

EVALUATING THE RELATIONSHIP BETWEEN MINDFULNESS, PERFECTIONISM AND OBSESSIVE THOUGHTS IN PSYCHOLOGY STUDENTS

Rashin AREFNIA^{1*}, Mohammad GHAMARI², Kamran KHOSHNOUDI³

¹MSc in Clinical Psychology, Department of Clinical Psychology, Science and Research Branch, Islamic Azad University, Qazvin, Iran,

²Department of Counseling, Abhar Branch, Islamic Azad University, Zanjan, Iran,

³Psychiatrist (Fellowship in Mental Disorders), Visiting Professor of Islamic Azad University and Payam-e Noor University, Karaj, Iran

***Corresponding Author:**

E_mail: Rashin.arefnia@gmail.com

ABSTRACT

The objective of the current research was to evaluate the relationship between mindfulness and perfectionism and obsessive thoughts in psychology students of Islamic Azad University of Karaj. This research is considered as correlational type of study. The sample of research included 100 psychology students of Islamic Azad University, selected by random cluster sampling method. The research tools included Trigoret Perfectionism Scale, Obsessive Belief Questionnaire (OBQ), and Five-Facet Mindfulness Questionnaire (FFMQ). In the analysis of data, Pearson correlation (regression analysis) was used to evaluate the relationship among the scores of the subjects (Mindfulness, Perfectionism, and Obsessive Thoughts Test). Research findings suggest a significant and positive relationship between obsessive belief and perfectionism ($P < 0.01$). In addition, significant and positive relationship was found between the mindfulness and obsessive belief ($P < 0.01$) and a positive and significant relationship was found between mindfulness and perfectionism and obsessive beliefs ($P < 0.01$).

Keywords: Mindfulness, Obsessive Thoughts, Perfectionism, Psychology Students.

INTRODUCTION

Obsessive disorder is one of the anxiety disorders, divided into two components (obsessive thoughts and beliefs) and (compulsive). Obsessive thoughts and beliefs are anxiety-inducing mental images, undertaking the management of life and dominating it. In general, obsessive people suffer from different symptoms. In severe states, these symptoms can cripple their life and even result in hospitalization. Obsessive thoughts, as main symptoms of a disorder, are experienced in the form of disturbing and inconsistent thoughts, which strongly cause anxiety for the affected person. The affected people experience strong feeling of compulsiveness for performing the action to save themselves from these thoughts, known as obsessive actions. It is clear that obsessive disorder can be disrupting for the affected people.

In some cases of the obsessive-compulsive disorder, people suffer from a sense of mental contamination, in addition to their other concerns. Research evidence indicates that various types of obsessive beliefs are involved in development and continuation of obsessive thoughts. The cognitive model states that people with obsessive-compulsive disorder interpret their thoughts, images, and impulses very important, and ineffective beliefs pave the way for formation of these thoughts, images, and impulses (Shams and Sadeghi, 2006).

On the other hand, a set of underlying factors causes this disorder, which identifying them can help us in taking required measures to prevent them. Some of these factors are related to personality traits of people. It is clear that personality traits are developed since childhood and simultaneous with an individual's growth and through the parents and teachers' training methods. Knowledge on these traits and their positive or negative impacts on mental health and child performance are very important. One of these traits is perfectionism.

Perfectionism involves having ambitious, unclear, and non-achievable goals and making extreme effort to achieve these goals. In other words, it involves having a set of very high standards for performance, associated with extreme critical evaluations. While perfectionism paves the way for one's progress, extreme perfectionism can negatively lead to obsessive disorder. A new guideline has been developed in behavioral treatment in the last few decades. One of the characteristics of this new wave is an emphasis on the mindfulness and acceptance. Mindfulness emerges in the form of awareness as a result of paying attention to goal at the present moment and without judgment in revealing momentary experience (Kobat Zain, 2003). Thus, people who have higher levels of mindfulness show less negative thoughts and they believe that they are able to avoid such thoughts. Mindfulness interventions were first developed by Kobat Zain, who initiated Mindfulness Center at the University of Massachusetts in 1979. He developed a mindfulness-based stress-reducing program to treat the patients with symptoms, which were not reduced by traditional medical interventions (chronic pains).

