

## Original research

**A structural model in explaining the relationship between attachment styles and obsessive-compulsive symptoms in female students of Talented( Farzangan) high schools based on the mediating role of self-compassion**

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**Abstract**

**Introduction:** Considering the importance of the occurrence of obsessive-compulsive symptoms among students in terms of the fact that it affects their academic, behavioral and social performance and its prevalence, the present study aims to provide a structural model to explain the relationship between attachment styles and obsessive-compulsive symptoms. Intellectual-practical in adolescent girls of gifted schools (Farzangan) took place with the mediating role of self-compassion.

**Research method:** This study is of correlational type, and the structural equation method (Amos26) was used to analyze the data. The statistical population of this research included the female students of the first and second year of Farzanegan Khomeinishahr schools in the academic year of 1402-1401, from which 220 people were selected as a Maudsley was used by Hodgson-Rachman, the 26-question self-compassion questionnaire by Neff et al. and the attachment questionnaire by Collins and Reed.

**Results:** The results of the research showed that the total path coefficient (sum of direct and indirect path coefficients) between anxious attachment and obsessive-compulsive symptoms ( $\beta = 0.371$ ,  $P = 0.001$ ) was positive and the total path coefficient between secure attachment and obsessive-compulsive symptoms ( $\beta = -0.398$ ,  $P = 0.001$ ) is negative and significant. The path coefficient between self-compassion and obsessive-compulsive symptoms ( $\beta = -0.429$ ,  $P = 0.001$ ) was also negative and significant.

**Conclusion:** the results based on the proposed model showed that self-compassion has a significant mediating role in the relationship between secure and anxious attachment styles with obsessive-compulsive symptoms. By emphasizing the indicators of self-compassion as much as possible, the intensity of the symptoms of intellectual-practical obsession in gifted school students can be reduced.

**Keywords:** Attachment styles, Self-compassion, Symptoms of obsessive-compulsive

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## Introduction:

In their daily academic life, students face various challenges, obstacles and pressures specific to this course. Some students are successful in dealing with these obstacles and challenges, but another group of students are unsuccessful in this field. Therefore, understanding and how to adapt to academic challenges should be given serious attention in education (1). Examining the mental health of students in terms of its fundamental and practical importance has attracted the attention of many psychologists, counselors, educationalists, mental health specialists, and other people who deal with students in some way. Since the pressure to succeed in school is high in most countries and has become more intense as societies change and move towards becoming more competitive, the stress of competition has become a driver for student achievement; But if this stress is intensified, it can affect people's mental health and well-being (2). Talented people are considered human capitals for any society. In other words, these are outstanding people who will exist in the absence of natural resources and can serve humanity in solving problems following the depletion of natural resources by facilitating access to alternative resources, and this shows the importance of paying more attention to these students. Due to the competition and excessive focus on achieving success, the students of the gifted schools are always afraid of making decisions in their personal affairs, the main cause of which is the expectations of others, worrying about the consequences of their decisions and the impact they leave on others (3). Research has shown that there is a history of anxiety in people suffering from obsessions (4) and people suffering from anxiety disorders are more prone to suffering from obsessive disorders (5). Considering that the students studying in Farzangan schools, despite the conditions prevailing in such schools, are under more mental and emotional pressure than other schools, and also paying attention to the fact that these special conditions can cause symptoms such as anxiety, mental obsessions such as frequent reassurances from people around and family, and also considering that studies show that anxiety is one of the factors affecting the symptoms of obsession and the use of compulsions is used as a method to reduce anxiety (6) and Stressful events also play a key role in the emergence and persistence of obsessive compulsive disorder (7), As a result, anxiety and stress can gradually cause the increasing trend of obsessive-compulsive symptoms in these students. Considering the importance of intellectual-practical obsessions among students in terms of the fact that it affects their academic, behavioral and social performance and its prevalence and the need to investigate the variables affecting it, this research was conducted to By further investigating obsessive-compulsive symptoms in students, he explained the relationship between attachment styles and obsessive-compulsive symptoms and examined the mediator role of self-compassion and obtained useful results for improving the mental health of Farzangan school students.

