

Relationship between Schemas and Child-rearing Styles with Obsessive-Compulsive Disorder in Students of Iran University of Science and Technology

Niloofer Amirzahedi¹, and Aliasghar Asgharnejhad farid^{2*}

¹ M.A Graduated in Department of Clinical Psychology, College of Humanities, Varamin- Pishva Branch, Islamic Azad University, Varamin, Tehran, Iran

² Ph.D in Department of General Psychology, College of Humanities, Tarbiat Modares University of Tehran, Tehran, Tehran, Iran

* **Corresponding author:** Aliasghar Asgharnejhad farid , Ph.D in Department of General Psychology, College of Humanities, Tarbiat Modares University of Tehran, Tehran, Tehran, Iran; Email: dr.asgharnejadali@gmail.com

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Abstract

Background: Generally, primary maladaptive schemas and child-rearing styles are variables that affect behaviors of obsessive-compulsive disorder (OCD).

Objectives: The present study aimed to examine the relationship between schemas and child-rearing styles with obsessive-compulsive disorder in the students of Iran University of Science and Technology in 2017.

Methods: Research method was practical in terms of objective; it was descriptive-correlational in terms of data collection method. The statistical population of the present study consisted of all students with obsession (BA students of Iran University of Science and Technology (240 students)); out of whom 150 individuals were selected as a sample size (through Cochran sample size formula), using a convenience sampling method. Data collection was done based on early maladaptive schemas questionnaire, child-rearing styles questionnaire, and Yeel Brown's (1989) obsessive-compulsive disorder questionnaire. The analysis of the data obtained from implementing the questionnaires was done through SPSS19 software in two sections: descriptive and inferential (Pearson Correlation Coefficient and Multifold Regression).

Results: Results showed that there was a relationship between early maladaptive schemas and obsessive-compulsive disorder of students ($P < 0.5$). In addition, research results showed that there was a positive significant relationship between child-rearing styles and obsessive-compulsive disorder (authoritarian, permissive, neglectful) ($P < 0.1$).

Conclusion: Considering the fact that measurement of the relationship between these variables was done for Tehran University of Science and Technology, it is recommended that a study similar to this study be done for Tehran's private institutions, schools, and universities; and the results must be compared.

Keywords: Child-rearing styles, Obsessive-compulsive disorder, Schemas

1. Background

Obsessive-Compulsive Disorder (OCD) is considered as a serious disabling mental state (1). In epidemiological studies, the spread of OCD in the length of life was estimated for the whole population to be 2.3-3.8 percent (2). And it is predicted that this figure will reach 15 percent by 2020 (3). This disorder is identified based on three separate elements: 1) constant thoughts, perceptions or beliefs that have features such as being unexpected and being disruptive; in the section of images, they include insulting sacred figures, sexual beliefs, violent images, and disruptive thoughts connected to pollution and/or having doubts about being perfect or imperfect in some activities. 2) The second element of obsessions includes compulsions which are particular behavioral activities, subconscious mental ceremonial (settlements), and efforts to neutralize obsessions and/or incidence of behaviors which show uncertainties. In addition to these two elements, people with this disorder have avoidant behaviors in order to prevent obsessions and their accompanying compulsions (4). People who are exposed to obsessive disorder include adolescents, people with traumatic happenings, people who have experienced hard

parturition (obsession after parturition), housewives, users of materials, people with depression signs, people with phobic disorders, people with histories of anxiety, and/or people who have this disorder through genes (5). Despite different psychological and neurobiological studies, still there are not accurate, sufficient information for expressing the etiology of OCD. However, many studies examine factors which are likely to be significantly correlated with the signs of OCD. One of these factors, which have attracted the attention of many scholars, is primary maladaptive schemas and child-rearing styles (6).

In recent years, advanced countries and experts of mental health as well as educational-therapeutic institutes have put forward various theories and methods for treatment of obsession, one of which is cognitive therapy focusing on obsessions, devised by Young (1994) (7). Schemas defined as an organizational framework, by which people form their feelings of life. OCD is a disabling anxiety, whose main feature is the incidence of obsessions and compulsions. Cognitive theories emphasize the basic role of inefficient beliefs in etiology and consistence of the signs of this disorder. Schemas play an important role in the process of causing OCD. Young (1994) emphasized on deepest level of cognition, i.e.

primary maladaptive schemas. The pattern focusing on schemas defines primary maladaptive schemas as extensive comprehensive subjects, considering self and personal relationships with others, which are formed in childhood and are developed throughout personal lives with some inefficiency (8). The results of a study showed that there were abundant reports of a number of maladaptive evaluations (for example, increasing responsibilities) and many meta-cognitive beliefs (for example, need for control) in OCD (9).