The findings of correlation between components of mindfulness and obsessive beliefs also suggest a significant relationship between some components of mindfulness (describing inner and outer states, lack of response to inner states and lack of judgment on inner experience) and obsessive beliefs. In this regard, Esmeeilian, Tahmasian et al. (2013) examined the effectiveness of mindfulness-based cognitive therapy in the depression symptoms in children with divorced parents. Multivariate analysis of covariance findings revealed that mindfulness-based cognitive therapy significantly reduced the depression symptoms in children with divorced parents. In addition, Holzel et al. (2013) compared the neuronal mechanism in people with generalized anxiety under mindfulness training and also patients under stress management training. They showed that in people with anxiety, mindfulness training leads to change in anterior limbic cortex, which determines the emotions. This change is correlated with recovery symptoms.

Jane et al. (2007) also compared the effectiveness of the mindfulness meditation model and relaxation with regard to rumination. Findings indicated that the impact size of the mindfulness meditation model was larger than that of relaxation training with regard to reduced rumination. Huffziger and Kohner (2009) found a significant relationship between mindfulness and rumination in their studies. Psychometric evaluations revealed positive correlation among the mindfulness, extroversion, emotional regulation, and acceptance of emotions. Thus, given the importance of our subject in the current research, we evaluate the relationship between mindfulness and perfectionism and obsessive thoughts in psychology students of Islamic Azad University of Karaj.

METHODOLOGY

As nature of the subject in the present research is investigating the relationship between mindfulness and obsessive beliefs, it is considered correlational type of descriptive studies. This



method is used for examining the level of variations in one or more factors as a result of variations in one or more other factors.

Research population: research population included all psychology students of Islamic Azad University of Karaj, who were studying in the academic year of 2014-2015.

Sample size and sampling method: out of all psychology students of Islamic Azad University, 100 students were selected by random cluster sampling method.

DATA ANALYSIS

Descriptive statistics: 44% of the subjects are male and 56% are female (Table 1).

Table 1. Frequency and frequency percentage of subjects in the research based on gender

Gender	Frequency	frequency percentage
Male	44	44%
Female	56	56%
Total	100	100%

Table 2. Descriptive results of the mindfulness variable and its components

Group	Scale	n	mean	SD	minimum	maximum
male	Observation	44	27.38	5	15	38
	Description	44	28.18	4.49	19	38
	Awareness-based action	44	26.34	5.4	16	40
	Lack of judgment	44	22.18	4.11	14	30
	Lack of response	44	20.77	4.11	10	31
	Total mindfulness	44	124.95	14.35	82	149
female	Observation	56	29.83	5.78	17	40
	Description	56	27.3	4.98	15	37
	Awareness-based action	56	27.3	5.59	12	37
	Lack of judgment	56	22.42	5.01	10	39
	Lack of response	56	21.66	4.73	10	32
	Total mindfulness	56	128.58	15.88	88	172
total	Observation	100	28.76	5.59	15	40
	Description	100	27.69	4.77	15	38
	Awareness-based action	100	26.73	5.49	12	40
	Lack of judgment	100	22.32	4.61	10	39
	Lack of response	100	21.27	4.46	10	32
	Total mindfulness	100	126.99	15.26	82	172

Based on the findings of Table 2, the mean mindfulness of the sample group is 126.99, and the mean mindfulness variable is 128.58 and 124.95 in females and males, respectively, indicating that the mean mindfulness is more in females than that of males. In addition, the mean sub-scale of the observation in the sample group was 28.76, indicating that mean observation is higher in the sample group. In addition, the mean sub-scale of lack of response is 21.27 in the sample group, indicating that sample group obtained lower score in this sub-scale. In addition, comparing the mean in two sub-groups of males and females shows that the highest mean in both groups of males and females was related to sub-scale of observation and the lowest mean was related to sub-scale of lack of response.



