



The Effectiveness of Unified Treatment Approach on Quality of Life and Symptoms of Patients with Irritable Bowel Syndrome Referred to Gastrointestinal Clinics

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Quantitative Study

Abstract

Background: Irritable bowel syndrome (IBS) is a functional disorder of the lower gastrointestinal tract caused by stress, and may benefit from a psychological intervention such as unified treatment approach. The aim of this study was to evaluate the effectiveness of unified treatment approach on the symptoms and quality of life (QOL) of patients with IBS.

Methods: The study population included all patients with IBS referred to gastrointestinal clinics of Ahvaz, Iran. Therefore, in a semi-experimental method, patients diagnosed with IBS were selected and underwent 8 2-hour group interventions. The data collection tools included Rome-III Diagnostic Criteria for Irritable Bowel Syndrome and the Irritable Bowel Syndrome Quality of Life (IBS-QOL) Questionnaires which were completed in three stages of pre-test, post-test, and follow-up. The collected data were analyzed using repeated measures MANCOVA in SPSS software.

Results: The results of repeated measures MANCOVA and the follow-up study indicated significant decrease in the scores of symptoms and significant increase in the scores of QOL.

Conclusion: According to the results of the present research, we can conclude that devising a treatment plan based on the unified treatment approach is effective in the increasing of QOL and decreasing of IBS symptoms.

Keywords: Unified treatment approach therapy, Quality of life, Symptoms

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Introduction

The body and mind and the relationship between them have been studied and examined throughout history. The role of psychological

factors such as thoughts, beliefs, emotions, and behaviors on the body and physical diseases, in other words, the relationship between body and mind, are not novel notions. Most theorists believe that a human being is a biopsychosocial unit and these three dimensions have mutual effect on each other. It is this belief that caused the appearance of psychosomatic medicine. As

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they are common and based on common psychopathology such as the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision (DSM-IV-TR), psychosomatic disorders are defined as a group of physical diseases and psychological factors have a determining role in their formation or progression. Usually diseases such as asthma, blood pressure, gastrointestinal disorders, and some cancers are included in this group. Shoarinejad (1996) in 'The Dictionary of Behavioral Sciences' writes that psychosomatic disorder is any physical disorder caused by psychological factors. Therefore, psychosomatic does not necessarily mean psychogenic, because psychological factors can be the basis, initiator, continuant, or booster of physical disorders. Moreover, in psychosomatic medicine, a systemic approach (such as biopsychosocial model) is implemented in all diseases.

Gastrointestinal disorders are caused by stress and are the most common psychosomatic disorders. Gastrointestinal disorders include a number of disorders, one of which is bowel function disorder. Bowel function disorder itself is divided into a number of subcategories one of which is irritable bowel syndrome (IBS). Patients with this disorder experience many changes in bowel habits. Stomachache is the main symptom of IBS. Usually, stomachache is experienced after the movement of the bowels and eating. In IBS, constancy or continuity cannot be seen, but intensification or improvement periods and even improvement or recurrence of the factors can be seen that is associated with the patient's mood ambiguity. IBS is a chronic condition that undulates irregularly, but does not disappear completely. IBS is in most patients a debilitating condition and a chronic and recurrent functional disorder of the digestive system determined by stomachache, emphysema, and changes in bowel habits in the absence of structural disorders. Studies show that IBS is a common disorder and affects a significant number of individuals in the general population and requires counseling with

general physicians and specialists. Its prevalence is 10 to 20% in the general population and it is one of the most common and recognized psychosomatic disorders in the field of gastrointestinal diseases (Lin, Hsu, Chang, Hsu, Chou, & Crawford, 2010).

This disease affects both sexes, but its prevalence is higher in women compared to men. For example, in the United States of America, most European countries, China, and Japan, its prevalence is reported to be 14 to 24% in women and 5 to 19% in men (Lin et al., 2010). Although IBS is not a deadly disease, it brings about discomfort for the patients. IBS has 3 clinical forms. In the first form, the patient complains of chronic stomachache and constipation. In the second form, the patient has alternative chronic diarrhea that is mostly without pain. In the third form, patients suffer from both clinical problems and suffer from constipation and diarrhea alternatively (Lazarus, & Folkman, 1984).

