



## Prevalence of Obsessive-Compulsive Symptoms in Patients with Schizophrenia at a Tertiary Care Center, Karnataka

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### ABSTRACT

**Aims and objectives:** The purpose of this study was to determine the prevalence of obsessive-compulsive symptoms in patients with schizophrenia, and to describe their sociodemographic profile. **Materials and Method:** 70 patients consecutively hospitalized with primary diagnosis of schizophrenia according to ICD-10 were assessed for the presence of OCS using M.I.N.I. The severity of schizophrenia symptoms and OCS was assessed using Y-BOCS. The results were expressed in terms of mean and standard deviation, percentage and proportion. **Results:** 13 of 70 (18.5%) schizophrenia patients had clinically significant OCS. **Conclusion:** OCS is relatively frequent in patients with schizophrenia in Indian settings.

**Key Words:** Schizophrenia, obsessive-compulsive symptoms, prevalence



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### INTRODUCTION

Schizophrenia is a chronic and disabling disorder. The life time prevalence of schizophrenia ranges from 0.9% to 1.3% [1]. The presence of obsessive-compulsive symptoms in patients with schizophrenia was observed at the very beginning of the descriptions of the illness. Since the 19th century, cases with both psychotic and obsessive-compulsive symptom have been reported [2]. The relationship between OCD and schizophrenia has aroused curiosity among researchers, and has challenged the practising clinicians.

Interest in this area has increased in recent years because of increased recognition of higher than expected comorbidity rates and observation of the emergence or exacerbation of OCS during treatment of psychosis. Several studies [3,4] have systematically evaluated the prevalence of OCS in patients with schizophrenia, with results ranging from a low of 3.5% to a high of 25%. This wide range of results could be because of the different methodological approaches used to assess OCS. More recent studies have continued to reveal high rates of OCS and OCD in schizophrenia: OCS has been found up to 45%, while 7.8% to 25% have been reported to have OCD. These findings suggest that the prevalence of OCD in schizophrenia was more often than would be expected from its lifetime prevalence of 1.6% in the general population [5]. Although, the concept of OCS in patients with schizophrenia is still controversial, recent findings suggest that schizophrenia with OCS may constitute a distinct schizophrenic subgroup [6]. Hence, the current study was conducted to estimate the prevalence of OCS and its clinical characteristics in patients with schizophrenia keeping in view the lacunae in our understanding of OCS in patients with schizophrenia.

### MATERIALS AND METHODS:

The present study was a cross sectional study done on patients with schizophrenia who were admitted at Sridevi Institute of Medical sciences and research hospital, Tumkur over a period of one year between 2011 and August 2022.

In a period of one year, consecutive in-patients who fulfilled the ICD-10 criteria for schizophrenia were enrolled in the study after obtaining their informed consent. By the end of one year, a total of 70 patients had been included in the study, and their information was collected using a structured questionnaire. Y-BOCS was administered to those subjects who expressed Obsessive Compulsive symptoms in MINI, to assess the type and severity of OC symptoms. Data were entered in an excel sheet and the results are expressed as mean  $\pm$  standard deviation for all continuous variables.

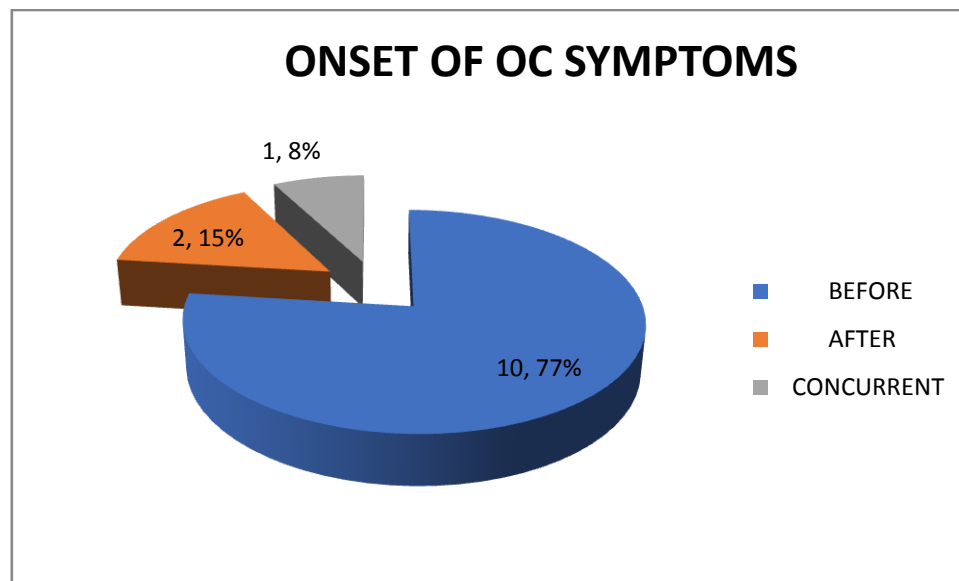
### RESULTS:

Totally, 70 patients with schizophrenia were included in the study. Of the 70 patients studied, 13 (18.5%) had obsessive-compulsive symptoms. Thus, the prevalence of OCS in patients with schizophrenia from our study was 18.5%. Mean age at onset of obsessive-compulsive symptoms:  $17.54 \pm 4.02$  years.

