

Efficacy of Mindfulness Based on Stress Reduction on Rat Disorders in Patients with Irritable Bowel

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ABSTRACT

Objective: Irritable bowel syndrome (IBS), is a recognized functional gastrointestinal disorders that are characterized by altered bowel habits with abdominal discomfort and pain without structural abnormalities. There is no clear diagnostic markers for IBS. In patients with Irritable Bowel Syndrome is the most important issue. He disease patients have always thought that this conflict is dangerous and this rumination makes for stress. **Methodology:** The aim of this study was to evaluate the effectiveness of mindfulness-based stress reduction program on rumination and distress tolerance associated with irritable bowel syndrome Amir Alam hospital in Tehran. This study was conducted pretest-posttest with control group design study, is experimental The study population included all patients Amir Alam hospital in Tehran during 95-94 that 30 students were selected using random sampling and were replaced in two test and control groups. Learning Tools include Nolen and Hvksma scale rumination and distress tolerance questionnaire. **Results:** The experimental group were trained using mindfulness-based stress reduction in 8 sessions but the control group received no intervention. Both groups were evaluated with rumination and distress tolerance scale questionnaire at post-test after the educational intervention. The data were analyzed by descriptive statistics (mean, standard deviation, etc.) and the deduction of multi-variable analysis of covariance MANCOVA. **Conclusion:** The results showed that there were significant differences between experimental and control groups after the intervention rumination experimental variables ($F = 18/70$, $T = 3/90$) and distress tolerance ($F = 21/11$, $T = -3 / 90$) ($P < 0/01$) The data can be said that mindfulness-based stress reduction effectively. On rumination and distress tolerance in patients with irritable bowel syndrome

1. Introduction

One of the common gastrointestinal disorder, irritable bowel syndrome is a common functional disorder with symptoms such as abdominal pain and altered bowel habits in the absence of any organic disorder characterized (Vicario et al., 2012). People with this syndrome, depending on the severity of symptoms, some degree of impairment in quality of life are a significant group of patients so that patients in the absence of labor, abstaining from sexual intercourse and Mmant in public for fear of symptoms. This disease is the most common cause of referral to a gastroenterologist. The cause is still not clearly defined, but the psychological factor has always been the underlying cause of the disease that can gastrointestinal symptoms through changes in bowel movements and visceral stimuli perceived. Also, these factors affect behavioral responses to the disease, the incidence of symptoms, see a doctor, medication or seek medical treatment involved. Given the direct association between stress and IBS symptoms, is strongly associated with psychiatric diseases and symptoms in many patients respond to treatments that target the central nervous system, often IBS «brain disorder - gut" That said, even though the pathophysiology is unclear is not. Changes in gastrointestinal motility and impaired balance of absorption and secretion in the intestines can cause impairment of bowel movements, and this anomaly Can partly occur through the gastrointestinal tract disorder serotonin signaling device setup. Increased perception of visceral stimuli may contribute to abdominal pain and discomfort. Preliminary reports suggest that changes in the activation of

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mucosal immunity and intestinal microflora can be involved in IBS symptoms, but there is a causal relationship has not been proven. Several hypotheses have been raised about the etiology of this disorder but in this case there is almost no hypothesis that is widely accepted. But the possible role of abnormal activity of gut sensory and motor nerves, disorders of the central nervous performance, mental disorders, stress and intraluminal have reported. In most cases sensory responses to intensify visceral stimuli and sensory responses to stimuli visceral pain is worse after eating and after eating caused pain in 74% of patients. Also, none of the therapeutic approach to this disorder the drug therapy, diet therapy and psychological therapies not completely successful and Nakamla been ineffective. Although pharmacological and psychological treatments so far several have been developed for the treatment of irritable bowel syndrome and these therapies have shown good effects in different trials (Ljotsson et al., 2011). Uncertainties in diagnosis and treatment IBS On the one hand and on the other hand development of health psychology researchers drew a psychological approach to the disorder which results in a series of studies into the role of psychological factors in IBS Since the emphasis placed on such therapies that can improve psychological symptoms in patients with irritable bowel less effective and has been of interest to researchers, is mindfulness-based therapies.

