

## The mediating role of personality traits in the relationship between nature and character dimensions with obsessive traits of conscience and neuroticism in young women

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### Abstract

**Introduction:** Considering the increase in the rate of behavioral problems among students, understanding these behaviors and identifying factors associated with those behaviors can contribute to university officials in planning regarding behaviors. The aim of this study was to investigate the mediating role of personality traits in the relationship between nature and character dimensions with obsessive traits of conscience and neuroticism in female students.

**Methods:** In terms of the purpose, the present research is a part of basic research, and in terms of method, it is a type of correlation studies and path analysis. The statistical population of this study included all female students of Azad and Shahid Bahonar undergraduate universities in Kerman in the academic year of 2020. The sample size based on the number of observation variables in the model was considered to be 308 people, and due to the drop in subjects, a total of 280 people were included in the analysis as a cluster. The research instruments were the nature and character questionnaire of Kuninger et al. the five-factor personality questionnaire of Kerry and Costa and the obsession questionnaire of Samuel et al.. Data analysis was performed by path analysis in Emus and spss-24 software.

**Results:** The results showed that personality traits had a significant relationship with the dimensions of nature and character and obsessive traits of conscience and neuroticism ( $P < 0.01$ ). Also, model fit indices in path analysis showed that the final modified model has a good fit.

**Conclusion:** Considering the mediating role of personality traits in the relationship between nature and character dimensions with conscientiousness and neuroticism, it is possible to help reduce the psychological problems of young female students based on the recognition of their personality type.

**Key words:** Nature and character, personality, neuroticism, conscientiousness, obsession, young women.

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**Introduction:**

Obsessive-compulsive disorder has often been the subject of jokes. Contrary to stereotypes, OCD is no laughing matter. Obsession is an anxiety disorder with a biological basis that often begins in childhood and may have a familial pattern. Obsessive-compulsive disorder is characterized by obsessions, involuntary behaviors, or both [1]. Obsessions are unread thoughts or visualizations that repeatedly enter consciousness. While compulsive behaviors are seemingly unstoppable repetitive behaviors and habits that a person performs with the aim of reducing their discomfort and anxiety. Both obsessive thoughts and compulsive behaviors are usually evaluated as unrealistic and irrational by the sufferers themselves, but the sufferers consider themselves unable to stop them [2]. According to Costa and Kerry's 5-factor personality approach, each of the personality traits in the high and low border states gives rise to some obsessive traits. Many variables play a role in the formation and aggravation of the symptoms of obsessive-compulsive disorder, which nature and character have been considered in this research [3]. Character includes logical perceptions about oneself, others and the world, and includes most of the characteristics that emerge under the influence of environmental factors in the structure of a person's personality. There are three dimensions to character; Self-management, cooperation and self-development. Nature is the hereditary basis of emotions and learning that is acquired through emotional and automatic behaviors and is seen as visible habits early in a person's life and remains almost constant throughout life [4]. The behavioral systems in the brain have a functional organization consisting of different and independent systems for activation, continuation and inhibition of behavior in response to certain groups of stimuli [5]. Research findings have shown that nature and character have a significant relationship with the symptoms of obsessive-compulsive disorder. Alonso et al. have shown that there is no difference between the novelty scores of people with obsessions and the normal group, and they have reported lower scores in self-management in patients with obsessions [6].

Agarwal and Toshniwal showed that there is a significant relationship between personality traits and nature and character [7]. also, Sametoğlu et al found that there is a significant relationship between personality traits and obsessive-compulsive symptoms [8]. Topino et al. showed in their research that there is a significant relationship between personality traits and conscientiousness [9]. Jiang et al. found in their research that conscientiousness and perseverance lead to enthusiasm and progress in work [10]. In their research, Vinkhuyzen et al showed the relationship between neuroticism and personality dimensions [11].

Since personality traits play a role in the onset of mental disorders (vulnerability) and affect the emergence of symptoms and the course of a disorder, and obsessive-compulsive disorder is one of the disorders that are very common in the society of young women, and the rate of this disease is between Different age groups, especially university students, are increasing, and the incidence of this disease is higher in girls than boys, so it seems necessary to carry out such research. It is

necessary to examine the personality traits of students as efficient young workers who play an important role in the growth and development of society. The relationship between personality and psychopathology is conceptually complex, and various models have been presented to find the extent of possible relationships. But in no research, the relationship between these variables has not been examined simultaneously. In view of the mentioned contents and the lack of research in the country, the present study was conducted with the aim of investigating the mediating role of personality traits in the relationship between the dimensions of nature and character with obsessive traits based on conscientiousness and neuroticism of young women.

