



EFFECTIVENESS OF MIND- FULNESS BASED_ STRESS REDUCTION ON GASTROINTESTINAL DISEAS SIGNS

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ABSTRACT

Background & Aims: The aim of the present study was to examine the effectiveness of mindfulness-based stress reduction training on gastrointestinal symptoms reduction of patients with gastrointestinal disorders .
Methods: The study design was quasi-experimental with pretest-posttest by using control group. The sample of the study consisted of 30 patients with gastrointestinal disorders (Irritable Bowel Syndrome, peptic ulcer, and duodenal ulcer) based on diagnostic criteria (ROMEIII) which were selected by purposive sampling method among patients referred to internal medicine experts and admitted to Abbasi Hospital of Miandoab in 2016. The patients were randomly divided into two groups of experimental and control. After performing the pretest by using Gastrointestinal Symptom Rating Scale (GSRS), the experimental group received mindfulness-based stress reduction intervention during the eight sessions of one and a half hours, while the control group received no psychological intervention; and after the end of the sessions, the posttest was performed for both groups by using the same tools. The collected data were analyzed by covariance (ANCOVA) analysis and SPSS-18 software.
Results: The results indicated that the mean scores of negative emotions and gastrointestinal symptoms rates of experimental group significantly reduced after receiving the mindfulness-based stress reduction intervention ($P < 0/05$).
Conclusion: This findings showed that the mindfulness-based stress reduction intervention is effective and useful as supplement in addition for patients with gastrointestinal disorders (Irritable Bowel Syndrome, peptic ulcer, and duodenal ulcer).

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Introduction

Today, medical researchers increased attention to the complexities of psychological and are concerned to physical disorders [1]. However, functional gastrointestinal disorders group of common diseases of digestive worldwide are without regard to race and gender [2] which Pathologists are not specific and associated with structural abnormalities or biological [3]. chronic and recurrent gastrointestinal symptoms are also characteristics of these disorders that are medically unexplained [4]. However, digestive diseases are including gastric ulcer, duodenal ulcer, acid reflux into the esophagus, gallstones, irritable bowel syndrome or (IBS), liver failure, constipation and peptic ulcer [5]. In addition, gastrointestinal symptoms are such as vomiting blood and returning of food from the stomach and difficulty swallowing food and having nausea and black stools and severe pain in the abdomen and pain in the back and weight loss [6]. On the other hand, management and treatment of these disorders with high costs and frequent use of diagnostic assessment and treatment is not very effective organic axis [7]. However, the economic burden of digestive disorders and mental stress imposes more to the community and health system [8]. In addition, 10% of deaths due to gastrointestinal diseases in Iran [9]. In addition, although Pato physiology of functional gastrointestinal disorders are not entirely clear, but the findings suggest that this disorder is multifactorial, its causes can be included psychological disorders and personality problems [10]. However, the onset of symptoms have been known as severe stress, depression and family debate, dropper trigger [11]. Also, in this connection, Northwestern and colleagues in 2005 during a study showed that people who are with two or more of these symptoms that can not be explained medically, especially when

