http://journals.iau-astara.ac.ir

# The Effectiveness of Acceptance and Commitment Therapy on Emotion Regulation in Men with Bulimia Nervosa

Erfani E.1, Rafieipour\* A.2, Ahadi M.3, Sarami GH.4

## **Abstract**

**Introduction**: Overeating is one of the most common disorders in life today, which has created many challenges for people with the disease, and efforts to treat it have become particularly important. The aim of this study was to evaluate the effectiveness of acceptance and commitment-based therapy on emotion regulation in men with bulimia nervosa.

**Method**: The research method was quasi-experimental. The statistical population in this study included all men with bulimia nervosa referred to the Iranian Overeating Association who received a diagnosis of bulimia nervosa by a psychiatrist. The volume of the present research sample according to the test power (0.80), effect size (0.50) and confidence level (0.05) was considered for each sample group of 15 people who were randomly selected. The experimental group was trained for 8 sessions of 70 to 90 minutes per week. The research instrument was Garnowski and Craig Emotion Regulation Questionnaire. Data analysis was performed after examining statistical assumptions by analysis of covariance. Results: The results of the analysis showed that the intervention based on acceptance and commitment was effective on positive and negative strategies of emotion regulation.

**Conclusion**: Based on the findings, it can be concluded that by using the intervention based on acceptance and commitment, positive and negative strategies of emotion regulation can be improved in men with bulimia nervosa.

**Keywords**: Acceptance and Commitment" Overeating" Excitement regulation

**Citation:** Erfani E., Rafieipour A., Ahadi M., Sarami GH. The Effectiveness of Acceptance and Commitment Therapy on Emotion Regulation in Men with Bulimia Nervosa, family and health, 2021; 11(1): 91-104

<sup>&</sup>lt;sup>1</sup> - PHD of psychology, Islamic Azad University, UAE Branch, ORCID: 0000-0002-0535-3409

<sup>&</sup>lt;sup>2</sup> - Corresponding author, Assistant Professor Payame Noor University of Tehran, Tehran, Iran, ORCID: 4245-4645-0003-0000, rafiepoor@yahoo.com

<sup>&</sup>lt;sup>3</sup> - Assistant Professor, Department of Psychology, Islamic Azad University, Karaj Branch, Iran, ORCID: 5753-3203-0003-0000, morvaridahdi1360@gmail.com

<sup>&</sup>lt;sup>4</sup> - Assistant Professor, Department of Educational Psychology, Kharazmi University, Tehran, Iran, ORCID: 2435-5784-0002-0000, ghrasar2@gmail.com

<sup>© 2020</sup> The Author(s). This work is published by family and health as an open access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by-nc/4.0/). Non-commercial uses of the work are permitted, provided the original work is properly cited.

## **Introduction:**

Eating disorders are one of the most common mental / Psychosomatic disorders that cause many problems in physical health and mental function and also, impair the quality of life of the affected person and cause death. Eating disorders can cause nutrition-related disorders and threaten a person's health by changing their eating patterns and poor nutrient intake (1). Eating disorders are characterized by behaviors such as reduced eating, fasting, overeating and eating with vomiting and the use of anti-constipation and diuretics. These disorders can also lead to malnutrition, osteoporosis, amenorrhea, cardiovascular disease, and depression (2). The clinical manifestations of these disorders are anorexia nervosa and bulimia nervosa (3). bulimia nervosa is a form of eating disorder in which a person eats too much. In this condition, patients often maintain their normal weight or become overweight. Body image distortion in these patients is less than in patients with anorexia nervosa. Complications of overeating are often electrolyte disturbances, heartburn, gastric bleeding, intestinal disorders, tooth enamel erosion, decreased heart rate, hypotension, and decreased metabolic rate (4). The research of Hooman, Abbasi, Gholami, Shafiei (5) has clearly confirmed the important role of emotions in many aspects of daily life as well as their effect on adapting to the pressures and crises of life. Essentially, emotions are biological reactions that are triggered when a person assesses a situation as containing significant challenges or opportunities and integrates his or her response to major environmental events (6).

