

## THE COMPARISON OF OBSESSIVE-COMPULSIVE PERSONALITY DISORDER AND TRAITS IN MOTHERS OF 4-11 YEARS CHILDREN HAVING OCD Vs CONTROL GROUP

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### **Abstract**

#### **Keywords:**

*OCD, Control Group, Obsessive compulsive personality disorder.*

**Objectives:** Obsessive-compulsive disorder (OCD) begins in childhood and adolescence and progresses along with aging. This survey is conducted to compare temperament and character and Obsessive-Compulsive Personality Disorder (OCPD) and OCPD traits in parents of children with OCD and parents of healthy controls.

**Materials and Methods:** In each group, 30 patients were studied. There were 11 boys (%36.7) in the study group (children with obsessive compulsive disorder), and 12 ones in control group (%40.0). In case group, four mothers (%13.3) had obsessive compulsive personality disorder, while the frequency in control group was one (%3.3) and the frequency difference was not considered statistically significant. There was also a case of borderline personality disorder in mothers of children with obsessive-compulsive disorder, but those in control group were not diagnosed with this disorder which showed that there was still no significant difference between the two groups. No other personality disorders (including mixed personality disorder or NOS) was detected in two groups.

**Results:** The results indicated that the frequency of preoccupation with details was %46.7 in the case group (children with obsessive-compulsive disorder), and %10.0 in the control group that means no significant difference between the two groups (0.002). The frequency of perfectionism was %43.3 in the treatment group and %20.0 in the control group which again had no significant difference (0.052).

**Conclusions:** The existence of the some symptoms of OCPD according to SCID in parents of children with OCD in comparison to parents of healthy children confirm the necessity of considering the role of personality factors in familial OCD. The results of this study showed that the four dimensions of temperament based on TCI-125 and triple dimensions of attitudes between mothers in the two groups was not statistically

different.

## INTRODUCTION

Obsessive-compulsive disorder (OCD) in most cases begins in childhood and adolescence and progresses along with aging (1). The disease ranges from %3 in children of 5 -7 years to %6 among matured teens (2). Rate of early primary category relatives of patients affected by the obsessive-compulsive disorder is four times more than the general population in which the role of genetics is strongly confirmed (1). The most common obsessional thought reported in children and adolescents is the fear of contamination and then comes the fear of damage to themselves or loss of their family members. Obsessive need for order, symmetry, hoarding and religious or moral ideas are common respectively (3).

Despite approval of molecular genetics in inherited OCD cases in children and adolescents, the obsessive-compulsive symptoms in parents and their offspring can be quite similar. This may be due to modeling and mimicking of symptoms (4). Certain characteristics in parents without OCD, like the idealism, greed and speculation, constant preoccupation with details, resistance to change and rigidity can sometimes cause and amplify some of the symptoms of OCD in children. These characteristics of the parents are often defined in the form of obsessive-compulsive personality disorder or obsessive compulsive traits (5). This personality disorder is the most common personality disorder in parents of children with OCD (6). In a study on 21 adolescents with OCD and their mothers in comparison with 27 parent-child dyads for control group without OCD, Subjects with OCD and their mothers were administered The Padua Inventory-Revised (PI-R) and The Penn Inventory of Scrupulosity (PIOS). Results showed that significant relationships for PI-Rumination, PI-Checking and WBSI scales between the scores of parent and child in OCD dyads but there was no significant relationship in the control group (7). The results of Calvo's study showed some characteristics, such as hoarding useless objects, preoccupation with details and perfectionism are more common in parents of children and adolescents with OCD compared with control group (4).

It seems necessary to investigate the relationship of obsessive-compulsive personality disorder in parents with OCD in their children to decrease environmental factors causing or exacerbating the disease in children. Moderating some traits such as perfectionism and rigidity is partly able to affect parenting methods and reduce the severity of symptoms in children. The importance of this project is also due to the significance of the cultural aspects in causing obsessive-compulsive symptoms.

