



Journal of Fundamentals
of Mental Health



Mashhad University
of Medical Sciences



Psychiatry and Behavioral Sciences
Research Center

Original Article

The effect of group training of mindfulness-based cognition approach on anger reduction in female psychology students of Azad University of Behbahan

*Khosrow Behrang¹; Ayatollah Karimi Baghmalek²; Najmeh Baradaranzad; Zohreh Mohammadi²

¹MA. student in consultancy, Islamic Azad University, Ahvaz Branch, Ahvaz, Iran.

²Farhangian University of Iran, Iran.

Abstract

Introduction: The effect of group training of mindfulness-based cognition approach on anger reduction of female psychology students of Azad University of Behbahan were studied in this research.

Materials and Methods: The statistical population of the study included female students of Azad University psychology of Behbahan and its statistical sample included 30 students who were selected for available sampling in experimental and control groups in 2015. The measured tool in this study is Trait Anger Expression Inventory. Then the experimental intervention (group training of mindfulness-based cognition approach) was applied to the experimental group in 8 sessions. In order to analyze the data, in addition to descriptive statistics such as mean and standard deviation, inferential statistics methods like multivariate covariance were used.

Results: The results of analysis showed that the group training of mindfulness-based cognition approach caused female psychology students anger reduction in the experimental group compared to the control group ($P < 0.05$).

Conclusion: It seems that the group training of mindfulness-based cognition approach can reduce anger.

Keywords: Anger, Cognitive, Mindfulness, Students

Please cite this paper as:

Behrang K, Karimi Baghmalek A, Baradaranzad N, Mohammadi Z. The effect of group training of mindfulness-based cognition approach on anger reduction in female psychology students of Azad University of Behbahan. *Journal of Fundamentals of Mental Health* 2016; 18(Special Issue):401-408.

Introduction

The student period is usually one of the most sensitive and influential times that a person experiences in life. Being away from home and family, the compulsion and necessity of independence, the dormitory environment and sometimes the feeling of loneliness provide

conditions that can be considered as the transition from the most sensitive periods in many cases. In these conditions, environmental problems and failures cause some negative feelings anger is said to have negative effects on interpersonal and intrapersonal relationships (1). Anger is defined as an unpleasant internal emotional state with

*Corresponding Author:

Islamic Azad University, Ahvaz Branch, Ahvaz, Iran .

Received: Aug. 22, 2016

Accepted: Sep. 29, 2016

variable frequency and intensity, which is often characterized by false thoughts and perceptions, physical arousal, and an increasing desire to perform verbal behaviors or movements that are culturally objectionable (2).). Therefore, people who have a lot of anger and lack of self-control usually struggle with many problems and even with great abilities, they achieve less success than their similar people. They constantly have tense interpersonal relationships, experience less satisfaction and, as a result, less happiness in life (1). Girls are more emotionally sensitive than boys and have less strength and tolerance in the face of difficult life situations and are more affected (3).). Group therapy as one of the types of therapy became popular after World War II. It was feasible to hold these meetings in small groups with the presence of a counselor or therapist who played the role of facilitator. In this method, people interact in homogeneous groups in a safe, calm and informal environment and express their problems and hear the problems of others and find out that others have more or less similar problems and in this way refine. They help each other psychologically (4). Mindfulness is a therapeutic technique that is a combination of relaxation and a unique cognitive component. Mindfulness, according to the definition of Kabat-Zinn and Han, in its simplest form, is awareness of what is happening in the present moment (5). Mindfulness is a holistic intervention that does not differentiate between body and mind (6) One of the therapeutic approaches that uses mindfulness is cognitive therapy based on mindfulness. The cognitive basis of this approach is the theory of cognitive subsystems (7). In this theory, the relationship between cognitive and emotional processes is complex and multifaceted. In this approach, participants are taught that whenever negative thoughts or feelings appear in them, before responding to them, allow the thoughts to remain in their minds as they are (8) Mindfulness with the help of breathing and using Body parts, awareness of events, awareness of the body, breathing, voice, thoughts and acceptance of thoughts without judgment about them, leads to a certain emotional change and the person realizes that thoughts are simple thoughts before they are reflections of reality and these negative and anxiety-inducing thoughts are not necessarily