abdominal pain is one of those two marks, has a high rate of psychiatric disorders [12] However, emotion regulation plays an important role in biological and psychological consequences of adaptation or indeed Astrzay lives and plays. However, the best model is known so far for pathology assessment, treatment and management of these disorders is Bio-psycho-social model ,also based on this model, mental disorders are particularly important in the pathogenesis functional gastrointestinal disorders and the probable cause of psychological discomfort associated with these disorders, functional disorders and badly adjusted in different parts of the brain ventral axis are involving in the hypothalamic axis, Pituitary-adrenal, the sympathetic and parasympathetic nervous systems and hormonal expressed serotonergic [4, 2]. Note that the location of abdomen control in the central nervous system is limbic system, also the limbic system plays a major role in emotionality. However, the work of limbic system is generating excitement and physiological changes from the anatomy nervous system view , may be largely mind-body interaction of this. However, stress is known as a threat to vital organ of balance which to be involved in the creation of functional gastrointestinal disorders, the relationship between stress and digestive function and feeling, forms Bio psychosocial model [13]. However, today, on the basis of new treatments such as mindfulness, the treatment of cognitive - behavioral component is derived from the psychological models in the third wave On the other hand, Mindfulness means paying attention in a particular way, The focus on the three elements involved in it (1) current (2) Targeted (3) non-judgmental, this kind of attention is increase awareness and acceptance of the now reality [14]. However, one of the techniques of mindfulness is facing. Long exposure with the sensation of pain, absence of catastrophic consequences, can lead to desensitization and reduce pain caused by emotional responses; So, practice mindfulness skills can lead to extreme emotional reactions of the body and the ability to experience pain sensations. Finally, if you do not reduce the sensation of pain, it may relieve distress and suffering caused by that However, in the study by [15] according to implement coping skills, compared the effectiveness of CBT and therapists as mindfulness-based stress reduction on symptoms and improve the quality of life of patients (IBS). The results showed that mindfulness-based therapy compared with cognitive-behavioral therapy in reducing symptoms and improving quality of life and coping skills modifiers patients (IBS) is more effective and this effect was maintained during follow-up. On the other hand, a study by [16] as Mind fulness based stress reduction or (MBSR) on the general aspects of well-being, including quality of life, studied to coping with pain, anxiety and depression. And concluded that this method show significant improvements in pain, quality of life, coping with pain, anxiety and depression . On the other hand, this results in the pursuit of strategies to cope with pain and anxiety and depression was not significant. According to terms of the impact (MBSR) research findings have been inconsistent in the durability of the treatment. In addition, the uniqueness and innovation in this study appears that intervention (MBSR) on gastrointestinal disease are such as (irritable bowel syndrome, gastric ulcer and duodenal ulcer), which according to research carried out earlier psychological factors in the disturbances GI is high. Therefore, the present study sought to determine the effect of (MBSR) reducing the presented variables .In addition, the main research question was whether (MBSR) on gastrointestinal symptoms in patients to be effective? As regard, gastrointestinal disease in psychiatric consultation requests are ranked in the first among medical diseases. The ranking reflects the high prevalence of digestive disorders and the relationship between mental disorders and gastrointestinal symptoms. As well as functional disorders are a significant number of gastrointestinal disorders that psychological and psychiatric factors in many cases has an effect on the onset and severity of functional disorders of the gastrointestinal tract [11]. According to the high prevalence and the ambiguity and lack of research on the etiology and treatment of disorders, gastrointestinal is necessary in Iran which has done research in this field , even though drug therapies for these patients is recommended, but treatments that can help many problems of these patients has unused respond. However, the difference and being the new study was that intervention were (MBSR) on the gastrointestinal disease (IBS, gastric ulcer and duodenal ulcer) . The research of this kind in Iran is strongly feel, in this study taking into account that used intervention (MBSR) in order to improve and reduce harmful caused by digestive disorders in these patients , therefore, the importance of this research in the new paradigm of treatment for gastrointestinal disease is moderated and overcome the problems. However, the findings of this direction is important in a way that can be useful in the field of science, as you see , treatment (MBSR) is effective on gastrointestinal symptoms, digestive disease and can be used this method therapists, clinical psychologists and gastroenterologists recommend as a supplement in addition to drugs.

Method

The population in this study were included patients referred to the clinic and inpatient departments of Abbasi hospital in Miandoab City in (2015) because of digestive disorders visit or hospitalization and 30 sampling as a purposive sampling (based on the criteria for entry and exit) were selected and randomly divided and replace in two groups which 15 of them were in control group and 15 were in experimental groups . This study is Semi-experimental study (pre-test - post-test) with the control group. Also, inclusion and exclusion criteria were included: having a digestive disease with a doctor, medication, lack of psychological treatments before entering the study, minimum age 25 and maximum age of 55, having read and write, written consent from the patient for Company informed research, lack of substance abuse and psychiatric disorders. However, statistical analysis was performed with SPSS Afzar18- covariance and software.

Tool

Diagnostic criteria (ROMEIII)

Diagnostic criteria (ROMEIII) is done by the Board, Institute of Rome Tuesday for the diagnosis of functional gastrointestinal disorders as well as a research tool is that after the amendments in 2006 with the cooperation of many gastroenterologists platform took place under the title (ROMEIII) to the scientific community supply and in Iran to detect gastrointestinal symptoms (irritable bowel syndrome, gastric ulcer and duodenal ulcer) used by a gastroenterologist and internal Gastroenterological Association of Iran, (2015).