Out of 70 patients, 13 patients had both schizophrenia and OCD. Among 13 patients, 7 were male and 6 were female patients. Out of 13 patients who had schizophrenia with obsessive compulsive symptoms 3 were married, 9 were unmarried and 1 was separated after marriage.

**Table 1. Onset of OCS with respect to the onset of schizophrenic symptoms**

| OCS Onset  | Frequency | Percentage |
|------------|-----------|------------|
| Before     | 10        | 77%        |
| After      | 2         | 15%        |
| Concurrent | 1         | 8%         |
| Total      | 13        | 100%       |



**Figure 1. Onset of OCS with respect to onset of schizophrenic symptoms**

Out of 13 patients, in 10 patients (77%) OCSs were present before the onset the schizophrenic symptoms, in 2 patients (15%) OCSs had developed after the onset of schizophrenic symptoms and in 1 patient (8%) onset of OCSs and schizophrenic symptoms could not be demarcated.

**Table2: Family history of psychiatric illness among the study subjects**

| Family h/o psychiatric illness | Frequency | Percentage |
|--------------------------------|-----------|------------|
| Present                        | 20        | 28.6       |
| Absent                         | 50        | 71.4       |
| Total                          | 70        | 100        |

Out of the 13 patients studied, 4 had family history of psychiatric illness and 9 did not have any family history of psychiatric illness.

**Table 3: Type of OCS: both obsession and compulsion or predominant compulsion or predominant obsession**

| OCS                         | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Both obsession & compulsion | 8         | 61.54%     |
| Predominant obsession       | NIL       | NIL        |
| Predominant compulsion      | 5         | 38.46%     |
| Total                       | 13        | 100%       |

Out of 13 patients who had schizophrenia with obsessive compulsive disorder, 8 had both obsession and compulsion and 5 had only compulsion. None of the patient had only obsession as comorbidity.

**Table 4: OCS profile and Y-BOCS scores (N=13)**

| Subject | Obsession   | Compulsion                   | Y-BOCS |    |    |
|---------|---|------------------------------|--------|----|----|
|         |   |                              | O      | C  | T  |
| 1       | Aggressive<br>Intrusive images<br>Counting<br>Ordering      | Cleaning/Washing             | 13     | 14 | 27 |
| 2       | Contamination<br>Need for symmetry<br>Need to tap           | Cleaning/Washing<br>Ordering | 14     | 15 | 29 |
| 3       | Contamination<br>Hoarding                                   | Cleaning/Washing             | 9      | 13 | 22 |
| 4       | Contamination<br>Lucky/unlucky number<br>Superstitious fear | Cleaning/Washing<br>Counting | 12     | 13 | 25 |
| 5       | Aggressive  | Checking                     | 10     | 12 | 22 |
| 6       | Contamination<br>Sexual<br>Need for symmetry                | Cleaning/Washing<br>Ordering | 10     | 13 | 23 |
| 7       | Contamination<br>Repeating routine activities               | Cleaning/Washing             | 9      | 13 | 22 |

**DISCUSSION:**

Seventy in-patients between the age of 18yrs and 60yrs were included in the present study. The mean age of total sample at the time of admission was  $36.27 \pm 10.35$  years. In the present study, the prevalence of obsessive-compulsive symptoms among patients with schizophrenia was 18.5% (13 out of 70). This rate is in concordant with the prevalence rate of prior studies

**Studies with prevalence rate of OCS**

| Study               | Prevalence rate |
|---------------------|-----------------|
| Present study       | 18.5%           |
| Ohta et al[5]       | 18.3%           |
| Strakowski et al[6] | 20%             |
| Poyurovsky et al[7] | 16%             |
| Kruger et al[8]     | 15.8%           |

However, this prevalence rate is lower than the 24%-45% [9,10,11] prevalence rate reported by other studies, and higher than 3.5%-15% [12,13,14]. These differences might have occurred due to difference in diagnostic criteria used and method of evaluation.

The mean duration of schizophrenia illness in those 13 patients was  $11.07 \pm 8.27$  years which is nearer to Kayahan et al study [11] report. This shows that in our study, schizophrenia patients who had OCS were having schizophrenia illness for an average of a decade. So, our sample had included more of chronic schizophrenia cases.

The mean age at onset of schizophrenia symptoms in thirteen patients with both schizophrenia and OCS was  $25.15 \pm 6.05$  years which is in concordant with other studies like Poyurovsky et al [15], Ohta et al [5].

Among 13 patients assessed in our study, four patients had family history of psychiatric illness. History of OCD was found in two first degree relatives and history of schizophrenia in two first degree relatives and one second degree relative. Interestingly one patient had history of tic disorder in first degree relative. One patient was having history of psychiatric illness in more than one relative. The findings are similar to the study conducted by Devi et al [9].

The mean Y-BOCS score total was  $24.46 \pm 3.73$  which is concordant with previous study like Eisen et al. [12], Y-BOCS score ranged between 17 and 35, which is similar to Jaydeokar et al. [16]

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