1.1. Clinical protests

IBS patients with gastrointestinal and non-gastrointestinal symptoms refer to a range of symptoms of abdominal pain and altered bowel habits, although the most common complaints in these patients.

1.2. Abdominal pain

Colicky abdominal pain in patients with IBS usually occurs at different times with different intensities and intensified. Abdominal pain is usually felt in the lower abdomen and is mostly on the left, although the location of the pain and its characteristics can be highly variable depending on the diagnostic criteria for irritable bowel syndrome, abdominal pain or discomfort precondition and one of the clinical features IBS is. The severity and location of abdominal pain in IBS is very variable. This pain is often episodic and cramping. But Rvkh may also give a background of constant pain. The pain may be mild and it can be ignored or may be severe enough to interfere with daily activities. However, malnutrition caused by inadequate intake of calories is very rare in IBS. Sleep deprivation due to abdominal pain unusual. Various factors including stress and emotional eating can cause abdominal pain intensified, while Els is also mitigate abdominal pain. In addition, female patients with irritable bowel syndrome symptoms usually worsen during the pre-menstrual and menstrual give him that. (Chambers and Allen, 2008). Despite fluctuating abdominal pain in patients with IBS Some clinical manifestations of abdominal pain with IBS not match that in this quick survey about organic causes of abdominal pain is necessary. This of abdominal pain associated with anorexia, malnutrition and weight loss. This series of Patients IBS It is very rare unless there is a serious psychiatric illness. Abdominal pain is in the progressive mode; the patient will wake up or go to sleep to prevent the patient from profile IBS Is not.

1.3. The pathophysiology of irritable bowel syndrome

The pathophysiology of IBS is unknown. Hereditary and environmental factors can play a role: some studies abnormal gastrointestinal motility, visceral irritability, impaired mental function and emotional stress have been implicated in causing IBS. But despite extensive studies have been conducted on the cause of IBS remains, results vary and no specific psychological, physiological disorder known to cause IBS. (Kabat-Zinn, 2003)

2. Materials and methods

The research including experimental design with control and experimental groups and assessed for pretest and post-test. The table 1 discussed the plan view shows T_1 (pretest), X (independent variable), T_2 (post-test) is.

Table 1. overview of research design

After the test	pre-exam	Intervention	Assignment
T_2	T_1	X	R
T_2	T_1		R

The study population consisted of 200 male and female patients suffering from irritable bowel syndrome in Tehran that the date 12/18/94 to 02/20/95 Amyrlm hospitals have admitted 150 people, distress tolerance test and rumination it was thought, out of which 68 people have low distress tolerance and rumination were up, 30 were selected randomly in two groups of 15 subjects were randomly assigned to experimental and control groups.

Among Tehran Amir Alam hospital, 30 men and women with irritable bowel diagnosis based on DSM criteria were selected. And after receiving the criteria for inclusion and participation in therapy sessions came into the experiment. In the next stage, the people in Tehran Amir Alam hospital rumination high and low distress tolerance in both groups were randomly divided into two groups of 15 participants and control group. Research variables were measured at pretest in groups. Groups of 8 5/1-hour meeting, the MBSR intervention and the control group received no intervention. After the sessions Intervention Research at post-test variables were measured in both groups.

Independent variables: MBSR intervention at two levels of intervention in the experimental group and the control group did not receive.

The dependent variable: rumination and distress tolerance Control variables: the pre-test scores of students in the dependent variables, age, gender Inclusion criteria were: having informed consent to participate in research, education, elementary least, the absence of more than two sessions result in removal of treated participants.

