compulsive Symptoms in Cases of Schizophrenia

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ABSTRACT

Background: Symptoms of obsessions and compulsions as found in Schizophrenia patients having varied clinical presentations, most common being – contamination, sexual, religious, etc. which may or may not be accompanied with compulsions like cleansing, verifying, replicating, and organizing. Aim of the study was to study the prevalence of obsessive-compulsive symptoms in Schizophrenia.

Methods: It was analytical research which was cross-sectional, conducted in a medical college and research hospital that provides tertiary care as well situated in a suburbs of a major metropolis city of our country. 57 patients diagnosed with Schizophrenia attending the outpatient and in-patient ward of psychiatry department during the period of study were included. The PANSS and Y-BOCS scales were applied to each patient. **Results:** The prevalence of OC symptoms in Schizophrenia was found out to be 28.06%. It was observed that people with OC symptoms had higher chances of not having jobs, were unmarried and had a greater family history of neurotic disorders. They also had more positive and general symptoms of Schizophrenia as compared to those without any OC symptoms.

Conclusion: The prevalence of obsessive and compulsive symptoms is fairly common and should not be missed at the earliest stage as the prognosis will depend on their resolution and remission of the symptoms at large.

Keywords: Schizophrenia, Obsessive compulsive symptoms (OCS), obsessive compulsive disorder (OCD)

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Introduction

Obsessive compulsive phenomena were considered to be a prodrome or symptom of Schizophrenic illness by early clinicians who described their symptomatology but gave prominence to the underlying major psychotic illness in the form of Schizophrenia [1,2]. Obsessive compulsive symptoms therefore are seen in substantial proportion of patients with Schizophrenia with varied clinical presentations, most common being – contamination, sexual, religious, etc. which may or may not be accompanied with compulsions like cleansing, verifying, replicating, and organising etc. Due to unavailability of proper diagnostic tools and effective treatment options, there have been very little progress in

knowledge of obsessive-compulsive phenomenon in Schizophrenia. Recent investigations have indicated a significant prevalence of OCD comorbidity [3-5]. OCS/OCD patients with schizophrenia had a younger age at onset of symptoms, a lower score for positive symptoms, a higher comorbidity with Axis II disorders, a higher incidence of OCD in the family, and a better quality of life [6]. The basal ganglia, thalamus, anterior cingulum, orbitofrontal cortex, and portions of the temporal cortex are shared structures in both pathways, according to anatomical and physiological neuro-imaging research on both of these illnesses. When longitudinal studies were conducted to probe into neuro-cognitive picture in Schizophrenia patients having obsessions and compulsions, Visuo-spatial senses, visual recall, cognitive

switching skills, and instant oral grasping skill all revealed deficiencies in the OCS group [7]. There is lack of Indian studies evaluating co-morbid occurrence of OC phenomena and Schizophrenia. This research was undertaken to study the occurrence of evidence of obsession and compulsion in Schizophrenia and their effects on symptoms of Schizophrenia.

Material and Methods

Type of study

Cross-sectional analytical study.

Duration of study

September 2020 to September 2021.

Place of study

Psychiatry department of tertiary care hospital and research center.

Clearance from Ethics Committee of the Institute was taken prior to beginning the research, a consent was taken from all the participants in Hindi, Marathi and English.

Calculation of Sample

$$\text{formula} \quad n = z^2 p(1-p) / d^2$$

where :

n= sample size; z= confidence level at 95% (standard value of 1.96); P= expected prevalence or proportion; d= margin of error at 5% (standard value of 0.05). Hence, sample = $1.96 \times 1.96 \times 0.032(0.968) / 0.05 \times 0.05 = 47.60$

So, sample size for the study was rounded off to 50 keeping in mind the likely drop outs.

Sample

All the patients diagnosed with Schizophrenia as per ICD 11 who were attending the outpatient department and admitted in the in-patient ward during the period of study were included.

Inclusion Criteria

All the patients diagnosed with Schizophrenia according to ICD 11 participants who accepted the request of informed consent for the research.

Exclusion Criteria

Participants who didn't give consent. Co-morbid medical or psychiatric illness which prevented patients from participating in study.

Tools Used in the Study

(1) Socio-demographic proforma comprising age, gender,

marriage, level of education, residence, socio economic status, working status, family history of neurosis and family history of psychosis

- (2) Positive and negative syndrome scale (PANSS) rating criteria [8].
- (3) Yale-Brown obsessive compulsive scale (Y-BOCS) [9].

Procedure

Inpatients and outpatients with Schizophrenia meeting the inclusion and exclusion criteria were approached and informed about purpose of the study and added in the research after getting written, informed consent. The socio-demographic proforma was filled up. Then the PANSS and Y-BOCS were administered individually to the patients.

Statistical Analysis

The data was studied by SPSS 20 (IBM, Chicago, USA). The presentation of descriptive statistics included measures such as mean, standard deviation, percentage, etc. Frequency Chi-square test was used to analyse the information, fisher exact test in inferential statistics. The Mann Whitney U-Test was utilised to calculate ordinal data. A p-value of 0.05 was used to determine statistical significance.