The study by Ricca et al. (7) and Munsch, Meyer, Quartier and Wilhelm (8) have shown that the pathological model of bulimia nervosa also includes emotional vulnerability and deficits in negative emotion regulation skills, a mechanism that directly It is not studied with cognitive-behavioral therapies. For example, it has been shown that problems in regulating emotion were strongly associated with overeating, gender independence, dietary restriction, or overestimation of weight and appearance.

The findings of the mentioned studies show that overeating occurs through immediate failure to regulate emotion. There are several treatments for binge eating disorder: Cognitive-Behavioral Therapy (CBT), Acceptance and Commitment Therapy (ACT), Dialectical Behavioral Therapy (DBT), Interpersonal Therapy (IPT), and Appetite Awareness Training and all have shown success in reducing the frequency of overeating periods.

Explanatory models of overeating in bulimia nervosa and eating disorders have stated that painful emotions are the most important accelerator and maintainer and overeating itself plays an important role in regulating emotion for the patient (9). Acceptance and Commitment Therapy emphasizes accepting as much awareness and connection as possible and participating in activities that are in line with personal values. Acceptance seems to be a key process involved in therapeutic gains, reducing the effect of painful experiences on emotional functions, as well as predicting future individual functions. The main structure of treatment is acceptance and commitment of psychological flexibility, which means the ability to take effective action in line with individual values despite the presence of problems and suffering (10).

Family and health Quarterly, vol11, Issue 1, Spring 2021, ISSN: 2322-3065,

http://journals.iau-astara.ac.ir

The researches of Soleimani, Khodavirdi, and Ghasemzadeh (11), Safarzadeh and Mahmoudi Khorandi (12), Kaviani, Javaheri, Bahiraei (13) and Mohammadi, Kalantari, Hosseinzadeh, Gholamshahi (14) show the importance of psychological acceptance, especially in terms of psychological performance. Clients who report a greater tendency to experience negative psychological experiences, emotional experiences, unpleasant thoughts and memories, show better social, physical and emotional functioning (15). Gholam Hosseini, Khodabakhshi, and Taqwa's research (16) has shown that avoiding experiences is associated with a wide range of behavioral and psychological problems. People who are more inclined to suppress such experiences become more agitated when they experience stress and anxiety at school, at work, in a relationship with their spouse, and so on.

Considering the success of acceptance and commitment therapy in the treatment of mental disorders and increasing the health and well-being of individuals and considering that one of the main goals of psychotherapists is to increase the quality of life in society and that people with bulimia are many of these components Suffer, therefore, in light of the above, the present study seeks to answer the question of whether acceptance and commitment-based therapy is effective in regulating emotion in men with bulimia nervosa?

## **Research method:**

The current study is semi-experimental in terms of implementation method and in the form of pretest and post-test designs with a control group. The statistical population in this study included all men with bulimia who referred to the Iranian Bulimia Association in Bushehr in 1398 who received a diagnosis of bulimia nervosa by a psychiatrist.

The volume of the present research sample according to the test power (0.80), effect size (0.50) and confidence level (0.05) was considered for each sample group of 15 people who were randomly selected.

After reviewing and conducting the clinical interview, the clients with specific criteria for entering the study (suffering from overeating disorder, not receiving concomitant psychotherapy or weight loss program) and were selected by screening were randomly divided into two groups of 15 people at the experimental group and 15 people at the control group.

Then the experimental group was trained for 8 weeks in 1 session of 70 to 90 minutes per week and the control group did not receive any intervention and then the post-test was performed for both experimental and control groups. Also, at the end of each session, the events at the same time as the experiment, in addition to applying the control group, is controlled by asking "Have you seen or heard content similar to the one you received in this session from somewhere else?".

