Original Article

The effectiveness of training mindfulness skills on motivational structures among girl students

***Mahrokh Javaherforushzadeh[1]; Sakineh Soltani Kuhbanani[2]**

[1]MA. student in clinical psychology, Department of Psychology, Islamic Azad University, Science and Research Branch of Neyshabour, Neyshabour, Iran.
[2]Farhangian University of Iran, Iran.

Abstract

Introduction: The present research studies the effectiveness of mindfulness on motivational structure of girl students in Mashhad, Iran.

Materials and Methods: This research as quasi-experimental. Statistical population of this study includes all girl high school students in Mashhad, Iran. 42 students were selected in this research by convenience sampling method with having medium up to high IQ criterion with simultaneous establishment of all educational activities. Data about components of motivational structure and amount of mindfulness of participants in two 21-member groups was obtained using Warwick and Edinburgh well-being scale in two stages. The sessions were held as team consultation group with educational approach. Descriptive statistical methods, inferential statistics, and covariance analysis were used.

Results: It is concluded that training mindfulness influences on motivational structure of girl high school students of Mashhad city ($P<0.05$).

Conclusion: This study showed that training mindfulness skills increases achievement motivation and commitment to goal and reduces prevention and reliance on chance and the perceived duration of reaching goal.

Keywords: Mindfulness, Motivation, Students

Please cite this paper as:
Javaherforushzadeh M, Soltani Kuhbanani S. The effectiveness of training mindfulness skills on motivational structures among girl students. Journal of Fundamentals of Mental Health 2016; 18(Special Issue): 449-455.

Introduction

Motivation is a goal-oriented concept. Motivation guides learners to complete the task and assess the understanding of a desired objective goal. Motivation is one of the basic topics and concepts in human capital management, and many works and writings about motivation have been proposed by different scientists, in which, both theoretically and experimentally, motivational techniques used by managers to improve performance People have been discussed. In psychology, the processes that make an effort to reach the goal are called motivation. Cox and Klinger define motivation as follows: motivation is the internal states of a living being that cause arousal, continuation and direction of behavior towards the goal (1).

There are various other definitions for motivation. Stizer and Porter (2) consider motivation to include three main elements:

A: Activating forces: there are forces in people that cause each person to have a specific behavior b) Guiding forces:

***Corresponding Author:**
Department of Psychology, Islamic Azad University, Science and Research Branch of Neyshabour, Neyshabour, Iran.
Received: Aug. 22, 2016
Accepted: Sep. 29, 2016

They direct the behavior to something, or in other words, the motivation has a goal, and c) sustaining forces: human behavior that is aimed at achieving the goal. At the same time, it gives strength and keeps it going (3). Motivation is a general term that defines the common ground between needs, cognitions and emotions, and each of these strengthens and directs the internal processes of behavior. The process of perception refers to complex forces, drives, needs, stressful conditions or other mechanisms that initiate and continue to achieve the goal. Motivation is enthusiasm and interest in doing activities that are necessary to achieve goals (4,5).

According to the above findings, people with an incompatible motivational structure feel less satisfied with life and have less motivation to change their behavior and treatment, and have a lower level of mental health than people with an adaptive motivational structure.

According to the perspective of motivational structure, people with maladaptive motivational structure have avoidance motivation as well as negative incentives to pursue goals. It is necessary for such people to receive training to change their maladaptive motivational structure so that they can adapt their motivational structure to some extent. So far, a lot of research has been done in the field of creating and improving motivational structures in scientific and research centers, which can deal with behavioral, cognitive, and metacognitive solutions. But the method of mindfulness is one of the third-generation behavioral treatments that has been widely accepted today.

The effectiveness of this method in psychological treatments is confirmed by a large number of experts in the field of mental health and educational psychologists in the fields of education and learning. In the mindfulness method, participants are trained to pay attention to their thoughts and feelings, but not to cling to their content. Even notice their judgmental thoughts (for example, this is a stupid waste of time) without judging them (6).

