



## CO-MORBIDITY OF OBSESSIVE-COMPULSIVE DISORDER (OCD) IN SCHIZOPHRENIA.

### Psychiatry

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### ABSTRACT

**Background:** The presence of obsessive-compulsive symptoms in schizophrenia ranges from 2-30%. There are conflicting reports regarding the effect of OCD on the course and outcome of schizophrenia. The present study sought to resolve the issue by assessing OCD early in the course of schizophrenic illness.

**Materials & Methods:** A cross-sectional hospital-based study was carried out in a sample of 70 consecutive patients with non-chronic schizophrenia after informed consent. Sociodemographic factors, clinical correlates, symptomatology, and functioning were assessed and compared between patients with schizophrenia and schizo-obsessive disorder.

**Results:** 10% (n=7) of the sample had comorbid OCD and schizophrenia. There were no significant differences between both group of patients on socio-demographic and clinical features.

**Conclusions:** When OCD co-occurs with schizophrenia before chronicity sets in, the course and symptomatology of the illness are unaffected.

### KEYWORDS

Obsessive-compulsive disorder, schizophrenia, schizo-obsessive.

### Introduction

Co-morbid anxiety symptoms are common in schizophrenia ranging from 30 to 85% across studies (1). Although their presence impacts on the quality of life and outcome, the existence of co-morbid anxiety disorders in schizophrenia is rarely explored (2). The clinical phenomenon of obsessive-compulsive symptoms coexistent with schizophrenia has intrigued clinicians for over a century. More recent evidence, however, suggests a higher rate of coexisting OCD and schizophrenia than was previously thought, a finding supported by various clinical observations (3). The prevalence of OCD in clinical samples of patients with schizophrenia has been reported at 0-31% (4). Since there is a high rate of co-occurrence of these two disorders, it is important to understand the clinical presentation of OCD occurring in schizophrenia.

Numerous studies have compared schizo-obsessive disorder (comorbid schizophrenia and OCD) with schizophrenia. Some studies report more severe neuropsychological impairments in patients with both conditions (5) while others have reached contradictory conclusions (6). In order to reconcile these contradictory findings, it was hypothesized that the effect of OCD in schizophrenia may depend upon the stage of the schizophrenic illness, with OCD conferring greater impairment in chronic schizophrenia but possibly a protective effect early in the schizophrenic illness (7,8). However, studies that have proposed this hypothesis were done on a heterogeneous sample (schizophrenia spectrum), exposed to antipsychotic medication, and on non-acute and more severe illness (9,10).

Hence, the above limitations need to be addressed to support the hypothesis of a differential effect of OCD on schizophrenia depending upon when it occurs (early versus late in the course of schizophrenic illness). Ideally such a study should include subjects with only schizophrenia (as opposed to schizophrenia spectrum disorders) as a homogenous group, exclude subjects with chronic schizophrenia, assess OCD using a standard diagnostic system, not restrict their inclusion to inpatients admitted (bias towards more severely ill patients), and control for antipsychotic medication exposure (to exclude medication induced OCD).

### Materials & Methods

This study aimed to explore the frequency of occurrence of obsessive-compulsive disorder (OCD) in schizophrenia and to assess whether schizo-obsessive disorder is associated with a distinct pattern of demographic and clinical features. The study was conducted at the outpatient psychiatry department for a period of 3 months using a cross-sectional study design on all consecutive patients who provided their

written informed consent. Inclusion criteria were clients who met DSM criteria for schizophrenia, aged 18 to 60 years with illness duration of less than 24 months (non-chronic), and who were antipsychotic naïve. Exclusion criteria were any other psychiatric disorder other than OCD, unstable medical or surgical illness and substance abuse or dependence (except nicotine).

Psychiatric diagnosis was made after a clinical interview based on the history from a reliable informant and a mental status examination. Socio-demographic data was recorded using a semi-structured proforma. Variables included were the age at presentation, gender, education, marital, occupational and economic status. Clinical correlates recorded were the age of onset of schizophrenia, duration of illness, symptom severity, and global functioning. The type of obsessions and compulsions and their severity were assessed. The interview took about 60 to 90 minutes.

Scale for assessment of positive symptoms (SAPS) (11) and scale for assessment of negative symptoms (SANS) (12) were used to evaluate psychotic symptoms in schizophrenia. The global assessment of functioning scale (GAF) was administered to evaluate the overall level of functioning of the patients (13). Obsessive-compulsive symptoms were assessed using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) (14). A repetitive act was considered a compulsion only when it occurred in response to an obsession and not if it occurred in response to psychotic ideation. A recurrent, intrusive, ego-dystonic thought was not considered an obsession if it revolved exclusively around a current delusional theme. MINITAB 17 software was used for statistical analyses.