The therapeutic approach for patients with difficulty in regulating emotions must include treatments that have the ability to increase emotional awareness and regulate and modify internal distresses and emotional arousal states through cognitive processes. Cognitive behavioral therapy (CBT) for treatment of anxiety and mood disorders are effective treatments that are increasingly used today. A deep understanding of the nature of emotional disorders reveals that similarities of these disorders in case of etiology and latent structures render the differences among them unimportant. Thus, based on the tentative nature of the fields of learning, growth, emotion regulation, and cognitive science and from a series of psychological protocols, a unified intervention was prepared for emotional disorders. Unified protocol (UP) is a unified treatment approach to CBT. UP focuses on the adaptive and functional nature of emotions and aims to identify and modify maladaptive attempts for regulating emotional experiences in order to facilitate appropriate processing and

eliminate extreme emotional responses to internal (physical) and external symptoms. Psychosomatic medicine is a field that examines physical diseases and emotional problems from the psychopathological point of view. Thus, taking some measures that include pharmacological and nonpharmacological treatments is necessary to solve and reduce emotional problems in these patients (Johari-fard, 2011).

Treatment strategies can reduce the negative consequences of this disease and can be effective on improving quality of life (QOL). It is assumed that patients with gastrointestinal functional disorders can benefit from interventions based on emotion. It seems that this therapeutic method has not been implemented in psychosomatic gastrointestinal diseases that emotional components are a part of.

Considering the abovementioned factors, the present study was conducted with the aim to determine whether unified treatment approach therapy is effective on QOL and symptoms of patients with IBS referred to gastrointestinal clinics in Ahvaz, Iran

Methods

The statistical population of this study consisted of all female patients with IBS referred to gastrointestinal clinics in Ahvaz. Available sampling method was used to select the participants. The researcher visited the gastroenterology clinics and coordinated with the gastroenterologist. Then, individuals with IBS who had the Rome III Diagnostic Criteria for IBS and the inclusion criteria, and did not have the exclusion criteria were referred to the researcher. As a result, 15 patients were selected and received the group intervention for 2 months in Rayan Clinic in Ahvaz. The researcher explained the subject and the aim of the study and the way of completing the questionnaire for the participants. The posttest was implemented after the completion of the intervention. Posttest was repeated after 1 month as a follow-up. To analyze data in terms of descriptive statistics,

frequency, mean, and standard deviation, and in terms of inferential statistics, repeated measures MANCOVA were used.

The Rome III Diagnostic Criteria for IBS and Irritable Bowel Syndrome Quality of Life (IBS-QOL) Questionnaire were used in the present study. These two questionnaires are explained in the following sections.

Rome III Diagnostic Criteria for IBS: The Rome III Diagnostic Criteria for IBS is used to assess the symptoms of IBS. The Rome III Diagnostic Criteria was presented to the scientific community after various modifications with the cooperation of many gastroenterologists from around the world and it is of high standard (Thompson, 2006). This questionnaire contains some items that assess the existence or lack of the symptoms of IBS. High scores indicate the severity of the disease. This questionnaire contains 14 multiple choice items scored based on a Likert scale. For each option that confirms the diagnosis of IBS, the patient receives 1 score. At the end, the total of positive scores of the patients is calculated and the severity of their disease is determined. The higher scores illustrate that the diagnostic criteria are in favor of the disease (the severity of the disease is higher). It is noteworthy that the kind of IBS disease can be identified with this questionnaire. The questionnaire was completed by a gastroenterologist during the process of examination. The Persian version of the questionnaire was normed in Iran and has a Cronbach's alpha reliability of higher than 0.70 (Zomorodi, Rasoulzadeh Tabatabaei, Mohammad Arbabi, Ebrahimi Daryani, & Azad Fallah, 2013). The reliability of 0.64 and 0.68 was obtained for this questionnaire using Cronbach's alpha and test-retest method.