Gastrointestinal symptom Rating Scale (GSRS)

GI is a tool to assess disease severity scale is based on the symptom of gastrointestinal (GI) and made from clinical experience and is used to evaluate symptoms common digestive disorders . The questionnaire has 15 questions, each question 7 point Likert-type scale in terms of lack of discomfort (.) And discomfort (7) scored. The questionnaire also has been confirmed in

other studies with 5 dimensions. These 5 dimensions are: abdominal pain (stomach ache, pain, hunger, nausea), reflux (heartburn and acid reflux), diarrhea (diarrhea, loose stools, urgent need for disposal), constipation (constipation, hard stools, sensation disposal flawed), dyspepsia (the noise of belli, flatulence, belching and flatulence increase) belching and flatulence increase). Total scores from the total average score obtained on each subscale total score and increasing in the score reflects the severity of symptoms, this questionnaire can be completed by interview or self-report, the internal reliability consistency for the following measures of severity of gastrointestinal symptoms in terms of alpha is 62%, 61%, 83%, 80% and 70%, respectively. However, the American version of the scale has acceptable reliability in use, it should be noted, this questionnaire was translated first into Persian by researchers and then revised by a gastroenterologist and was applied comments of them. Finally someone translated reversed fluently in English, so after ensuring coordination between the two versions of the original and translated, The Severity of GI symptoms were implemented in patients with disorders, digestive function and healthy people in Iran, at all, the validity and reliability of the Persian version gastrointestinal symptoms Rating scale (GSRS), short, review and facilitate common gastrointestinal symptoms, enable researchers and treatments to use from this scale in different areas of research and treatment especially in patients with functional gastrointestinal disorders[12].

Intervention

In this study, after random assignment gastrointestinal disease in both control and experimental groups, to the patients in the experimental group implemented a training group for the intervention of mindfulness-based stress reduction based on the standard way provided by [17] in program eight week treatment with an hour and a half once a week by the investigator and each session includes a brief report content last week, a review of homework and techniques of the meeting, at the end of each session a summary of the most important materials presented in the meeting as a form of writing or brochures to the participants to assigned for homework, Summary content were included eightfold group sessions:

First session: pre-test, communicate and conceptualization of the problem.
Second session: After a short review of the previous session, training in the present through the practice of considering the object (eating raisins).

Third session: Mindfulness of Breathing, assignments over the past week, sitting meditation practice, reviewing practice, practice breathing space of three minutes, after being taught how mindfulness of breathing, and relaxation techniques such as breathing

(Speaking words of peace when you inhale and exhale) without thinking about anything else and watch with your eyes closed breathing was taught.

Session Four: After a short review of the previous session, training body scanning or inspection body was taught for stress relief.

Fifth Session: Stay in the present review assignments last week, five-minute practice "seeing or hearing" this practice of mindfulness of breathing and body checking.

Session VI: thoughts are not facts: Browse assignments last week, discussing a different view of opinion successor, sitting meditation (mindfulness the sound and thoughts).

Session VII: permission or license : Review the last week assignments, breathing exercises, meditation sitting (conscious breathing, body, voice and mind) a description of stress and its relationship with Pain Survey.

Session VIII: Acceptance and Change: Review last week assignments, exercises, body checking, summing up meetings to explore and discuss the program and scan the body and raised questions about the meetings.

Findings

In the present study, the average age of experimental group is 33/38 and the average age of control group is 40/34. T test results showed that the difference in averages was not significant and two groups in terms of age, are unique.

Table 1: Distribution of sex, level of education and the separation of digestive disease group, and chi-square test results to compare these variables in groups

sex	abundance	percent	abundance	percent	$X^2= 0/067,$ $P=0/715$
male	7	46/7	8	53/3	
female	8	53/3	7	46/7	
Level of education	abundance	percent	abundance	percent	$X^2= 0/067,$ $P=0/713$
Highs cool diploma	6	40	9	60	
Upper secondary	7	46/7	8	53/3	
Gastrointestinal disease	abundance	percent	abundance	percent	$X^2= 0/08,$ $P=0/904$
ulcers	4	26/7	5	33/3	
Duodenal ulcer	5	33/3	5	33/3	
Irritable bowel	6	40	5	33/3	

According to the chi-square test results in Table 1 show that, the groups compared have been matched in terms of gender, level of education, type of digestive disease

Table 2. Descriptive statistics gastrointestinal symptoms in separate groups before and after the test

average	number	groups		variables
5/59	12/40	15	Control	Gastrointestinal symptoms after the test
2/19	9/31	15	experiment	
5/24	8/57	15	Control	
3/07	8/23	15	experiment	

Based on the results presented in Table 2 in the pre-test, has been obtained mean and standard deviation gastrointestinal symptom scores for the experimental group and the control group was $59/5 \pm 40/12$ $19/2 \pm 31/9$, as well as in posttest, mean and standard deviation gastrointestinal symptom scores for the experimental group and the control group was $24/5 \pm 57/8$ $07/3 \pm 23/8$, respectively.