**Emotion Regulation Questionnaire:** Cognitive Emotion Regulation Questionnaire (CERQ); Garnowski & Craig (17) is an 18-point tool that measures cognitive emotion regulation strategies in response to life-threatening and stressful events on a five-point scale from 1 (never) to 5 (always) on a 9-subscale scale. This questionnaire is a self-report tool that its long form has 36 items that in

the present study its short form which is 18 items was used. This questionnaire is very easy to implement and can be used by people 12 years and older (both normal people and clinical populations). The Cognitive Emotion Regulation Questionnaire assesses the cognitive strategy of self-blame, acceptance, rumination, positive refocus, refocus on planning, positive reappraisal, perception, catastrophe, and blame of others.

Each of the subscales of this questionnaire has 2 options that are obtained by adding the scores given to each expression of the score of each subscale. The higher the score, the more the person uses that strategy. In the 18-question form, questions 1-3-8-9-10-12-17-18 measure negative emotion regulation strategies and questions 2-4-5-6-7-11-13-14-15-16 measure positive strategies. they do. Garnevsky et al. (2002) reported good validity and justifiability for this questionnaire.

Garnefski's researchs on cognitive emotion regulation strategies have shown that all subscales of this test have good internal consistency. The validity of the questionnaire in Iranian culture was reported by Yousefi (19) using Cronbach's alpha coefficient of 0.82. The justifiability of the questionnaire was examined through the correlation between negative strategies and the scores of the Depression and Anxiety Scale of the 28-item General Health Questionnaire and coefficients of 0.35 and 0.37 were obtained, both of which were significant at p <0.0001.

Acceptance and Commitment Therapy Protocol: This protocol is based on the Hayes model (20).

Session 1: Creating a therapeutic relationship, acquainting people with the subject of the research, answering the questionnaire and concluding a treatment contract

Session 2: Discovering and reviewing the patient's treatment methods and evaluating their effectiveness, discussing the temporary and ineffectiveness of treatments using allegory, receiving feedback and giving assignment

Session 3: Assisting clients in identifying ineffective nutrition control strategies and realizing their futility, accepting painful personal events without conflict with them using allegory, receiving feedback, and giving assignment

Session 4: Explaining about avoiding experiences and being aware of its consequences, teaching acceptance steps, changing language concepts using allegory, teaching relaxation, receiving feedback and giving assignment

Session 5: Introducing a three-dimensional behavioral model to express the common relationship between behavior / emotions, psychological functions and observable behavior and discussing trying to change behavior based on it, receiving feedback and giving assignment

Session 6: Explaining the concepts of role and context, seeing themselves as a platform and make contact with themselves to control eating behaviors using allegory, awareness of different sensory perceptions and separation of senses that are part of the mental content, and receive feedback and giving assignment.

# Family and health Quarterly, vol11, Issue 1, Spring 2021, ISSN: 2322-3065,

## http://journals.iau-astara.ac.ir

Session 7: Explaining the concept of values, making them motivated to change eating habits and empower clients for a better life, practice concentration, get feedback and giving homework

Session 8: Teaching commitment to action, identifying behavioral plans in accordance with values and creating a commitment to act on them, concluding sessions, conducting post-tests

In order to analyze the data, first the normality of the distribution of quantitative variables was determined by the Kolmogorov-Smirnov test. Then, the data were analyzed using descriptive and inferential statistics such as analysis of covariance and t-test of different scores and using SPSS software version 19.

#### **Results:**

Table 1 shows the descriptive indices of mean and standard deviation of pre-test and post-test scores of research variables in experimental and control groups.

Table 1. Descriptive indices of mean and standard deviation of pre-test and post-test scores of research variables in experimental and control groups

Kolmog	gorov test		Indicator	group	Variable	
The	Z K.S	The	mean	Indicator		
significance		standard				
level		deviatio				
		n				
0.20	0.13	2.99	30.54	Experimental'	Positive	
				s pre-test	strategy	
0.20	0.14	7.15	26.06	Control's pre-		
				test		
0.20	0.14	4.17	36.6	Experimental'		
				s post-test		
0.25	0.11	5.14	28.54	Control's post-		
				test		
0.20	0.26	3.82	22.46	Experimental'	Negative	
				s pre-test	strategy	
0.20	0.16	2.97	21.26	Control's pre-		
				test		
0.06	0.17	2.62	17.54	Experimental'		
				s post-test		
0.20	0.21	4.28	20.93	Control's post-		
				test		

Before analyzing the hypotheses, they were examined to ensure that the data in this study estimated the underlying assumptions of covariance analysis. For this purpose, the main assumptions of analysis of covariance were examined.