Results

Our research included 57 people diagnosed with Schizophrenia, out of which 16 patients showed obsessive compulsive symptoms. The mean age of patients of Schizophrenia having obsessions and compulsions was 26 and mean age of those not having them was 37.49. The difference between the two was significant. Schizophrenia with OC symptoms was seen in younger age group as compared to those without OC symptoms. Other demographic characteristics are given in Table 1. Occurrence of obsession and compulsion in people having Schizophrenia was found out to be 28.06 % in our study (Table 2). The mean YBOCS score was 33.94 for patients suffering from Schizophrenia with OC symptoms. When both the groups were applied with PANSS, Significant differences existed between the two groups when positive and general signs were calculated (Table 2).

Discussion

The research targeted to examine prevalence of OC symptoms in people diagnosed with Schizophrenia. The prevalence of obsession and compulsion in Schizophrenia patients came out to be 28.06%. This was much higher than 3.2% - 8.6% found in earlier studies [10,11]. This can be attributed to the fact that patients of Schizophrenia with OC symptoms were actively sought out for the purpose of the study. In comparison to the general population, where the lifetime prevalence of OCD is 1.6%, these prevalence rates are

Table 1 : Socio demographic data of Schizophrenia patients with and without OCD

		Schizophrenia without OCD	Schizophrenia with OCD	p
Age	Mean	37.49	26	0.001
	SD	12.93	5.13	
Sex	Male	24	12	0.247
	Female	17	4	
Marital status	Married	20	1	0.003
	Unmarried	21	15	
Education status	Educated	22	11	0.3
	Uneducated	19	5	
Rural/ Urban	Rural	15	2	0.074
	Urban	26	14	
Socioeconomic status	Lower	0	0	0.338
	Upper Lower	10	5	
	Lower Middle	11	7	
	Upper Middle	10	3	
Working status	Upper	10	1	0.007
	Working	18	1	
Family History of Neurosis	Not working	23	15	0.007
	Yes	1	7	
Family History of Psychosis	No	40	9	0.000055
	Yes	22	7	
Family History of Psychosis	No	19	9	0.501
	Yes	22	7	

S=significant; NS=not significant

Table 2 : PANSS and YBOCS scores of Schizophrenia patients with and without OCD

	Schizophrenia without OCD (Mean±SD)	Schizophrenia with OCD (Mean±SD)	p value
PANSS P	29.66±4.14	32.19±3.06	0.03
PANSS N	17.63±6.31	19.69±6.22	0.358
PANSS G	46±9.12	52.19±10.22	0.015
YBOCS	0	33.94±4.14	0

significantly higher [11]. It is still unclear why obsessions and compulsions co-occur so frequently with schizophrenia. The prevalence estimate of OCD/OCS in schizophrenia may be influenced by a number of variables. These include patient variables like age, gender, culture, seriousness and duration

of psychotic condition, measurement difficulties like the tools and diagnostic limitations used to distinguish OCS and OCD, sampling techniques, and treatment environment [12].

In this research, average age of patients of Schizophrenia

with OC symptoms was younger than those without OC symptoms. This could mainly be attributed to the fact that age criteria were not matched due to the limited number of patients available for this research. There was also a significant difference in the marital status and working status of both groups, in that the patients with Schizophrenia with OC symptoms were more likely unmarried and not working as compared to those with Schizophrenia without OC symptoms. This correlates with the functional impairment that the patients with Schizophrenia with OC symptoms might have [13]. These patients also had a stronger history of neurosis in their family when differentiated with the other cluster, suggesting a genetic basis for these neurotic symptoms.

The Y-BOCS is a scoring system for OCD severity that is based on interviews. Because it reduces the confounding effects of other types of symptoms and is not dependent on count and classification of signs of OCD, it is now the “Criterion Standard” for evaluating the effectiveness of pharmacological and interactive therapies [9].

In current research, it is found that patients having Schizophrenia along with obsession and compulsion had more significant positive and general symptoms as compared to those patient of Schizophrenia without OC symptoms. However, there was little difference between the two groups in terms of negative items of PANSS. Previous studies examining similar effects have shown varied results in the evaluation of the PANSS. In one study they had lower positive symptoms and no difference in negative and general symptoms [8]. In earlier studies, the patients had fewer negative symptoms and similar positive and general symptoms [13-16].

Limitations

The sample taken was from patients attending psychiatry OPD and IPD in one tertiary care hospital; the age criteria was not matched in our study as most of the patients were chronic psychotic patients belonging to higher age group, there can be a bias resulting in higher prevalence of OC symptoms as patients with obsessive compulsive symptoms were actively approached for study.

Conclusion

Prevalence of OC symptoms was found to be high in patients with Schizophrenia. The symptom profile related to psychotic features in both groups showed more positive and general symptoms in patients with OC symptoms.

Conflict of Interest:	All authors declare no COI
Ethics:	There is no ethical violation as it is based on voluntary anonymous interviews
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