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Sociodemographic and Clinical Characteristics of Turkish Children and Adolescents with Obsessive-compulsive Disorder

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Aim. To assess clinical and demographic characteristics of Turkish children and adolescents with obsessive-compulsive disorder.

Method. The study comprised 47 children and adolescents (31 boys and 15 girls) aged between 9 and 15 years, who were diagnosed with obsessive-compulsive disorder according to Diagnostic and Statistical Manual of Mental Disorders-IV. At the first interview, sociodemographic data of patients were recorded and Maudsley Obsession Compulsive Questionnaire (MOCQ), Child Depression Inventory (CDI), and State and Trait Anxiety Inventory for Children (STAI-C) were administered concurrently. Afterwards, the comorbid diagnosis and clinical characteristics of obsessive-compulsive disorder were investigated in detail during a psychiatric interview.

Results. The obsessive-compulsive disorder prevalence among 1,739 outpatients seen for the first time at our clinics between January 1998 and April 1999 was 2.7% (n = 47). Initial complaints with a content of obsession or compulsion were observed in only 14.9% (n = 7) of the patients. Contamination (48.9%) and cleaning (68.1%) were the most common symptoms. Thirty-one patients (65.9%) had at least one comorbid disorder with obsessive-compulsive disorder, the most common being major depression (29.8%). There were no significant differences between the patients with and those without comorbid disorder in terms of MOCQ and subscales scores. Children under age of 13 had higher scores on cleanliness subscale on MOCQ, whereas children with migration history had higher state anxiety scores. There were no differences in STAI-C and CDI scores between boy and girls, children (< 13 years) and adolescents (≥13 years), and firstborn and other children in a family.

Conclusion. Obsessive-compulsive disorder is a serious clinical problem in childhood and practitioners, pediatricians, and psychiatrists should explicitly ask about the presence of symptoms characteristic to obsessive-compulsive disorder. Given the high rates of various comorbid states, such as anxiety, mood and tic disorders, comorbidities should also be taken into account during psychiatric evaluation of a child patient.

Key words: *adolescent; child; comorbidity; depression; mental disorders; obsessive-compulsive disorder; psychiatry; phenomenology; Turkey*

The history of obsessions and compulsions is as old as human history (1). Although it was emphasized as early as 1903 that obsessive and compulsive symptoms could appear in childhood, most child psychiatrists have not perceived the disorder as likely to occur in children until recently (1-4). This chronic, disabling disease has finally drawn the interest of child and adolescent psychiatrists after more than 50% of adult patients suggested onset of the disease in early childhood (5), and the prevalence rate of obsessive-compulsive disorder in children was found higher than previously thought (5,6).

Approximately one in every 200 children or adolescents develops obsessive-compulsive disorder, which causes significant functional loss in educational, social, and occupational domains (7). Since only a small percentage of these patients is actually diagnosed with obsessive-compulsive disorder, many of them remain untreated (7-9). The possible reasons for difficulties and delay in establishing the diagnosis could be the lack of insight in patients with obsessive-compulsive disorder, who usually hide their symptoms to avoid possible shame or humiliation and do not seek any treatment (9,10). Also, children and adolescents with obsessive-compulsive disorder frequently visit other specialists, e.g., dermatologists (9,10). The majority of those who seek psychiatric help have been treated because of their symptoms pertaining to other psychiatric disorders, such as anxiety or mood and conduct disorders (7,10).

The prevalence of obsessive-compulsive disorder in men is equal to that in women (11-13), although some studies report higher prevalence rates in male youths (5,12). The most common symptom re-

ported in children with obsessive-compulsive disorder is contamination/cleaning (4-8,10). Youths of middle or higher socioeconomic status had higher obsessive-compulsive disorder prevalence rates than those of lower socioeconomic status (1). A firstborn child was more frequently reported to have obsessive-compulsive disorder than other children in the family (13). Stress factors, including migration, were reported to exacerbate or trigger anxiety disorders in children (e.g., generalized anxiety disorder, separation anxiety disorder or obsessive-compulsive disorder) (14,15). There is a high frequency of comorbid states, including depression, other anxiety disorders, and tic disorders in children with obsessive-compulsive disorder (5-7). Obsessive-compulsive disorder is considered to have genetic etiology and be more prevalent in first-degree relatives (parents and siblings) of children with obsessive-compulsive disorder (4-6).

The aim of this study was to assess sociodemographic and clinical characteristics of Turkish children and adolescents with obsessive-compulsive disorder who had visited or been referred to our outpatient clinic for the first time, to determine their comorbidities, and possible psychiatric disorders in their parents and second-degree relatives (uncles and aunts).