Table 3. descriptive results of the perfectionism variable and its components

Scale	group	n	mean	SD	Minimum	Maximum
Male	positive perfectionism	100	77	10.99	27	98
	Negative perfectionism	100	59	8.33	33	84
	Total perfectionism	100	136.47	17	60	182
Female	positive perfectionism	100	72.71	12.89	34	94
	Negative perfectionism	100	58.71	13.44	11	83
	Total perfectionism	100	131.26	23.36	47	175
Total	positive perfectionism	100	74.64	12.23	27	98
	Negative perfectionism	100	58.87	11.42	11	84
	Total perfectionism	100	133.56	20.89	47	182

The mean positive perfectionism in the sample group is more than mean negative perfectionism. It means that sample group subjects obtained higher scores in the sub-scales of the positive perfectionism. In addition, the mean positive perfectionism is both male and female groups is more than mean negative perfectionism, indicating that subjects on the both male and female groups obtained higher score in the positive perfectionism sub-scales (Table 3).

Table 4. descriptive results of obsessive beliefs variable

scale	group	n	mean	SD	Minimum	maximum
Male	obsessive beliefs	44	14.5	31.58	-50	81
Female	obsessive beliefs	56	10.16	39.74	-105	97
Total	obsessive beliefs	100	12.07	36.27	-105	97

Based on the results of Table 3, the mean obsessive beliefs in the sample group is 12.07, and it is 10.16 and 14.5 in females and males, respectively. In addition, the standard deviation of obsessive beliefs in the sample group is 36.27, and it is 39 and 31.58 in the females and males, respectively, indicating that distribution of obsessive beliefs is greater in the females.

Inferential statistics

Pearson correlation test was used in order to evaluate the relationship between mindfulness and obsessive beliefs. Pearson correlation analysis assumptions including deletion of outliers, linearity of the relationship, checking the normal distribution of variables using Kolmogorov-Smirnov test, and homogeneity of variances were examined and it was examined that if data are interval type of not. The Kolmogorov-Smirnov test results for the research variables suggest the normality of data. The result of this test has been reported in the following table. In addition, the nature of the data suggests that data scale is interval. To evaluate the linearity of relationship and homogeneity of variance, the distribution diagram was used. Findings suggest the linear relationship between the variables and observed homogeneity of variance assumption.

Table 5. Kolmogorov-Smirnov Test to check the normal distribution of scores for 5 sub-scales of mindfulness

Kolmogorov-Smirnov Test	Z	Significance level
observation	0.95	0.31
Description	0.93	0.35
Awareness-based action	0.73	0.65
Lack of judgment	0.70	0.69
Lack of response	1.04	0.22
Total mindfulness	0.51	0.95

obsessive beliefs	0.71	0.68
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Table 6. Kolmogorov-Smirnov test to check the normal distribution of scores of the sub-scale of perfectionism subscales

Kolmogorov-Smirnov Test	Z	Significance level
positive perfectionism	0.84	0.47
negative perfectionism	1.07	0.19
total perfectionism	1.01	0.25
Obsessive beliefs	0.75	0.627

Tables 5 and 6 results show that p-value obtained for 5 sub-scales of the mindfulness and perfectionism (positive and negative) is greater than 5. Thus, the null hypothesis on normal distribution of scores in these sub-scales is confirmed. Moreover, the p-value obtained for the mindfulness variable is greater than 0.05. Thus, the null hypothesis on normal distribution of scores for this variable is also confirmed.

