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Obsessive-Compulsive Symptoms in Early and Very Early-Onset Schizophrenia: A Retrospective Study from the University Child and Adolescent Psychiatry Department of Casablanca

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Abstract **Original Research Article**

Recent findings suggest that up to 30% of patients with schizophrenia exhibit obsessive-compulsive symptoms (OCS), which may emerge as prodromal signs, co-occur with schizophrenia, or be induced by antipsychotic treatment. These patients often present with higher suicide risk, greater cognitive control difficulties, and more severe depressive symptoms. Despite this, few studies have explored OCS in children and adolescents with schizophrenia. This retrospective study aimed to describe and compare the sociodemographic and clinical profiles of children and adolescents diagnosed with schizophrenia, with or without comorbid OCS, and to analyze the impact of OCS on clinical and therapeutic features, functioning, prognosis and quality of life. Medical records from 2021 to 2023 were reviewed at the Child and Adolescent Psychiatry Department in Casablanca, Morocco, including 102 patients aged 8 to 18 years diagnosed with schizophrenia, among whom 42 had comorbid OCS. Patients followed exclusively for OCD without schizophrenia were excluded. The mean age was 14 years (SD = 2.45), with a sex ratio of 2:1 (male:female). The presence of OCS was significantly associated with more delusions ($p = 0.042$), intrapsychic hallucinations ($p = 0.043$), and disorganized speech ($p = 0.049$). Additionally, 60% of patients with OCS had dropped out of school, 64% exhibited aggressive behavior, and 14% had attempted suicide. These findings suggest that OCS in the context of early-onset schizophrenia is linked to a more severe clinical profile and functional impairment. The distinction between OCS as a comorbidity or a specific schizophrenia subtype remains unresolved. Early identification and treatment of OCS may help prevent complications and improve long-term outcomes.

Keywords: Obsessive-compulsive symptoms, Early-onset schizophrenia, adolescent, Very Early-onset schizophrenia, child, Comorbidity, Clinical feature.

INTRODUCTION

The comorbidity between obsessive-compulsive symptoms (OCS) and schizophrenia has been a subject of clinical interest for decades. Studies by Westphal in 1878, Janet in 1903, and Bleuler in 1911 described this association [1]. Bleuler characterized obsessive-compulsive phenomena in schizophrenia as "automatisms," describing them as actions, thoughts, and feelings detached from the will [2].

In recent decades, the prevalence of OCD among individuals with schizophrenia has risen to approximately 30.3%, compared to 1.3% in the general population [3].

Some studies have shown that the epidemiological profile of schizophrenic patients with OCD differs from that of those without OCD, while others have reported common clinical and neurobiological characteristics between the two groups [4].

Historically, some psychiatrists suggested that OCS might delay the onset of malignant forms of

schizophrenia and act as a protective factor against psychosis and disease progression [5]. However, more recent clinical studies have found that schizophrenic patients with OCS tend to exhibit more severe psychotic and depressive symptoms, as well as lower quality of life and social functioning [6]. Other findings report longer hospitalization durations and lower performance on neuropsychological assessments [7], while some studies have found better global functioning or no significant differences at all [8].

Few studies have investigated the comorbidity of OCS and schizophrenia in children and adolescents. The aim of this study is to determine the frequency of OCS in this age group, describe their epidemiological and clinical profiles, and evaluate the impact of OCS on functioning and quality of life.

Few studies have investigated the comorbidity of OCS and schizophrenia in children and adolescents. Early-onset schizophrenia (EOS) refers to cases where onset occurs before the age of 18, while very early-onset schizophrenia (VEOS) is defined as onset before the age of 13 [9]. VEOS is considered a rarer and more severe form, often associated with poorer prognosis and greater developmental disruption.

The aim of this study was to describe and compare the sociodemographic and clinical profiles of children and adolescents diagnosed with schizophrenia, with or without comorbid OCS, and to analyze the impact of OCS on clinical and therapeutic features, functioning, and quality of life.

MATERIAL AND METHODS

We conducted a retrospective, descriptive, and analytical study between January 2021 and December 2023 at the Child and Adolescent Psychiatry Department of Abderrahim Harouchi Mother-Child University Hospital in Casablanca, Morocco.