## MATERIALS & METHODS

This cross-sectional study was conducted in 2013. In this study, children of 4 -11 years referred to the child psychiatric clinics in Hazrat Ali Asghar Hospital and Tehran Psychiatric Institute underwent an unstructured clinical interview. All participants and their parents had informed consent. Inclusion criteria were age of 4 -11 years, clinical diagnosis of OCD without any other psychiatric disorders, mother's education at least 6<sup>th</sup> grade. Exclusion criteria were included mental retardation in children of both groups, chronic or debilitating medical condition in the mothers of both group and divorced mother.

Thirty children with OCD without any other psychiatric disorders were selected as case group. Thirty children of 4 -11 years old with no history of psychiatric disorders from a pediatric clinic were assigned as control group, based on their entry order. Mothers of both children were asked to participate in a diagnostic interview, including the completion of background information and medical records, as well as questions related to obsessive-compulsive personality disorder diagnosis of SCID-II, SCID-I and TCI. If any people did not complete the study, another one was replaced in the same way. Data of the current study was collected by using clinical interviews with children and their mothers to confirm the obsessive-compulsive disorder in children and refute it in their mothers.

Temperament and character inventory (TCI) as a method of dimensional evaluation of personality psychobiological assessment model, was developed by Cloninger (8). The questionnaire evaluates two components, the temperament or nature and character. Temperament and character inventory (TCI) questionnaire has 7 dimensions and is completed by the mothers. Four dimensions are related to temperament dimensions that include novelty seeking, harm aversion, reward dependence and persistence. Three dimensions of character are cooperativeness, self-directedness and self-transcendence.

TCI dimensions are at least correlated with one domain of the Big 5 Factors model (9).

The main Questionnaire contains 240 questions with yes /no answer. In Iran, Dadfar et al. (10) developed the summarized Temperament and Character Inventory with 125 questions and have assessed it in the normal population of Tehran and Shiraz. They confirmed the validity of formal Persian translation of questionnaire and showed that there was no significant correlation between different dimensions of the questionnaire and highest correlation between two dimension of vulnerability-aversion and self-direction ( $r=0.45$ ). In study by Dadfar et al. (10), Cronbach's alpha coefficient of the questionnaire was determined 0.74. It was reported 0.34 for perseverance and 0.81 for Self transcendence.

The reliability and validity of a Persian translation of the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Axis I Disorders (SCID-I) were obtained through a multicenter study in a clinical population in Iran. It was fair to good for most diagnostic categories. Overall weighted kappa was 0.52 for current diagnoses and 0.55 for lifetime diagnoses. Specificity values for most psychiatric disorders were high ( $>0.85$ ); the sensitivity values were lower (11). The sensitivity values were lower. In Iran SCID- II and SCID- II- PQ have been translated and adapted by First et al (12).

### **Ethical Considerations**

Mothers were given information on methodology of study and they completed informed consents. They were also reassured that the test results will be confidential and anonymous, and if desired, they could be informed of the results.

### **Statistical analysis**

Compliance of data with normal data distribution was affirmed using single-sample Kolmogorov-Smirnov test and correction of Lilliefors, where the lowest p-value, which indicates a significant difference from a normal distribution, was set at 0.200. To compare qualitative data between groups, Chi-square test was used and if the condition was not satisfied for this test, Fisher's exact test was used to calculate the p-value. To compare quantitative data between two groups, T-test was used. As a precondition, Levene test was used to compare variances.

Given that all the variances between the two groups were not significantly different and the sample size of two groups was equal (at least 30 people), despite the lack of adherence of some variables to the normal distribution, parametric tests were used to compare the two groups.

P-value was also reported based on the U Mann-Whitney test and P-value of less than 0.05 in all cases (except for the Kolmogorov-Smirnov test) was considered statistically significant.

## **RESULTS**

In each group, 30 subjects were studied. In the case group there were 11 boys (%36.7) and 19 girls (%63.3), while 12 boys (%40.0) and 18 girls (%60) were put into the control group (Chi square:  $X^2=0.071$ ;  $df=1$ ;  $P=0.791$ ). In both groups, 16 mothers (%53.3) were employed. The mean age ( $\pm$  SD) of children in case and control group was  $6.9 \pm 2.6$  and  $6.5 \pm 2.1$  years, respectively (T-test;  $t=0.733$ ;  $df=58$ ;  $P=0.466$ ). The mean age ( $\pm$  SD) of mothers in case and control groups was  $6.9 \pm 2.6$  and  $6.5 \pm 2.1$  years, respectively which reflects the higher age of mothers in the case group (T test;  $t=2.104$ ;  $df=58$ ;  $P=0.040$ ).