Investigating the symptoms of obsessive-compulsive disorder and their causes in teenagers is very important. Obsessions include recurring and persistent thoughts, impulses, and images that are experienced in an intrusive and unwanted way. Compulsions include repetitive behaviors or mental actions that a person feels compelled to perform in response to an obsession or based on specific principles that must be followed carefully. People with obsessive-compulsive disorder may have obsessive-compulsive disorder, obsessive-compulsive disorder or have both together (8). Practical obsession is identified by a set of symptoms that include intrusive thoughts, rituals, and obligatory worry (9). Obsession invades the mind of the affected person in the form of an involuntary image and leads to widespread anxiety in the person (7). The main feature of this disorder is the presence

of frequent and intense mental or practical obsessions that impose considerable suffering on a person and it is one of the most debilitating psychiatric disorders that has a great impact on the daily life of affected people (10). Adolescents suffering from obsessive-compulsive disorder realize that their thoughts and behaviors are unpleasant. They realize that their behaviors and compulsions are irrational, but they are not able to suppress them themselves (11). Obsessive-compulsive disorder is one of the common psychological disorders that has a relatively high prevalence in teenagers. This disorder creates many social and economic costs for affected people and the society and affects the social, educational and occupational functions of these teenagers. (11) And for this reason, it is important to examine the effective factors in predicting obsessive-compulsive symptoms. According to the studies conducted, no research was found that investigated the relationship between attachment styles and the symptoms of intellectual-practical obsession and the mediation of self-compassion, which simultaneously and in the form of a model, and this research gap shows the necessity of conducting this research. As a result, by conducting this research and by presenting a structural model, the researcher tried to answer the question: Will obsessive-compulsive symptoms based on attachment styles with the mediation of self-compassion in female secondary school students of the first and second term of Farzangan Khomeini shahr schools be predicted?

### **Research Method:**

This research was of the correlation type, which was carried out by the method of structural equation modeling. Since the methodology of structural equation modeling is similar to some aspects of multivariate regression, the principles of determining the sample size in multivariate regression analysis can be used to determine the sample size in structural equation modeling. In multivariate regression analysis, the ratio of the number of samples (observations) to predictor variables should not be less than 5. Otherwise, the results of the regression equation will not be generalizable. A more conservative ratio of 10 observations per predictor variable is also suggested. So, in general, in the structural equation modeling methodology, the sample size can be determined between 5 and 20 observations for each measured predictor variable (34). In this research, the sample size was determined equal to 20 observations for each predicted variable; Therefore, the statistical sample in this research was 220 students of the first and second secondary schools of Farzangan Khomeini Shahr in 1401-1402, who were selected from the two schools of Farzangan 1 and Farzangan 2 in Khomeini Shahr with a total population of 300 students that It was done by available sampling method. In order to collect research data, Maudsley's list of thought-practical obsessions by Hodgson-Wrachman (29), 26-question self-compassion questionnaire by Neff et al. (36) and Collins and Reed's attachment questionnaire (31) were used. In order to analyze descriptive data, spss23 software was used. After initial description and checking the assumptions, the data was analyzed using AMOS26 software by structural equation method. Research tool:

**Maudsley's Obsession-compulsive Inventory (MOCI):** Maudsley's Obsessively-Obsessed Inventory was created by Hodgson and Rachman (29). This questionnaire, which is designed to measure obsessive phenomena, contains 30 questions that can be answered as yes or no. This questionnaire is designed in such a way that a completely obsessive person will give positive answers to half of the questions and negative answers to the other half. Using factor analysis, Hodgson and Rachman were able to reach four sub-groups: checking, washing, slowness and repetition. and doubts. This questionnaire has been used both in clinical studies and in the normal population. The

range of Madzli's total score is between 0 and 30. A high score indicates the presence of more practical obsessive-compulsive symptoms. The four subscales of Madzli's intellectual-practical questionnaire are: 1) Verification: in questions 2-6-8-14-20-26-28, if the option is correct A score of 1 was marked, and in questions 15 and 22, if an incorrect answer was marked, we would give a score of 1. 2) Washing: in questions 1 to 4 and 26, if the correct option was marked, we will give 1 point. In questions 5-9-13-19-21-24 and 27, if the wrong answer was marked, 3) Doubt: In questions 3-7-10-12-18 and 30, if the correct option was marked, we give 1 mark. In question 11, if the wrong answer was marked, we give 1 mark. 4) Slowness and repetition: In question 4, if the correct option was marked, we give 1 mark. In questions 2-6-16-23-25 and 29, if the wrong answer was marked, we give 1 score. Overall score: in questions 1,2-3-4-6-7-8-12-14-18-20-26-28-30 if the correct option was marked, give a score of 1. In the rest of the questions, if the incorrect option was marked, we give a score of 1. This questionnaire has good validity and reliability and has been used many times. The test of the questionnaire is reported as 0.98 (39). In addition, in two Iranian studies, the mean of this test for obsessive-compulsive patients was calculated as 15.75 (standard deviation 5.63) and 14.67 (standard deviation 5.76) (37). The validity and reliability of this test in researches Different has been confirmed on clinical and non-clinical samples. The validity calculated between two tests of this test was reported by Rachman and Hodgson (29) to be equal to 0.70. Also, Burns (40) reported the reliability coefficient of this test to be 0.89 using the retest method.