The results of calculating the correlation between pre-test (covariate variable) and post-test (dependent variable) in the variables indicated the existence of a linear relationship between them (assuming the relationship is linear) and calculating the correlation between the pretests of the studied variables also showed no significant relationship between They were (assuming multiple nonlinearities). Levene test was used to evaluate the homogeneity of variance of variables and to evaluate the assumption of regression slopes of the effects between subjects in the interaction of the Group interaction \* Pre-test.

The results are presented in Table 2. As the results of Levene test in the post-test as a dependent variable show that the level of significance in all variables is higher than the measurement level (P <0.05). Also, the results of examining the assumption of regression slopes show that the significant level obtained (P <0.05) indicates the establishment of the assumption of regression slopes in both groups.

Table 2. results of Levene's test and inter-subject effects to test the hypotheses

Assumption of regression slopes		1		f f		
Group interaction * Pre-test		Levene's test			group	
The	F	The F			Indicator	
significance	•	significan			marcutor	
level		ce level				
0.22	1.56	0.75	0.10		positive strategies Post-test	
0.34	0.98	0.27	0.27 1.21		negative strategies Post-test	

As the results of the statistical assumptions of covariance analysis showed, the data conditions allow the analysis of covariance. For this purpose, a multivariate analysis of covariance was performed on the dimensions of emotional regulation in the post-test (Table 3).

The results obtained in both analysis of covariance showed that multivariate analysis of covariance is significant. In other words, the effect of educational intervention caused a difference between the mean of experimental and control groups in the post-test. Table 3 summarizes the results of multivariate analysis of covariance to compare the mean of posttests in the experimental and control groups in the dimensions of emotional regulation.

http://journals.iau-astara.ac.ir

Table 3. Results of multivariate analysis of covariance to compare the mean of post-tests in experimental and control groups in the dimensions of emotional regulation

The significance	df error	df Hypothesis	F	Value	Test	Effect
1evel 0.01	27	2.	17.20	0.56	Pillai's trace	
0.01	27	2	17.20	0.44	Wilks Lambda	group
0.01	27	2	17.20	1.27	Hotelling's Trace	_
0.01	27	2	17.20	1.27	Roy's Largest Root	_

As the results of multivariate analysis of covariance showed (Table 3); There is a significant difference between the experimental and control groups in terms of at least one of the dependent variables. To investigate the point of difference, one-way covariance was analyzed in Mancova text on dependent variables. The results of this analysis are presented in Table 5. Table 4 shows the results of one-way analysis of covariance in Mancova text to compare the post-test of each variable with the pre-test control in the experimental and control groups.

Table 4. Results of one-way covariance analysis in MANCOVA text for comparison of posttest variables in experimental and control groups

effect	The significance level	F	mean squares	· Degree of freedom	sum of squares	Effect	
0.19	0.014	6.88	86.70	1	86.70	Negative strategy	group
0.41	0.001	19.45	425.64	1	425.64	Positive strategy	
			12.59	28	325.66	Negative strategy	
			21.88	28	612.66	Positive strategy	
				29	439.37	Negative strategy	
				29	1038.30	Positive strategy	

The results obtained from one-way analysis of covariance in the studied variables show the effect of group (experimental intervention) on post-test of negative strategies with value (F = 6.88), on post-test of positive strategies with value (F = 19.45) at the level of (05 / 0 > P) is significant. In general, according to the results, it can be said that the effect of the intervention has improved children's emotional order. Also, based on the size, the effect of the intervention was on negative strategies (0.19) and on positive strategies (0.41).