The study population included children and adolescents aged 8 to 18 years, who were either hospitalized or followed as outpatients and had been diagnosed with early or very early-onset schizophrenia, with or without comorbid OCS, according to DSM-5 criteria.

Patients diagnosed exclusively with obsessive-compulsive disorder (OCD), without schizophrenia, were excluded from the study.

Data were collected through a retrospective review of patient medical records. A structured data extraction sheet was used to gather sociodemographic information, clinical characteristics, information on treatment history, hospitalization, comorbidities, and psychosocial functioning. Statistical analysis was performed using the Statistical Package for the Social Sciences (SPSS) software, version 26.0, to compare the clinical profiles of patients with and without OCS.

RESULTS

Demographic and Clinical Characteristics

The study included 102 patients, comprising 59 males (57.8%) and 43 females (42.2%). Among them, 42 patients (41.2%) had schizophrenia with comorbid OCS, while 60 patients (58.8%) had schizophrenia without OCS. The mean age was 13.02 years (SD = 2.1), with a median age of 15, ranging from 8 to 17.9 years.

Approximately 84% of the patients came from an urban background, and 45% belonged to low-income families. A family history of psychiatric disorders was present in 63% of the patients, including psychosis in 43% and anxiety-depressive disorders in 60%. Intellectual disability in the family was reported in 15% of cases.

Regarding the patients' own history, 20% had an intellectual disability, and 18% had a history of anxiety or depressive disorders. Educational disruption was common, with 51% of patients dropping out of school after the onset of schizophrenia, compared to 31% before onset.

At admission, the most frequent reason for consultation was behavioral disturbances (80%), and 31% of patients required hospitalization. The onset of schizophrenia was early in 67% of cases, with a gradual progression in 70%. Prodromal symptoms primarily included negative symptoms (50%) and behavioral disorganization (33%). Further details are provided in Table 1.

Table 1: Demographic and clinical characteristics of adolescent Schizophrenia Patients with and without OCS

Charactéristics	**With OCS (N=42)**		**Without OCS (N=60)**		***p*-value**
	N	%	N	%	
Gender Male Female	 28 14	 66% 33%	 31 29	 51,7% 48,3%	0.095 (NS)
	Mean		Mean		
Mean Age (years)	15.16		14.67		
Early-onset schizophrenia	26	61,9%			
Very early-onset schizophrenia	16	38%			
Family history of psychiatric illness	30	71.4%	35	58.3%	0.1 (NS)

Delusions — Persecutory Type	29	69%	34	56.7%	0.2 (NS)
Delusions — Referential Type	12	28.6%	7	11.7%	0.04 (S)
Desorganization	38	90%	52	57.8%	0.07 (NS)
Intrapsychic hallucinations	13	31%	7	12%	0.02 (S)
Suicide Attempts	14	33%	0	0	
Insight Present	28	66,7%	23	38.3%	0.009 (S)
Good Quality of life	4	9.5%	25	41.5%	<0.001 (S)

ILLNESS-RELATED CHARACTERISTICS

Among patients with OCS, 68% exhibited negative prodromal symptoms. Compared to those without OCS, they were more likely to present with referential delusions, intrapsychic hallucinations, and greater insight, yet reported poorer quality of life.

The most frequent obsessions were doubt and contamination, typically associated with compulsive checking or washing rituals. These symptoms were marked by morbid rationalization and emotional involvement in 71% of cases, often leading to aggressive behavior (62%).

A positive correlation was found between suicidality and both the frequency (N=28, p=0.01) and duration (N=30, p=0.01) of compulsions. Aggressive behavior was also significantly correlated with the number of suicide attempts. Patients with OCS showed significantly more behavioral disturbances, suicidal ideation, plans, and attempts prior to hospitalization ($p <$ 0.01).

TREATMENT

More than half of the patients received risperidone as the primary treatment for schizophrenia. For managing OCS, the most common therapeutic adjustment was switching to another antipsychotic in 60% of cases—mainly to haloperidol, amisulpride, or quetiapine. In 20% of patients, a selective serotonin reuptake inhibitor (SSRI), primarily sertraline (starting dose: 50 mg), was added.

Eighty percent of patients treated with SSRIs showed improvement in OCS, while 25% of those switched to other antipsychotics experienced symptom relapse.