Hypothesis: The effect of mindfulness-based stress reduction gastrointestinal symptoms such as (gastrointestinal disease), irritable bowel syndrome, gastric ulcer and duodenal ulcer) disease affects the digestive thigh. However, analysis of covariance was used to test the hypothesis of some assumptions of the covariance analysis and first some of the assumptions were studied (such as normal distribution of scores on the same slope regression and homogeneity of variances)

Table 3: Covariance analysis pretest-posttest gastrointestinal symptoms after adjustment

size	F	sig	Mean square	Degrees of freedom	Total squares	Source change
0/667	<0/001	54/125	344/49	1	344/49	Pretest gastrointestinal
0/157	0/033	5/02	31/7	1	31/97	groups
			6/36	27	171/85	error
				30	2634/04	total

According to the results in Table 3, after controlling for the effect of GI symptoms in pretest, posttest differences between the groups at the level of 0/05 is significant. It means that 95% of teaching mindfulness-based stress reduction affects to reduce gastrointestinal symptoms such as (irritable bowel syndrome, gastric ulcer, duodenal ulcer) digestive disease (F = 5/02, df = 1, 27; P < 0 / 05).

Discussion and conclusion

The aim of this study was to evaluate the effectiveness of training mindfulness-based stress reduction to reduce gastrointestinal symptoms such as (irritable bowel syndrome, gastric ulcer and duodenal ulcer) in gastrointestinal patients, the method of this research design had been selected quasi-experimental (pretest and posttest) with control purposive sampling of 30 samples from patients admitted to internal medicine ward, Abbasi hospital in Miandoab in 2015 that gastrointestinal disorders such as (irritable bowel syndrome, ulcers, wounds d'Oise decade) based on diagnostic criteria (ROMEIII) and endoscopy and pre-test was used for evaluating the severity of Gastrointestinal symptom Rating Scale (GSAS) and were randomly divided and replaced into control and experimental groups . The experimental group was during 8 weekly sessions of mindfulness-based stress reduction intervention for half an hour , but the control group received no psychological intervention. Statistical analysis method (ANCOVA) was conducted by mail tool 18-SPSS. Analysis of covariance showed that the experimental group receiving the intervention of mindfulness-based stress reduction than the control group in post-test, the severity of symptoms by examining the average experimental and control groups, was concluded that the severity of symptoms in the experimental group dropped (P < 0 / 05). The results suggest that mindfulness-based stress reduction intervention is effective as a supplement in addition to drug therapy for patients with gastrointestinal problems such as (irritable bowel syndrome, gastric ulcer and duodenal ulcer) . The hypothesis of this study, the intervention of mindfulness-based stress reduction on gastrointestinal symptoms (irritable bowel syndrome, ulcers and wounds d'Oise decade) affects gastrointestinal disease. Also according to the mean difference in gastrointestinal symptoms in both experimental and control groups in the (pre-test) and the (test) obtained and the results of covariance analysis test gastrointestinal symptoms after adjusting pre-test study: the experimental group after receiving mindfulness-based stress reduction intervention rather than control groups pre-test obtained significant reduction in Gastrointestinal symptom severity scores such as (irritable bowel syndrome, ulcers and wounds d'Oise decades) , after controlling for the effect of pre-test between the two groups in post-test related to the severity of gastrointestinal symptoms ,there were significant differences, however, it can be concluded that reduce the severity of gastrointestinal symptoms caused by the intervention of mindfulness-based stress reduction. The result confirms the hypothesis under study. So far, few studies about the effectiveness of interventions such as mindfulness-based stress reduction to reduce gastrointestinal symptoms have been done in gastrointestinal disease. However, the findings of this study, confirms the results on the effectiveness of mindfulness-based stress reduction to reduce the patients gastrointestinal symptoms. This result is in line with the findings of earlier research by [18] with the impact of mindfulness-based stress reduction to chronic pain differently (back pain, neck pain, headaches, fibromyalgia, etc.) achieve various results, subgroups in sale of arthritis, back and neck pain ,showed a significant change in pain intensity and functional limitations due to pain after the procedure of mindfulness-based stress reduction, in fact, mindfulness-based stress reduction training was effective in reducing the pain , and it is consistent . Noted that one of the complaints of gastrointestinal disease such as (irritable bowel syndrome, gastric ulcer and duodenal ulcer) pain is intense and in order to confirm including research done by [19] , their results showed that 75% of patients with gastrointestinal complaints are in the gastrointestinal pain clinics. Explanations for the results of this study and previous studies, we can say that the approach of mindfulness believes that every person have a period of suffering and pain; this pain with mindfulness, turning to the suffering empathic which leads to feel compassion for ourselves and others , while without mindfulness, experience as an emotionally exhausting experience that mixed with bitterness and anger and is with feelings of helplessness severe [20]. Thus, gastrointestinal disease such as (irritable bowel syndrome, gastric ulcer and duodenal ulcer) in this study ,associated most of their complaints a with severe pain reporting and in this study by teaching mindfulness-