Many researches in the field of creating and improving motivational structures have been carried out in scientific and research centers, which include behavioral, cognitive, and metacognitive methods. But the mindfulness method is one of the third generation behavioral treatments that has received a lot of attention today. The effectiveness of this method in psychological treatments is confirmed by a large number of experts in the field of mental health and educational psychologists in the fields of education and learning.

Cox and Klinger (1) have identified two types of adaptive and maladaptive motivational structures. In their research, in order to investigate the characteristics of each motivational style, they came to the conclusion that people with an incompatible motivational style are more inclined to arouse their emotions in an unhealthy way, they usually look for avoidance goals, and in pursuit of goals, they believe in achieving the goal.

It will have little pleasure for them, and failure to achieve the goal will make them a little sad, besides, these people pursue it without thinking about success or failure in achieving the goal, and generally search in an unrealistic way and pursue goals and are indifferent to achieving their goals. On the contrary, people whose motivational style is adaptive spend their resources in pursuit of healthy goals. In recent decades, attention to the importance of motivational mechanisms in the understanding and treatment of disorders in the field of psychology has become much more obvious (7,8).

Materials and Methods

This research is of a clinical type and is included in applied research. In this research, a pre-test and post-test design with a control group was used. The number of 126 students from the statistical population of all female high school students in Mashhad (2014-2015) were first selected by multi-stage cluster sampling method and then by random method, and after completing the consent form to participate in the research, the personal goals questionnaire was implemented.

Then, 60 people with a more non-adaptive motivational structure were selected and completed the mindfulness questionnaire, and finally, 42 people were matched based on their mindfulness scores, and there were 21 participants in the experimental group and 21 participants in the control group. 21 participants were replaced. It should be noted that each of these two groups was divided into three groups of 7 people and the training was conducted on

groups of 7 people. The research and data collection was done in a period of six months. The scores of participants' motivational structure and mindfulness were recorded in the pre-test phase. The participants of the experimental group attended the mindfulness skills training sessions (8 one-hour sessions).

The participants of the control group participated in study skills training sessions (8 one-hour sessions). In the post-test stage (after the sessions), the participants of both test and control groups completed the personal goals and mindfulness questionnaire. It should be noted that both groups were guided by the researcher to eliminate the effect of the experimenter (the researcher has a certificate of mindfulness courses).

After the implementation of the project, the researcher's phone was provided to the participants so that they could be informed about the results of the research if they wish

Results

The demographic characteristics of the two groups were as follows. The age range of the participants of the mindfulness intervention group was 17-18 and the participants of the control group were 17-18. Most of the parents had a high school diploma and a few had bachelor's or master's degrees. The students were also asked about being the second child in the family and they had different ranges in this regard. In order to check the assumption of normality of the distribution of scores in the experimental and control groups, the Kolmogorov Smirnov test was used.

Table 1. The results of the Kolmogorov-Smirnov test of the research scales in the mindfulness and control intervention groups

Variable	Test	Values	Mindfulness interruptive group	Sham control group
Motivational structure	Pre-test	k-s	0.601	0.577
		Sig. level	0.863	0.893
	Post-test	K-S	0.622	0.501
		Sig. level	0.834	0.963
Mindfulness	Pre-test	K-S	0.723	0.381
		Sig. level	0.672	0.999
	Post-test	K-S	0.449	1.161
		Sig. level	0.942	0.475

As seen in the above table; According to the results of the Kolmogorov-Smirnov test, it can be said that in the experimental groups and the control group in the pre-test and post-test stages, the distribution of scores related to the research variables is normal.

Table 2. The results of the Kolmogorov-Smirnov test of the components of the motivational structure in the mindfulness and control intervention groups