Based on biological studies including family research, sufficient evidences are collected in connection to the role of genetic factors in forming OCD (10). Studies also found out about the role of a number of environmental factors in the etiology of OCD. Adolescents' mental health is an essential part of general health and wellbeing. Parents' training style is an important predictor of mental health (11). Some factors related to parents that affect children's evolutions include intimacy and acceptance as well as controlling the behaviors of children and adolescents (12).

Few studies have examined the relationship between child-rearing styles and the signs of OCD. Ecker (2012) found that parents' child-rearing styles have a correlation with adolescents' obsession (13). Another study showed that the signs of OCD have a positive significant relationship with parents' child-rearing styles, maternal care, and strong support from parents; and that they have a negative significant relationship with authoritative child-rearing style (14).

Generally, primary maladaptive schemas and child-rearing styles are variables that affect behaviors of OCD; according to research background, people with OCD have many active schemas. In addition, parents' child-rearing styles and the factors affecting them are the key subjects of the research. The identification of the factors affecting child-rearing styles helps to learn more about individuals with OCD and their impressions of the factors. If these factors are not identified, it is likely that there will be many problems for children and families. Therefore, this study sought to answer the question: What is the relationship between schemas and child-rearing styles with OCD in students?

2. Objectives

The objective of this study is related to finding the relationship between schemas and child-rearing styles with OCD in students.

3. Methods

Research method was historical in terms of the time of the incidence of the phenomenon; it was decision-focused in terms of results; it was practical in terms of objective; it was cross-sectional in terms of the time of research implementation; it was

quantitative in terms of the type of data; and it was correlational-descriptive in terms of data collection method. The statistical population of the research included all BA-level students with obsessive-compulsive disorder in Iran University of Science and Technology (2016-2017), who had visited the consultation center of the university (inclusion criteria) (240 students). Using a convenience sampling method, 150 students were diagnosed by Yeel Brown (Y-BOCS) (through Cochran sample size formula) and responded to the questionnaires of the study. Regarding the implementation of the questionnaires, besides giving assurance to respondents, data-collection questionnaires were given to respondents to apply certain ethical necessities of the research, and to involve respondents' cooperation.

Measurement tools in this research are explained here.

Young's (2003) short-form primary maladaptive schemas questionnaire

This questionnaire comprised 75 items which examined 15 primary maladaptive schemas. Each item was scored based on a Likert 5-point scale. Each schema consisted of 5 items. The level of internal consistency for 15 schemas ranged from 79 percent to 93 percent. Retest reliability ranged from

0.67 to 0.84 for 15 schemas, with an interval of 15 days. Divergent and convergent validity coefficients of primary maladaptive schemas, with a list of depression, negative-positive emotion scale, confidence questionnaire, and the revised checklist of signs (SCL-90), were 37%, 39%, 36%, and 38%, respectively (15).

Shefer's child-rearing styles questionnaire (1965)

This questionnaire was devised based on Shefer's study, which has 77 items. This questionnaire measures dimensions such as control-freedom and love-rejection in family relationships and parent-child relationships, based on respondents' attitudes. In a study done by Aghajeri (1995), the reliability of the questionnaire was calculated using Cronbach's alpha. It was 0.63 and 0.74 for control-freedom, and 0.82 and

0.93 for love-rejection. The convergent validity was calculated to be 0.70. The items of the questionnaire were scored based on a Likert 5-point scale (16).

Yeel Brown's (1989) obsessive-compulsive disorder questionnaire (YBOCS)

In this research, obsession was examined using Yeel Brown's OCD scale. Yeel Brown's OCD scale was implemented in the form of a semi-structured interview; and the intensity of obsession was measured. This scale includes the spent time, the amount of interference, the level of unhappiness, the amount of resistance, and the level of control; and it measures the signs of obsessive thoughts and

obsessive actions separately (17). In Iran, the reliability coefficient for this scale was 0.98; internal consistency was 0.89; and its reliability using retest for two weeks was 0.84 percent. The convergent validity was 0.64 and 0.59, respectively (18).

The analysis of the data obtained from implementing questionnaires was done through SPSS19 software in two sections: descriptive and inferential (Pearson Correlation Coefficient and Multifold Regression).