Table 7. Correlation matrix between the variables of mindfulness and obsessive beliefs

	observation	description	Awareness-based action	Lack of judgment	Lack of response	Total mindfulness	obsessive beliefs
observation							
correlation coefficient	1						
significance level							
number	91						
Description							
correlation coefficient	0.183	1					
significance level	40.08						
number	91	91					
Awareness-based action							
correlation coefficient	0.152	0.390**	1				
significance level	70.14	0					
number	91	91	91				
Lack of judgment							
correlation coefficient	70.21-*	0.05	0.305**	1			
significance level	90.03	0.59	0.003				
number	91	91	91	91			
Lack of response							
correlation coefficient	0.276**	0.11	0.060-	-0.387**	1		
significance level	0.008	0.3	0.573	0			
number	91	91	91	91	91		
Total mindfulness							
Correlation coefficient	0.586**	0.671**	0.698**	0.251*	0.349**	1	
significance level	0	0	0	0.016	0.001		
number	91	91	91	91	91	91	
obsessive beliefs							
correlation coefficient	0.023	-0.171	-0.281**	0.400**	0.096	-0.267*	1
significance level	0.829	0.106	0.007	-0	0.364	0.01	
number	91	91	91	91	91	91	91

*relationships are significant at the level of 0.05, **relationships are significant at the level of 0.01



Based on correlation coefficients reported in Table 7, the variable of obsessive belief has a significant relationship with the two subs-scales of awareness-based action and lack of judgment, and the mindfulness variable has a significant relationship with the obsessive belief variable. The correlation coefficient between obsessive belief and the subscale of awareness-based action is 0.28 with a significant level of 0.007, which is less than 0.01 ($P < 0.01$).

In addition, the correlation coefficient between obsessive belief and lack of judgment subscale is 0.4, which its significance level is less than 0.01 ($P < 0.01$). As a result, the relationship between these two subscales and obsessive beliefs is significant at the level of 0.01, and the correlation coefficient between mindfulness variable and obsessive belief variable is 0.26 with significant level of 0.01, which is less than 0.05 ($P < 0.05$). As a result, the relationship between mindfulness and obsessive beliefs is significant at the level of 0.01.

Investigating the relationship between perfectionism and obsessive beliefs:

Table 8. Correlation matrix between variables of perfectionism and obsessive beliefs

	Positive perfectionism	Negative perfectionism	Total perfectionism	obsessive beliefs
Positive perfectionism correlation coefficient number	1 89			
Negative perfectionism correlation coefficient		1		
Significance level	0.28**			
Number	0.007 89	89		
perfectionism correlation coefficient			1	
Significance level	0.80**	0.77**		
Number	0 89	0 89	89	
Obsessive beliefs correlation coefficient				1
Significance level	0.37**	0.59**	0.58**	
Number	0 89	0 89	0 89	

*relationships are significant at the level of 0.05

*relationships are significant at the level of 0.01

Based in correlation coefficients reported in Table 8, the obsessive belief variable has significant correlation with two positive perfectionism and negative perfectionism subscales. Based on these results, the relationship between positive perfectionism and obsessive beliefs is 0.37 and its significance level is lower than 0.01. Additionally, the variable of negative perfectionism has a significant relationship with obsessive beliefs. The correlation coefficient for these two variables was obtained 0.59, and its significant level is 0.00, which is lower than 0.01 ($P < 0.01$). In general, both positive and negative perfectionism subscales are significant at significance level of 0.01 ($P < 0.01$).

Investigating the relationship between mindfulness and perfectionism and obsessive beliefs:

A stepwise regression method was used to find if mindfulness and perfectionism predict the obsessive beliefs in students in order to determine the level of variations which each of the independent variables explains the dependent variable of obsessive beliefs. Before multivariate

regression analysis, outliers were deleted and the assumptions of this method, such as the normal distribution of data residues were analyzed using Kolmogorov-Smirnov test, and Kolmogorov-Smirnov test results were larger than 0.05 for all variables.

This result suggests that the null hypothesis on the normal distribution of the variables' residuals is confirmed. The interval scale of data is determined by the nature of data. In addition, the residuals diagram was examined for the presumption of the homogeneity of the residual variances and linearity, and the residual curves were examined. The curves were not crescent-formed or funnel-formed, indicating the observance of these assumptions. The correlation matrix of independent variables was also examined. Correlation of none of the independent variables was 0.9, indicating observance of the lack of multiple collinearity assumption. In addition, results showed that the assumption of the independence of the errors has been observed.