Irritable Bowel Syndrome Quality of Life (IBS-QOL) Questionnaire: As IBS is a chronic disease, the QOL of patients with IBS is low and different fields of their life such as occupational functioning, travelling, interpersonal relationships, and leisure are disrupted. In

recent years, researchers and specialists have shown great interest in assessing the QOL of these patients. Considering the disagreement between the patient and the therapist, in determining the amount of improvement it is important that QOL is measured by the patients themselves. This is possible through the use of questionnaires that their validity, reliability and sensitivity toward the treatment are confirmed. In 1998, the first IBS-QOL Questionnaire was made by Patrick and Drossman. This questionnaire has used the method of the World Health Organization (WHO) as a pattern and is made based on a need-oriented model. It assesses QOL based on the extent to which patients' needs are fulfilled. In exploratory factor analysis of the last version, 8 factors were clearly distinguished from each other. These 8 factors include dysphoria, activity interference, body image, health concerns, food abstinence, social reaction, sexual concerns, and interpersonal relation. The main questionnaire and its European and Asian versions have internal reliability and high re-test, sensitivity, and special responsiveness to different treatments (pharmacological and psychotherapies).

The IBS-QOL-36 and IBS-QOL-34 are valid and commonly used questionnaires. Nevertheless, the IBS-QOL-34 was an international attempt and has stronger methodology compared to the IBS-QOL-36 and more versions of it have been validated in other cultures and countries (Haghighyegh, Kalantari, Molavi, & Talebi, 2010). IBS-QOL-34 is one of the best tools for assessing QOL in patients with IBS.

The internal consistency coefficient of the whole scales is 0.94 and its reliability using Cronbach's alpha has been reported as 0.95. This questionnaire consists of 34 items that are scored based on a 5-point Likert scale (Never = 1, Hardly ever = 2, Usually = 3, Often = 4, Always = 5). The minimum and maximum scores of this questionnaire are 34 and 170. Lower scores indicate higher QOL (Najarian Noosh-Abadi, Rezaei, & Ebrahimi-Daryani, 2014).

Psychometric properties (reliability, concurrent reliability, and diagnostic reliability of the Iranian version of the IBS-QOL-34 in patients with IBS was examined by Haghighyegh et al. (2010). They reported a reliability of 0.93 and validity of 0.61. In general, the questionnaire has acceptable validity. The results of the present study showed that the 8 subscales of this questionnaire and the whole scale had acceptable internal consistency coefficients (alpha of subscales: dysphoria = 0.88, activities interference = 0.68, body image = 0.72, health concerns = 0.57, food abstinence = 0.52, social reaction = 0.71, sexual concerns = 0.76, interpersonal relation = 0.62, and the whole scales = 0.93). In general, the Persian version of the questionnaire has acceptable diagnostic validity. The results of diagnostic validity examination by Haghighyegh et al. (2010) showed that the items of the questionnaire particularly assess the daily problems of these patients. The diagnostic ability of this questionnaire has also been reported to distinguish between the QOL in patients with IBS and QOL in patients with other digestive disorders (Haghighyegh et al., 2010). The reliability of this questionnaire was reported as 0.91 and 0.90, respectively, using Cronbach's alpha and test-retest method.

Intervention sessions: In order to examine the efficiency of unified treatment approach, the new instruction of integrated unified treatment approach (Barlow et al., 2011) was used. This therapeutic protocol consists of 8 parts with flexibility in the number of sessions. Considering this feature, 12 individual sessions lasting almost 50 to 60 minutes were implemented. The order of parts and the number of sessions were the same for all subjects. The sessions were held in Rayan Psychology and Counseling Center in Ahvaz.

This protocol contains 8 parts, 5 main parts and 3 secondary parts. Through emphasizing the main principals of cognitive-behavioral treatments and combination of new advances in researches related to emotion regulation, it tries to use cognitive-behavioral strategies to

treat individuals with emotional disorders. Examples of cognitive-behavioral strategies used are elimination of behavior, techniques for preventing cognitive and behavioral avoidance, behavioral, emotional, and within-body encountering, and identification and modification of non-adaptive cognitions. Parts of this protocol include increase in motivation, psychological or treatment-based training, awareness of emotion training, cognitive re-evaluation, behaviors due to emotions, viscera and situational encountering, awareness and

tolerance of physical feelings, and prevention of recurrence (Barlow et al, 2011). Treatment sessions were based on therapeutic targets and were presented to the clients with focus on various parts of the protocol. A summary of the content of the sessions can be seen in table 1.

Results

Table 2 shows the mean and standard deviation of scores of QOL and symptoms of patients with IBS in pre-test, posttest, and follow-up.