Variable	Test	Values	Mindfulness interruptive group	Sham control group
Reaching goal	pre-test	K-S	0.601	0.577
		Significance level	0.863	0.893
	Post-test	K-S	0.622	0.501
		Significance level	0.834	0.963
Avoidance of goal	pre-test	K-S	0.723	0.381
		Significance level	0.672	0.999
	Post-test	K-S	0.449	1.161
		Significance level	0.942	0.475
Control	pre-test	K-S	0.906	0.486
		Significance level	0.384	0.972
	Post-test	K-S	0.622	0.775
		Significance level	0.834	0.585
Awareness of goal	pre-test	K-S	0.66	0.583
		Significance level	0.77	0.886
	Post-test	K-S	0.923	0.58
		Significance level	0.361	0.89
Attempt	pre-test	K-S	0.867	0.44
		Significance level	0.44	0.988
	Post-test	K-S	0.69	0.743
		Significance level	0.728	0.639
Chance	pre-test	K-S	0.813	0.499
		Significance level	0.522	0.964
	Post-test	K-S	0.53	0.463
		Significance level	0.942	0.983
Happiness	pre-test	K-S	0.991	0.135
		Significance level	0.486	0.421
	Post-test	K-S	0.972	0.994
		Significance level	0.775	0.772
Non-happiness	pre-test	K-S	0.585	0.59
		Significance level	0.583	0.742
	Post-test	K-S	0.886	0.64
		Significance level	0.58	0.43
Sadness	pre-test	K-S	0.89	0.993
		Significance level	0.44	0.433
	Post-test	K-S	0.988	0.992
		Significance level	0.743	0.863
Commitment	pre-test	K-S	0.639	0.446
		Significance level	0.499	0.971
	Post-test	K-S	0.964	0.303
		Significance level	0.463	0.844
Time	pre-exam	K-S	0.983	0.475
		Significance level	0.44	0.988
	Test	K-S	0.69	0.743
		Significance level	0.728	0.639

As can be seen in the above table, according to the results of the Kolmogorov-Smirnov test, it can be said that in the experimental groups and the control group, in the pre-test and post-test stages, the distribution of scores related to the components of the motivational structure are normal.

In order to check the assumption of homogeneity of variances in the experimental group and the control group, Levin's test is used. If the significance level of the test is greater than 0.05; It can be said that the assumption of homogeneity of variances in the groups has been met.

Table 3. The results of Levene's test related to the scales in the two intervention groups of mindfulness and control

Scale	Components	F	Significance level
Motivational structure	-	0.502	0.614
	Reaching goal	1.833	0.189
	Avoidance of goal	0.078	0.926
	Control	2.685	0.095
	Awareness of goal	0.266	0.77
	Attempt	2.095	0.152
	Chance	3.009	0.1
	Happiness	1.833	0.189
	Non-happiness	0.058	0.81
	Sadness	0.186	0.672
	Commitment	2.186	0.157
	Time	0.249	0.624
Mindfulness		2.831	0.11

The results of Levin's test show that the homogeneity of variances in both test and control groups has been observed in cognitive variables and motivational structure components. Considering that the motivational structure in the post-test stage was the dependent variable, the group was the independent variable, and also in order to control the effect of the pre-test, covariance analysis was used. First, in the statistical model of covariance analysis of the pre-test effect, the score of the motivational structure in the pre-test stage was entered into the model as a covariate. The average scores of the motivational structure of the participants of the studied groups in the pre-test and post-test stages are given in Table 4.

Table 4. Average scores of motivational structure and mindfulness of the participants of the studied groups in the pre-test and post-test stages

		Motivational structure		Mindfulness	
	Test	M	SD	M	SD
Mindfulness interruptive group	Pre-test	48.37	7.09	36.38	5.13
	Post-test	62.76	7.38	43.71	6.17
Sham control group	Pre-test	54.25	8.46	37.14	5.88
	Post-test	53.86	10.31	39.71	7.02

The results showed that after adjusting the pre-test scores of the motivational variable, there was a significant effect of the factor between the participants of the group (Partial= 0.164, *P*= 0.001, F (1, 42) = 14.14). According to the table of averages of the studied groups in the pre-test and post-test stages, the PCI scores of the participants have increased in the direction of becoming more adaptive. In other words, the mindfulness intervention program was associated with a greater improvement in the participants' motivational structure scores than the control group.

