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Investigating the effectiveness of acceptance and commitment-based therapy group training on anxiety, depression and bulimia nervosa in adolescent girls

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Abstract

Background and Purpose: The present study was conducted with the aim of investigating the effectiveness of group therapy training based on acceptance and commitment on anxiety, depression and bulimia among 16-19 year old girls.

analysis method: The current research method was a semi-experimental type with experimental and control groups. The statistical population included all secondary school girls of Rasht city in 2019. In order to conduct this research, 30 people with disabilities were randomly divided into two experimental and control groups (15 people in each group). Therapeutic intervention was performed on the experimental group for 8 sessions of 45 minutes, and no training was provided to the control group.Then a post-test was done from both groups.The instruments used in this research were Beck Depression Questionnaire, Beck Anxiety Questionnaire, and Bulimia Nervousness Questionnaire, which were administered in two stages, pre-test and post-test.The obtained data were analyzed using the statistical method of multivariate covariance analysis.

findings: The results of this research showed that there is a significant difference between the experimental and control groups in the post-test and follow-up phase.

Conclusion: Therefore, according to the results, it can be said that group therapy training based on acceptance and commitment can be used as a useful training method, especially for reducing mental problems (depression and anxiety) and reducing bulimia nervosa in teenagers.

Keywords: Treatment based on acceptance and commitment, depression, anxiety, adolescent girls, bulimia nervosa

Introduction:

Stress and anxiety have an important relationship with students' learning. Anxiety at the beginning of adolescence and at the identification stage can lead to problems in interpersonal relationships and reduced adaptation.Anxious adolescents experience more psychological problems than their peers .Zvolenskaya(2007). Studies conducted on the prevalence of anxiety disorders have shown that 5 to 10 percent of teenagers face one of the anxiety diagnosis criteria in a way that disrupts their normal life and daily functioning.Costello et al(2005). In the definition of anxiety, it is defined as an unknown factor that causes mental discomfort and dangerous symptoms such as palpitations and pallor. In the process of anxiety, unlike natural fear, there is no real or dangerous fear factor, rather, the person experiences fear automatically or unconsciously, and whenever the mind experiences unpleasant and unfortunate events as a result of nervous tension and stress, the person experiences anxiety. Brahni(2013). Depression is a state of mood that is associated with a decrease in self-esteem, a feeling of inadequacy, unworthiness, and an unfavorable perception of oneself. It is one of the most common psychiatric disorders that is not limited to a specific time, place or person and all classes. It covers the society from poor, rich, illiterate, literate, etc. and exists in every class and country. Ashtiani(2011) For a long time, depression has been one of the most important challenges in the field of mental health in every period of human life.The prevalence of depression is such that it is considered as a common disorder and the common cold is a mental illness.Williams(1996) The main symptoms of this disorder are depressed mood, lack of interest and boredom.The patient may say that he feels sad, hopeless, empty, and

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worthless.Often,the patient's depressed mood has a special quality that is different from normal sadness,and some patients describe it as debilitating psychological pain.

Depressed patients sometimes complain of inability to cry, and this symptom disappears as the disease improves.Almost two-thirds of depressed patients think about suicide,and 10-15% of them end their lives,and in teenagers, they avoid their family and friends and abandon their past desirable activities, and depression in teenage girls leads to be reduced In training, lack of energy,decreased motivation, sleep disorder,overeating and other symptoms appear.Dosti(2016) Research have shown that emotions such as stress,depression, anxiety and irritability cause bulimia nervosa.People with bulimia nervosa respond to their emotional disturbances by overeating and eating sweet and fatty foods. As a result,this overeating behavior leads to weight gain and obesity. Treatment that reduces bulimia results in long-term weight loss .Braden(2018)Eating disorder is a process that is rooted in biological, psychological and social issues, one of the common forms of which is bulimia nervosa.Bolorsaz(2016) Bulimia nervosa is a disorder in which a person is afraid of being overweight and obese and experiences anxiety and stress.One of the important features of this disorder is that the person often overeats and immediately after that the purification periods begin, which are of two types.One is bulimia nervosa, which causes a person to vomit, and a person takes the help of laxatives or intestinal salts to get rid of fattening substances.The second type of bulimia nervosa, in which the unrefined person tries to compensate for his overeating with exercise or fasting.Doctors do not know the specific causes of bulimia nervosa, but findings suggest that the disorder is multifactorial and influenced by concerns about weight gain.Bulimia nervosa begins in late adolescence and adulthood.But girls are more concerned about their weight and fitness than boys. Ashrafi(2020)More than 30% of people who are obese and those who are trying to lose weight may suffer from this disorder.Spitzer(1993) In the first epidemiological study of these eating disorders in Iran, Nobakht and Dejkam reported the prevalence of anorexia nervosa and anorexia nervosa in 3100 second-year female students of Tehran high school,0.9and3.2,respectively.