correct. The method of mindfulness makes a person notice his automatic activities and normal behaviors and gain increasing awareness and alertness in his activities. This awareness of thoughts and feelings leads to a change in the person's relationship with those thoughts and feelings (8). In a research, they compared the effectiveness of mindfulness-based cognitive therapy group with cognitive-behavioral therapy group in reducing driving anger and aggression. The results showed that cognitive therapy based on mindfulness compared to cognitive-behavioral therapy causes a significant decrease in driving anger, aggressive expression of driving anger and a significant increase in constructive adaptive expression of driving anger (9). Also, in a research, the effectiveness of mindfulness on reducing rumination and depression of Isfahan University students has been investigated. The results of covariance analysis indicated the significant effectiveness of the cognitive therapy method based on mindfulness on depression in the test group compared to the control group (10). According to the mentioned contents and also considering that so far in the statistical population in question (female students of Behbahan psychology), a research was conducted with the combination of the variables of this research (group training based on cognitive method based on mindfulness, anger). has not been done, this research tries to determine whether group training based on mindfulness-based cognitive method will reduce the anger of female psychology students of Behbahan Islamic Azad University.

Materials and Methods

The statistical sample of this clinical research included 30 female students studying psychology at Behbahan Azad University, who were selected from among 217 female psychology students through available sampling. Then these students were randomly divided into two test and control groups. Then, group training sessions were held once a week during eight 90-minute sessions. After that, both test and control groups were exposed to the post-test.

Research instrument

A) *Spielberger Trait-State Anger Questionnaire*: This list is a pencil-paper scale that was prepared for the age group of 16-30 years old and has 57

items, which include six scales and five subscales, and its items are arranged in three sections, which include trait anger scale, state anger scale. And the emergence and control of anger.

This test has been standardized in Iran on the students of Isfahan University, and each of the sections and subscales of this list have internal consistency (0.60 to 0.93), composition coefficient (0.57 to 0.89) and retest coefficient (0.72 to 0.93) is (11).

The content of the sessions in this research was designed by emphasizing the theoretical principles and therapeutic techniques available in the mindfulness method to reduce students' anger and increase self-control.

The structure of the sessions was adjusted using the theory of mindfulness in 8 sessions.

Certain tasks must be done in each meeting, which includes the distribution of educational pamphlets related to the meeting, tapes and reading materials, and preparing the room before each meeting.

At the beginning of each session, the curriculum is presented, at the end of each session, educational pamphlets are distributed among the participants, and follow-up classes are organized according to the conditions (5).

In addition, in each session, the exercises are experienced in a practical way, and then there is a discussion and exchange of opinions about the experience gained, and at the end, exercises are given to be performed until the next session, which are discussed and exchanged in the next session. The description of the meetings is as follows:

The first session - determining the goals of the session, setting the general policy, inviting the participants to form groups of two and introducing themselves to each other, and then group members as a unit, practice eating raisins, homework and handouts of the first session (about automatic guidance).

Second session - Relaxation practice, exercise review, homework review, thoughts and feelings practice, sitting meditation, distribution of tapes and pamphlets of the second session (about the presence of mind, more focus on the body and mental whispers, anger and uncontrollable impulses).

Session 3 - practice seeing or hearing, sitting in meditation, reviewing practice, homework, distribution of handouts and tapes, list of unpleasant events (this list includes frustrating, infuriating, and issues that a person cannot control themselves in front of) slow).

The fourth session - practice of seeing or hearing, reflection, revision of practice, revision of homework, distribution of pamphlets and tapes (in this series, there are materials about the presence of mind, anger, impulses and self-control). Fifth session - sitting meditation, revision of exercise, revision of homework, reading of Roman poetry, homework, distribution of pamphlets and tapes (in this collection, there are materials about awareness of breathing, body, thoughts and sounds, as well as anger and self-control).

Session 6 - sitting meditation, revision of exercise, revision of homework, creation, thoughts and point of view practice, and distribution of pamphlets and tapes (in this series about creation and negative thoughts and that thought is just thought, as well as thoughts before anger and impulses contents have been mentioned).