## **Conclusion:**

The results of the analysis showed that there was a significant difference between the intervention and comparison groups in terms of at least one of the dependent variables (dimensions of cognitive emotion regulation). To examine the point of difference, analysis of covariance in Man jova text on dependent variables was performed. The results showed that analysis of covariance was significant in the dimensions of cognitive emotion regulation. According to the obtained result, it can be said that in the intervention group, there was a significant change in the improvement of positive and negative cognitive emotion regulation strategies in the post-test compared to the experimental group under the influence of the intervention. Foreman et al. (21) also showed that acceptance and commitment-based therapy is effective for obese people who eat in response to their thoughts and feelings. A study by Weineland, Arvidsson, Kakiulidis and Dahl (22) found that acceptance and commitment-based therapy reduced emotional eating in obese people who underwent obesity surgery. Pearson, Follette and Hayes (23) in a study showed that acceptance and commitment-based therapy reduces eating behaviors in women with body image concerns. All of these studies are consistent with the findings of this study by emphasizing the effectiveness of acceptance and commitment based therapy on improving emotional eating.

Also, the findings of this study is consistent with the research of Dalen and Smith, Shali, Salvan, Leahy and Bagi (24) - which showed that mindfulness-focused intervention has a significant effect on improving eating behaviors - and the study of Kristeller and Wolver (25) which show Conscious mindfulness-based eating training reduces periods of overeating - and research by Katterman & Goldstein, Butryn, Forman, and Lowe (26) found that mindfulness meditation reduces overeating and emotional eating in people with these behaviors and leads to weight loss. Acceptance without judgment and defense is very important in eating behavior.

At high levels of acceptance, people become aware of their psychological arousals (thoughts and feelings) without making or trying to control them. This reduces the effect of these thoughts and feelings on their behavioral performance (eating). At low levels of acceptance, a person with psychological arousal engages in control strategies to change the shape and frequency of his or her thoughts and feelings.

Like a person who turns to eating for emotional relief. These control strategies lead to behavioral and functional disruption of the individual. In acceptance and commitment therapy, participants are encouraged to declare their commitment and take a healthy lifestyle, and this includes behavioral actions, even when faced with obstacles, such as negative thoughts and feelings. In this treatment, each action is compared and analyzed with its performance in the mind. The therapist may ask clients what this service serves. Is it in the service of avoidance and response to the mind or in the service of approaching values? This approach includes both acceptance strategies and behavioral commitment to change (27).

Family and health Quarterly, vol11, Issue 1, Spring 2021, ISSN: 2322-3065,

http://journals.iau-astara.ac.ir

For example, when a person has a strong desire to eat, he is asked to ask himself whether this desire is in line with his hunger and his body's need for food and the value of health, or in line with his thoughts, desires, emotions and physical symptoms.

Clients are asked to eat healthily for the sake of health and not to avoid emotions. Acceptance and commitment-based therapy reduces avoidance by encouraging acceptance, reducing verbal language, and direct reference to high avoidance outcomes (28). Therefore, it can be said that thoughts and feelings and desires that were strengthened by avoidance and inhibition, after being accepted, their appeal will be less. But what needs to be said is that this process takes place over time.

#### **Research Limitations**

Available sampling and non-examination of some intervening variables were pointed out, so caution should be exercised in generalizing the results. The samples of this study included men with overeating in Bushehr. Therefore, caution should be exercised in generalizing the findings to other age groups (children and adolescents) and women.

# **Application of research**

Based on the results of the present study, the improvement of emotional regulation has been achieved as a result of the intervention based on commitment acceptance; Considering that emotion cognitive intervention programs have been used to improve various psychological and behavioral problems; Recommended for improving overeating behaviors; Pay more attention to the topic of teaching people emotional regulation.

# **Ethical considerations**

The information of the sample groups was confidential and participation in the research was optional. The sample group had the right to leave the research at any stage of the research control group; After completing the research; Were trained.