**Self-Compassion Questionnaire (SCS):** The self-compassion questionnaire was created by Neff (36). This scale has 26 questions and the subjects answer these questions on a 5-point scale. These options are scored 1, 2, 3, 4, 5 respectively. The range of total scores will be between 26 and 130, and vice versa, this test includes 6 components of self-kindness (5, 12, 19, 23, 26), self-judgment (1, 8, 11, 16, 21), human sharing (3, 7, 10, 15), isolation (4, 13, 18, 25), consciousness or mindfulness (9, 14, 17, 22), extreme assimilation (2, 6, 20, 24). (36). The questions related to the subscales of self-judgment, isolation, and extreme assimilation are scored in reverse. In Khosravi et al.'s research (2013), the alpha coefficient for the overall score of the scale is 0.75. Also, the Cronbach's alpha coefficients for the subscales of self-kindness, self-judgment, human sharing, isolation, awareness or mindfulness, and extreme identification were 0.81, 0.79, 0.84, 0.85, and 0.80, respectively. 0, 0.83. The validity of the questionnaire has also been reported as favorable. The Cronbach's alpha of this questionnaire was reported as 0.91 in the present study.

**Collins and Reed Attachment Questionnaire (RASS):** This scale includes self-evaluation of the skills of creating relationships and self-description of the way of forming attachment relationships with close attachment figures, and it contains 18 data that are marked on a 5-point scale (Likert type) from; It does not match my characteristics in any way (!), until it completely matches my characteristics (5), it is formed and measured. By analyzing the factors, 3 subscales are identified, each scale contains 6 items. The 3 subscales are: dependence (D), closeness (c), anxiety (A). According to the instructions of the questionnaire, 6 items related to each sub-scale are determined, according to which question the subject has circled his mark on for each sentence in the answer sheet, his score is determined for each sub-scale. For options 1 to 5, respectively. Scores from 0 to 4 are considered. Questions 1, 6, 8, 13, 12, 17 measure secure attachment. Questions 5, 2, 16, 14, 7, 18 assess avoidant attachment and 3,4,9,10,11,15 measures ambivalent/anxious attachment. In cases where the questions must be scored in reverse, the scores of 1, 2, 3,4 and zero should be considered on the options 1-5 respectively. Questions marked with an asterisk must be scored inversely before

adding up. The scores of the 6 subjects of each scale are added together and the subscale score is obtained. The subscale of anxiety (A) corresponds to anxious-ambivalent attachment and the subscale of closeness (C) is a bipolar dimension that basically contrasts secure and avoidant descriptions, so closeness (C) corresponds to secure attachment. And the dependency subscale (D) can be placed almost opposite to avoidant attachment (32). Collins and Reid (32) showed that the subscales of closeness, dependence, and anxiety remained stable over a period of 2 months and even during 8 months, and regarding the reliability of the adult attachment scale, Collins and Reid measured Cronbach's alpha for the attachment subscale. Ayman reported 0.82, 0.80 for avoidant attachment and 0.83 for anxious attachment. On the other hand, in Pakdaman's research (32), the reliability of the test using retesting was shown to be at the level of 0.95. Considering that Cronbach's alpha values are equal to or more than 0.80 in all cases, the test has high reliability.

### Findings:

In this research, 220 female students of Farzangan Khomeini schools participated in this study, with an average and standard deviation of age of 16/28 and 1/33 years. Among the participants, 41 people (18/6%) were studying in the tenth grade, 94 people (42/7%) in the eleventh grade, and 85 people (38/6%) in the twelfth grade. Table 1 Mean, standard deviation and correlation coefficients between attachment styles (secure, avoidant and ambivalent), components of self-compassion (self-kindness, human commonalities, mindfulness, self-judgment, isolation and extreme assimilation) and shows obsessive-practical symptoms (checking, washing, slowness/repetition and doubt/duties).

