

## ORIGINAL RESEARCH

## The relationship between parental report about their children's obsessive-compulsive disorder symptoms and thought fusion with parent-child relationship structure in adolescents with obsessive-compulsive disorder

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### Abstract

The present study was aimed to examine the relationship between parental report about their children's obsessive-compulsive disorder symptoms and thought fusion with the parent-child relationship structure among the adolescents with obsessive-compulsive disorder. The research method was correlational descriptive and the statistical population included all the adolescents affected by obsessive compulsive disorder in the City of Ardabil during the 2015-2016 year. The sampling method was available sampling so that 83 patients with obsessive-compulsive disorder were selected from and the questionnaires were implemented on them. The collected data were analyzed using Pearson's correlation coefficient and multiple regression method. The results showed a significant relationship between the parental report about their children's obsessive compulsive disorder symptoms and the parent-child relationship structure, but no significant relationship was observed between the thought fusion of the adolescents with obsessive compulsive disorder and the parent-child relationship structure. Therefore, this research showed that using the parental report for detecting OCD in adolescents can be an effective strategy and can be used as a clinical assessment for additional assurance. Also, another important finding highlights the relationship between parent-child relationship structure and parent's ability to predict their children abnormalities, so investigating family relationships also can be used for better understanding of patient's problem and needs.

**Keywords:** Obsessive compulsive disorder, Thought fusion, Parent-child structure, Parental report

## Introduction

Obsessive-compulsive disorder (OCD) is characterized by obsessions and compulsions that cause confusion and often interfere with daily activities. The characteristics of this disorder defined on DSM-5 include obsessions, compulsions, or both (American Psychiatric, American Psychiatric, & Force, 2013). Obsessions are defined as the recurrent and continuous thoughts, impulses, or images that are sometimes experienced involuntarily and intrusively in this disorder and cause marked anxiety or discomfort in most patients so that they try to ignore or stop these thoughts, impulses, or images or make them ineffective by other thoughts and actions (i.e. through compulsions). On the other hand, Compulsions are distinguished by repeated behaviors or mental acts for which people feel to be forced to do in response to obsessions or according to the rules that must be executed decisively (Conklin et al., 2015). These behaviors or mental acts that are aimed to prevent or reduce anxiety or discomfort and prevent scary events or situations; nevertheless, these behaviors or mental acts have no realistic relationship with what is supposed to be neutralized or prevented and are obviously extremist (American Psychiatric et al., 2013). Although in most cases, this disorder begins gradually, some cases of sudden and acute onset have been also observed (Spitzer, Williams, Gibbon, & First, 1990). The average age of the OCD onset is 19.5, but 25% of the cases start at the age of 14; Furthermore, although the onset after the age of 35 is unusual, it may occur in some cases (American Psychiatric et al., 2013). Different classifications have been proposed for the OCD symptoms but there is no a lot for debate for each approach (Pato & Zohar, 2008). Despite this debates, In an important study, OCD was considered as the 10<sup>th</sup> disabling disorder among the medical disorders (Koran, 2000). Also, OCD is a chronic psychological disease with a very low rate of spontaneous healing and Maleness, premature onset, symmetry symptoms, inability and despair, delusions and hallucinations, family history, and existence of tics are the symptoms for poor prognosis for these patients (Menzies & De Silva, 2003). Despite all other factors, one of

the important causes of the OCD is the family relationship structure (Barrett, Farrell, Dadds, & Boulter, 2005). Therefore here, the parent's attitudes refer to their thoughts, feelings and preparedness for raising their children. It is generally believed that there are three major attitudes on raising the children among the parents which some of them relates to developing of mental disorder including OCD. However, this three style includes: a) Domination attitude: The parents with this attitude believe that it is not necessary to rationalize or justify the orders which they give to the child. They believe that they should adopt some constraints for their children. b) Ownership attitude: This attitude is seen in those parents who believe in controlling the children through extreme protections. Such parents would like to dedicate whatever they have to their children and, consequently, keep them ever-dependent. The main feature of these parents is that they would like to delay their children's emotional independence and, thus, cause them remain in the childhood stage. c) Neglectful attitude: This attitude makes the parents believe that they shouldn't control their children behavior, besides they shouldn't use punishment or reward for changes of the children's behavior since they don't expect their children behave reasonably. Further, they show no kindness or intimacy with their children. Such parents with neglectful attitude leave their children on their own without giving an example of an adult model (Alonso et al., 2004). For example, research has shown that hoarding trait could be detect based on a parental trait specifically low parental emotional warmth (Alonso et al., 2004). Also, the social class and socio-economic status which refers to the individual's position in the society, has a effect on parental style and therefore on the developing of some traits in adolescents (Chang, 2007). For instance, some research claims that social/cultural factors contributes to developing of OCD (Alonso et al., 2004). Another important factor for better understanding of OCD is phenomenon known as a thought-action fusion, which is a kind of cognitive distortion in the patients with OCD, refers to the idea that the unpleasant and unacceptable thoughts can affect