Subjects and Methods

The study included patients referred for the first time to outpatient clinics of Child and Adolescent Psychiatry Department at Cukurova University Medical School Balcali Hospital between January 1998 and April 1999 (Fig. 1). The inclusion criteria for the study were the following: 1) diagnosis of an obsessive-compulsive disorder according to Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV) criteria; 2) over 3 years of age; 3) absence of any neurological or pervasive developmental disorder; 4) absence of severe intellectual disability to conduct a thorough interview; and 5) parents' informed consent and patients' assent to be included in the study. Ethical Committee of Cukurova University Faculty of Medicine approved of the study and the protocol.

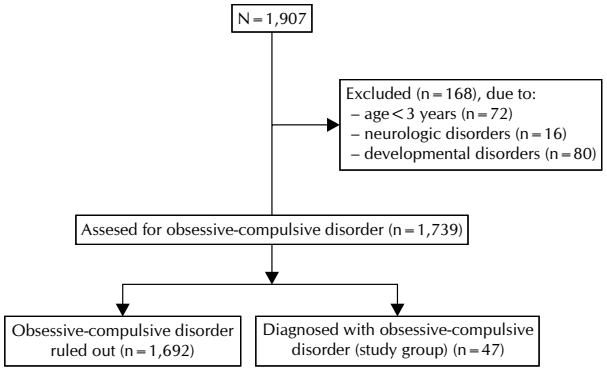

Figure 1. The selection of subjects for the study.

Among 1,907 patients eligible, 168 cases were excluded because of the following reasons: 72 cases were aged less than 3 years, 16 had neurological abnormality or pathological EEG finding of some kind, and 80 had pervasive developmental disorder. After the exclusion of 168 patients, 1,739 children or adolescents were assessed for inclusion in the study.

The study group comprised 31 boys and 16 girls with obsessive-compulsive disorder; their mean age was 12.1 ± 1.9 years (range 9-15). Diagnosis of obsessive-compulsive disorder according to DSM-IV (16) had to be made by two independent child and adolescent psychiatrists to increase the reliability and objectivity of diagnosis.

Instruments

At the first interview, each patient's sociodemographic data were recorded on a sociodemographic data form, routinely used in our child and adolescent psychiatry unit. Also, the following inventory and questionnaires were administered: Maudsley Obsessive Compulsive Questionnaire (MOCQ), Children Depression Inventory (CDI), and State and Trait Anxiety Inventory for Children (STAI-C).

Maudsley Obsessive Compulsive Questionnaire (MOCQ). It is a self-reporting questionnaire in true-false item format, developed for evaluating the type of obsessive-compulsive symptoms and discriminating obsessive patients from other neurotic patients (17). The Turkish version of MOCQ was added 7 items to the original 30-item list (18). It has been used in clinical practice and for the needs of research in patients aged 12-20 years as a valid and reliable tool for measuring the type and prevalence of obsessive-compulsive symptoms. The scale can also be administered to the patients aged 9 years or older with the same reliability (18). It has 4 sub-scales: control, slowness, suspiciousness, and cleanliness. The highest score available is 37 for total obsession score: 9 for control, 11 for cleanliness, 7 for slowness, and 7 for suspiciousness subscale.

Children Depression Inventory (CDI). CDI is a self-report depression scale modeled after Adult Beck Depression Inventory (19), which was used to assess depressive symptoms. Twenty-seven multiple-choice items evaluate the severity of depressive symptoms during the previous 2 weeks. The scale is widely used and has demonstrated good concurrent validity and reliability in Turkish children and adolescents (20). The cut-off point for Turkish patients was 19 (20).

State and Trait Anxiety Inventory for Children (STAI-C). STAI-C has two subscales, each containing 20 questions for state anxiety (SAI-C) and trait anxiety (TAI-C). It is a self-reporting scale used to assess state and trait anxiety scores separately (21). The scale is widely used and has demonstrated good concurrent validity and reliability in Turkish children and adolescents (22). Scores above 30 are considered high.

First-degree relatives of children with obsessive-compulsive disorder (particularly mother and father) were questioned and screened in detail about any history of psychiatric diseases present in the family. Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) for adults (23) was used for that purpose. If available, second-degree relatives (uncles and aunts) of the children were also assessed for psychiatric diagnosis via psychiatric interviews.