**Table1: Correlation matrix of research variables**

Research variables	1	2	3	4	5	6	7	8	9	10	11	1	1
												2	3
Secure attachment	-												
avoidance attachment	0.09	-											
Ambivalent-attachment	- 0.36*	0.11	-										
Self-Compassion/self-kindness	0.32*	0.02	- 0.35*	-									
Self-Compassion/common humanity	0.21*	0.03	- 0.33*	0.64*	-								
Self-Compassion/mindfulness	0.31*	-- 0.17	- 0.32*	0.48*	0.34	-							
Self-Compassion/self-judgment	0.39*	- 0.20	- 0.44*	0.46*	0.32	0.5	-						

Self-Compassion/iso	0.30*	-	-	0.36*	0.27	0.4	0.50	-					
	*	0.11	0.38*	*	**	0**	**						
Self-Compassion/over-identification	0.38*	-	-	0.60*	0.45	0.5	0.65	0.5	-				
	*	0.10	0.42*	*	**	1**	**	3*	*				
Checking/obsession	-	0.05	0.21*	-	-	-	-	-	-	-	-	-	-
	0.31*		*	0.13*	0.13	0.3	0.33	0.2	0.21				
	*			*	*	0*	**	2*	**				
Washing/obsession	-	0.07	0.26*	-	-0.07	-	-	-	-	0.4	-		
	0.22*		*	0.21*		0.2	0.25	0.2	0.28	5*			
	*			*		7**	**	1*	**	*			
Slowness repetition/obsession	-	0.03	0.25*	-0.08	-	-	-	-	-	0.4	0.2	-	
	0.35*		*		0.21	0.1	0.24	0.1	0.19	9*	7*		
	*				**	6*	**	7*	**	*	*		
Doubt&obligation/obsession	-	0.02	0.46*	0.40*	-	-	-	-	-	0.3	0.4	0	-
	0.41*		*		0.28*	0.3	0.48	0.3	0.52	5*	0*	.	
	*				*	1**	**	5*	**	*	*	2	
								*				9	
Average	11.53	12.2	11.91	15.50	12.0	12.	13.5	11.	12.5	3.4	3.7	2	3
		3			7	36	0	17	0	6	0	.	.
												9	1
												2	6
The standard deviation	3.36	2.65	5.76	4.49	3.42	2.6	4.07	2.4	3.97	1.6	2.1	1	1
						7		0		5	1	.	.
												3	7
												6	2
<b>P* &lt; 0.05, P** &lt; 0.01</b>													

Table 1 shows the correlation coefficients between the variables of the research, the correlation between the variables was in the expected direction and aligned with the theories of the research field. In this research, in order to evaluate the assumption of normality of univariate data distribution, skewness and skewness of individual variables and to evaluate the assumption of collinearity with the help of Variance Inflation Factor (VIF) and tolerance coefficient, the results of which can be seen in Table 2.

**table2: Examining the assumptions of normality and collinearity**

variables	Collinearity assumption		The assumption of normality	
	Variance inflation	tolerance coefficient	tension	crookedness
Secure attachment	1.29	0.78	-0.22	-0.07

<b>avoidance attachment</b>	1.08	0.93	-0.38	-0.15
<b>Ambivalent- attachment</b>	1.40	0.71	-0.94	0.04
<b>Self-Compassion/ self-kindness</b>	2.28	0.44	0.73	-0.10
<b>Self-Compassion/ common humanity</b>	1.73	0.58	-0.58	-0.19
<b>Self-Compassion/ mindfulness</b>	1.63	0.61	0.82	-0.38
<b>Self-Compassion/ self-judgment</b>	2.25	0.44	-0.18	0.06
<b>Self Compassion/isolation</b>	1.59	0.63	0.23	-0.05
<b>Self-Compassion/ over-identification</b>	2.39	0.42	-0.84	0.02
<b>Checking/obsession</b>	-	-	0.45	-0.32
<b>Washing/obsession</b>	-	-	-0.54	0.46
<b>Slowness repetition/ obsession</b>	-	-	0.36	0.16
<b>Doubt&amp;obligation/obsession</b>	-	-	<b>-0.79</b>	<b>0.11</b>