### **Methods:**

Based on the objective, the current research is basic research and in terms of method, it is a type of correlation study and path analysis. The statistical population of the participants of this research included all the young female students of Azad and Shahid Bahonar universities in Kerman, who are studying in these universities in the academic year of 2018-2019, and their age range was between 18 to 24 years old. 20 people were considered for each observed variable. According to the variables observed in the proposed model (14 variables); The sample size was 280 people. Since unpredictable events may happen in field research, there is a possibility of reduction the statistical population. In order to avoid this problem, 10% possibility of reduction (28 people) considered. The first sample size was 280 people, so that according to the possibility of reduction, a total of 308 people were interred in the research as a cluster way of analysis. The inclusion criteria was just female students of Azad and Bahoner University of Kerman. The criteria for leaving the research included not wanting to cooperate in the research and not completing the questionnaires. Ethical considerations of this research included the following: a) All people participated in the research voluntarily and willingly. b) They were assured about confidentiality and confidentiality of the identity of participants that all information will remain confidential c) At the end, the participants in the research were appreciated and will be thanked. d) The participants could quit from the research whenever they want.

**Big Five Personality Questionnaire:** This questionnaire evaluates the five main factors of neuroticism, extroversion, openness to experience, adaptability and responsibility. This test has two long forms (including 240 questions) and short forms (including 60 questions). This tool is answered with a five-point Likert scale (from completely agree to completely disagree). In the current research, a short form of the questionnaire was used. The internal homogeneity of this test for factors N, E, O, A and C has been reported as 0.93, 0.87, 0.89, 0.76 and 0.86 respectively [2]. In Iran, Chalbianlu and Grossi confirmed the five-factor structure of this questionnaire and its internal consistency coefficients with Cronbach's alpha method for the main factors were 0.86, 0.73, 0.56, 0.68 and 0.87 respectively. In the short-term retesting method, the correlation coefficient of the scores of the first round and the second round, which was carried out with an interval of 2-3 weeks, for each of the factors equal to 0.84, 0.82, 0.77, 0.65 and 0.86 [12]. The



<b>Embrace</b>	-	-	-	1								
	0/38	0/40	0/51									
<b>agreement</b>	0/17	0/30	0/10	-	1							
	*	**	*	0/17								
<b>Conscientiousness</b>	0/45	0/20	0/24	0/27	-	1						
	**	**	**	**	0/27							
<b>Injury avoidance</b>	0/30	0/27	0/27	0/34	0/16	0/29	1					
	**	**	**	**	**	**	**					
<b>novelty seeking</b>	0/17	0/24	0/33	0/37	0/40	0/26	0/29	1				
	**	**	**	**	**	**	**	**				
<b>Affiliate bonus</b>	0/19	0/18	0/19	0/08	0/09	0/05	0/18	0/34	1			
	**	**	**				**	**				
<b>Self-driving</b>	0/51	0/27	0/35	0/18	0/11	0/27	0/36	0/37	0/23	1		
<b>Cooperation</b>	0/45	0/05	0/16	0/16	0/53	0/13	0/22	0/12	0/07	0/19	1	
<b>Self-developme</b>	0/38	0/32	0/18	0/25	0/23	0/36	0/33	0/22	0/05	0/18	0/3	1
	**	**	**	**	**	**	**	**	**	**	7*	
<b>Perseverance</b>	0/33	0/28	0/39	0/40	0/30	0/28	0/64	0/45	0/24	0/51	0/3	0/
	**	**	**	**	**	**	**	**	**	**	2*	29

Examining skewness and kurtosis statistics are common criteria for determining the normality of data. In Table No. 2, the values of skewness and kurtosis as well as non-collinearity indices have been calculated for the research data (Table 2).