#### **References:**

- 1) Lucassen EA., Zhao X., Rother KI., Mattingly MS., Courville AB., De Jonge L., Csako G, Cizza G, Sleep Extension Study Group. Evening chronotype is associated with changes in eating behavior, more sleep apnea, and increased stress hormones in short sleeping obese individuals. PloS one. 2013 Mar 6;8(3):e56519.
- 2) Gianini LM., White MA., Masheb RM. Eating pathology, emotion regulation, and emotional overeating in obese adults with binge eating disorder. Eating behaviors. 2013 Aug 1;14(3):309-13.
- 3) Hilbert A., Tuschen-Caffier B.. Maintenance of binge eating through negative mood: A naturalistic comparison of binge eating disorder and bulimia nervosa. International journal of eating disorders. 2007 Sep;40(6):521-30.

- 4) Basak Nejad S., Hooman F., Qasemi Nejad M.. The relationship between cognitive-behavioral avoidance coping styles and eating disorders in university students. Journal of Mental Health Principles, 2012; 14 (56): 85-287.
- 5) Hooman F., Mehrabizadeh Honarmand M., Khajehuddin N., Zargar Y.. Evaluation of the effectiveness of cognitive-behavioral group therapy on bulimia nervosa in women referred to the Ahvaz Bulimia Association. Jundishapur Medical Quarterly, 2018; 10 (4): 417-425.
- 6) Gross JJ., Thompson RA.. Emotion regulation: conceptual foundation. in jj gross (ed). handbook of emotion regulation.2007.
- 7) Ricca V., Castellini G., Sauro CL., Ravaldi C., Lapi F., Mannucci E., Rotella CM., Faravelli C.. Correlations between binge eating and emotional eating in a sample of overweight subjects. Appetite. 2009 Dec 1;53(3):418-21.
- 8) Munsch S., Meyer AH., Quartier V., Wilhelm FH.. Binge eating in binge eating disorder: a reakdown of emotion regulatory process? Psychiatry research. 2012 Feb 28;195(3):118-24.
- 9) Rahmanian M., Nejatali R., Oraki M.. The Effectiveness of Acceptance and Commitment Therapy in Cognitive Emotion Regulation and Concerns of Body Image in Females with Bulimia Nervosa. JHPM. 2018; 7 (4):33-40.
- 10) Hayes SC., Wilson KG., Gifford EV., Follette VM., Strosahl K.. Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. Journal of consulting and clinical psychology. 1996 Dec;64(6):1152.
- 11) Soleimani M., Khodavirdi T., Qasemzadeh A.R.. Evaluation effect of dialectical behaviour therapy (DBT) on decreasing overeating and depression in women with binge eating disorder (BED) Scientific Journal of the Medical System Organization of the Islamic Republic of Iran. 2014; 32 (1):9-18.
- 12) Safarzade S., Mahmoody Khorandi Z.. Survey on Eating Disorders (Mental Anorexia, Bulimia) among 13-18-Year- Old Adolescents of Gonabad City in 2014. JRUMS. 2015; 14 (5):393-404
- 13) Kaviani H., Javaheri F., Bahiray H., Efficacy of Mindfulness-Based Cognitive Therapy in Reducing Automatic Thoughts, Dysfunctional Attitude, Depression and Anxiety: A Sixty-Day Follow-Up. Advances in Cognitive Sciences. 2005; 7 (1):49-59
- 14) Mohammadi L., Salehzade Abarghoei M., Nasirian M.. Effectiveness of Acceptance and Commitment Therapy on Cognitive Emotion Regulation in Men under Methadone Treatment. JSSU. 2015; 23 (9):853-861
- 15) Zettle RD., Petersen CL., Hocker TR., Provines JL.. Responding to a challenging perceptual-motor task as a function of level of experiential avoidance. The Psychological Record. 2007 Jan;57(1):49-62.
- 16) Gholam Hosseini B., Khodabakhshi Kolaei A., Taqvai D.. The effectiveness of acceptance and commitment group therapy in improving depression and body image in obese women. Social Health, 2014: 2 (1): 8-1.
- 17) Garnefski N., Kraaij V.. Cognitive emotion regulation questionnaire—development of a short 18-item version (CERQ-short). Personality and individual differences. 2006 Oct 1;41(6):1045-53.