According to the findings of Table 2, the stretching and skewness values of all components are in the range of  $\pm 2$ . This finding indicates that the assumption of normality of single variable data distribution is established among the data, Rack Klein (42). Table 2 shows that the assumption of collinearity among the data of the current research is maintained. Because the tolerance coefficient values of predictor variables are larger than 0.1 and the variance inflation factor values of each of them are smaller than 10. According to Meyerz et al.'s opinion (43), the tolerance coefficient smaller than 0.1 and the value of the variance inflation factor larger than 10 indicate the non-establishment of the assumption of collinearity. In this research, in order to determine whether or not the assumption of normality of multivariate distribution is established, the analysis of information related to "Mahalanobis distance" was used. The values of skewness and kurtosis of the information related to the Mehlen-Bais distance were obtained as 0.77 and 1.14, respectively, which shows that the distribution of multivariate data is normal. Finally, in order to evaluate the assumption of homogeneity of variances, the scatter diagram of the standardized variances of errors was examined and the results showed that that assumption is also valid among the data. In the present study, the data were analyzed using the structural equation modeling method. This method in two stages, first evaluates how the measurement model fits the collected data and then evaluates how the structural model fits the data. In this method, confirmatory factor analysis is used to evaluate the fit of the measurement model and the structural equation modeling method is used to evaluate the fit of the structural model. In the research measurement model, 10 indicators were considered to reflect 2 existing structures. According to Figure 1, it was assumed that the latent variable of self-compassion was measured by the indicators of self-kindness, human commonality, awareness, self-judgment, isolation and extreme assimilation, and the latent variable of intellectual-practical obsession by the indicators of verification. And show, slowness/repetition and doubt/duality are measured measurement model was evaluated using confirmatory factor analysis, AMOS 26.0 software, and

maximum likelihood (ML) estimation. Table 3 shows the fit indices of the measurement model and the structural model.

**Table 3:** Fitness indicators Measurement model&Structural mode

Fitness indicators	Measurement model		Structural mode	cut point1
	Modified model	Basic model		
$\chi^2$	70.10	143.53	118.21	-
Degree of freedom of the model	32	34	56	-
$\chi^2/df$	2.19	4.22	2.11	Less than 3
GFI	0.939	0.882	0.922	0.90 >
AGFI	0.896	0.809	0.874	0.850 >
CFI	0.951	0.860	0.933	0.90 >
RMSEA	0.074	0.121	0.071	0.08 <

Table 3 shows the fit indices of the measurement model and the structural model. Table 1 shows that none of the fit indices obtained from confirmatory factor analysis support the acceptable fit of the measurement model with the collected data. model is modified in two stages by creating covariance between the errors of the two indicators of slowness/repetition and doubt/obligation (the first stage) on the one hand, and the errors of the two indicators of self-kindness and common humanity (the second stage) on the other hand, and with This action resulted in fitness indicators which showed that the measurement model has an acceptable fit with the collected data. In the measurement model, the largest factor load belonged to the indicator of extreme assimilation ( $\beta=0.836$ ) and the smallest factor load belonged to the indicator of common humanity ( $\beta=0.482$ ). Thus, considering that the factor loadings of all indicators were greater than 0.32, it can be said that all of them had the necessary power to measure the current research variables. It is necessary to explain that according to Tabachinek and Fidel (41), factor loadings of 0.71 and above are excellent, loadings between 0.63 and 0.70 are very good, loadings between 0.55 and 0.62 are good, loadings between 0.45 to 0.55 is relatively good, loads between 0.32 and 0.44 are low and loads below 0.32 are considered weak. Following the evaluation of the fit of the measurement model, in the second step, the fit indices of the structural model were estimated and evaluated. In the structural model of the research, it was assumed that attachment styles are related to obsessive-compulsive symptoms in adolescent girls both directly and through the mediation of self-compassion. The analysis model and as Table 3 shows, all the fit indices obtained from the analysis supported the acceptable fit of the structural model with the compiled data. Table 4 shows the path coefficients in the structural model.



**Table4:** Total, direct and indirect path coefficients between the research variables in the structural model

path	Variables	p	$\beta$	S.E	b
direct	Ambivalent- attachment → Self-Compassion	0.001	-0.409	0.037	-0.208
	avoidance attachment → Self-Compassion	0.156	-0.091	0.072	-0.100
	secure attachment → Self-Compassion	0.001	0.317	0.069	0.276
	Self-Compassion → OCD	0.001	-0.429	0.042	-0.139
	Ambivalent- attachment → OCD	0.008	0.196	0.012	0.032
	avoidance attachment → OCD	0.257	-0.069	0.022	-0.025
	secure attachment → OCD	0.001	-0.262	0.027	-0.074
indirect	Ambivalent- attachment → OCD	0.001	0.179	0.009	0.029
	avoidance attachment → OCD	0.156	0.039	0.012	0.014
	secure attachment → OCD	0.001	-0.136	0.014	-0.038
Total	Ambivalent- attachment → OCD	0.001	0.371	0.013	0.061
	avoidance attachment → OCD	0.661	-0.031	0.024	-0.011
	secure attachment → OCD	0.001	-0.398	0.028	-0.113