Seventh session - sitting meditation, reviewing exercises, reviewing homework, practicing observing the connection between activity and creation, 3-minute breathing space, giving homework and distributing pamphlets and tapes (in this collection, there are materials about the mind, impulses, anger, anger, self-control and There are negative moods).

Session 8 - Relaxation practice, homework review, review of the entire program, distribution of questionnaires, ending the class with a final reflection, distribution of pamphlets and tapes (in these pamphlets, there are materials about the daily presence of mind, as well as issues about anger and self-control) . Implementation of the post-test (5).In order to analyze the data, it was investigated using SPSS software. Mean and standard deviation were used for descriptive findings and covariance test was used to explain research findings.

Results

In this section, the mean and standard deviation of the scores of the sample subjects in the variables of anger, separately from the test and

control groups, are reported (Table 1). Anger is one of the important variables of this research,

which has 4 components: state anger, trait anger, anger expression and anger control.

Table 1. Mean and standard deviation of anger variable

Experimental group				Control group				Standard deviation
Pre-test		Post-test		Pre-test		Post-test		
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	
Anger expression	40.00	5.70	37.83	4.30	35.25	6.80	37.25	7
Anger control	41.66	6.90	62.00	8.50	45.90	6.61	46.60	8.30
State Anger	17.66	3.25	16.17	1.11	15.58	1.24	15.75	1.42
Trait Anger	21.67	3.79	19.83	3.60	20.08	4.07	22.33	2.26

According to Table 1, the anger control variable of the test group in the pre-test and post-test situations has an average of 41.66 and 62, respectively. In this regard, the amount of anger expressed in the test group is 40 in the pre-test and 37.83 in the post-test. Also, the averages in the test group show that the average trait and mood anger in the post-test has decreased compared to the pre-test.

In addition, the anger control variable of the control group in the pre-test and post-test conditions has the mean of 45.9 and 46.6, respectively. Also, the averages in the control

group show that the mean of trait anger (22.33) increased in the post-test compared to the pre-test (20.08). This issue has been almost unchanged in anger, however, these changes may not be statistically significant. In this regard, the amount of expressing anger in the control group is 25.35 before the test and 25.37 after the test.

In order to remove the effects of the pre-test from both the test and control groups, regression was used before covariance, and the assumption of regression homogeneity was confirmed, then the covariance test was performed.

Table 2. Multivariate covariance results

Trace		Value	F	Error degree of freedom	P	Trace
Tracking	Pillai trace	0.759	11.83	15	0.000	0.759
	Wilks lambada	0.241	11.83	15	0.000	0.759
	hotelling	3.15	11.83	15	0.000	0.759
	The roots	3.15	11.83	15	0.000	0.759
Groups	Pillai trace	0.229	1.11	15	0.386	0.02
	Wilks lambada	0.771	1.11	15	0.386	0.02
	Hoteling	0.297	1.11	15	0.386	0.02
	The roots	0.297	1.11	15	0.386	0.02

According to the above table, after adjusting the pre-test, the results show that there is a significant effect between the test group and the control

group, at least in one of the variables. This difference is significant at $P < 0.02$ level. Table 3 shows the one-way variance in MANCOVA text.

Table 3. One-way variance in MANCOVA text

Source	Variable	Sum of squares	Error of freedom	Mean squares	F	P
Model verification	Anger control	302.59	5	60.52	1.74	0.175
	Expression of anger	396.25	5	79.25	1.12	0.385
	Trait-anger	86.60	5	17.32	2.09	0.114
	State-anger	14.37	5	2.87	2.29	0.89
Tracking	Anger control	146.56	1	146.56	4.23	0.054
	Expression of anger	70.01	1	70.01	0.99	0.333
	Trait anger	51.38	1	51.38	6.19	0.023
	State anger	41.38	1	41.38	32.99	0.000
Group	Anger control	95.61	1	95.61	2.76	0.03
	Expression of anger	13.57	1	13.57	0.192	0.023
	Anger trait	18.59	1	18.59	2.24	0.045
	State anger	0.280	1	0.280	0.227	0.200

According to the results of Table 3, all the dependent variables, except the state anger with pre-test control, have been able to obtain a significant difference in the test group compared

to the control group. Table 4 shows the adjusted averages of the test and control groups, when the effect of the pre-test has been removed from them.