Analysis of covariance analysis is most appropriate for such schemes where the pilot and sync other variables are used as auxiliary random variable. The data for this study using multivariate regression analysis using statistical software and SPSS, have been analyzed.

3. Discussion and results

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Table 2. for the multivariate regression analysis of variable size combines rumination, distress tolerance

Source	Value	(2,25) F	Significance level	ETa
Variable combination (Group)	371/0	179/21	0.000	629/0

Eta values of which can be seen from the table 2 that corresponds to the variable portion of the variance in overall. quad serious combination is such that if the amount of 14/0 is the combined effect is significant in the table above the value for the new variable name there is also 629/0 this reflects the effectiveness of the variable lambda test results Wilkes means ERAST combination. And significant new combined variable indicates that the participants in the two groups are different and the average of the groups affected by the independent variable is significant.

The above table shows the results between the groups affected have been teaching mindfulness-based stress reduction control group who received no training there is a significant difference. Because a significant level of 0005/0 p = From 01/0 smaller alpha level, so the test F, 179/21 F = Statistically significant.

This difference is adjusted according to the average profit group trained.

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Table 3. univariate analysis of covariance for rumination variables, distress tolerance

Source diffraction	Sum of squares SS	Degrees of freedom df	Mean Square MS	F	Significance level P	Generating power The effect of test	
Rumination	458/1267	1	458/1267	207/28	000/0	520/0	999/0
Error	303/1168	25	935/44				
Distress tolerance Error	958/1259 796/1514	1 25	958/1259 261/58	626/21	0.000	454/0	994/0

Table 3 univariate analysis of covariance Ancona Has been shown since the second dependent variable. By dividing 01/0 on the second run after Bonferroni correction means Erie smaller than 005/0. This is true of all three variables. the amount of ETa Shows that almost 52% of the variance rumination and 4/45 percent of the variance in distress tolerance for varying groups emerged.

As the chart above we can see the results of covariance adjustment between the two groups there is a significant difference in the amount of rumination. Because a significant level of 0005/0 p = From 01/0 smaller alpha level, so the test F, 207/28 F = Statistically significant. This result suggests that the rumination of patients with irritable bowel training received mindfulness-based stress reduction Kzdh less than the control group.

In order to clarify the above information related to this section is shown in the diagram. If you double the levels in test and control the horizontal axis and vertical axis rumination our dependent variable, Lines will mean as follows. (Witkiewitz, 2005)

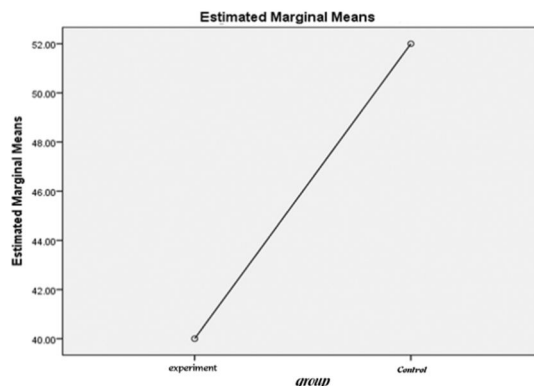


Figure1. Showing averages of rumination in experimental and control groups

The figure 1 clearly shows that affects patients with irritable bowel teaching mindfulness-based stress reduction was less than the control group showed rumination.

Learning mindfulness-based stress reduction on distress tolerance in patients with irritable bowel impaction.

As the chart above we can see the results of covariance adjustment between the two groups there is a significant difference in the level of distress tolerance. Because a significant level of 0005/0 p = From 01/0 smaller alpha level, so the test F, 626/21 F = Statistically significant. This result suggests that patients with irritable bowel distress tolerance that mindfulness-based stress reduction have received more training than the control group.

In order to clarify the above information related to this section is shown in the following diagram. If you double the levels in test and control the horizontal axis and vertical axis put the dependent variable distress tolerance, Lines will mean as follows.