the external events (Shafran, Thordarson, & Rachman, 1996). Some researchers suggests that probably the thoughts and actions of patients with OCD are combined; that is, these patients are more likely than the ordinary people to consider a certain thought about a negative event as equivalent to the probability of that event's occurrence in reality (Amir, Freshman, Ramsey, Neary, & Brigidi, 2001). The thought-action fusion structure has two main dimensions: TAF, a dimension that represents the individual's belief in the fact that thinking about an unacceptable event increases the probability of its occurrence, and ethical TAF is equivalent to this interpretation that having obsessive thoughts about the prohibited actions and actually doing them are equivalent in ethical terms (Shafran et al., 1996). This concept helps to explain the etiology and continuity of the disorder because if the patient with OCD believes that thinking about an unacceptable or unpleasant event would increase the probability of that event's occurrence, he will get involved in the ritual acts with more probability in order to prevent the negative consequences; furthermore, such individual believes that the obsessive thoughts and the negative actions are equivalent in ethical terms, so having such thoughts will result in stress and anxiety in the individual (Amir et al., 2001; Shafran et al., 1996). Also, One of the most fundamental beliefs contributing to a conceptualization of the metacognitive model of OCD is the thought fusion phenomenon. According to the definition, in the thought fusion phenomenon, the borderline between the thought and the action and between the thought and the events is removed as a result the consequence of such thought is that the individual accept these beliefs indisputably without testing the validity of these beliefs in reality (Berle & Starcevic, 2005). The metacognitive model of obsession explains the triple concepts of thought fusion, that is, the beliefs about the importance, meaning, and power of thoughts (Gwilliam, Wells, & Cartwright-Hatton, 2004). In each patient with OCD, there might be one or more areas of these beliefs. These areas include: 1. Thought-action fusion: which refers to equating the thoughts and the actions, so that if I think I would hurt someone, it means that I will do this. 2.

Thought-event fusion: so that thinking about an event means that it will happen, or bad thoughts will result in bad accidents. 3. Thought-object fusion: refers to the belief that the intrusive feelings and thoughts are transferred to other objects and, through the contaminated objects, are transferred to other objects and individuals, so that the objects can get dirty through memories and thoughts (Shafran et al., 1996). Besides this, research shows that there is a meaningful relationship between parenting styles and TAF (Berman, 2013). Therefore, as a result of the importance of thought fusion in formation and continuation of the specific symptoms of OCD and the importance of parent-child relationship structure with OCD, we aimed to assess their relationship in Iranian samples. So we considered two hypotheses:

- a) There is a relationship between parent's reports of their children OCD with parent-child structure.
- b) There is a relationship between TAF and parent-child structure.

### Procedure and Method

The present study was a descriptive-correlation article in terms of data collection. The parent-child structure was considered as the independent variable and the thoughts fusion and parental report as the dependent variables. The statistical population included all adolescents with obsessive compulsive disorder in the Ardebil city in the 2015-2016 year. The raw population was comprised of approximately 120 patients, which was then reduced to 83 patients due to using diagnostic interview based on the DSM-5 criteria. Also, from among the parents of these children, 83 parents were examined as the statistical population.

### Instruments

The instruments used in this article are as follows:

1. **Obsessive compulsive inventory-child version (OCI-CV) questionnaire:** The questionnaire contains 6 subscales (checkout/doubt, obsession, hoarding, washing, discipline, neutral) and 21 components designed in 2010 by Foa et al based on the adult version of the same questionnaire. It was a self-reporting questionnaire capable of recognizing OCD symptoms at the age of 7-17 and it's retesting

after one and a half week has produced similar results such that its reliability and validity have been declared by its developers as 77% and 64%, respectively (Foa et al., 2010).