Another study on female high school students in Tabriz showed that 16.7% of the participants were at risk of eating disorders.Pourqasem(2009)In another study among female students of one of Tehran universities,this rate was 21.5%,and finally,the prevalence of anorexia nervosa and anorexia nervosa in the studied sample was 1.8% and 7.8%, respectively.In emotional disorders such as anxiety and depression, cognitive behavioral therapy is one of the most widely used treatments. One of the practical methods for use in clinical and non-clinical work that is used today is acceptance and commitment therapy as the third wave of cognitive behavior. Izadi(2013)In Acceptance and Commitment Therapy, most people find many of their inner feelings, emotions, or thoughts to be distressing and frustrating and try to reduce these negative and frustrating experiences.This attempt at control is ineffective and paradoxically leads to an exacerbation of the feelings that the person was initially trying to avoid.Hayes(2004) quoted from Misbah(2019) Acknowledging an active desire to experience the body's feelings, emotions, and thoughts is not manipulating or controlling them, but an attempt to accept the reality of having them.Lerdergen(2008) On the other hand, Harris (2006) sees acceptance and commitment therapy as creating a real life while the person accepts the inevitable suffering in it. Treatment based on acceptance and commitment includes six stages: cognitive failure, acceptance, contact with the present moment, self-observation, values, and committed action to seek help so that clients can achieve psychological flexibility.Treatment is based on acceptance and commitment with the aim of psychological flexibility. It means creating the

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ability to choose an action from among various options that is most appropriate, rather than imposing an action on the individual to deny disturbing feelings, thoughts,or desires Flexibility created through acceptance and presence of mind helps the patient to be less reactive to body sensations.Lerdergen(2008)The ultimate goal of acceptance and commitment therapy is to help the individual gain a sense of direction in life that includes his or her life values and then act in accordance with those values.Lyman(2012) Many studies have been conducted to investigate acceptance and commitment therapy in different variables, for example Weatherell (2012)investigated the effectiveness of commitment and acceptance therapy and cognitive behavioral therapy in patients with chronic pain.Wetherall(2011)The findings of the researchers show that physical and mental problems such as depression, anxiety caused by pain in the patients of the intervention group based on acceptance and commitment improved and there is no significant difference between the treatment groups in terms of improvement, but the patients of the intervention group based on Acceptance and commitment were more satisfied than the cognitive behavioral therapy group after completing the treatment report.In a study by Furman et al(2007),they compared the effectiveness of acceptance and commitment therapy and cognitive therapy in improving patients.The results of their research showed that both treatments improved emotional disorders such as anxiety and stress and life satisfaction in both groups,but the mechanism of both treatments was different.Change in observation and experiences was due to cognitive therapy, while experiential avoidance was associated with awareness and acceptance of treatment outcomes based on acceptance and commitment.

Today,it is known as an effective treatment for depression and anxiety,which has a high prevalence inteenagers.Fores(2011)Considering the importance and sensitivities of maturity and identity in teenage girls,which leads to depression and anxiety in some students.This research was conducted with the aim of investigating the effect of group intervention based on acceptance and commitment training on depression,anxiety and bulimia among adolescent girls.The main question in this research is whether group therapy training based on acceptance and commitment is effective on anxiety,depression and bulimia among adolescent girls?