Table 1. The content of the therapeutic intervention

Meetings	Content of meetings
First	Increasing motivation, motivational interview for participation and involvement of patients during the treatment, presenting the treatment logic, and determining the treatment objectives
Second	Presenting the mental training, recognizing the emotions and tracking the emotional experiences, and training the three-component model of emotional experiences and ABC model
Third and fourth	Training emotional awareness, learning the observation of emotional experiences (emotions and reactions to emotions), especially by using mindfulness techniques
Fifth	Assessment and cognitive assessment, creating awareness of effects of and interaction between thoughts and emotions, identifying the automatic incompatible assessments and common pitfalls of thought and cognitive assessment, and increasing flexibility in thought
Sixth	Identifying emotion avoidance patterns, familiarization with different strategies of emotion avoidance and its effect on emotional experiences, and awareness of contradictory effects of emotion avoidance
Seventh	Investigation of behaviors resulting from emotion-driven behaviors (EDBs), familiarization with and identification of behaviors due to emotions and understanding their effects on emotional experiences, identifying incompatible EDBs, and creating alternative practice trends through facing behaviors
Eighth	Awareness of and tolerance of physical feelings, increasing awareness of the role of physical feelings in emotional experiences, performing exercises for visceral confrontation in order to become aware of physical feelings, and increasing the tolerance of these symptoms
Ninth to eleventh	Visceral confrontation and situation-based emotion confrontation, awareness of the logic of emotional confrontation, training how to develop the hierarchy of fear and avoidance, and a plan for frequent and effective, visual and objective exercises of emotional confrontation, and preventing avoidance
Twelfth	Preventing recurrence, general review of treatment concepts, and discussion about the recovery and treatment improvements of patients

Table 2. The mean and standard deviation of scores of quality of life and symptoms in pretest, posttest, and follow-up

Variable	Statistical index	Follow-up	Posttest	Pretest
Symptoms	Mean \pm SD	15.76 \pm 5.60	17.18 \pm 8.12	34.86 \pm 5.16
Quality of life	Mean \pm SD	128.30 \pm 13.51	123.85 \pm 23.07	76.37 \pm 19.98

SD: Standard deviation

As can be seen in table 1, the mean \pm standard deviations of the scores of pretest, posttest, and follow-up of symptoms were 34.86 ± 5.16 , 17.18 ± 8.12 , 15.76 ± 5.60 , respectively. The mean QOL scores were 76.37 ± 19.98 , 123.85 ± 23.07 , and 128.30 ± 13.51 , respectively. Tables 1 to 4 show the mean scores of symptoms and QOL in pre-test, post-test, and follow-up.

Table 3 shows the summary of repeated measures MANOVA on the total score of the dependent variable.

Table 3 shows that unified treatment approach therapy was effective on the severity of symptoms of patients with IBS in all stages of the research. Moreover, the means of the dependent variable significantly differed in the three stages of the study. Therefore, it can be said that unified treatment approach therapy is effective on the severity of the symptoms in patients with IBS.

The results of Mauchly test was $P = 0.075$, $df = 2$, Square = 5.179 and Mauchly factor = 0.671.

The spherical Mauchly test evaluates the assumption that the matrix of the covariance of the error related to the normal converted dependent variables is an identity matrix. This test determines the structure of the variance-covariance matrix through implementing spherical test on the dependent variable. The

amount of spherical Mauchly test (0.671) was not significant in the error level of lower than 0.01. Therefore, the sphericity of the variance-covariance matrix of the dependent variable can be accepted.

Table 4 shows the results of within-subject effects test.

In table 4, since the significance level of all four tests is lower than 0.05, it can be said that there is a significant difference between the mean score of symptoms of subjects at various times.

Table 5 shows the summary of the results of repeated measures ANOVA on total scores of the dependent variable.

Table 5 shows that unified treatment approach therapy was effective on symptoms of patients with IBS in all stages and the mean of the dependent variable significantly differed in the three stages of the research. Therefore, it can be said that unified treatment approach therapy is effective on QOL in patients with IBS.

Discussion

The aim of the present study was to examine the effectiveness of unified treatment approach therapy on QOL and symptoms in female patients with IBS referred to gastrointestinal clinics in Ahvaz.