**2. Parent-child relationship questionnaire:** It contains 73 questions among of which 26 questions are positive and 47 questions are negative. It has been designed by Grand et al. in 1994. It is comprised of 9 subscales including 1. Parental support, 2. Parental satisfaction, 3. Participation, 4. Communication, 5. Limitation, 6. Independence, 7. Parental role orientation, 8. Social tendencies, 9. Incompatibility. The reliability and validity of the questionnaire have been reported by developers and further studies equal to 82% and 81%, respectively. The other advantage of the questionnaire is in its specific design for using other people (such as child caregivers) instead of the original parents(Coffman, Guerin, & Gottfried, 2006).

**3. Yale-Brown obsessive-compulsive scale (YBOCS)-parental report:** This questionnaire is designed for parents with 8to14 year-old children with OCD and contains 10 questions, which report various aspects of intensity and existence of OCD in children. It has been

designed by Goodman et al. in 1997 and its reliability and consistency have been reported as favorable. The reliability and validity of this questionnaire have been reported by its developers as 84% and 91%, respectively(Storch et al., 2006).

**4. Thought-action fusion questionnaire:** This questionnaire has been designed by Shafran in 1996 and contains 19 questions to assess the extent to which each person tends to consider his thoughts equivalent to a similar action. Its reliability and validity have been tested in children and adolescents and favorable results have been reported (75% and 96%, respectively) (Shafran et al., 1996).

### Findings

The data analysis was performed using SPSS software. In the descriptive statistics, the mean and standard deviation, and for testing the hypotheses in the inferential statistics, the Pearson correlation coefficient and regression analysis methods were used.

Demographic characteristics of samples have been mentioned bellow.

**Table 1. Frequency distribution of sample group based on type of parents**

	Frequency	Frequency Percentage
<b>Mother</b>	<b>68</b>	<b>80.0</b>
<b>Father</b>	<b>0</b>	<b>0</b>
<b>Caregiver</b>	<b>16</b>	<b>20.0</b>
<b>Total</b>	<b>84</b>	<b>100</b>

Table-1 shows the frequency distribution of the sample group based on the type of parents and,

Descriptive findings (mean and standard deviation) of the variables of the present paper have been presented.

as it can be seen, the highest frequency is related to “mother” with 80%.

**Table 2: Mean and standard deviation of variables**

Number	Standard Deviation	Mean	Statistical Indices
84	13.08	37.02	Thought fusion
84	5.02	11.16	Parental report of their parents' OCD symptoms
84	14.17	124.35	Parent-child relationship structure

According to table 2, the mean and the standard deviation of the thought fusion variable were 37.02 and 13.08, respectively. The mean and the standard deviation of the parental report of their parents' OCD symptoms variable were 11.61 and 5.02, respectively. The mean and the standard deviation of the parent-child

relationship structure variable were 124.35 and 14.17, respectively.

Results of Pearson correlation coefficient for examination of the relationship between the parental report of children's OCD symptoms and the parent-child relationship structure explained in the following table.

**Table 3: Results of Pearson correlation coefficient for examination of the relationship between the parental report of children's OCD symptoms and the parent-child relationship structure**

Variables	Statistical indices		
	Correlation Coefficient	Significance Level	Determination Coefficient
Parental report of children's OCD symptoms and parent-child relationship structure	-0.27	0.041	0.07

According to Table-3 which shows the results of the Pearson correlation coefficient for examination of the relationship between the two variables of the parental report of children's OCD symptoms and the parent-child relationship structure, the parental report variable with correlation coefficient of -0.27 and significance level of 0.041 has a negative and significant relationship with the structure

variable at the confidence level of 95%. The parental report variable with the determination coefficient of 0.07 explains 7.29% of the parent-child relationship structure variable variance.

Results of Pearson correlation coefficient for examination of the relationship between thought fusion and parent-child relationship structure explained in the following table

**Table 4. Results of Pearson correlation coefficient for examination of the relationship between thought fusion and parent-child relationship structure**

Variables	Statistical indices		
	Correlation Coefficient	Significance Level	Determination Coefficient
Parental report of children's OCD symptoms – Thought fusion	-0.14	0.28	0.01

According to Table-4 that shows the results of the Pearson correlation coefficient for examination of the relationship between the thought fusion and the parent-child relationship structure variables, the thought fusion variable

with a correlation coefficient of -0.14 and significance level of 0.28 has a negative and insignificant relationship with the parent-child relationship structure variable.

