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# Obsessive-Compulsive Disorder, Positive and Negative Symptoms in Patients with Chronic Schizophrenia

Somayeh Shokrgozar, Reza Ahmadi, Azadeh Yousefnezhad, Mahbobeh Roshandelrad, Masuomeh Ellahi, Mahdiyeh Pakdaman, Elahe Moradkhani and Kiomars Najjafi
Department of Psychiatry, Shafa Hospital, Rasht, Iran

**Abstract:** One of the common disorders coming along with Schizophrenia is OCD or OCS. In patients suffering from Schizophrenia and OCD, the positive and negative diagnoses of Schizophrenia show resistance against treatment. Despite this, there is little data on the relation between OCD/OCS in patients with Chronic Schizophrenia in Iran. This study is designed to investigate the prevalence of OCD along with Chronic schizopherenia. In this cross-sectional study 100 patients in Shafa hospital were chosen in 1392 who were diagnosed with Schizophrenia based on DSM-IV-TR interview, for whom positive and negative scale syndrome, Yale-Brown obsessive compulsive scale were filled out. The demographic factors, psychiatric diagnoses severity and kind of psychiatric drugs were compared in two groups of patients with Schizophrenia with and without OCD/OCS. The average age of patients under study was 36.77±9.6 with minimum age 18 and maximum age 63. Of 100 patients, 59 had OCD and 41 of them had no OCD.53% of patients had some psychiatric background in families. The average age for Schizophrenia diagnosis was 24.64±67. The OCD severity was weak, mild and severe equaling 17.5, 28.1 and 13.4%, respectively. Patients with Schizophrenia and OCD showed a higher positive and general PANSS average score which was meaningful statistically ($p<0.05$). The prevalence of OCD in patients with Schizophrenia under study was higher than that of other studies and these patients had a higher positive PANSS score which certifies a sub-branch called.

**Key words:** Prevalence, OCD, patients with chronic Schizophrenia, age, scale

## INTRODUCTION

One of the common disorders coming along with Schizophrenia is OCD or OCS whose prevalence is 12 and 25%, respectively (1.2). In some studies, the relation between OCD/OCS and the positive/negative symptoms of Schizophrenia is reported but the performed studies dealing with the relation between OCD and positive/negative symptoms of Schizophrenia have shown contradicting results (Ciapparelli *et al*., 2007).

Considering different contradictory views in various studies, their exact relation is not clear yet. These differences in Schizophrenia disorder with and without OCD/OCS simultaneity leads to a sub-branch called.

In an epidemiologic study, the prevalence of Schizophrenia disease was 6% in Iran and its simultaneity with OCD was 17.2 (Eisen and Rasmussen, 1993). This study is designed to explore the prevalence of OCD/OCS simultaneityin patientswith Chronic Schizophrenia to find the basic factors, clinical displays, patients function and to investigate the relation between positive/negative symptoms of Schizophrenia and OCD/OCS.

## MATERIALS AND METHODS

In this analytic-cross sectional study, 100 patients among the ones in Shafa hospital, in affiliation with Guilan University of Medical Sciences in Rasht of Iran, with Schizophrenia were chosen in 1392.

Through easy and available sampling to fill the sample volume, only patients with chronic Schizophrenia with chronic Schizophrenia were chosen to have a unanimous group. The DSM-IV-TR (SCID) criterion based and PANSS questionnaire were approved by the psychiatrist. People included in this study suffered from chronic Schizophrenia and could somehow answer the questionnaires. Patients with acute Schizophrenia, mantel retraction, brain diseases like tumor, epileptic, systemic diseases, head strike/operation or SSRI consumption were excluded. All patients under study were rather recuperating and the acute symptoms of disease were decreasing. First, the letters of consent were filled in both for patients and their participants and then the demographic forms were filled in for patients including age, gender, age at the time they suffered from Schizophrenia, number of hospitalization, education,

**Corresponding Author:** Kiomars Najjafi, Shafa Hospital, 15 Khordad Street, Mosalla Square, Rasht, Guilan, Iran

marital status,job,psysical disease record, psychiatric disease record, kind of medication being used and interviews with patients, their close families and their clinical and hygiene personnel.