Table 4 shows that the total path coefficient (sum of direct and indirect path coefficients) between ambivalent attachment and obsessive-compulsive symptoms ( $P=0.001$ ,  $\beta=0.371$ ) is positive and the total path coefficient between secure attachment and obsessive-compulsive symptoms Practical ( $P=0.001$ ,  $\beta=-0.398$ ) is negative and significant. The path coefficient between self-compassion and obsessive-compulsive symptoms ( $\beta = -0.429$ ,  $P = 0.001$ ) was also negative and significant. Table 4 shows that the indirect path coefficient between ambivalent attachment style and obsessive-compulsive symptoms ( $\beta = 0.179$ ,  $P = 0.001$ ) is positive and the indirect path coefficient between secure attachment style and obsessive-compulsive symptoms ( $\beta = -0.136$ ,  $P = 0.001$ ) is negative and significant. Therefore, it can be concluded that self-compassion mediates the relationship between ambivalent attachment and obsessive-compulsive symptoms in a positive way and the relationship between secure attachment and obsessive-compulsive symptoms in a negative and significant way. Figure 1 shows the structural model of the research using standard data.

Figure 1 shows that the sum of the squared multiple correlations ( $R^2$ ) for the variable of obsessive-compulsive symptoms was 0.51, this indicates that attachment and self-compassion styles accounted for 51% of the variance of obsessive-compulsive symptoms. It explains the practice in adolescent girls.