DISCUSSION

This study aimed to describe and compare the sociodemographic and clinical characteristics of children and adolescents diagnosed with schizophrenia, with or without comorbid OCS. To the best of our knowledge, this is the first study conducted in Morocco focusing specifically on this dual diagnosis in a pediatric population.

In our sample, the frequency of OCS among patients with schizophrenia was 41.2%, which is higher than reported in a study conducted in India where the prevalence was 24% [10]. This discrepancy may be due to differences in sample age, as our population included younger children (mean age: 15 years), while other studies focused primarily on older adolescents or young adults.

Although the majority of patients in our study were male, no significant sex difference was observed between the OCS+ and OCS– groups, which is consistent with prior findings [11]. Regarding socioeconomic background, 45% of our sample came from low-income households, but no significant differences were observed between the two groups in this regard. Some previous studies suggest that patients with schizophrenia and OCS may be more likely to be educated or employed [12–14], while others report no clear sociodemographic predictors of comorbidity [15].

A significant proportion of patients in our sample had a family history of psychiatric disorders, particularly psychosis and affective disorders, though no formal diagnosis of OCD was documented among relatives. This may reflect underdiagnosis of OCD in the Moroccan context. Prior research has supported the hypothesis of a genetic and neurobiological link between schizophrenia and OCD, suggesting a shared vulnerability [16].

In terms of symptom type, our findings align with existing literature: doubt-related and contamination obsessions were the most common, followed by phobic and sexual obsessions [11]. The most frequent compulsions included cleaning and checking, which is also consistent with other clinical studies [13].

OCS+ patients in our study also displayed higher rates of anxiety and depressive symptoms, which supports previous meta-analyses indicating greater affective comorbidity in this subgroup [17]. However, the link between OCS and anxiety remains controversial due to overlapping diagnostic criteria and shared neurobiological mechanisms.

Notably, we observed a suicide attempt rate of 33% in OCS+ patients, compared to none in the OCS– group. This aligns with findings from Cassidy et al. [18], who highlighted increased risk factors for suicidality in schizophrenia, including depressive symptoms and greater insight—factors that may be particularly relevant in schizo-obsessive presentations. However, the same study [18] found no significant increase in the rate of completed suicides among patients with comorbid OCS. This contrast underscores the importance of distinguishing between suicidal behavior (such as

ideation or attempts) and suicide mortality, and suggests that while OCS+ patients may experience more distress and engage in suicidal behavior, this does not necessarily translate into higher suicide completion rates.

The comorbidity of OCS and schizophrenia in youth appears to represent a distinct and more severe clinical phenotype, characterized by poorer insight, lower quality of life, functional deterioration, and elevated suicide risk. These findings support the notion that OCS in schizophrenia may constitute a distinct subtype, rather than a coincidental overlap [19].

Recent neuroimaging research indicates that individuals with this comorbidity may exhibit altered fronto-striatal connectivity, supporting the notion of a biologically distinct 'schizo-obsessive' subtype. These brain circuit alterations could underlie the persistence of compulsions, poor insight, and increased emotional distress observed in our sample [20]. In clinical practice, it is crucial to identify and address OCS early to reduce the risk of chronicity, school dropout, and suicidality.

Although SSRIs and antipsychotic adjustments are commonly used, treatment protocols for schizo-obsessive presentations in adolescents remain empirically driven, and further controlled studies are needed to develop clear, evidence-based guidelines.

CONCLUSION

Our findings indicate that OCS are relatively common in EOS and VEOS, with a frequency of 42.1% in our sample. These symptoms were more frequently observed in male adolescents and in those with a stronger familial psychiatric history.

Clinicians should be particularly vigilant, as the presence of OCS in young patients with schizophrenia appears to be associated with increased risk of suicidal behavior, more frequent hallucinations, greater academic disruption, and significantly reduced quality of life.

Therapeutic strategies should include careful consideration of SSRIs or antipsychotic switching when appropriate, in order to reduce the severity of OCS and improve functional outcomes.

There is a pressing need for robust, longitudinal treatment studies in pediatric populations to guide evidence-based care and enhance prognosis for children and adolescents with comorbid schizophrenia and OCD.

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