**Data collection included:** The positive-negative syndrome were evaluated by the psychiatrist, using PANSS questionnaire which is extensively used to evaluate psychosis. This questionnaire included 30 items (7 items were about the positive symptoms, 7 items for the negative symptoms and 16 items were the general psychopathology) (Patton and Stanford, 2005). The variance and reliability of this test were evaluated for the patients with Schizophrenia diagnosed based on DSM-IV-TR.X coefficients show high variance and the similarity of questions with rating coefficient was 73-83% for each of the scales. Test-retest variance indicators were achieved for the patients sub-groups indicating 77.0, 81.0, 82.0 and 89.0 for positive, negative, compound and psychopathological scales, respectively (Patton and Stanford, 2005).

The severity of OCD symptoms was studied using (Yale-Brown) questionnaire (Goodman *et al*., 1989). After the acute phase of disease (based on second interview by the psychiatrist). This questionnaire was a semi-structured interview with a high variance and reliability.

Its overall score is from 0-40 based on which 0-1 is clinical. Score 8-18 is low, 16-23 means average and beyond 24 is sever. In our study, the score below 8 was considered to diagnose OCD (Esfahani *et al*., 2012).

Patient's function in acute phase was evaluated through GAF: DSM-IV-TR Scale (Goodman *et al*., 1989). The meditational side-effects were evaluated with AIMS questionnaire (Goodman *et al*., 1989). The results were reported as average-deviation scale.

Statistical analysis was done with SPSS-16 Software and the statistical tests called Chi-square were used for qualitative variables and t-test was used for the quantitative ones. The correlation test was used to have the correlation among the data. The $p<0.05$ was considered as the meaningful statistical level.

## RESULTS AND DISCUSSION

The patients's average age under study was 36.77±9.6 with 18 and 63 as the minimum and maximum ones. Of 100 patients, 59 had OCD and 41 without OCD. The 53% of the patients mentioned some psychiatric family record.The average age for Schizophrenia diagnosis was 24.64±6.7.OCD severity in patients, weak 17.5% with score 8-15 Yale-Brown, average 28.1% with 16-23 Yale-Brown and severe 13.4% with a higher score than 24 Yale-Brown. Among patients with Schizophrenia and OCD, 37 were single and 22 were married, 19 had high school diploma or higher education.32 showed positive family record and 22 mentioned drug consumption record. Total 45 had both functional and mental obsession, 11 just showed mental obsessions and 3 just had functional obsession (Table 1).

Table 1: Demographic data of patients between schizopherenia with and without OCD

| Schizophrenia patients | Without OCD | With OCD | p-value |
|---|---|---|---|
| **Sex** | | | |
| Men | 30 | 49 | 0.2 |
| Women | 11 | 10 | |
| **Marriage (%)** | | | |
| Single | 30 | 37 | 0.1 |
| Married | 11 | 22 | |
| **Family history** | | | |
| No | 20 | 27 | 0.7 |
| Yes | 21 | 32 | |
| **Education** | | | |
| Under diploma | 33 | 40 | 0.1 |
| Diploma and Upper | 8 | 19 | |
| **Substance abuse** | | | |
| No | 31 | 37 | 0.1 |
| Yes | 10 | 22 | |
| Cigarette Smoking | | | |
| No | 24 | 26 | 0.1 |
| Yes | 17 | 33 | |
| **Age (year)** | 37.29±9.07 | 36.41±10 | 0.65 |
| Number of hospitalization | 5.8±4.765 | 3.9±4 | 0.007 |
| First age of diagnosis | 23±6.8 | 25.8±7.7 | 0.04 |
| Intervention duration | 14.3±9.2 | 11.08±8.3 | 0.08 |
| First age of hospitalization | 25.8±7.7 | 28.8±4.4 | 0.07 |
| BMI | 23.7±5.1 | 22.6±4.1 | 0.3 |
| AIMS | 0.44±0.9 | 0.86±2.5 | 0.4 |
| YBROWN | 3.5±7.8 | 20.9±6.09 | 0.001 |
| PANS | 110.4±13.9 | 117.2±13.3 | 0.01 |
| Positive symptoms score | 28.8±9.6 | 31.1±5.1 | 0.01 |
| Negative symptoms score | 26.6±6.5 | 25.9±5.8 | 0.5 |
| General psychopathology score | 55.7±8.7 | 60±6.6 | 0.008 |

Total 94 of them took A typical antipsychotic drugs and 6 people (6%) took Typical antipsychotic drugs. The GAF had a direct correlation with obsession ($a = 0.003$, $r = 0.3$).

Comparing the demographic variables in patients with Schizophrenia with/without OCD: Patients with OCD had less hospitalization than patients without OCD ($p = 0.007$) but there was no meaningful statistical relation between age, kind of medication, treatment period, sex, BMI, Family record and drug consumption between these two groups. The age average for the primary diagnosis of Schizophrenia in the group with OCD was higher than the group without OCD.