### **Personality Disorders Based On Clinical Interview**

Four mothers in case group (%13.3) had obsessive compulsive personality disorder. The frequency in the control group was just one (%3.3). The frequency difference was not considered statistically significant (Fisher's exact test:  $X^2=1.964$ ;  $df=1$ ;  $P=0.353$ ). A borderline personality disorder case was seen in mothers of children with obsessive-compulsive disorder, but there was no such a case in the control group (Fisher's exact test:  $X^2=1.017$ ;  $df=1$ ;  $P=1.000$ ). No other personality disorders (including mixed personality disorder or NOS<sup>15</sup>) in the two groups was detected.

### **Symptoms of Obsessive-Compulsive Personality Disorder**

In Table 1, the frequency of obsessive-compulsive personality disorder symptoms according to DSM-IV and in accordance with the clinical interview of (SCID-II) can be seen. To compare the prevalence of these symptoms between both groups of mothers, negative responses and those with less than the threshold were integrated together. Based on the chi-square test, frequency measures of the first and the fourth group were significantly more than the control group.

**Table 1.** The frequency of obsessive-compulsive personality disorder symptoms based on clinical interview (SCID-II) and DSM-IV criteria in mothers of both groups

As shown in Table 2, four dimensions of temperament and three dimensions of character between mothers in both groups were not statistically significant.

**Table 2.** The comparison of four dimensions of temperament and three dimensions of character based on the TCI-125 in mothers of both groups.

## **DISCUSSION**

The results show that lack of care, having too much care or over controlling of parents in childhood, is related to depression and anxiety-related disorders in children. Enz et al (13) found that lack of parental care is associated with adult psychopathology. A number of studies have reported the relationship between low-care experience and later depression. Packer et al. evaluated this hypothesis in a normal sample. Their findings show that in people with major depressive disorder criteria, there is a higher possibility of reporting low care from both parents. It seems that low parental care, generally increases the likelihood of later psychopathology.

Studies also indicate that parent-child relationship quality and insecure attachment style are playing a significant role in person's vulnerability to mental disorders. It should be noted that inappropriate parent-child bond can lead to depression, obsessive-compulsive disorder and vulnerability to anxiety disorder. It seems that attachment bonds in interaction with parents, could be vulnerable to mental disorders as well (14). Patients with generalized anxiety disorder or obsessive-compulsive disorder report highest parental care, while depressed patients report lowest care and protection of their parents.

A study conducted on parents of patients with obsessive-compulsive, confirmed high level of personality disorder in comparison with control group (15).

However, limited information is available regarding the prevalence of OCD in relatives of patients with OCPD (16). Higher incidence of OCPD in siblings of adults with OCD has been shown (17), but no family-based study has been done to investigate the parents of OCD children with the use of structured instruments (15).

Based on the present study, the parents of children with OCD had higher preoccupation with details and strict adherence to rigid notions of morality according to SCID-II. It is partly concordant with Calvo's study that showed some characteristics such as the collection of useless things, perfectionism and preoccupation with details in parents of children and adolescents with OCD (4).

In a study conducted by Samuel and his colleagues, personality disorders in first degree relatives of people with OCD were investigated by structured means of character. The results showed that the prevalence of OCPD in patients' relatives was double compared to the control group and overall personality disorders in relatives of patients with OCD were higher, significantly (9).

Trait-based studies on personality patterns in patients with OCD showed high scores of Harm aversion and low scores on the Self-directedness and Novelty seeking. These characteristics have also been seen in the category of first degree relatives of the patients (18).

In a Case-control study in Barcelona, two groups of 64 people, including both parents of 32 children and adolescents with OCD and 32 children without OCD were studied over a period of 35 months. All of the parents interviewed by an experienced psychiatrist and completed the given Self-report questionnaires. Reviewing the results of the questionnaires confirmed that some traits, such as hoarding, perfectionism and preoccupation with details, were seen considerably higher in the parents of case group (4).