4. Results

Before examining hypotheses, the normality of data distribution was examined by Smirnov-Kolmogorov test. Findings showed that the distribution of data was normal; therefore, a Pearson Correlation Test and Multifold Regression were used.

The main hypothesis is stated as "There is a relationship between schemas and child-rearing styles with OCD in students".

In Table 1, the values of the correlation between predictor variables of early maladaptive schemas and child-rearing styles with OCD (criterion variable) have been calculated.

Based on the data given in Table 1, there is a positive significant relationship between early maladaptive schemas and child-rearing styles with OCD ($P < 0.5$). In other words, with an increase in early maladaptive schemas and child-rearing styles, there will be an increase in obsessive-compulsive disorder; the intensity of this relationship can be seen in the above table.

The next hypothesis was "There is a relationship

between schemas and obsessive-compulsive disorder in students".

Based on the data presented in Table 2, the coefficient of the relationship between early maladaptive schemas and OCD was 0.754 ($P < 0.1$). In other words, early maladaptive schemas express roughly 57 percent of the changes related to obsessive-compulsive disorder ($R^2 = 0.569$). In addition, the calculation related to statistics "F" showed that the square multifold correlation ($P < 0.1$) is significant ($F = 21.086$, $df = 134, 15$, $Sig = 0.000$).

The results given in Table 3 show that students will experience more OCD if status such as emotion deprivation, neglectfulness, distrust/misbehavior, social disengagement, impairment/embarrassment, failure, dependence/inefficiency, vulnerability are facing with traumas and diseases, troubles, obedience, emotional inhibition, strict criterion, and insufficient self-control/self-discipline increase in students. However, there is a negative significant relationship between early maladaptive schemas (eligibility and sacrifice) and OCD in students. In other words, with an increase in sacrifice and eligibility in students, there will be fewer obsessions.

Based on the data given in Table 4 ($P < 0.01$), the coefficient of the multifold relationship between child-rearing styles and OCD is 0.438. In other words, child-rearing styles express virtually 19 percent of the changes related to OCD ($R^2 = 0.192$). In addition, the calculation related to statistics "F" showed that the square of multifold correlation is significant ($F = 14.935$, $df = 145, 4$, $Sig = 0.000$).

The results given in Table 5 show that there is

Table 1. Matrix of correlation between early maladaptive schemas, child-rearing styles, and obsessive-compulsive disorder

Variables	Early maladaptive schemas	Child-rearing styles	obsessive-compulsive disorder
Early maladaptive schemas	1		
Child-rearing styles	0.387	1	
obsessive-compulsive disorder	0.628	0.283	1

Table 2. Summary of regression test for examining the relationship between early maladaptive schemas and obsessive-compulsive disorder

Model	Predictor variables	Correlation coefficient	Square of correlation coefficient	Adjusted correlation
1	Emotion deprivation	0.754	0.569	0.542
	Neglectfulness			
	Distrust/misbehavior			
	Social disengagement			
	impairment/embracement			
	Failure			
	Dependence/inefficiency			
	Vulnerability when facing traumas and diseases			
	Troubles			
	Obedience			
	Sacrifice			
	Emotional inhibition			
	Strict criteria			
	Eligibility			
	Self-control/insufficient self-discipline			

Criterion variable: obsessive-compulsive disorder

Table 3. Coefficients of each dimension of early maladaptive schemas in the prediction of obsessive-compulsive disorder

Variables entering the model	B	SE	(Beta)	t	Sig
y-intercept	0.871	0.297		2.938	0.000
Emotion-deprivation	0.250	0.048	0.311	5.205	0.002
Neglectfulness	0.123	0.062	0.118	1.994	0.000
Distrust/misbehavior	0.067	0.061	0.070	1.102	0.000
Social disengagement	0.136	0.061	0.125	2.248	0.000
impairment/embarrassment	0.015	0.048	0.015	0.311	0.000
Failure	0.082	0.049	0.096	1.664	0.000
Dependence/inefficiency	0.072	0.050	0.085	1.441	0.000
Vulnerability when facing traumas and diseases	0.160	0.060	0.166	2.693	0.000
Troubles	0.037	0.055	0.041	0.677	0.000
Obedience	0.057	0.059	0.066	0.970	0.000
Sacrifice	-0.021	0.043	-0.026	-0.494	0.000
Emotion inhibition	0.087	0.045	0.101	1.945	0.000
Strict criteria	0.009	0.047	0.011	0.197	0.000
Eligibility	-0.042	0.044	-0.050	-0.965	0.000
Self-control/insufficient self-discipline					0.006