**Table 5: Simultaneous multiple regression analysis for examination of prediction of parent-child relationship structure variable via thought fusion and parental report of OCD symptoms**

Steps	Non-standard coefficients		Standard coefficients		
	B	Mean standard error	Beta	T	Significance level
Constant	19.57	5.12		3.81	0.001
Thought fusion	0.07	0.04	0.20	1.89	0.06
Parental report	-0.08	0.03	-0.24	-2.32	0.02

According to Table-5 that shows the results of the simultaneous multiple regression analysis for predicting the parent-child relationship structure variable via the thought fusion variable and the parental report of children's OCD symptoms variable, among the two variables, the thought fusion variable with  $B=0.07$  and significance level of 0.06 couldn't predict the parent-child relationship structure ( $p>0.05$ ), but the parental

report variable with  $B=-0.08$  and significance level of 0.023 at the confidence level of 95% could significantly and negatively predict the criterion variable ( $p<0.05$ ). This means that the less the extent of the parental report of the children's OCD symptoms (i.e. the children have fewer OCD symptoms), the better the parent-child relationship structure.

**Table 6: Correlation coefficient and multivariable explanation for predicting the parent-child relationship structure variable via thought fusion and parental report of OCD symptoms.**

Model	R	$R^2$	Adjusted R Square	Standard deviation error
	0.33	0.11	0.09	4.78

According to Table-6 that shows the results of the correlation coefficient and the multivariable explanation for predicting the parent-child relationship structure variable via the predictor variables, the two variables with correlation coefficient (multivariable) of 0.33 and  $R^2 = 0.11$  could explain 11% of the variance of the criterion variable, that is the parent-child relationship structure. Only the parental report variable was significantly able to predict the criterion variable.

### Discussion

According to the results, there is a significant relationship between the parental report of the children's OCD symptoms and the parent-child relationship structure. Although no research has been performed on this area, some corresponding studies indicate that the parenting style is an important predictor factor in the children's health; therefore, the parenting style should be regarded as playing an extraordinary role in the expansion of the obsession (Alonso et al., 2004; Mathieu, Farrell, Waters, & Lightbody, 2015; McLeod, Wood, & Weisz,

2007). Also studies show that the sensitive and idealists mothers unconsciously provide the ground for their children to get obsessive, and especially the parents, who want the child's behavior exactly according to their own criterion and show less flexibility, are blamed for being guilty in this regard. The disciplined and strict upbringing has great impact on development of this disease (Alonso et al., 2004).

Also, in this regard, consistent with the results of the present article, Steketee et al. (Steketee & Frost, 1994) found out in a research that the parents with characteristics such as excessive protection, too many expectations, subtlety, and high sensitivity have children with high level of OCD symptoms and the anxious thoughts. Yarbo et al. (Yarbro, Mahaffey, Abramowitz, & Kashdan, 2013) found out in a research that parents of the children with OCD considerably lack emotions, affection, and behavior control, compared to the parents of the normal group, which is almost consistent with the results of the present study. Also, According to the results, there is no significant relationship between the thought fusion in the adolescents with OCD and

the parent-child relationship structure in our study. Despite our findings some research has shown that TAF is related to parenting style and developing OCD (Berman, 2013). However, there are only a few studies performed on this area and, in this regard, future researches will determine the more probable relationship between the parent-child structure with TAF. However nearly all findings along this research propose that there is a significant relationship between OCD and TAF, indeed it can be said that losing the thoughts is one of the most critical complaints of the patients with OCD (Berle & Starcevic, 2005).

### Conclusion

According to the results of this study, there is a significant relationship between the parental report of the adolescents with OCD and the parent-child structure, thus the parenting style can be one of the important factors in the creation of this disease among the children. The parenting style is defined as a set or system of behaviors which describes the parent-child interactions in a wide range of situations, and it is assumed that it creates an effective interactive atmosphere (Stocker & Khairia Ghuloum, 2014). Indeed, the parenting style is a determinative and effective factor that plays an important role in the psychopathology and growth of the children (Bigner, 2002).

### Conflict of interests

Authors declare no conflict of interest.

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