No relation was found between obsession severity and demographic variables like age, the length of disease period, age at first hospitalization, age at the disease start, BMI, Family record, marital status and some other medications. Demographic variables condition and the other variables under study in Table 1 are given in group "with/without obsession".

The PANSS had a direct correlation with obsession-compulsion disorder (a = 0.006, r = 0.2) and (a = 0.0001, r = 0.3), respectively. The average score of PANSS, Positive PANSS and PANSS general psychopathology in group OCD was higher equaling (a = 0.01, a = 0.01, a = 0.008), respectively. Hallucinatory behavior and stereotyped thinking scores in group OCD was meaningfully higher (a = 0.006, 0.01).

The OCD prevalence was 59% in our study, different from the study done by Towashi and colleagues. With 14.1% and the study performed by Towashiand coauthors with 18.3%. The observed difference in those studies could be for the following reasons: the difference in number of cases, evaluating method, diagnostic means cut-off point, disease stage which was for the patients with chronic Schizophrenia in this study and the time of filling in the questionnaire based on the disease phase with the PANSS time at the hospitalization and Yale-Brown test after improving the disease.

Further, the performed treatments on patients with Schizophrenia affects the natural trend or even causing OCD. Therefore, as all patients suffered from chronic Schizophrenia who were treated with different anti-psychotics, we can call this fact as the probable reasons for the difference in the statistics of this study in comparison to the other studies (Ohta *et al*., 2003).

The severity of OCD based on Yale-Brown was low 17.5% medium 28.1% and severe 13.4%. These numbers according to Hosseini *et al*. (2012) were 3, 6 and 6%, respectively.

In the study, like that of Hosseini *et al*. (2012) and Ghoreishi, there was no real severe form of OCD. As in our study, the proportion of patients who took Atypical antipsychotic was far more than (94 people) the patients taking Typical antipsychotic, the effect of this meditational group on OCD (Ohta *et al*., 2003) can explain this difference.

There were no differences in ago of patients with Schizophrenia, the length of disease, education,morital status, job and psychiatric disease record in the two groups with and without OCD which was proved by Hosseini *et al*. (2012).The patients in our study, like the study done by Seedat *et al*. (2007) with/without OCD were mostly single and unemployed which can be due to Schizophrenia. In study done by Seedat *et al*. (2007). The proportion of men to women with OCD was 40-13.In another study done in Turkey (Kayahan *et al*., 2008). It was 15-5 while in our study it showed 49-10. Schizophrenia simultaneity with OCD and its relation with gender need more investigation.Considering gender prevalence difference of this disorder with Schizophrenia and OCD, this difference can be one of the reasons to prove Schizo- OCD sub-type theory.

In Seedat *et al*. (2007) study, there was no difference in the number of hospitalization with OCD while focusing on the total number of patients. In the study, the average hospitalization was 4 times but in patients with OCD the average was less than that of patients without OCD which can be due to the chronic state of disease compared to Towashi study (Kayahan *et al*., 2005).

Opposite of Towashi and coauthors study in which PANSS score in two groups was not different, in our study, positive PANSS in group with OCD was clearly higher than that of the other group. This finding was similar to the studies (Ozdemir *et al*., 2003) which reported the relation of OCD with the decrease of negative symptoms and was also like the study done by Nechmad *et al*. (2003) which concentrated on the positive relation between OCD and the negative symptoms. In the study by Kayahan *et al*. (2005) the positive relation between positive score OCD and PANSS total score was seen which was similar to our study. These differences in relation between the total score of positive/negative PANSS in different studies can show the big differences like demographic matters, investigation method and the number of samples and cannot be a basis for the theory of the relation between PANSS and Yale-Brown score in patients with Schizophrenia and with OCD. In our study the total and positive PANSS of patients with OCD and the prevalence and severity of OCD in patients with chronic Schizophrenia was higher compared to the previous studies.

**Study restrictions:** Data collecting method was an easy and available sampling and the study was cross-sectional with which there can be no long investigation between OCD and other variables with disease. In addition, the results are based on the hospitalized patients which cannot be related to all patients with chronic Schizophrenia. Of the positive points of this study is done on a unanimous group of patients with Chronic Schizophrenia.

## CONCLUSION

These clear differences in different studies and the relation between OCD and Schizophrenia can show that we need more studies with higher number of cases, considering disease phase and the type of medication to think about having a separate sub-type called Schizo-OCD.

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