Discussion

According to the above results, it seems that the creation of stronger social supports and educational and psychotherapy programs by the centers. Government and non-government service providers to students can be effective. Although no research has been observed in the field of the above topic, but in relation to the effect of mindfulness on the variables of depression, stress, aggression, anxiety of mothers of mentally retarded children and many other cases, a lot of research has been done and positive results have been obtained, which are mentioned below. In a research, Iqbali showed that in the combined levels of therapeutic methods and emotional styles, the amount of dependent variables under study is generally different, and the interactive effect of independent variables (emotion regulation training and cognitive therapy based on mindfulness) and emotional styles on the dependent variables of self-blame, rumination Mentally, catastrophizing, blaming others and depression are significant (9).

Fedayi showed that teaching cognitive behavioral therapy based on mindfulness to mothers of mentally retarded children leads to a decrease in their anxiety (10). In a research, Nizampour showed that mindfulness training based on stress is effective in reducing aggression, risky behavior and improving the quality of life of homeless boys (11). Kaviani shows in an article that cognitive therapy based on mindfulness increases resilience and reduces depression (12).

Lavas also showed in a research that after the intervention based on the training of mindfulness skills, depression in the experimental group significantly decreased compared to the control group and the mean of stubbornness showed a significant increase (13). In a research, Smith showed that mindfulness-based anxiety reduction training can significantly improve the symptoms of obsessive-compulsive and aggression at a clinical level (14).

Conclusion

It seems that cognitive therapeutic exercises based on mindfulness affect the cognitive system and information processing by increasing people's motivation in the present moment through techniques such as paying attention to breathing and body and paying attention to the here and now.

Therefore, considering the effectiveness of this type of training and taking into account the benefits of this method in the field of motivational structure components and increasing stubbornness, it is recommended to use it widely.

References

1. Cox WM, Klinger E. Handbook of motivational counseling: concepts. Approaches and assessment. USA: Lewis; 2004.
2. Cox WM, Klinger E. Motivational structure: Relationships with substance use and processes of change. Addict Behav 2002; 27(6): 92-4.
3. Gaba M, Howard S, Jump B. Production pressure in the work environment. Anesthesiology 1994; 81: 488-500.
4. Jackson S. The role of stress in anesthesiologists; health and well-being. Acta Anaesthesiol Scand 1999; 43: 583-602.
5. Kain ZN, Chan KM, Katz JD, Nigam A, Fleisher L, Rosenfeld LE. Anesthesiologists and acute perioperative stress: A cohort study. Anaesth Analg 2002; 95: 177-83.
6. Kivimaki M, Sutinenm R, Elovainio M, Vahtera J, Räsänen K, Töyry S, et al. Sickness absence in hospital physicians: 2 year follow up on determinants. J Occup Environ Med 2001; 58(6): 361-6

7. Kojima M, Senda Y, Hayashi H, Tokudome S. [An example of psychometric validation of a mental health questionnaire used at a work place]. Sangyo Eiseigaku Zasshi 2002; 44(6): 236-41. (Japanese)
8. Lavée Y, Sharlin S, Katz R. The effects of parenting stress on marital quality: An integrated mother-father model. J Fam Issu 1996; 17: 114-35.
9. Lazarus RS. Stress and emotion: A new synthesis. New York: Springer; 1999.
10. Fadaei M. [Efficacy of cognitive-behavioral therapy based on mindfulness on mothers of children with low mental ability]. MS. Dissertation. Ferdowsi University of Mashhad, 2011. (Persian)
11. Nezampoor H. [Efficacy of stress-based mindfulness on reducing aggression, high risk behavior and enhancement of life-quality among adolescents without parents]. MS. Dissertation. Ferdowsi University of Mashhad, 2012. (Persian)
12. Kaviani H. [Efficacy of cognitive-behavioral therapy based on mindfulness on life quality in non-clinical depressed individuals]. Journal of news in cognitive sciences 2010; 10: 39-48. (Persian)
13. Levine M. The positive psychology of Buddhism and yoga happiness. Mahwah, NJ. Lawrenec Erlabaum Associates, Inc; 2000.
14. Smith CA, Haynes KN, Lazarus RS, Pope LK. In search of the cognitions; attributions, appraisal and their relation to emotion. J Pers Soc Psychol 1993; 65: 915-29.