Criterion variable: obsessive-compulsive disorder

Table 4. Summary variables of regression test for Correlation examining the coefficient relationship between Square child of rearing styles coefficient and obsessive-compulsive disorder correlation

Authoritative				
Permissive				
Authoritarian	0.438		0.192	0.179
Neglectful				

Criterion variable: obsessive-compulsive disorder

Table 5. Coefficients of each early maladaptive schemas in the prediction of obsessive-compulsive disorder

Variables entering the model	B	SE	(Beta)	t	Sig
y-intercept	2.617	0.301		8.703	0.000
Authoritative	-0.125	0.050	-0.144	-2.498	0.000
Permissive	0.085	0.054	0.093	1.586	0.000
Authoritarian	0.224	0.052	0.270	4.276	0.044
Neglectful	0.154	0.056	0.167	2.770	0.000

Criterion variable: obsessive-compulsive disorder

a positive significant relationship between child-rearing styles (authoritarian, permissive, and neglectful) and that there is a negative significant relationship between authoritative child-rearing style and OCD in students.

5. Discussion

The results showed that there was a significant relationship between schemas and OCD in students. In other words, with an increase in early maladaptive schemas, there will be an increase in students' OCD. However, there is a negative significant relationship between early maladaptive schemas (sacrifice and eligibility) and OCD of students.

The result of this research was in congruence with the results of study conducted by Camara and Calvete (2011). This study examined the signs and early maladaptive schemas in adolescents. The results showed significant relationship. They found that early maladaptive schemas overlapped with cognitive hierarchical models of social anxiety (19). The pattern focusing on schemas defines early maladaptive schemas as comprehensive extensive subjects, considering self and personal relationships with

others, which are formed in childhood and spread throughout personal lives with a course of inefficiency. The approach focusing on schemas assumes that maladaptive schemas are the core of personality pathology and psychological helplessness such as personality disorders, anxiety disorders, sexual obsession, eating disorders and interpersonal problems (5).

Moreover, results showed that there was a relationship between child-rearing styles and OCD in students. The type of child-rearing styles leads to a wide variety of negative positive consequences for parents, which affect adolescents and youth mental health. One of the negative consequences of inefficient child-rearing styles is OCD. The present study shows that from the four child-rearing styles, parents who use authoritative styles have adolescents with minimum signs of OCD. Parents who used permissive, authoritarian, and neglectful child-rearing styles had children with intense obsessive-compulsive disorder. Family life plays an important role in maintaining parents and children's mental health, social health, and physical health. Most obsessive thinking problems in individuals reflect complex interpersonal conditions of family

members, especially parents. In other words, children's obsession problems have a relationship with imperfect relationships of family members with one another as well as incorrect training methods of parents (12). Previous studies showed that the consequences of parents' child-rearing styles had extensive spectrums. Few studies have focused on the relationship between parents' child-rearing styles and the signs of OCD. The results of primary studies focused on the relationship between child-rearing styles and the signs of OCD. In line with this, the results of one study showed the authoritarian parenting style was significantly associated with both OCD symptoms and OCD beliefs (20).

In expressing the fact that authoritative child-rearing style is more related to the signs of low OCD, we can refer to the features of authoritative child-rearing style. Authoritative child-rearing is determined by parents' demands and proper responses; authoritative parents set rules for their children and insist on following them, and they encourage their children to be independent individuals (12). The best child-rearing style is authoritative style because in this method, parents are intimate and at the same time control their children. This style contributes to children's thoughts and health. In addition, it has little effect on children's personal freedom. This style helps to raise efficient, realistic, confident, active, and self-organized children (11).

Limitation

It is possible that findings were influenced by bias of responses which is the limitation of the study. Because the number of the items of the questionnaire was large, respondents felt bored; and it is possible that they answered the questions carelessly. Considering the results obtained from the present study, the following propositions were made:

Considering the fact that measurement of the relationship between these variables was done for Tehran University of Science and Technology, it is recommended that a study similar to this study be done for Tehran's private institutions, schools, and universities; and the results must be compared.

6. Conclusion

The conclusion of this study showed that with an increase in early maladaptive schemas, there will be an increase in students' OCD. In addition, authoritative styles lead for having adolescents with minimum signs of OCD

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Conflicts of interest

None.

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