Statistics

Statistical analysis was performed by SPSS for Windows version 6.0 (SPSS Inc., USA, 1989-1993, release June 17, 1993). Descriptive statistics was used for the analysis of sociodemographic variables. Student-t test was used when all assumptions for parametric tests were met. Significance level was set at $p < 0.05$.

Results

Forty-seven of 1,739 patients (2.7%) interviewed in outpatient clinics were diagnosed with obsessive-compulsive disorder according to DSM-IV. Sociodemographic characteristics of patients and their families are shown in Table 1.

Most patients were first-borns (55%), having at least one (31%) or two (34%) siblings. Three patients (6%) were the only children in their family. Twenty (43%) patients had a history of migration within the country. The parents of 11 patients (23%) were second-degree relatives. Fifteen patients (32%) were referred to our clinics by a psychiatrist or family physician, 10 patients (21%) by physicians from another department for the needs of consultation, whereas most (40%) came directly to our outpatient clinic, seeking treatment. Three (6%) patients asked for treatment after their teachers' suggestion.

Table 1. Sociodemographic characteristics of 47 Turkish children and adolescents with obsessive-compulsive disorder and their families

Characteristic	No. (%)
Sex:	
male	31 (66)
female	16 (34)
Mean age (±SD)	12±2
Age groups:	
<13 years	25 (53)
≥13 years	22 (47)
Birth order of patients:	
first child	26 (55)
second child	11 (23)
third child	10 (21)
only child	3 (6)
History of migration	20 (43)
Separation from mother for ≥6 weeks	9 (19)
Birth complications	4 (9)
Socioeconomic status of the family:	
high	5 (11)
moderate	34 (72)
low	8 (17)
Education (years, mean±SD):	
mother's	8.8±4.4
father's	10.6±3.7

Table 2. Obsessions and compulsions in 47 Turkish children and adolescents with obsessive-compulsive disorder

Obsessions	No. (%)	Compulsions	No. (%)
Contamination	23 (49)	Cleaning	32 (68)
		Hand washing	12 (26)
Doubt	22 (47)	Control	28 (60)
Grim feelings	9 (20)	Counting	15 (32)
Sexual impulse	9 (20)	Ordering/arranging	10 (21)
Aggressive impulse	6 (13)	Touching	4 (9)
Religious	6 (13)	Mental compulsion	3 (6)
Listening to one's own voice	5 (11)	Slowness	2 (4)
Symmetry-regularity	4 (9)	Repeating	1 (2)
No. of patients with:			
two obsessions	27 (55)	Two compulsions	24 (51)
three obsessions	6 (13)	Three compulsions	10 (21)
four obsessions	1 (2)		

Clinical Characteristics

There were no patients with obsessive-compulsive disorder and signs or symptoms of pediatric autoimmune neuropsychiatric disorder associated with streptococcus infections (24). The organic disorders diagnosed in patients were thyroid dysfunction (hypothyroidism in 4.2% and hyperthyroidism in 4.2% of the patients), bronchial asthma (4.2%), congenital megacolon (2.1%), dysfunctional uterine bleeding (2.1%), and iron-deficiency anemia (2.1%). On the first interview, patients primarily complained about nervousness (13%), stuttering (9%), tics (9%), anxiety (6%), depression (6%), social phobia (6%), conversion disorder (4%), panic attacks (4%), headache (4%), and hyperactivity (4%). Primary complaints of obsessions or compulsions were present only in 7 (15%) patients with obsessive-compulsive disorder.

Obsessions and compulsions were present in all patients (Table 2). Obsession of contamination (49%) and cleaning compulsion (68%) were the most common symptoms. Hand washing was the most common cleaning compulsion (25%). Other common obsessions were doubt, grim feelings (expecting something bad to happen), and sexual obsessions. Common compulsions were checking (control), counting, and ordering compulsions.

Mental compulsions (repetitive thoughts to alleviate and stop obsessions) were found in 3 patients.

Table 3. Comorbid disorders in 47 Turkish children and adolescents with obsessive-compulsive disorder

Comorbidities	No. (%) of patients
Mood disorders:	
major depression	13 (28)
dysthmic disorder	1 (2)
Anxiety disorders:	
social phobia	10 (21)
generalized anxiety disorder	4 (9)
panic disorder	4 (9)
Other:	
Tourette's disorder	5 (11)
stuttering	4 (9)
conversion disorder	4 (9)
attention deficit hyperactivity disorder	2 (4)
conduct disorder	2 (4)
trichotillomania	2 (4)
encopresis	1 (2)
night terror	1 (2)
other comorbid disorders	31 (66)
No. of comorbidities in a single patient:	
one	19 (40)
two	8 (17)
three	4 (9)

Most children (66%) had at least one comorbid disorder (Table 3). Social phobia + major depression + Tourette's disorder; social phobia + major depression + somatization disorder; social phobia + stuttering + Tourette's disorder; and Tourette's disorder + stuttering + night terror were the combinations of comorbid diagnoses found among the patients with obsessive-compulsive disorder.