Table 4. Adjusted averages

Variable	Group	Mean	Standard deviation
Anger expression	Experimental	32.12	1.86
	Control	36.87	1.86
Anger control	Experimental	49.51	2.66
	Control	47.73	2.66
Trait-anger	Experimental	20.03	0.912
	Control	16.08	0.912
State-anger	Experimental	16.08	0.355
	Control	15.82	0.355

Discussion

The aim of the current research was to determine the effectiveness of mindfulness-based therapy on reducing anger expression, increasing anger control, reducing state and trait anger in students. Valid and reliable questionnaires were used in a scientific way to answer the main research

questions. The following results can be inferred from the research findings.

Regarding the effectiveness of mindfulness-based group counseling on reducing anger expression, the results of this research showed that mindfulness-based group counseling is effective in reducing anger expression. The findings of this research are generally consistent

with the findings of other studies (9,12-17). These researchers came to the conclusion that mindfulness-based treatments are effective in reducing anger and aggression and expressing anger. In this regard, it can be said that emotions are mental, biological, purposeful and social phenomena. Natural phenomena that occur in different people under the same conditions. One of the emotions that play an important and effective role in everyone's life is the emotion of anger. Anger is defined as an unpleasant internal emotional state with variable frequency and intensity, which is often characterized by false thoughts and perceptions, physical arousal, and an increasing desire to perform verbal behaviors or movements that are culturally objectionable. Also, anger is a reaction related to tension and hostility, which is provoked by being in various situations of real or imagined failures, injuries, humiliations or injustices, which may lead to involuntary responses such as Increase in blood pressure, heart rate, sweating and increase in blood sugar. Anger generally results from muscle tension and excitation of the autonomic nervous system, endocrine activity, and irrational beliefs about others (2,18,19). The important feature of anger is that while it is a part of life, it can prevent us from achieving our goals, in other words, although anger is a natural and sometimes useful emotion, it also carries risks, when anger is out of control and If it is destructive, it can lead to problems in work, interpersonal relationships and quality of life. Thus, if we do not learn how to control our anger, our anger will take control of us (20,18). One of the ways to control anger is to use psychological treatments, and one of the available treatments in this field is mindfulness-based treatments. Mindfulness means paying attention to the present in a specific, purposeful and non-judgmental way. Technical mind-awareness is not for understanding the past or correcting the wrong ways of thinking in the past, and it does not deal directly with the treatment of problems, but with awareness, it pays attention to the investigation of the underlying stimuli of cognitions and emotions, and exposes the hidden themes of life to awareness; In this way, without judgment or blame, it shows that first emotions are composed of thoughts, bodily sensations, raw emotions and impulses. Second, they are often deep and pervasive symptoms of dysfunction in

the way we relate to ourselves, others, and the world. They announce internal and external information and are signs that should only be observed and noticed in this moment without judgment or blame. Thus, mindfulness is a method of training the mind and acts like a microscope that shows the deepest patterns of the mind. When the mind is observed in action, thoughts and emotions disappear by themselves (13). One of the important aspects of mindfulness-based therapy is that people learn to deal with negative emotions and thoughts and experience mental events in a positive way, and another important point is that mindfulness-based therapy causes It becomes a mental representation of the objects in life that are beyond the immediate control of humans, and this is taught through deep breathing and thinking (9). One of the main reasons for repeated aggressive behavior is their lack of basic social skills, and because they do not know how to communicate effectively, they choose the wrong way to express themselves and express their anger. In this treatment, the therapist explains the basis of learning response styles with boldness instead of existing aggressive methods, he explains to the client the negative consequences of aggressive responses and also the use of positive consequences. Emphasis on one's rights, which are expressions of boldness, emphasizes (19). In this method, aggressive people are taught to observe their thoughts and feelings without judgment and see them as simple events that come and go, instead of seeing them as a part of themselves or Consider a reflection of reality. Practicing mindfulness skills increases clients' ability to tolerate negative emotional states and enables them to cope effectively. Continuously performing mindfulness exercises increases people's knowledge and awareness of their body, feelings and thoughts (14,13).