Review methods:

This research is practical in terms of purpose.In terms of the general method of the current research, it is a semi-experimental type of pre-test-post-test with control and experimental groups randomly.The statistical population of the research includes all adolescent female students of the second year of secondary school in Rasht who were overweight.The sample The study included 30 adolescent girls diagnosed with obesity BMI>30 and overweight with body mass index of 22-29.9, who were randomly selected into 2 experimental and control groups. Then the members of the experimental group received intervention sessions based on acceptance and commitment in 8 sessions of 45 minutes as a group.While the control group did not receive any treatment from the psychologist.

Criteria for entering the research:

-Female students

- Suffering from anxiety based on the results of Beck's anxiety test

- No history of hospitalization in a mental hospital

Consent to participate in the research

Suffering from depression based on the results of the Beck depression test

Research tool

Stic bulimia nervosa questionnaire

The eating disorders questionnaire was designed and validated by Stick et al.(2001),it is a 22-item questionnaire that measures anorexia nervosa,bulimia nervosa, and binge eating disorder based on DSM-IV(American Psychiatric Association-1994)criteria. Slow This questionnaire has been validated by

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Rezaei(2012). This scale includes a combination of Likert scores, two-part scores, frequency scores, and open-ended questions such as height and weight. The first 4-question item of the attitude scales of anorexia nervosa, bulimia nervosa in the last three months, such as fear of obesity and weight overestimation, is on a seven-point scale that is graded from 0 (not at all) to 6(extremely).The next four items measure the frequency of eating large amounts of food by focusing on the number of days per week during the past 6 months (binge eating disorder) and the number of days per week during the past 3 months (binge eating). It assesses behaviors used as components of binge eating during the past 3 months, including vomiting, laxative use, fasting, and vigorous exercise. Finally, the participants were asked to record their height and weight and to answer two questions about missed periods and contraceptive pill use. The diagnostic scale of eating disorders includes a diagnostic scale and a composite symptom scale, the diagnostic scale is used for anorexia nervosa, bulimia nervosa, and binge eating disorder. Composite symptom scores indicate overall levels of eating pathology, and cutoff scores are used to separate individuals with eating pathology from the control group. The composite symptom scores of eating disorders are calculated by standardizing and summing the scores of all items (except for the items that ask about weight, height, and the use of birth control pills). For combined indications, a cutoff score of 16.5 is commonly used to distinguish clinical patients from controls. Cronbach's alpha coefficient in this study was 0.73. Beck depression questionnaire

Beck's depression questionnaire is a self-report questionnaire that has several questions of different types and each question expresses a state in the individual. To implement the questionnaire, the subjects are asked to read the questions carefully and choose the option that is better. It shows the person's feelings. The person's depression score is obtained by summing the scores of the options chosen by the person. Using these scores, the level of depression of each person is determined. A score less than 4 indicates a possible denial of depression, a good pretense for healthy people. High scores for severely depressed people indicate a possible exaggeration of depression or the possibility of personality disorder, however, severe depression is also seen in these people. In their research, some researchers have reported the internal stability of this tool to be 72%-92% and the average of 86% for the alpha coefficient in the patient group and 81% for the non-patient group. The investigations carried out in the field of the reliability of the Big Questionnaire indicate the appropriate reliability of this test. Beck, Steer and Garbin (1988) found the internal consistency of this questionnaire to be 73. Up to 93/. With an average of 86 /.They also reported that the internal consistency of the above questionnaire for psychiatric and non-psychiatric patients was respectively 0/81 And 0/86Have shown.

Beck's anxiety questionnaire

The anxiety questionnaire of Beck, Epstein, Brown and Steer, (1988) contains 21 questions and each question has four answers (0-3), which is a state of increasing intensity. The range of scores is from zero to 63. The suggested cut-off points for this questionnaire are 0-7, for no or partial anxiety.In the Beck questionnaire, four options for each question are scored in a four-part spectrum from 0 to 3. Each test item describes one of the common symptoms of anxiety (mental, physical, panic symptoms). The total score ranges from 0 to 63. The desired test has good validity ($p < 0.001$, $r = 0.72$), reliability ($p < 0.001$, $r = 0.83$) and internal consistency (Alpha = 0.92).