Table 9. Regression coefficients table based on stepwise method

Criterion variable	model	Predictor variable	Beta standard	beta	SD	T value	R ²	R ² adjusted	Significance level
Obsessive beliefs	Model 1	Negative perfectionism	0.570	-112.22 2.09	19.60 0.319	-5.72 6.55	0.325	0.318	0.000 0.000
	Model 2	Negative perfectionism Negative perfectionism	0.488 0.200	-149.97 1.79 0.733	26.11 0.343 0.343	-5.74 5.21 2.13	0.359	0.344	0.000 0.000 0.035

Table 10. statistical information of variables deleted from model

Model		beta	T	Significance level
Model 1	Positive perfectionism	0.2	2.13	0.035
	mindfulness	0.003	0.036	0.972
Model 2	mindfulness	-0.04	-0.445	0.657

Table 9 results show that in data analysis using the stepwise regression method, given the high correlation between negative perfectionism and obsessive beliefs, this variable has been included to the regression equation and explained 32 percent of the variance of obsessive beliefs variable ($R^2=32.5\%$), which this coefficient is significant at 0.000 level ($P<0.01$). In addition, in the first step, the negative perfectionism model with beta coefficient of 0.57% shows that by changing a standard deviation in negative perfectionism, 0.57 of the standard deviation would change in the variable of obsessive beliefs. However, in the first step, the variable of positive perfectionism and mindfulness were deleted from the model. Based on Table 10, the significance level of positive perfectionism is less than 0.05 ($P < 0.05$). Accordingly, the next step of the model is developed. It means that by including positive perfectionism variable, explaining level of obsessive beliefs increases significantly. For this reason, this variable was included in the second step of the model, which standard beta coefficient for this variable is 0.2. This coefficient shows that by changing a standard deviation in positive perfectionism, 0.2 of the standard deviation would change in the obsessive beliefs variable. In second step of model and by including the positive perfectionism variable, the square value of the R^2 equals to 0.36, which shows an increase by 0.04. This result indicates that the linear combination of negative perfectionism and positive perfectionism explains 36% of the variance of obsessive beliefs. However, the



mindfulness variable will be deleted from both models, since including this variable to model does not increase the explaining the obsessive beliefs significantly ($P > 0.05$).

Table 11. variance analysis

		Sum of squares	df	Mean squares	F	Significance level
Model 1	Regression	33675.91	1	33675.91	42.90	0.000
	residual	69861.75	89	784.96		
	Total	103537.67	90			
Model 2	Regression	37120.81	2	18560.40	24.59	0.000
	residual	66416.85	88	754.73		
	Total	103537.67	90			

The results reported in Table 11 suggest the significance of the regression model in the first step and with the variable of negative perfectionism $p < 0.01$ $F = 42.9$ (1.89). In addition, in the second step, after adding positive perfectionism to negative perfectionism, the regression model is significant again $P < 0.01$ $F = 24.59$ (2.88). Thus, the effect of the negative perfectionism variable is higher than positive perfectionism, while the combination of both variables has a higher effect on explaining the obsessive beliefs. However, mindfulness variable is deleted in both models, since adding this variable to the model does not increase the explaining power of obsessive beliefs variable.

CONCLUSION

The objective of the current research was to evaluate the relationship between mindfulness and perfectionism and obsessive thoughts in psychology students of Islamic Azad University of Karaj. This research is considered as correlational type of study. Obsessive thoughts have been described as hateful and disturbing thoughts, which the person resists against them. They are resulting from phenomena such as injecting thoughts, reference thoughts, and the feeling that thoughts are controlled by external forces. The mindfulness-based stress-reducing program, developed by Kobat Zain, helps the people develop mindfulness through intensive training in meditation.

Mindfulness is negatively correlated with depression and anxiety and positively correlated with sense of satisfaction of life, positive emotions, and flourishing of more talents.