The results of this research showed that group counseling in the way of mindfulness is effective in increasing anger control. The findings of this research are generally in line with the findings of (13,14,16,17,21). These researchers concluded that mindfulness-based treatments are effective in reducing anger and aggression. Regarding the effectiveness of this treatment on aggression, it can be said that the goal of anger control approaches is to acquaint the aggressive person

with the pattern of anger and its relationship with events and thoughts that cause violent behavior. Anger control skills make people better able to control their anger through self-soothing, immunity from stress, venting anger, and facing issues with negotiation and courage. In this treatment, by reducing the use of cognitive distortion and increasing the use of objective understanding of events and correct and efficient logic and the use of behavioral techniques, it reduces the amount of anger (13,19). Teaching anger control skills creates psychological and social abilities in people that they can use when dealing with problems and pressures of personal and social life and have control over their thoughts, feelings and behavior. These skills make a person ready to face the challenges of life, and also make their personality stronger and increase their insight into life and its events, and increase their skills in managing life and communicating with others. 22).

Mindfulness-based group counseling has no effect on reducing state anger. The findings of this research are generally inconsistent with the findings of (20,22,14,16,17). These researchers concluded that mindfulness-based treatments are effective in reducing anger and aggression. Mind-awareness moderates emotions without judgment and increases awareness of mental and physical feelings and helps to clearly see and accept emotions and physical phenomena as they happen. Learning to observe disturbing thoughts and emotions without judgment and being receptive instead of avoiding or mentally preoccupied with them leads to increased awareness of experience and creating a conscious and adaptive reaction and better control of unpleasant thoughts or emotions; Therefore, it can play an important role in adjusting aggression scores. The reason for the effectiveness of this treatment is that this method leads to a cognitive change in a person's way of thinking and acting and benefits from the principles of conditional reinforcement, thus

people try to see themselves in a higher step to go to the next step. This tendency continuously causes gradual improvement (23,16).

The results of this research showed that group counseling in the way of mindfulness is effective in reducing state anger. The findings of this research are generally in line with the findings of (12,14,16,17,21). These researchers concluded that mindfulness-based treatments are effective in reducing anger and aggression. In this regard, it can be said that one of the important aspects of mindfulness-based therapy is that people learn to deal with negative emotions and thoughts and experience mental events in a positive way. Also, in relation to the effectiveness of treatment, it can be noted that pathological attention is the basis of anger and aggression symptoms, and increasing attention control should be effective in reducing anger. In the method of training attention control, a person learns to clear his mind of any judgments that lead to anger and aggression in him, and to focus deeply on the present and apply it in daily behaviors and activities. Use yourself To increase attention control, a person learns to do this exercise in his life alternately in the tasks he is involved in, until he reaches a point where he is completely aware of time and place (13,24). With self-awareness, a person becomes calmer and more aware of himself, and when he gets angry, due to the increase in awareness of a person, as the first step, he becomes aware of the existence of anger in his being and accepts it until the steps Next is to manage it. With self-awareness and gaining the ability to review and reconstruct the intensity and direction of an emotion in themselves and others, people adjust and control negative emotions internally and change their direction towards compromise (9,18).

Conclusion

Based on the results, mindfulness reduces anger in psychology students.

References

1. Workman A, Katreh A. [Behavioral self-control training to students]. Ismail M. (translator). Tehran: Danzheh; 2007. (Persian)
2. Dwall CN, Finkel EJ, Denson TF. Self-control inhibits aggression. *Social Pers Psychol* 2011; 5(7): 458-72.
3. Khodae MH. [The effectiveness of group consulting in logical-emotive-behavioral on public health and first year female students self-esteem in Ilam]. MA Dissertation. Ahvaz Islamic Azad University, Science and Research Branch, 2006. (Persian)