based stress reduction through meditation practice sitting (The presence of mind of feeling) and pay attention carefully to pain and a non-judgmental attitude and the sense of acceptance and the ability to observe without judgment, pain, distress and pain was reduced. The results of the present study is in line with the findings of earlier research by [21] with the theme explaining coping model of the mind consciously showed that directed against catastrophic with mindfulness has a negative correlation with increased mindfulness catastrophic reduced, the study also showed that a significant decrease in post-test is catastrophic, and is consistent. As a regard , the catastrophic pain with positive correlation and negative correlation with mindfulness. In explanations for the results of this study and previous studies, we can say that the manager technics is one of the training technic of in mindfulness-based stress reduction that Kabat Zinn (1982) suggested the growing awareness of the sense of pain and stress responses, enables individuals to responses a variety of coping . Mindfulness-based stress reduction training through exposure therapy techniques that the Kabat Zinn raises: long exposure with a sense of pain in the absence of catastrophic consequences, can lead to desensitization and reduce respond to emotional pain [20]. In addition, with the result of research by [22] that mindfulness training has been effective in reducing anxiety and depression, and is consistent. However, the results of research by the [23, 24, 25, 26, 27, 28] that mindfulness training has been effective in reducing depression, and is consistent.

Conclusion: Mindfulness-based stress reduction intervention can improve digestive problems, or at least reduce the suffering caused by it. So, we can say that: This study confirms the efficacy of this therapy and is effective as a supplement in addition to drug therapy for the treatment of digestive diseases.

Restriction

Lack of follow-up, as sample group use drug during the study in generalized results care to people who not use drug.

Offers

It is recommended that mindfulness-based stress reduction intervention at various intervals after the meetings, held a meeting to reconsider treatment to increase treatment efficiency longer. Subject of study considered in people under 25 and illiterate.

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Reference

1. Sarason B, & Sarason I. The Morbid psychology. Translation: Ali Asghari Moghadam, Mohsen Dehghani and Jan Najarian. Tehran: growth, 2008.
2. Woo D G, Kim H, Lim D, Seo D J, Kong Kong ID, & et al. The Relationship between Functional Gastrointestinal Disorders and Risk Factors: A Biomechanical Analysis .International Journal of Medical ,Health, Biomedical and Pharmaceutical Engineering 2007; 1(2): 8-46.
3. Micut R, Tanasescu MD, & Dragos D. The Areview the psyche motional factor sinfunctional dyspepsia: Revist Medical a Romana 2012; 9(5): 86- 278
4. Porcelli P, & Sonino N. The Psychological factors affecting conditions: Anewclassificationfor DSM V. AdvPsychom Med 2007; 28: 1-9 hos.
5. Harrison N. The Principles of Internal Medicine (Gastroenterology). Translation: M. arjmandi. Tehran: Institute organized printing, 2005.
6. .Sicily. (2004). The Principles of Internal Medicine (diseases of the gastrointestinal tract, liver and bile ducts). Translators: Mhsen arjmand and Isaac Seyed Mahmoud Hosseini, (2007). Tehran: Venerable.
7. Creed F, Henningsen P, & Fink P. The Medically unexplained symptoms, somatization and bodily distress: developing better clinical services. Cambridge, UK: Cambridge University. Press 2011.
8. Khajedeloie M, Vosoghinia H, Bahari A, Khosravi A, Ismail-Zadeh, A, Ganji A, Bahadari satisfaction K, & Mahmoudi R. The Features of demographic, social and irritable bowel syndrome clinical. Medical Journal of Mashhad University of Medical Sciences 2013; Volume 57: Issue
9. Ganji A, Safavi M, Naseri Moghadam S, Nouraei M, vahedi H, & Malek Zadeh R. The Prevalence of Digestive Disease (reference number in the center of Tehran Azsal2005-2001). Journal of Gastroenterology 2006; Volume 11: (message 56), pp. 38 -33.
10. Mazaheri M, Afsha H, Mohammadi N, Daghighzadeh H, Bagherian R, & Literary T. The Its dimensions of alexithymia with depression and anxiety in patients with functional gastrointestinal disorders. Journal of Research in Behavioral Sciences 2010; Volume 8: Issue 2.
11. Sadock, BJ, & Sadock VA. (2007). The summary of Psychiatry: Behavioral Sciences / Clinical Psychiatry. Translated by Farzin Rezaei, (2008) Tehran: Arjomand Publications.
12. Mazaheri M, & Sadat khushui M. The Compare the psychometric properties of Persian version of severity of gastrointestinal symptoms in patients with functional gastrointestinal disorders and healthy controls. Journal of Gastroenterology 2012; Volume 17: Number 1, Spring, S24-18.
13. Jones MP, Crowell M, Olden KW, & Creed F. The Functional gastrointestinal disorders: an update for the psychiatrist .Psychosomatic 2007; 48(2): 93-102.
14. Crane R. (2009). The Mindfulness-based cognitive therapy. Translatio Anis khush lahje sedg (2012). Tehran: besat.