Anxiety disorders (39%), including social phobia, generalized anxiety disorder, and panic disorder, formed the most common group of comorbid disorders in our patients. When all psychiatric diagnoses were considered separately, depression (30%) became the most common comorbid diagnosis. The comorbid disorder in two patients with attention deficit hyperactivity disorder (ADHD) was less severe and did not require psychostimulant therapy.

Assessment of Psychiatric Scales

The results of scales of different subgroups of patients were compared. There were no significant differences between the subgroups of patients in their sex, birth order or additional organic disorder. Only the children with migration history had significantly higher state anxiety scores than those with no such history (Table 4, $t=-3.09$, $p=0.003$).

The only significantly different variable in MOCQ total and subscale score was patients' age. The comparison of children younger than 13 and adolescents (aged 13 and older) showed that cleanliness subscale scores of children were significantly higher than the scores of the adolescent group (Table 4). These two groups did not show any differences in other test scores ($p>0.05$).

No significant differences in MOCQ scores were found among the patients divided into subgroups according to their comorbid disorders (major

Table 4. Comparison of test scores of 47 Turkish children and adolescents with obsessive-compulsive disorder with respect to their sex, age, birth order, and migration history

	Scores (mean ± SD) in tests[a]							
	MOCQ							
Patients' characteristics	total	cleanliness	control	doubt	slowness	CDI	SAI-C	TAI-C
Total scores	20.8 ± 5.2	5.5 ± 1.9	4.8 ± 1.8	4.9 ± 1.3	3.8 ± 1.4	15.6 ± 9.1	41.0 ± 7.5	40.5 ± 8.3
Sex: boys (n = 31)	20.5 ± 5.4	5.3 ± 2.9	4.6 ± 1.8	4.8 ± 1.4	3.6 ± 1.4	17.2 ± 9.8	42.4 ± 7.3	41.3 ± 8.1
girls (n = 16)	20.5 ± 5.8	5.4 ± 2.4	5.0 ± 1.8	5.0 ± 1.4	3.8 ± 1.3	13.8 ± 7.5	39.0 ± 7.1	36.8 ± 7.7
p	0.978	0.935	0.535	0.604	0.553	0.231	0.080	0.075
Age: ≥13 (n = 22)	19.9 ± 4.8	4.6 ± 2.0	4.6 ± 1.6	4.9 ± 1.3	3.6 ± 1.3	17.4 ± 10.2	42.5 ± 6.7	41.1 ± 7.9
<13 (n = 25)	21.0 ± 6.0	5.9 ± 1.9	4.9 ± 2.0	4.8 ± 1.4	3.8 ± 1.5	15.0 ± 8.2	38.9 ± 8.1	38.6 ± 8.4
p	0.504	0.027[b]	0.545	0.856	0.768	0.375	0.115	0.281
Birth order: first child (n = 26)	20.8 ± 5.4	5.5 ± 1.9	4.8 ± 2.0	4.9 ± 1.2	3.5 ± 1.3	17.9 ± 10.3	41.0 ± 8.1	40.6 ± 8.3
other (n = 21)	20.1 ± 5.7	5.1 ± 2.3	4.7 ± 1.6	4.8 ± 2.0	3.9 ± 1.5	13.9 ± 7.1	40.0 ± 7.1	38.6 ± 8.0
p	0.667	0.471	0.742	0.965	0.280	0.146	0.680	0.407
History of migration: yes (n = 20)	20.9 ± 5.6	5.4 ± 2.3	4.7 ± 1.9	5.2 ± 1.5	4.0 ± 1.3	16.6 ± 7.9	44.3 ± 5.1	41.1 ± 7.5
no (n = 27)	20.3 ± 5.4	5.2 ± 1.7	4.8 ± 1.8	4.6 ± 1.2	3.5 ± 1.4	15.7 ± 10.1	37.8 ± 8.1	38.7 ± 7.6
p	0.706	0.757	0.817	0.276	0.120	0.710	0.003[c]	0.356

[a]Abbreviations: MOCQ – Maudsley Obsessive Compulsive Questionnaire; CDI – Children Depression Inventory; SAI – State Inventory for Children; TAI – Trait Inventory for Children.
[b]Student t-test (t = -2.29, df = 45).
[c]Student t-test (t = -3.09, df = 45).