### Results

Of the 70 subjects with schizophrenia who participated in the study 7 (10%) had schizo-obsessive disorder (comorbid schizophrenia and OCD). In this comorbid group (n=7), 5 experienced OCD before the onset of psychosis, 1 had OCD and schizophrenia occurring simultaneously and 1 patient had OCD occur after the onset of schizophrenia. The mean age of onset of psychosis was 25.5 years (SD 4.1), the mean age of onset of OCD was 21.4 years (SD 2.9) and the mean Y-BOCS score was 20.3 (SD 3.2) in patients with schizo-obsessive disorder.

Comparison of socio-demographic variables (gender, education, marital, occupational and economic status) between patients with schizo-obsessive disorder (n=7) and schizophrenia (n=63) did not reveal any statistically significant differences between both groups (p values > 0.05). Comparison of clinical variables showed no

statistically differences (all p-values > 0.05) between schizophrenia group and the group with co-morbid schizophrenia and OCD (Table 1).

**Table 1: Comparison of clinical variables between subjects with schizophrenia (n=63) and Schizo-obsessive disorder (n=7).**

Clinical variables	Schizophrenia (n=63)		Schizo-obsessive (n=7)		T value	P value
	mean	SD	mean	SD		
Age	27.5	3.6	26.7	4.2	0.51	0.610
Age of onset	26.3	3.4	25.5	4.1	0.59	0.560
Schizophrenia duration	13.2	5.9	14.6	5.6	0.59	0.555
SAPS	8.5	3.6	8.4	2.5	0.05	0.964
SANS	11.3	3.7	11.0	3.1	0.21	0.835
GAF	32.2	6.3	30.7	5.3	0.59	0.558

## Discussion

The rate of schizo-obsessive disorder in this study (10%) is lower than that reported in most other researchers in the area. However, previous studies have predominantly taken schizophrenic subjects with a chronic course, not controlled for antipsychotic exposure or included a heterogeneous group of patients with schizophrenia spectrum disorders. Studies that have analyzed first episode psychosis (non-chronic cases), however, concur with our findings with rates of comorbid OCD and schizophrenia in the range of 14% - 15% (8,13).

In the current study, we did not find significant differences among socio-demographic variables between patients with schizophrenia and schizo-obsessive disorder. This is in agreement with previous research which have explored the association (14,15). Among clinical variables, we did not find significant differences between patients of both groups. These findings are also concordant with previous research that have analyzed these variables viz., age at onset of schizophrenia (14), duration of the illness (16), functioning (17), positive psychotic (16) and negative psychotic symptoms (18).

Our results suggest that OCD occurring early in the course of schizophrenia (before chronicity sets in) does not affect the psychopathology (psychotic symptoms) as evidenced (as evidenced by a lack of significant difference in symptomatology (SAPS and SANS scores) and functioning between both groups). Thus, the hypothesis that the effect of obsessive-compulsive symptoms in schizophrenia may depend on the stage of the illness, with OCD conferring greater impairment in chronic schizophrenia but possibly a neutral or protective effect early in the schizophrenic illness is validated.

The results of this study also show that schizo-obsessive disorder is a distinct disorder, as opposed to it being a subtype of schizophrenia. This is evidenced by the lack of demonstration of any distinct socio-demographic and clinical profile in schizo-obsessive disorder compared to schizophrenia.

This study is not without its limitations. The small sample size (n=70) limits the generalizability of the results obtained. The cross-sectional nature of the study can lead to recall bias when duration and onset of illness are collected.

## Conclusions

The present research aimed to study OCD in non-chronic antipsychotic naïve schizophrenic patients using standard diagnostic criteria and instruments. OCD was not uncommon in schizophrenic patients (10%). Hence there is a greater need to screen and actively look for OCD in these patients. No significant differences were observed among socio-demographic factors and clinical correlates between both groups. This suggests that schizo-obsessive disorder is a distinct clinical entity and that at least early in the course of the schizophrenia, before chronicity sets in, the presence of OCD did not affect the prognosis of schizophrenia. It is hoped that the findings of the study will justify additional research into schizo-obsessive disorder. Future research could compare subjects with OCD in non-chronic versus chronic schizophrenia or employ a longitudinal study design to address and validate our findings.