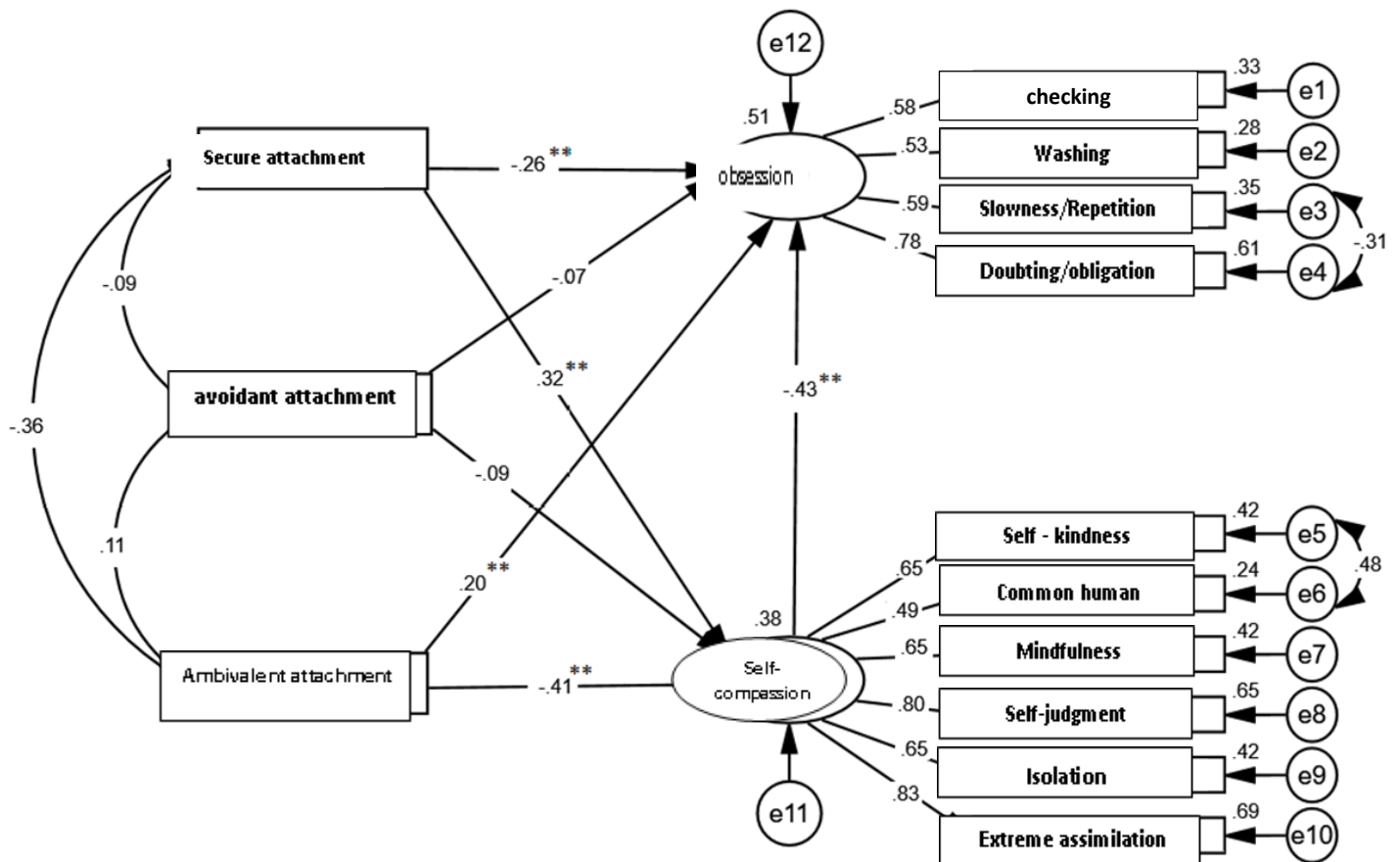


Figure 1-Standard parameters in the research structural model

### Discussion and Conclusion:

The results obtained from structural equation modeling after fully fitting the desired model data, the research hypothesis based on the relationship of the total path (the sum of direct and indirect path coefficients) of secure, avoidant and ambivalent attachment styles with the mediation of self-compassion, obsessive-compulsive factors. It explains the practical thinking in first and second grade secondary school girls of Farzangan Khomeini schools in the city and it fits with the collected data. The results with the researches of Falahieh et al. Tamnai Far (24), Pakufte and Ethali (18) and Karimi and Homayouni (4) were aligned. The findings indicated that more self-compassion was observed in students who have a secure attachment, and as the level of self-compassion increased, less practical obsessive-compulsive symptoms were observed in them. Hazen and Shaver (12) in justifying the relationship between attachment style and mental health point out that the consequence of the secure attachment process is to create a sense of security in the individual, and the consequence of insecure attachment is to create fear and panic in the individual (12). People with attachment style Safe, have intimate relationships with others. They are confident in the availability of others during relationships with them and during external anxiety-provoking situations. These people are also satisfied with their adult relationships and have different ways to deal with conflicts in life. They are less alarmed and have less fear of being abandoned by others and try to relate their secure attachment

qualities to their physical health (13). Also, among the two dimensions that define adult insecure attachment (anxiety and avoidance), attachment anxiety is more related to symptoms of obsessive-compulsive disorder. While anxious attachment can lead to a worse response in acute treatment, secure attachment is a protective factor that can improve recovery (14) and this can explain the negative and significant direct coefficient of secure attachment and obsessive-compulsive symptoms. It is practical in this research so that the more secure a person's attachment is, the less symptoms of obsessive-compulsive disorder are predicted in him.

According to the findings of Table 4, the direct coefficient of ambivalent attachment and obsession is significant and positive at the level of 0.001. In explaining these findings, it can be said that anxious attachment is common in patients with obsessive-compulsive disorder and is related to the initial symptoms of obsession. (14) , Also, Johnson believes that ambivalent people have a strong need for support, love, attention, and unstable self-esteem. They interpret the behavior of others as a threat to themselves, and they are always alert. Their behavior is based on emotions(15). Studies have shown that among the two dimensions that define adult insecure attachment (anxiety and avoidance), attachment anxiety is more related to symptoms of obsessive-compulsive disorder. While anxious attachment can lead to worse response in acute treatment, secure attachment is a protective factor that can improve recovery (14). It can be concluded that ambivalent people behave emotionally when faced with problems, and these emotional regulation problems have a positive and significant relationship with obsessive-compulsive symptoms. It was not found to indirectly predict attachment anxiety through the mediation of self-compassion with OCD symptoms. Since obsessive-compulsive disorder is included in the category of anxiety disorders, it seems that insecure attachment styles are more common in people suffering from this disorder (16). According to Zen and Shaver, attachment is a stable personality trait that significantly eliminates negative relationships in later life; This means that a person's attachment style can be inferred from her perception of a person's close relationships with important people in life, and people can be placed in one of the three categories of safe and insecure lifestyles (avoidant and ambivalent) (13). In a study, Fitzgerald showed that there is a strong connection between attachment anxiety and reassuring behavior as seen in obsessive-compulsive symptoms (17). In the results of his research, Pakofte showed that secure attachment styles have a significant negative correlation with obsessive beliefs (18). There is a significant difference between the attachment styles of obsessive-compulsive patients and healthy people (19), it can be said that self-trust and trust in others are two basic characteristics of people with secure attachment. Self-confidence as one of the psychological foundations of a person who has a secure attachment enables a person to act more skillfully in facing stressful situations. A safe person's trust in others, which is a complementary part of self-confidence, also helps him in getting help and assistance from others. One of the main characteristics of people with an insecure attachment style is doubt, conflict, hostility, helplessness, confusion and impulsiveness, which exposes them to conflict, conflict, helplessness and abnormal behavior in stressful situations and social relations. Therefore, the initial experiences of attachment shape the person's perceptions of himself and the environment, and according to the role of the damaged and disturbed representations of the obsessed person about himself and the world, it is concluded that the initial experiences in the field of attachment can be one of the background factors. It is the mechanism of dysfunctional beliefs in obsessive symptoms (20).