Table 5. Comparison of Maudsley Obsessive Compulsive Questionnaire (MOCQ) total and subscale scores of 47 Turkish children and adolescents with obsessive-compulsive disorder with respect to their comorbid states

	Scores for comorbid states (mean ± SD)								
	major depression			anxiety disorders			other (tics + hyperacitivity + conduct disorder)		
Symptoms	yes	p	no	yes	p	no	yes	p	no
No. of patients	14		33	15		32	9		38
MOCQ total	20.64 ± 4.5	0.436	20.44 ± 5.9	19.27 ± 6.6	0.148	21.09 ± 4.95	18.37 ± 6.09	0.412	20.95 ± 5.39
Cleanliness	4.71 ± 1.77	0.567	5.62 ± 2.18	6.00 ± 2.10	0.324	5.03 ± 2.04	5.50 ± 1.31	0.787	5.32 ± 2.23
Control	5.00 ± 1.57	0.574	4.62 ± 1.96	4.87 ± 1.85	0.063	5.16 ± 1.72	4.00 ± 1.77	0.370	4.89 ± 1.84
Doubt	5.71 ± 1.07	0.051	4.56 ± 1.39	4.60 ± 1.77	0.060	5.06 ± 1.18	5.00 ± 1.41	0.130	4.89 ± 1.41
Slowness	4.00 ± 1.04	0.480	3.53 ± 1.55	3.80 ± 1.61	0.360	3.61 ± 1.33	2.88 ± 1.64	0.130	3.84 ± 1.33

Table 6. Psychiatric disorders in first (parents) and second degree relatives of 47 Turkish children and adolescents with obsessive-compulsive disorder, diagnosed according to structured clinical interview for DSM-IV, Axis I diagnosis

	No. (%)		
Disorder	mothers (n = 47)	fathers (n = 47)	second-degree relatives[a] (n = 60)
Mood disorders:			
major depression	4 (9)	–	–
bipolar disorder	–	–	1 (2)
Anxiety disorders:			
generalized anxiety disorder	4 (9)	2 (4)	–
obsessive-compulsive disorder	6 (12)	2 (4)	2 (3)
Stuttering	–	1 (2)	–
Schizophrenia	1 (2)	–	1 (2)
Attention-deficit hyperactivity disorder	–	1 (2)	–
Total	15 (32)	6 (13)	4(7)
Dual diagnosis	3 (3)	–	–

[a]Uncles or aunts.

depression, anxiety disorders, and other comorbidities; Table 5).

The anxiety disorders, especially obsessive-compulsive disorder, were the most common disorders observed in the first-degree relatives of the patients (Table 6). Eight (8.5%) first-degree relatives of the patients had obsessive-compulsive disorder. Generalized anxiety disorder, major depression, and stuttering were among other common disorders found in the families of the patients. Three mothers had a dual diagnosis. The dual diagnoses found in patients were generalized anxiety disorder and major depression, generalized anxiety disorder and obsessive-compulsive disorder, and major depression and obsessive-compulsive disorder.

Discussion

The prevalence of obsessive-compulsive disorder among children and adolescents with a psychiatric disorder ranges between 0.5% and 4% (1,5,6,8,25). In our study, the prevalence of obsessive-compulsive disorder among 1,739 outpatients was 2.7 %, which is in concordance with the prevalence usually reported for lifetime obsessive-compulsive disorder in adults (26,27). In a study carried out in Turkey, 2% of patients followed-up in a child and adolescent psychiatry outpatient clinics revealed obsessive symptoms (1), whereas in a community survey in Turkey obsessive-compulsive disorder prevalence was 5.1%, or almost twice higher than the rate in our study (28). The difference in the prevalence rate could result from the differences in patient samples (community vs outpatient population). It is frequently reported that unless explicitly questioned patients with obsessive-compulsive disorder do not mention their symptoms to a physician, and try to hide them. This usually results in underestimation of obsessive-compulsive disorder prevalence. Obsessive-compulsive disorder prevalence could be higher than estimated – a "hidden epidemic" disorder, as previously described (6-8).