In addition, work group in the area of cognitive perceptions in the obsessive-compulsive disorder (2001) has considered six areas of beliefs with regard to obsession, including excessive sense of responsibility, excessive estimation of the probability of occurrence and severity of the threat, beliefs related to excessive importance of personal thinking outcomes, excessive concern on importance of controlling your thoughts, the inability to tolerate uncertainty, and perfectionism. Results of the current research showed that there is a significant correlation between mindfulness and perfectionism and obsessive beliefs and the correlation coefficient between mindfulness variable and obsessive beliefs was obtained 0.26, with significance level of 0.01, which its significance level was less than 0.05 ($P < 0.05$). Thus, the relationship between mindfulness variable and obsessive beliefs is significant at the level of 0.01. Based on the results, the relationship between positive perfectionism and obsessive beliefs is 37% and its significance level is less than 0.01 and negative perfectionism has a significant relationship with obsessive beliefs. The correlation coefficient for these two variables was obtained 59%, which its

significant level is 0.00 and lower than 0.01 ($P < 0.01$). These results are consistent with those of studies conducted by Kianpour Farokhi et al. (2010), in which they examined the relationship between perfectionism and responsibility and obsessive-compulsive disorder in physicians living in Ahwaz city. Results also revealed a positive and significant relationship between perfectionism and obsessive-compulsive disorder in Ahwaz physicians. The result reported in the table of variance analysis also suggests that the regression model is significant in the first step $P < 0.01$ $F = 2.9$ (1.89). In the second step, after adding positive perfectionism to negative perfectionism, regression model was significant again $P < 0.01$ $F = 24.59$ (2.88). As a result, although the negative perfectionism variable is more than positive perfectionism, the combination of both variables has a greater effect on the definition of obsessive beliefs. It can be concluded that mindfulness training is an effective method to reduce obsessive beliefs, so it is recommended for psychologists and counselors to use this method in order to reduce the obsessive beliefs of the clients.

References

- Esmaeelian, N, Tahmasian, K, Dehghani, M, Mutabi, F (2013), evaluating the effectiveness of mindfulness-based cognitive therapy on depression symptoms and acceptance of children with divorced parents, *Journal of Psychology*, Volume 5, Issue 3, pp. 47-57
- Huffziger, Silke; Kuehner, Christine. (2009). Rumination, distraction and mindful self-focus in depressed patients. *Behavior research and therapy*. Journal homepage. Vol:47. PP: 224-230.
- Jain, Shamini; L. Shapiro, Shauna; Swanick, Summer; C. Roesch, Scott; J. Mills, Poul; Bell, Iris & E.R. Schwartz, Gary. (2007). A randomized controlled trail of mindfulness meditation versus relaxation training: effects on distress, positive states of mind, rumination, and distraction. *Society of Behavioral medicine*. Vol, 33. PP 11-21.
- K. Holzel, Britta; A. Hoge, Elizabeth; N. Douglas; Grad, Time; Feldman Barret, Lisa; Schwartz, Carl; Vaitl, Dieter & W. Lazar, Sara. (2013). Neural mechanisms of symptom improvement in generalized anxiety disorder following mindfulness training *Neuro Image: clinical*. Vol, 2. PP 448-558.
- Kabat- Zinn J. (2003). Mindfulness- based interventions in context: past, present, and future. *Jour- nal of Clinical psychology: science & practice*, 10, 144-156.
- Kianpour, F, Moravaj, F, Ali Madadi, Z, and Zandian, Kh (2009), examining the effect of perfectionism and responsibility and obsessive-compulsive disorder in physicians living in Ahvaz, volume 9, Issue 3, pp. 255-262
- Shams, G, Ghadiri, N, Torkanbury, Y, Rahimi Nejad, F, Ebrahim Khani, N (2006), comparing the obsessive beliefs in patients with obsession and other anxiety disorders and control group, *cognitive science*, Volume 8, Issue 2, pp. 53-65