# http://journals.iau-astara.ac.ir

- 18) Garnefski N., Van Den Kommer T., Kraaij V., Teerds J., Legerstee J., Onstein E.. The relationship between cognitive emotion regulation strategies and emotional problems: comparison between a clinical and a non-clinical sample. European journal of personality. 2002 Sep;16(5):403-20.
- 19) Yousefi F.. The Relationship of Cognitive Emotion Regulation Strategies with depression and Anxiety in Students of Special Middle Schools for Talented Students in Shiraz. JOEC. 2007; 6 (4):871-892
- 20) Hayes, S. C. "A contextual approach to therapeutic change. In N. Jacobson (Ed.), Psychotherapists in clinical practice: Cognitive and behavioral perspectives, New York: The Guilford Press, 1987.
- 21) Forman EM., Butryn ML., Hoffman K.L, Herbert JD.. An open trial of an acceptance-based behavioral intervention for weight loss. Cognitive and Behavioral practice. 2009 May 1;16(2):223-35.
- 22) Weineland S., Arvidsson D., Kakoulidis TP., Dahl J.. Acceptance and commitment therapy for bariatric surgery patients, a pilot RCT. Obesity research & clinical practice. 2012 Jan 1;6(1):e21-30.
- 23) Pearson AN., Follette VM., Hayes SC.. A pilot study of acceptance and commitment therapy as a workshop intervention for body dissatisfaction and disordered eating attitudes. Cognitive and Behavioral Practice. 2012 Feb 1;19(1):181-97.
- 24) Dalen J., Smith BW., Shelley BM., Sloan AL., Leahigh L., Begay D.. Pilot study: Mindful Eating and Living (MEAL): weight, eating behavior, and psychological outcomes associated with a mindfulness-based intervention for people with obesity. Complementary therapies in medicine. 2010 Dec 1;18(6):260-4.
- 25) Kristeller JL., Wolever RQ.. Mindfulness-based eating awareness training for treating binge eating disorder: the conceptual foundation. Eating disorders. 2010 Dec 28;19(1):49-61.
- 26) Katterman SN., Goldstein SP., Butryn ML., Forman EM., Lowe MR.. Efficacy of an acceptance-based behavioral intervention for weight gain prevention in young adult women. Journal of Contextual Behavioral Science. 2014 Jan 1;3(1):45-50.
- 27) Hayes SC., Luoma JB., Bond FW., Masuda A., Lillis J.. Acceptance and commitment therapy: Model, processes and outcomes. Behavior research and therapy. 2006 Jan 1;44(1):1-25.
- 28) Hayes SC., Strosahl K., Wilson KG.. Acceptance and commitment therapy: An experiential approach to behavior change. 1999. New York: Guilford. 2005.

# How do you deal with events?

Everyone is confronted with negative and unpleasant events and responds to them in their own way. After reading each of the following statements, identify how you often think about negative or unpleasant events when you experience them.

always	often	usuall	Sometimes	Nev		
5	4	y	2	er		
		3		1		
					I blame myself for this issue.	1
					I have to accept this.	2
					I often think about how I feel about this experience.	3
					I think of better issues.	4
					I think of the best I can do.	5
					I can learn something from this situation.	6
					The situation could have been much worse.	7
					I often think that what I have experienced is far worse than what others have experienced.	8
					I blame others for this.	9
					I am responsible for this.	1 0
					I have to accept this situation.	1 1
					This issue keeps my mind busy.	1 2
					I think of pleasant things that have nothing to do with it.	1 3
					I think the best way to deal with this situation.	1 4

Erfani

# Family and health Quarterly, vol11, Issue 1, Spring 2021, ISSN: 2322-3065,

# http://journals.iau-astara.ac.ir

			I feel that I will become more resilient as a result of what has happened to me	1 5
E			I think other people experience much worse conditions.	1
=			I keep thinking about how horrible my experience is.	1
_			Others are responsible for this.	1
				8