4. Nikzad M. [Group consulting principles]. Tehran: Keyhan; 2000. (Persian)
5. Mohammadkhani P, Khanipour H. [Mind presence-based treatments]. University of Rehabilitation Sciences and Social Welfare; 2012. (Persian)
6. Mohammadkhani P, Dabson KS. [The effectiveness of combined treatment (Mindfulness-based cognitive therapy and cognitive behavioral therapy). New cognitive behavioral therapy and usual care in preventing depressive relapse]. Research project of the University of Social Welfare and the University of Calgary; 2006. (Persian)
7. Teasdal JD, Barnard P. Affect, cognition and change: Remodelling depressive thought. Hove: Erlbaum; 1993.
8. Murphy R. The effects of mindfulness meditation vs. progressive relaxation on stress egocentrism, anger and impulsiveness among; 1995.
9. Kazemeini T, Qanbari Hashem Abadi B, Modares Qaravi M, Azizolahi Aliabadi M. [The comparison of the effectiveness of mindfulness-based cognitive group treatment with cognitive group treatment]. 2011. (Persian)
10. Azarگون H, Kajbaf MB, Molavi H, Abedi MR. [The effectiveness mindfulness training on reduction of rumination and depression of Isfahan University students]. Journal of Daneshvar 2009; 16: 87-54.
11. Khosayarifard ML, Masoud AB, Zardkhaneh Saeed V, Liaghqt S. [State-trait Anger Expression Inventory standardization of Spielberger]. MA. Dissertation. University of Rehabilitation Sciences and Social Welfare, 2011. (Persian)
12. Singh NN, Lancioni GE, Karazsia BT, Winton ASW, Myers RE, Singh NA, et al. Mindfulness-based treatment of aggression in individuals with mild intellectual disabilities: a waiting list control study. Mindfulness 2013; 4: 158-67.
13. Faramarzi S, Rahimi S, Valadbeigi B. [The effectiveness of mindful-based cognitive treatment on aggression reduction]. (Persian)
14. Silva JM .Mindfulness based cognitive therapy for the reduction of anger in married men. 2007.
15. Segal ZV, Williams JMG, Teasdal JD .Mindfulness-based cognitive therapy for depression. New York: Guilford; 2002.
16. Pellegrino. Evaluating the mindfulness-based and cognitive-behavior therapy for anger management program. PCOM psychology Dissertation. 2012: 235.
17. Fix RL, Fix ST. The effects of mindfulness-based treatments for aggression: a critical review. Aggress Viol Behav 2013; 18: 219-27.
18. Shokouhi Yekta M, Beh Pazhooh A, Qobari Bonab B, Zamani N, Parand A. [The effect of anger management training skills on anger management of mothers of students with mental retardation and unapt]. Res Excep Children 2010; 8(4): 369-85. (Persian)
19. Rahimi Ahmadabadi S, Agha Mohammad Sherbaf H, Modares Qarvi M, Karshaki H. Investigation of effectiveness of cognitive-behavioral group treatment in anger reduction in patients with head trauma. The scientific journal of coroner 2014; 2(20): 37-45.
20. Singh NN, Lancioni GE, Winton ASW, Curtis WJ, Wahlev RG, Sabaawi M, et al. Mindful staff increase learning and reduce aggression in adults with developmental disabilities. Res Dev Disabil 2006; 27: 547-58.
21. Hamidian S. [The effectiveness of mindfulness-based treatment on depression, anger, rumination, the ability of emotion and mindfulness regulation in patients with dysthymia]. MS. Dissertation. Shiraz University of Medical Sciences; 2012. (Persian)
22. Zare H, Mohammadi N, Mottaghi P, Afshar H, Leylipoor K. The effect of adjusted treatment of mindfulness-based cognitive treatment on disaster concept, acceptance and intensity of pain in patients with fibromyalgia. Health Psychol 2014; 4(3): 93-113.
23. Jahangirpoor M, Moosavi W, Khosrowjavid M, Salari A, Rezae S. The effect of mindfulness-based group training on reduction of depression, hostility and anxiety in patients with coronary heart disease. Journal of Urmia University of Medical Sciences 2013; 9: 730-9. (Persian)
24. Goldin PR, Gross JJ. Effects of mindfulness-based stress reduction on emotion regulation in social anxiety disorder. Emotion 2010; 10(1): 83-91.