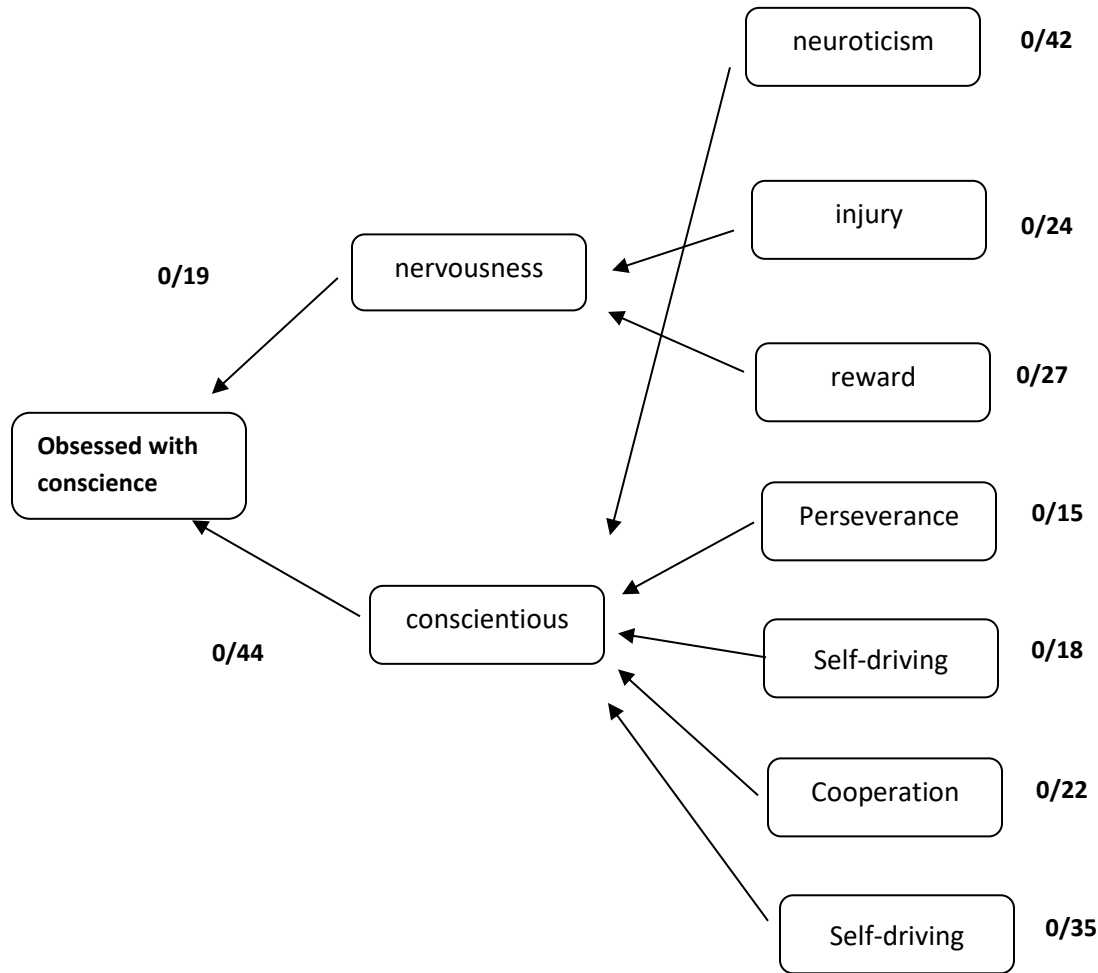
**Table 2- Statistical indices, skewness, elongation and non-collinearity of the research variables in the students of Azad and Bahonar universities in Kerman in 2018 (n=280)**

Statistical indices of variables	Skewness	Standard deviation of skewness	Elongation	Standard deviation of elongation	tolerance coefficient	Variance Inflation (VIF)
<b>Obsession based on conscientiousness</b>	0/352	0/142	0/262	0/284	variable criterion	variable criterion
<b>neuroticism</b>	0/521	0/142	-0/354	0/284	0/57	1/84
<b>Extraversion</b>	0/952	0/142	-0/602	0/284	0/48	1/78
<b>openness</b>	0/752	0/142	-0/552	0/284	0/52	1/69
<b>agreement</b>	0/368	0/142	-0/658	0/284	0/76	1/35

<b>Conscientiousness</b>	-	0/142	-0/652	0/284	0/72	1/49
	0/542					
<b>Injury avoidance</b>	-	0/142	-0/552	0/284	0/69	1/42
	0/210					
<b>novelty seeking</b>	0/345	0/142	-0/527	0/284	0/55	1/78
<b>Affiliate bonus</b>	0/754	0/142	-0/552	0/284	0/79	1/30
<b>Self-driving</b>	0/187	0/142	-0/124	0/284	0/70	1/62
<b>Cooperation</b>	-	0/142	-0/652	0/284	0/72	1/29
	0/952					
<b>Self-development</b>	-	0/142	-0/277	0/284	0/82	1/25
	0/624					
<b>Perseverance</b>	-	0/142	-0/407	0/284	0/55	1/84
	0/752					

The results of the above table show that the problem of collinearity between the predictor variables of the research did not occur because the values of the tolerance coefficient are less than 0.1 and the values of the variance inflation factor for each of the predictor variables are not higher than 10. The tolerance coefficient is less than 0.1 and the value of the variance inflation factor is higher than 10, indicating collinearity.

Examining the fit indices in the initial model showed that there is no good fit to explain the relationship between the variables. As a result, the weak routes were identified and removed from the initial model, and new routes were added based on the theoretical background and software proposal. Figure 1 shows the final model along with standard path coefficients.