Table 3. The summary of the results of MANOVA

Test	Effect	P	df	df hypothesis	F	Value
Pillai's Trace	0.957	$0.001 \leq$	13	2	144.23	0.957
Wilk's Lambda	0.957	$0.001 \leq$	13	2	144.23	0.043
Hotelling's Trace	0.957	$0.001 \leq$	13	2	144.23	22.190
Roy's Largest Root	0.957	$0.001 \leq$	13	2	144.23	55.004

df: Degree of freedom

Table 4. Within-subject effects test

Test	Eta coefficient	P	F	Mean squares	df	Total squares
Sphericity Assumption	0.827	$0.001 \leq$	66.703	1698.889	2	3397.777
Greenhouse-Geisser	0.827	$0.001 \leq$	66.703	2257.176	1.505	3397.777
Huynh-Feldt	0.827	$0.001 \leq$	66.703	2062.889	1.647	3397.777
Lower-bound	0.827	$0.001 \leq$	66.703	3397.777	1	3397.777

df: Degree of freedom

Table 5. The summary of the results of repeated measures ANOVA

Test	Effect	P	df	df hypothesis	F	Value
Pill's Trace	0.926	≤ 0.001	13	2	80.81	0.926
Wilks's Lambda	0.926	≤ 0.001	13	2	80.81	0.074
Hotelling's Trace	0.926	≤ 0.001	13	2	80.81	12.586
Roy's Largest Root	0.926	≤ 0.001	13	2	80.81	12.586

df: Degree of freedom

The results showed a significant difference between the mean symptoms of IBS and QOL scores of subjects in the pre-test, post-test, and follow-up. Therefore, unified treatment approach improved QOL and reduced the symptoms in patients with IBS and its results persisted after one month in the follow-up. The total result of the study is consistent with the results of the studies by Mazaheri, Mohammadi, Daghighzadeh, and Afshar (2014), Francis (2011), Lahmann et al. (2010).

Solati Dehkordi, Kalantari, Adibi, and Afshar (2008) examined the effectiveness of various emotional regulation, relaxation, yoga, meditation, and mindfulness techniques and methods on anxiety, the severity of gastrointestinal symptoms, and QOL in patients with IBS. They showed that through the decreasing of anxiety and improving of gastrointestinal symptoms, QOL improved in these patients. Therefore, unified treatment approach therapy accompanied with pharmacological treatments is effective on reducing the severity of symptoms and increasing QOL in patients with IBS. The results of the present study are consistent with the results of the abovementioned study.

In explaining this finding, it can be said that patients with IBS tend to experience negative emotions such as anxiety, anger, sadness and feeling of guilt, and have more limited social relationships compared to healthy individuals. These individuals experience higher levels of anxiety and apprehension. The enteric nervous system is extremely sensitive to emotional states. In emotional situations, the motor function of the small intestine decreases and motor function of the colon increases. This may be the cause of

intestinal symptoms such as IBS. Neuroticism is in contrast to emotional stability and includes an expanded range of negative emotions including anxiety, sadness, irritability, and depression. Thus, it can be inferred that patients with IBS show higher levels of anxiety compared to healthy individuals, are more likely to become irritable and nervous about various issues (Gheshlaghi, & Khalilzad Behrouzian, 2011).

Stress has different effects such as anxiety and depression, increased physical distresses and psychological distresses, releasing of adrenalin and noradrenalin, disruption in the digestive system function, increased heartbeat, disruption in breathing, contraction of blood vessels, decreased attention and focus, increased work absenteeism and avoidance of activities, and disruption in sleep pattern. Moreover, stress can have negative and destructive effects on emotional and physical health. Many individuals with chronic stress have a sense of lack of control on their life and social isolation and suffer from anxiety and depression. In addition, stress can reduce immune performance, which is one of the main factors in physical health. Researches have shown that, on the one hand, there is a relationship between stress and anxiety, and on the other, physiological responses to the digestive system. Anxiety can disrupt the performance of the digestive system through central controller mechanisms and releasing of catecholamines. Researches about electric stimulation indicate that autonomic responses are developed in the sympathetic nervous system in the lateral hypothalamus, a place that has neuronal interactions in the anterior brain of the limbic system. Autonomic responses of the

parasympathetic nervous system are effective on the digestive system function. Acute stress can develop physiological responses in some digestive organs. It decreases antral motor activity in the stomach and intestines that can result in functional problems such as nausea and vomiting. In acute stress, the motor activity of the small intestine decreases and that of the colon increases. This state can justify the intestinal symptoms related to IBS (Sadock, & Sadock, 2007). IBS is assumed to be a stress-related disease. Furthermore, associated psychological disorders such as depression, anxiety disorders [panic, pervasive anxiety, and posttraumatic stress disorder (PTSD)], obsessive-compulsive disorders, sleep disorder, and sexual function disorder are reported in most patients with IBS. Thus, psychological interventions such as stress management and cognitive treatments decrease the psychological symptoms of this disease to a large extent.