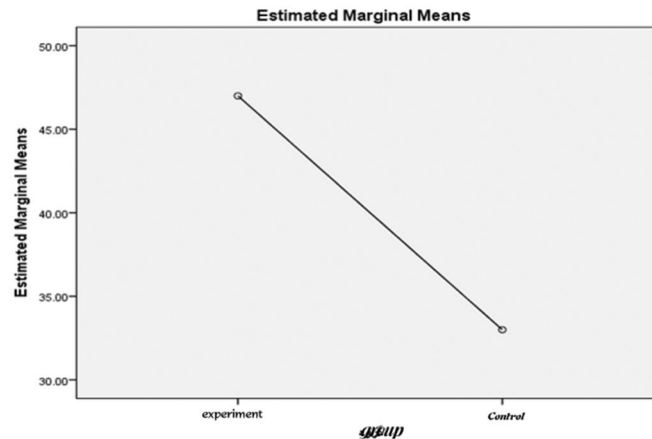


Figure 2. View average of distress tolerance in experimental and control groups

The figure 2 clearly shows that affects patients with irritable bowel teaching mindfulness-based stress reduction, they show distress tolerance than the control group.

4. Conclusion

This study aimed to evaluate the effectiveness of MBSR intervention on the levels of rumination and distress tolerance in patients with irritable bowel syndrome. For this purpose, in the form of a quasi-experimental design with pre-test/post-test with experimental and control groups, 30 patients with irritable bowel criteria for inclusion were randomly assigned to experimental and control groups (15 per group). MBSR intervention consisted of eight sessions. Data were collected through questionnaires distress tolerance scale and a scale rumination and was analyzed using analysis of covariance. (Zeidan et al., 2012)

Learning mindfulness-based stress reduction on rumination, distress tolerance in patients with irritable bowel impact. As the results of mindfulness-based stress reduction intervention on rumination, distress tolerance had significant effect. These findings are consistent with findings has been consistent. In the above explanation we can say that mindfulness-based interventions resulted in increased training and metacognitive awareness and reduce the rumination and negative thoughts. One of the newest treatments outlined in IBS, is a meta-cognitive therapy based on mindfulness meditation and mindfulness-based approaches and acceptance of responsibility based therapy can reduce physical symptoms of physical, emotional and experiential avoidance of thoughts eventually lead. Mindfulness techniques leading to improved quality of life and use effective coping skills, rumination and distress tolerance is (Gaylord et al., 2009). It has been found that mindfulness-based techniques to reduce stress symptoms and pain in patients with irritable bowel syndrome and coronary heart disease (Zernicke et al., 2013). In mindfulness-based therapy, originally comes metacognitive awareness (the ability to understand the thoughts and emotions of a person and look at them again as transient events a person's ability to understand the thoughts and emotions again and instead of looking at them as transient events that it be considered opinion as fact), then this is assumed to be metacognitive awareness which leads to reduced rumination process is repeated negative thoughts, thereby Catastrophizing, rumination and other symptoms, including stress and dysfunctional coping skills and also reduced passively and to increase distress tolerance, and ultimately to reduce symptoms of irritable syndrome and increase the quality of life (Lackner et al., 2007).

4.1. Learning mindfulness-based stress reduction on rumination in patients with irritable bowel impact.

As the results of mindfulness-based stress reduction intervention had a significant effect on rumination. These findings are consistent with findings (Kingston et al., 2007). in line method explained above findings can be said that the group mindfulness based stress reduction has been able to effectively treat irritable bowel syndrome Pzyrra increase the effectiveness of MBSR can Dhd.drman IBS patients Bashd.rah work effectively used to reduce rumination MBSR to reduce rumination, attention control and reduction casting judgment that the practice of mindfulness widely used within the framework of aspiration and vision in his talk claim that mindfulness training causes revolving around a person's mind than the repetitive thought patterns and also reduce the rumination. This kind of thinking to other aspects of the present, such as breathing, walking with presence of mind or environmental sounds, and the focus of the ways is to reduce rumination. Teasdale this phenomenon is called meta-cognitive insight.