Table-1. The content of the meetings

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Meeting	Summary of the content of the meeting
First session	A brief explanation of the client's problem, establishing a therapeutic relationship, providing reassurance, getting a commitment from the client to complete the course and complete the homework if they wish to continue. Initial assessment of values, assessment of constructive disappointment, parable of the person falling into the well, practice of hard cover, practice of paying attention to awareness, practice of objectification
Second session	Practicing awareness attention, parable of the lie detector, practicing the lion, lion, lion, reviewing the homework of the previous session, cognitive dissonance: objectifying the psychological content, the parable of the bus passengers, the practice of pretending your mind is a passer-by, the parable of pretending to be yourself, Providing homework
Third session	Awareness exercise, value clarification exercise, annoying neighbor parable, thought suppression exercise, homework revision, chess board parable, tug-of-war with monsters parable, problem-oriented self-excitement, just stay alone, dissonant strategies, Providing homework
Fourth Session	Practice paying attention to awareness, considering oneself as a context, allegory of smooth sands, revision of homework, questions about hopes, dreams and dreams, finding the root of the problem, dissonance, setting homework.
Fifth meeting	Practicing mindfulness, contextualizing oneself, practicing facing the giant iron man, reviewing homework, reviewing values, setting goals, planning activities, setting homework
The sixth session	Mindfulness and observer practice, returning to the parables of the bus passengers, the annoying neighbor, and the tug-of-war with the monster, creating larger patterns of committed action, conveying the message to therapists that the quality of committed action is more important than its quantity. Review homework, help clients re-commit, when promises are broken or slippage Observer practice, mindfulness practice, homework assignment.
The seventh session	Reflecting the achieved progress and continuous goals of the therapist, preventing relapse, checking and refining after the client's treatment, reviewing the homework, reporting the examination and treatment, setting the homework.
The eighth session	Concluding and summarizing the topics of the exam, reviewing the homework, ending the classes with the last exercise of paying attention to breathing awareness.

Data analysis

Data have been analyzed using SPSS software in two descriptive and inferential sections. In the descriptive part, the mean, standard deviation, variance, etc., and in the inferential part have been analyzed by covariance analysis.

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Table-2: Descriptive indices of the research variables by groups of acceptance and commitment-based treatment group training and evidence (n=30)

phase		Pre_exam				After us			
variable	**group**	**average**	**Standard deviation**	**Swstatistics**	**p**	**average**	**Standard deviation**	**Swstatistics**	**P**
depression	Education	21\46	2\92	0\957	0\641	13\40	1\72	0\961	0\706
	Witness	21\51	2\69	0\963	0\742	20\46	2\53	0\969	0\850
anxiety	Education	33\33	3\10	0\947	0\480	23\13	2\29	0\975	0\924
	Witness	33\13	3\39	0\857	0\022	32\06	3\36	0\884	0\054
Bulimia nervosa	Education	30\86	4\43	0\971	0\870	20\86	3\35	0\932	0\291
	Witness	30\26	3\91	0\957	0\635	29\33	3\84	0\925	0\230

Statistics:Shapiro-Wilk test

According to Table 2, the mean scores of depression, anxiety and bulimia nervosa variables in the acceptance and commitment-based therapy group training group have changed in the post-test stage compared to the pre-test stage. These changes confirm that the post-test scores of participants in the experimental group have decreased in the variables of depression, anxiety and bulimia nervosa. It should be noted that in this test, obtaining a lower score in the variables of depression, anxiety and bulimia respectively indicates a decrease in depression, anxiety and bulimia.

Hypothesis 1: group training therapy based on acceptance and commitment is effective in reducing anxiety.

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Table 3: Results of univariate covariance analysis to investigate the difference between experimental and control groups in the level of anxiety

Source	Sum of squares	Degrees of freedom	Mean square	Statistics F	P	2n	Test power
Modified pattern	778\471	2	389\235	199\308	0\001	0\921	1
Pre-exam	179\938	1	179\938	92\137	0\001	0\921	1
group	618\948	1	618\948	316\933	0\001	0\921	1
mistake	52\729	27	1\953			0\921	1

According to table-3, the F statistic in the post-test was 316.933, which is significant at the 0.001 level, so it shows that between the two groups of group training, the treatment based on acceptance and commitment and evidence in terms of reducing the anxiety score There is a significant difference among female students of the second secondary school. Also, the effect size value was equal to 2η=0.921, which shows that the amount of this difference in the society is 92% and at a high level. Therefore, there is a significant difference between the acceptance and commitment-based treatment group and the evidence group in terms of reducing the level of anxiety in the post-test stage by adjusting the pre-test scores. The results of pairwise comparisons test with Bonferroni adjustment are shown in Table-4.