On the other hand, the direct coefficient of ambivalent attachment and self-compassion according to table (4) is negative and significant and equal to (-0.409). Lack of self-compassion and lack of emotion regulation are associated with various psychological pathological symptoms and may cause to play a role in maintaining obsessive-compulsive disorder (21). On the other hand, research shows inverse relationships between self-compassion associated with obsessive-compulsive disorder and maladaptive constructs of emotion regulation problems. (22). On the other hand, people who have self-compassion, when faced with failures and weaknesses, instead of denying or exaggerating them, they accept them without judgment and instead of considering themselves unique in their failures and having flaws and shortcomings. be, they are considered common among all humans; Therefore, people with high compassion have a more positive attitude towards their success in personal goals and consider the realization of their goals more likely (23). According to the research findings that a direct and negative relationship has been observed between the component of self-compassion and ambivalent attachment.

And previous researches can conclude that students who have ambivalent insecure attachment have emotional regulation problems and this factor will reduce their self-compassion. Also, the results showed that self-compassion mediates the relationship between ambivalent attachment and obsessive-compulsive symptoms in a positive way and the relationship between secure attachment and obsessive-compulsive symptoms in a negative and significant way. Self-compassion acts as a mediator in the indirect path between ambivalent attachment and obsessive-compulsive symptoms in such a way that students with ambivalent attachment have less self-compassion and more obsessive-compulsive symptoms due to their inability to regulate their emotions. They show themselves and with the increase of self-compassion of students, their anxious attachment will decrease and as a result, the amount of obsessive-compulsive symptoms will be observed in students. Students often adjust and regulate their emotions when faced with difficulties, and instead of running away from challenging and difficult situations, they deal with the negative emotions created. According to researchers, the awareness of emotions and the desire to deal with negative emotions is achieved by using emotion-oriented strategies that use the positive components of self-compassion and processes such as denial, withdrawal and avoidance of emotions are not created (24, 25). Neff et al found that self-compassion was related to intrinsic interest in learning. Students who are interested in school, in case of academic failure in different circumstances, want to find out the factors that caused the failure and failure instead of blaming and blaming themselves, and they are unimportant to the judgments of others about themselves, and they need the motivation and will to master. They have new skills (24, 26). In this field, researches have shown that people who have a learning approach orientation experience a decrease in their negative feelings and a positive attitude towards themselves during unpleasant events (24, 27). Students who are worried about the judgments of others and feel guilty by making mistakes and failing in activities, try not to participate in activities due to the fear of failure and negative judgments of others, which leads to withdrawal and isolation. It causes risky behaviors. The researchers found that a high level of self-compassion components helps to adapt to problems and challenges and reduce emotional disturbances and personal conflicts (24, 28). Due to genetic and non-genetic factors, intellectual-practical obsession affects the academic and social performance of these teenagers. Therefore, timely diagnosis and intervention can increase the social, emotional and educational performance of these students, also considering that the teachers of these students have challenges They have many problems in the

classroom with these students, so timely identification and intervention can help these people to choose appropriate coping skills and reduce their negative thoughts and attitudes (11). Therefore, it can be concluded that students, by being aware of their attachment styles and also being aware of how to have compassion for themselves, can protect themselves against the occurrence of obsessive-compulsive symptoms or the severity of these symptoms. Preparing an attachment educational package to educate parents and preparing self-compassion educational packages to educate and inform students can be an effective step in preventing and increasing or helping to reduce obsessive-compulsive symptoms in students of Farzangan schools.

**Ethical considerations:** In this research, the ethical considerations considered are as follows: no need for registration and surname for the participants, confidentiality of information and reporting of results in a group, voluntary participation in the research.

**Research limitations:** Despite the practical results that can be inferred from the current research; This research also has limitations. One of the limitations of this research is that a questionnaire was used in this research to collect information, and naturally, the use of a questionnaire may limit our access to real information to some extent.

**Application of research:** From the present research, it is concluded that considering the significance of the role of self-compassion components in the occurrence of obsessive-compulsive symptoms, creating awareness in students when facing the pressures of farzangan schools and preparing an attachment educational package to educate parents and Preparing self-compassion educational packages to educate and inform students can be an effective step in preventing the occurrence and increase or helping to reduce obsessive-compulsive symptoms in students of Farzangan schools.

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