15. Emerald S, & Messenger Tabatabaei, Seyed K. The Compare the effectiveness of cognitive-behavioral therapy and mindfulness-based therapy to improve the quality of life in patients with irritable bowel syndrome. *Journal of Clinical Psychology*, No. XIII, the fourth year, winter 92.
16. Grossman p, Tiefenthaler-Gilmer u, Raysz A, & Kesper, u. The Mindfulness Training as an intervention for Fibromyalgia: Evidence of post intervention and 3-years follow-up benefits in well-being. *Psychosom* 2007; 76: 226-233.
17. Kabat Zinn J. The Mindfulness-based stress reduction treatment. *Contemporary psychology Psychological Association's Journal* 2005; Year 91: Volume VII.
18. Rosenzweig S, Greeson J M, Reibel D K, Green S & Jasse Beasley D. The Mindfulness – based strss reduction for chronic pain conditions :Variation. *Journal of Psychoso-matic Research* 2010; 68: 29-36.
19. Hadipour M, Pour Afkari N, & saremi F. The Psychological symptoms in outpatients (displaced), 2005.
20. Mohammadkhani, Sh, & Heidarina A. The Article mindfulness theory. *Psychology Services Center and Pine consultation* 2014; (Displaced).
21. Garland EL, Gaylord SA, & Fredrickson BL. The Positiv Reappraisal Mediates the strss-reductive effect of Mindfulness: An Upward Spiral Process *Mind fullness* 2011; 2: 59-67.
22. Karimi S, & Heidaridescent, L. The Cultivate mindfulness, anxiety, depression and personal well-being of the students. *Psychosomatic Congress Shahre Kord. Iranian Journal of Medical Sciences* 2013; p, 155.
23. Koushki Sh, Jamali M, Hashemi M & Akbari H. The Decreasing effectiveness of mindfulness-based approaches to reducing depression and dysfunctional attitudes in heart disease, (Displaced), 2012.
24. Farhadi A, & Movahedi G. (2013). The effectiveness of mindfulness cognitive therapy in reducing anxiety and depression and coronary heart disease. *Psychosomatic Congress (Page 23). Shahr e Kord. Iranian Journal of Medical Sciences.*
25. Jahangirpur M, & kavand M. The Mindfulness-based cognitive therapy techniques are effective in reducing depressive Disorder multiple sclerosis. *Psychosomatic Congress (77). Shahre Kord. Iranian Journal of Medical Sciences* 2013.
26. Azargoon H, Passers-by MR, Kajbaf MB, Moludi H, AA. The effect Training on Mental Rumination and depression in students of Isfahan of Mindfulness University. In the journal *Scientific - Research Journal of Shahed University* 2009; Year XVI: No. 34, pp. 15- 13.
27. Azargoon H, & kjbaf MB. The Effect of Mindfulness Training on dysfunctional attitudes and thoughts are depressed students of Isfahan University. *Journal of Psychology* 2010; 53: Year 14, Nos. 1 and 79.
28. Aghayousefi, A, adraki M, Zare M, & emani S. The effectiveness of mindfulness based stress reduction, anxiety and depression in substance abusers. *And seventh behaviour Journal* 2013; Issue 27