Some studies reported male predominance among the children with obsessive-compulsive disorder (6,7,29). The onset of obsessions or compulsions in girls was estimated to be 1.5-2.5 years later than in

boys (30). Despite the male predominance in childhood, no significant sex differences in obsessive-compulsive disorder have been reported in community surveys and clinical studies including adolescents (over 13 years of age) and adults (4,9,11,20,31,32). Our study included more patients younger than 13 years of age than adolescents, which could account for male predominance in our study. In our study, children and adolescents with obsessive-compulsive disorder differed only in cleanliness subscale scores of MOCQ ($t=-2.29$, $p=0.031$). This finding should be re-assessed in a study with larger patient samples.

Usually, the patients with obsessive-compulsive disorder first complain about symptoms associated with their comorbid anxiety or mood and conduct disorders (1,32). Similarly, in our study only 7 patients (14%) had a primary obsession or compulsion complaint on the first psychiatric interview.

Most patients with obsessive-compulsive disorder are the only child in the family (13). However, there were only 6% of such patients in our study. This discrepancy could originate from the different sociodemographic structure of Turkey, where the number of the families with only one child is lower than in the western countries (1,9). Similar to previous studies, most of our patients were firstborn children in families of higher or middle socioeconomic status (1,8,28).

In our study, 19 (40%) patients with obsessive-compulsive disorder had a history of migration. Although state anxiety scores of patients with migration history were significantly higher than scores of other patients with obsessive-compulsive disorder, no other differences were found. Since migration is known to exacerbate or trigger anxiety symptoms in children (1,15), further studies with large patient samples are needed to clarify the effect of migration on development of obsessive-compulsive disorder.

Anxiety disorders, especially obsessive-compulsive disorder, were the most common disorders diagnosed in parents of the patients in this study. Overall rate of obsessive-compulsive disorder in first-degree relatives of our patients was 21%. Mood and anxiety disorders (25-70%) have been frequently reported in first-degree relatives of adolescents with obsessive-compulsive disorder (29,33,34).

In our study, all patients reported a co-occurrence of obsessions and compulsions. Wever and Rey (35) reported a rate of 95% of co-occurrence of obsessions and compulsions in children and adolescents. Contamination obsessions and cleanliness compulsions were most commonly found in our patients, which is similar to findings of other studies (7,8,29,32).

Anxiety disorders, which include social phobia, generalized anxiety disorder, and panic disorder, were the most common diagnoses in our study. Thirty-one (66%) patients had at least one comorbid disorder with obsessive-compulsive disorder. There were no significant differences between the patients with and those without comorbid disorder in terms of MOCQ and subscales scores. The most common comorbid diagnosis was major depression (30%). It appears that the comorbidity with obsessive-compulsive disorder is far more common than previously thought. The comorbidity rate of the first axis psychiatric disorders in obsessive-compulsive disorder is about 50% (8). Lifetime comorbidity rates for obsessive-compulsive disorder and major depression are reported to be as high as 71% (36). Some studies revealed that 11-80% of patients with Tourette's disorder had obsessive-compulsive disorder (37,38). From another aspect, only 5% of patients with obsessive-compulsive disorder were found to have Tourette's disorder as a comorbid disorder (37,38). Similarly, 5 (11%) patients with obsessive-compulsive disorder in our study had a comorbid diagnosis of Tourette's disorder. There were no significant differences between patients with one or more comorbid diagnosis and patients without comorbidity in their MOCQ total and subscale test scores. We were not able to make any statistical inference about this issue because of low number of patients with comorbid Tourette's disorder. Our findings indicated that comorbidities did not affect the severity of clinical characteristics of obsessive-compulsive disorder (Table 5).

Prior to any conclusion it is important to consider the limitations of our research. Our study comprised patients from a child and adolescent psychiatry outpatient clinic, and therefore its results may not be applicable to the population in general. Although the patients were interviewed about their past symptoms, scales used in this study elicited cross-sectional data and could not be used for assessment of lifetime disorder. Furthermore, the content of obsessions and compulsions in children and adolescents may vary over time (10). We were also unable to receive data from children and their parents regarding the onset of symptoms or any predisposing-triggering factors.

In conclusion, obsessive-compulsive disorder is a serious psychiatric problem in childhood and practitioners, pediatricians, and psychiatrists should explicitly ask about the presence of symptoms of this disabling condition. Given the high rates of various comorbid states, such as anxiety, mood, and tic disorders, comorbidities should also be evaluated in detail. It has been suggested that early detection and treatment can improve prognosis (10). The developmental continuity between juvenile and adult obsessive-compulsive disorder and identifying age-specific correlates of obsessive-compulsive disorder across the life cycle should be further investigated in studies with large patient samples.

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