4.2. Learning mindfulness-based stress reduction on distress tolerance in patients with irritable bowel impact.

As the results of mindfulness-based stress reduction intervention had a significant impact on distress tolerance. These findings are consistent. To explain the above findings, we can say that

Mindfulness-based cognitive therapy with variables such as increased calmness and inner consciousness increase distress tolerance, and to help authorities better understand the forces associated with relapse in the process of mental and physical won system, and the cognitive their computing

change is messing with her emotions, thoughts Nakhvshayndsh awareness of the signs and symptoms of antecedents the ability to stand up and prepare itself to deal with them. This causes the person can reduce the impact of negative thoughts that created and despite the presence of negative automatic thoughts, not experience feelings of helplessness. On the other hand, along with mindfulness, the individual attitude of kindness, curiosity and the satisfaction of being in the present moment in itself. In the end, with an understanding of human suffering is part of our experience, but finds that if there are ways We can increase that to create a new habit patterns and learn to meditate on it (Crane and Martin, 2003)

REFERENCES

- Chambers, R. & Allen, P. N. 2008. The impact of intensive mindfulness training on intentional control, cognitive style, and affect, 32, 303-322.
- Crane, C. & Martin, M. 2003. Social learning, affective state and passive coping in irritable bowel syndrome and inflammatory bowel disease. *General hospital psychiatry*, 26, 50-58
- Gaylord, S. A., Whitehead, W. E., Coble, R. S., Faurot, K. R., Palsson, O. S., Garland, E. L., Frey, W. & Mann, J. D. 2009. Mindfulness for irritable bowel syndrome: protocol development for a controlled clinical trial. *BMC Complement Altern Med*, 9(24).
- Kabat-Zinn, J. 2003. Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10, 144–156.
- Kingston, T., Dooley, B., Bates, A., Lawlor, E. & Malone, K. 2007. Mindfulness-based cognitive therapy for residual depressive symptoms. *Psychol Psychother*, 80, 193-203.
- Lackner, J. M., Coad, M. L., Mertz, H. R., Firth, R., Mahl, T. C. & Lockwood, A. H. 2007. Cognitive therapy for irritable bowel syndrome is associated with reduced limbic activity, GI symptoms, and anxiety. *Behavior research and therapy*, 44, 621-638
- Ljotsson, B., Hedman, E., Linfors, P., Hursti, T., Linfors, N., Anderson, G. & Ruck, CH. 2011. Long-term follow up of internet-delivered exposure and mindfulness based treatment for irritable bowel syndrome. *Behavior research and therapy*, 49, 58-61
- Vicario, M., Alonso, C., Guilarte, M., Serra, J., Martínez, C. & González-Castro, A. M. 2012. Chronic psychosocial stress induces reversible mitochondrial damage and corticotropin-releasing factor receptor type-1 upregulation in the rat intestine and IBS-like gut dysfunction. *Psychoneuroendocrinology*, 37: 65-77.
- Witkiewitz, K., Marlatt, G. & Walker, D. 2005. Mindfulness-based relapse prevention for alcohol and substance use disorders. *J Cogn Psychother*, 19(3), 211-228.
- Zeidan, F., Johnson, S. K., Diamond, B. J., David, Z. & Goolkasian, P. 2012. Mindfulness meditation improves cognition: Evidence of brief mental training. *Conscious Cogn*, (19), 597-605.
- Zernicke, K. I., Linette, L. S., Lounsbury, J., Zhong, L., Blustein, P. K., Campbell, T. S. & Carlson, L. E. 2013. Mindfulness-Based Stress Reduction Improves Distress in two Different Chronic Illnesses. *Journal Behavior Health*, 1(3), 201-208

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