Anxiety has physiological, cognitive, and behavioral dimensions. The physiological dimension is accompanied with increase in heartbeat and blood pressure, shaking, perspiration, and muscular tension. Its cognitive dimension is associated with negative thoughts such as "this problem is bigger than I can be able to tolerate" or "I will have a heart attack". The behavioral dimension is associated with tense and stressful activities. These effects extremely increase through stimulating each other. Particularly, physiological and cognitive dimensions can make a vicious circle and result into sympathetic changes that they themselves change negatively. The result is a spiral producing anxiety. One of the ways of breaking this cycle is relaxing and reducing the anxiety through a relaxation method.

Development and formation of the unified treatment approach is associated with parallel researches about the nature and classification of anxiety and mood disorders. One of these researches is by Brown and Barlow (2009) who showed that different disorders of DSM-IV in

the whole range of anxiety and mood diagnostic categories can be adapted or integrated into a dimensional classification system. This finding can be a confirmation of obtained clinical changes in this range of disorders due to the unified treatment approach. The UP model proposes a flexible approach to diagnosis and treatment of emotional disorders regarding their sources, especially when the dimensional classification system proposed by Brown and Barlow is used (2009). Actually, the results of this study were consistent with the results of the studies that targeted central emotional factors instead of specific signs through UP which resulted in significant clinical changes in the range of anxiety and mood disorders including main diagnosis or comorbid diagnosis. According to Brown and Barlow, UP treatment is a unified treatment approach to cognitive behavioral treatment based on emotion in which emotional processes are the main target of the treatment. This protocol can be implemented for anxiety disorders, anxiety, and possibly, other disorders that have strong emotional components. Therefore, cognitive regulation of emotions helps the individuals manage their emotions after experiencing stressful events. Individuals who use adaptive cognitive strategies of emotion regulation when experiencing stressful events, through changing their evaluations can manage the severity of negative emotions. When these negative emotions are effectively and adaptively regulated, the individuals' tolerance is possibly increased. Therefore, considering the changes reported in table 2 for higher level common factors in emotional disorders and the changes in the symptoms severity of the main and comorbid disorder, it can be concluded that unified treatment approach creates a significant reduction in the symptoms severity of the disorders. It causes this reduction possibly through affecting higher level and unified treatment approach common factors.

Considering the efficacy and applicability of this method in creating change and improvement in patients with pervasive anxiety disorder (Brown, & Barlow, 2009) and comorbid disease, the treatment of this disorder can possibly have applicable implications for other emotional disorders. The studies by Ellard, Fairholme, Boisseau, Farchione, and Barlow (2010), Boisseau, Farchione, Fairholme, Ellard, and Barlow (2010), and Farchione et al. (2012) were conducted on the efficacy of unified treatment approach in patients with emotional anxiety and mood disorders. They showed that this treatment, in addition to creating change and improvement in the severity of main emotional disorder symptoms, can cause significant change in comorbid emotional disorder symptoms through targeting higher level emotional central factors.

The effectiveness of emotion-based CBT on QOL and health of patients with IBS and functional dyspepsia was evaluated in this research. It was found that strategies that individuals apply to regulate their emotions can promote their health level in various biological, psychological, social, and moral dimensions and through this their level and efficacy of QOL increases. In other words, individuals with high emotional intelligence who consider stressful events as a challenge and an opportunity for learning, not a threat to security, experience lower physiological and emotional disorders, and therefore, have higher QOL. Therefore, CBT based on emotion regulation that aims to increase emotional awareness, flexibility in evaluation, prevent emotional avoidance and confrontation of emotional signs, promotes emotional intelligence and QOL in individuals.

The present study has some limitations. One is that this research was conducted on patients with IBS referred to gastrointestinal clinics in Ahvaz. Therefore, generalization of the results to other populations must be done cautiously.

Considering the results of the study, it is

recommended that future researches consider other groups with other psychological interventions beside the experimental group for more comparisons and examine various psychological treatments.

Conflict of Interests

Authors have no conflict of interests.

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