Preoccupation with details is the only symptom that has been repeated in several studies and it is not culture-dependent. On the other hand, the results of SCID were different from TCI, and it can be because of more precision that applies in doing SCID by therapist, while TCI is a self-report questionnaire.

It seems that such characteristics may affect the mother's parenting style. Finding this relationship may to some extent alleviate the environmental factors involved in the onset and exacerbation of OCD.

This study does not find any other differences between both groups. It is maybe plausible because of the rapid changes in families from extended family with multiple children to nuclear family with fewer children. Parents, who are not mentally ready for this situation, are dependent on their children and extensively support them that have led into the same condition for both groups of mothers.

Hyperparenting is a phenomenon that we face with it in our society. In this condition, mothers are concerned about their children trying to provide service to their children and compete with one another, so most of them can be defined having OCPD.

## CONCLUSION

The existence of the some symptoms related OCPD according to SCID in parents of children with OCD in comparison to parents of healthy children confirm the necessity of considering the role of personality factors in familial OCD.

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**Table 1. Frequency of obsessive-compulsive personality disorder symptoms based on clinical interview (SCID-II) and DSM-IV criteria in mothers of both groups**

Case group (children with obsessive-compulsive disorder)			Control group			Chi-square test		
No n (%)	Less than the threshold n (%)	Yes n (%)	No n (%)	Less than the threshold n (%)	Yes n (%)	X2	df	p
6 (20.0)	10 (33.3)	14 (46.7)	19 (63.3)	8 (26.7)	3 (10.0)	9.932	1	0.002
7 (23.3)	10 (33.3)	13 (43.3)	18 (60.0)	6 (20.0)	6 (20.0)	3.774	1	0.052
22 (73.3)	4 (13.3)	4 (13.3)	27 (90.0)	3 (10.0)	-	0.162	1	0.688
8 (26.7)	9 (30.0)	13 (43.3)	19 (63.3)	7 (23.3)	4 (13.3)	6.648	1	0.010
26 (86.7)	2 (6.7)	2 (6.7)	27 (90.0)	2 (6.7)	1 (3.3)	0.351	1	*1.000
17 (56.7)	9 (30.0)	4 (13.3)	27 (90.0)	2 (6.7)	1 (3.3)	1.964	1	*0.353
23 (76.7)	4 (13.3)	3 (10.0)	28 (93.3)	2 (6.7)	-	3.158	1	*0.237
9 (30.0)	14 (46.7)	7 (23.3)	17 (56.7)	11 (36.7)	2 (6.7)	3.268	1	*0.145

\* Fisher's exact test

DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition

SCID: Structured Clinical Interview for DSM-IV

Personality dimensions based on TCI-125

**Table 2. comparison of four dimensions of temperament and three dimensions of character based on the TCI-125 in mothers of both groups**

Personality dimension	Case group (children with obsessive-compulsive disorder )			Control group			* T-test		P in Mann-Whitney U test
	Mean (SD)	Median	P in KS test	Mean (SD)	Median	P in KS test	P	t	
Novelty-seeking	8.4 (4.0)	8.5	0.149	9.1 (3.1)	09	0.200	0.473	0.723	0.514
Risk aversion	10.8 (3.6)	11.5	0.200	10.8 (4.0)	11.5	0.200	0.973	0.034	0.941
Persistence	3.1 (1.3)	3	0.067	2.9 (1.3)	3	0.062	0.552	0.598	0.586
Dependence on reward	8.5 (2.5)	8	0.022	7.9 (2.2)	8	0.200	0.330	0.982	0.521
Coordination	17.6 (4.1)	18	0.106	17.6 (3.1)	18	0.014	0.944	0.071	0.755
Self-direction	13.6 (4.1)	13	0.067	14.2 (4.2)	13.5	0.028	0.578	0.559	0.457
Self transcendence	11.4 (3.6)	10	0.013	10.4 (2.8)	1	0.116	0.269	1.116	0.513

\* df= 0.58

KS: Kolmogorov-Smirnov; SD: standard deviation