**graph 1. The final diagram of the research along with the coefficients of the standard path**

### Discussion and Conclusion:

The purpose of this research was to investigate the mediating role of personality traits in the relationship between nature and character dimensions with obsessive traits based on conscientiousness and neuroticism in young women. The results of examining the fit indices for the proposed model showed that the data do not fit well with the proposed initial model. After removing the weak paths and adding new paths according to the theoretical foundations and software proposal; The modified model was checked and showed a good fit with the data. In the background, no research was found on the internal relationship of variables in the form of a model or the examination of competing and close models. However, in the context of the internal relationship between research variables, the results obtained were in line with the findings of

previous researches in this field. Agarwal and Toshniwal showed that there is a significant relationship between personality traits and nature and character [7]. In their research, Sametoğlu et al found that there is a significant relationship between personality traits and obsessive-compulsive symptoms [8]. In their research, Topino et al. showed that there is a significant relationship between personality traits and conscientiousness [9]. Jiang et al. found in their research that conscientiousness and perseverance lead to enthusiasm and progress in work [10]. In their research, Vinkhuyzen et al showed the relationship between neuroticism and personality dimensions [11].

This result can be explained by the fact that obsessive-compulsive disorder is a familiar and relatively common disorder, which causes a waste of time for the patient in addition to inflicting considerable suffering and torment, and due to its debilitating nature. It creates a significant disturbance in the normal and natural process of life, personal abilities, job efficiency, social adaptation and interpersonal relationships [8].

Most obsessive people are in the range of personality traits of neuroticism and conscientiousness and because of the presence of negative emotions such as fear, sadness, excitement, anger, guilt, constant and pervasive feelings of frustration, there is a greater possibility that they have irrational beliefs, unsuccessful impulse control, emotional instability, and a weaker level of compromise with others and circumstances.

The two components of neuroticism and conscientiousness measure the pathological aspects of disorders and especially obsessions. The two characteristics of openness and extroversion are weaker in obsessive people. Because obsessive patients avoid social gatherings due to their illness (low score in extraversion index) and are resistant to changes (low score in openness index). Considering that these two components measure aspects that are less visible in obsessive people, it can be said that obsessive people get lower scores in these two indicators [9].

Having characteristics such as neuroticism, extroversion, agreeableness, empiricism and conscientiousness together and in different proportions can make a person richer or weaker in terms of personality and ability to adapt and social life and reduce or increase vulnerability.[11]

The high level of harm avoidance, which is defined by features such as escaping and avoiding dangerous, cautious and isolated situations, acts as a barrier against obsessive symptoms. The low level of harm-avoidance characteristics, such as self-confidence in the face of indecision, leads to many efforts with minimal personal discomfort, and the disadvantage of this state is the lack of response to risk and unrealistic optimism, and its potentially risky results are in situations where the probability of danger is high and it is completely in line with increasing symptoms of obsession [5].

Also, there is a significant negative relationship between self-transcendence and symptoms of obsessive-compulsive disorder based on neuroticism. It can be concluded that a person's character is one of the important factors that can affect obsession. According to the learning theory,



obsessive-compulsive disorder arises due to abnormalities in the natural mechanisms of learning, and the theory of early childhood experiences considers the cause of obsession to be the imitative learning of symptoms that is transmitted by the mother to the children, so it can be concluded that environmental factors in Occurrence of obsession is involved [4].

Maturity of character is like a spiral in which people can improve. This spiral also causes health and wisdom. A person's character can go down in response to anxiety-provoking situations in the spiral. Considering that obsession is also a part of anxiety disorders, it can be said that the behavior of these patients in the spiral is at a low level and obsessive patients are at a low level in terms of health. Also, the combination of high self-management, high cooperation and high self-development is what defines happy people. So, it can be said that because obsessive people have low scores in these three dimensions, they are dissatisfied with their lives, experience more anxiety and less happiness. Also, the results showed that self-management has the greatest contribution in predicting obsessive-compulsive symptoms in young people. In explaining this result, it can be stated that one of the characteristics of people who score low in self-management is that they blame others for external problems (environmental shortcomings). Therefore, these people do not have the desire to work in a group and appear selfish and conceited in the eyes of others, and they also have low scores in the dimension of self-improvement. These people do not tolerate ambiguity and have low mental strength. Therefore, it can be predicted that these people are facing problems in their social activities or work performance, and because they have low scores in these three dimensions, they are not satisfied with their lives, and they are irresponsible and socially disabled people, and it is possible in suffer damage in the future [13].

One of the limitations of the research was that the statistical population was only students and the generalization of the results to other groups is limited. Also, considering that obsessive behaviors were widespread and is different in nature; tools used for obsessive behaviors were specifically based on neurotic and conscientious personality traits. According to the results of this research, it is suggested that future researches be carried out in different cities and cultures, as well as male student samples, and the results be compared with the female sample. Also, university counseling centers should help students by holding educational workshops to know their personality traits and reduce psychological problems.

Considering the mediating role of personality traits in the relationship between nature and character dimensions with conscientiousness and neuroticism, it is possible to help reduce the psychological problems of young female students based on the recognition of their personality type.

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