## References

- Devi, S., Rao, N. P., Badamath, S., Chandrashekar, C. R., & Reddy, Y. J. (2015). Prevalence and clinical correlates of obsessive-compulsive disorder in schizophrenia. *Comprehensive psychiatry*, 56, 141-148.

- Zhou, T., Baytunca, B., Yu, X., & Öngür, D. (2016). Schizo-obsessive disorder: the epidemiology, diagnosis, and treatment of comorbid schizophrenia and OCD. *Current Treatment Options in Psychiatry*, 3(3), 235-245.
- Cunill, R., Huerta-Ramos, E., & Castells, X. (2013). The effect of obsessive-compulsive symptomatology on executive functions in schizophrenia: a systematic review and meta-analysis. *Psychiatry research*, 210(1), 21-28.
- Tibbo, P., Kroetsch, M., Chue, P., & Warneke, L. (2000). Obsessive-compulsive disorder in schizophrenia. *Journal of Psychiatric Research*, 34(2), 139-146.
- Hwang, M. Y., Morgan, J. E., & Losonczy, M. F. (2000). Clinical and neuropsychological profiles of obsessive-compulsive schizophrenia: a pilot study. *The Journal of Neuropsychiatry and Clinical Neurosciences*, 12(1), 91-94.
- Berman, I., Merson, A., Viegner, B., Losonczy, M. F., Pappas, D., & Green, A. I. (1998). Obsessions and compulsions as a distinct cluster of symptoms in schizophrenia: a neuropsychological study. *The Journal of nervous and mental disease*, 186(3), 150-156.
- Poyurovsky, M., Kriss, V., Weisman, G., Faragian, S., Kurs, R., Schneidman, M., ... & Weizman, R. (2003). Comparison of clinical characteristics and comorbidity in schizophrenia patients with and without obsessive-compulsive disorder: schizophrenic and OC symptoms in schizophrenia. *The Journal of clinical psychiatry*, 64(11), 1300-1307.
- de Haan, L., Hoogenboom, B., Beuk, N., van Amelsvoort, T., & Linszen, D. (2005). Obsessive-compulsive symptoms and positive, negative, and depressive symptoms in patients with recent-onset schizophrenic disorders. *The Canadian Journal of Psychiatry*, 50(9), 519-524.
- Andreasen, N. C. (1984). Scale for the assessment of positive symptoms (SAPS). Iowa City: University of Iowa.
- Andreasen, N. C. (1984). Scale for the assessment of negative symptoms (SANS). Iowa City: University of Iowa.
- Hall, R. C. (1995). Global assessment of functioning. *Psychosomatics*, 36(3), 267-275.
- Goodman, W. K., Price, L. H., Rasmussen, S. A., Mazure, C., Fleischmann, R. L., Hill, C. L., ... & Charney, D. S. (1989). Yale-brown obsessive compulsive scale (Y-BOCS). *Arch gen psychiatry*, 46, 1006-1011.
- Poyurovsky, M., Fuchs, C., & Weizman, A. (1999). Obsessive-compulsive disorder in patients with first-episode schizophrenia. *American Journal of Psychiatry*, 156(12), 1998-2000.
- Krüger, S., Bräunig, P., Höffler, J., Shugar, G., Börner, I., & Langkrämer, J. (2000). Prevalence of obsessive-compulsive disorder in schizophrenia & significance of motor symptoms. *The Journal of neuropsychiatry and clinical neurosciences*, 12(1), 16-24.
- Craig, T., Hwang, M. Y., & Bromet, E. J. (2002). Obsessive-compulsive and panic symptoms in patients with first-admission psychosis. *American Journal of Psychiatry*, 159(4), 592-598.
- Ohta, M., Kokai, M., & Morita, Y. (2003). Features of obsessive-compulsive disorder in patients primarily diagnosed with schizophrenia. *Psychiatry and clinical neurosciences*, 57(1), 67-74.
- Nechmad, A., Ratzoni, G., Poyurovsky, M., Meged, S., Avidan, G., Fuchs, C., ... & Weizman, R. (2003). Obsessive-compulsive disorder in adolescent schizophrenia patients. *American Journal of Psychiatry*, 160(5), 1002-1004.
- Lysaker, P. H., Whitney, K. A., & Davis, L. W. (2006). Obsessive-compulsive and negative symptoms in schizophrenia: associations with coping preference and hope. *Psychiatry Research*, 141(3), 253-259.