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Table 4: Examining the two-by-two differences between the test and control groups by adjusting the effect of the pre-test on the level of anxiety.

group	Adjusted average	Difference in averages	Standard error	Significance level
Group therapy training based on acceptance and commitment	23\056	-0\089	0\511	0\001
Witness	32\144			

The results show that the level of anxiety of female students in the acceptance and commitment-based group training group has decreased compared to the control group, and based on the Bonferroni adjustment test, this decrease was significant. The difference in the adjusted post-test anxiety scores of students in the acceptance and commitment-based therapy group training group compared to the control group was equal to -9.089. Therefore, the hypothesis of group training therapy based on acceptance and commitment is effective on the anxiety of teenage girls of the second secondary school in Rasht.

Hypothesis 2: group training therapy based on acceptance and commitment is effective in reducing depression.

Table 5: The results of univariate covariance analysis to investigate the difference between experimental and control groups in the level of depression

Source	Sum of squares	Degrees of freedom	Mean square	Statistica F	P	2n	Test power
Modified pattern	482\921	2	241\461	284\130	0\001	0\942	1
Pre-exam	108\388	1	108\388	127\541	0\001	0\942	1
group	374\533	1	374\533	440\718	0\001	0\942	1
mistake	22\945	27	0\850			0\942	1

According to Table 5, the F-statistics of the post-test depression rate was 440/718, which is significant at the 0.001 level, so it shows that between the two groups of group training, the treatment based on acceptance and commitment and evidence in terms of reducing the depression score of teenagers There is a significant difference in the second high school girl. Also, the effect size was equal to 2η=0.942, which shows that the amount of this difference in the society is 94% and at a high level. Therefore, there is a significant difference between the acceptance and commitment-based treatment group and the evidence group in terms of reducing the level of depression in the post-test stage by adjusting the pre-test scores. The results of the pairwise comparison test with Bonferroni adjustment are shown in Table 6.

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Table 6: Examining the two-by-two differences between the experimental and control groups by adjusting the effect of the pre-test on the level of depression.

group	Adjusted average	Difference in averages	Standard error	Significance level
Group therapy training based on acceptance and commitmen	13\400	-7\067	0\337	0\001
witness	20\467			

The results show that the level of depression of female students in the acceptance and commitment-based therapy group training group has decreased compared to the control group, and based on the Bonferroni adjustment test, this decrease was significant. The difference in adjusted post-test depression scores of students in the acceptance and commitment-based therapy group training group compared to the control group was equal to -7.067. Therefore, the hypothesis of group training therapy based on acceptance and commitment is effective on the depression of second high school female students in Rasht.

Hypothesis 3: group training therapy based on acceptance and commitment is effective in reducing bulimia nervosa.

Table 7: Results of univariate covariance analysis to investigate the difference between experimental and control groups in the rate of bulimia nervosa

Source	Sum of squares	Degrees of freedom	Mean square	Statistica F	P	2n	Test power
Modified pattern	837\217	2	418\608	172\600	0\001	0\901	1
Pre-exam	299\583	1	299\583	123\524	0\001	0\901	1
group	595\546	1	595\546	245\555	0\001	0\901	1
mistake	65\483	27	2\425			0\901	1

According to table 7, the F-statistics of binge eating after the test was 245/555, which is significant at the level of 0.001, so it shows that between the two groups of group training, the treatment based on acceptance and commitment and proof in terms of reducing the score of binge eating There is a significant difference in the nervousness of secondary school female students. Also, the effect size value was equal to 2η=0.901, which shows that the amount of this difference in society is 90% and at a high level. Therefore, there is a significant difference between the acceptance and commitment-based treatment group and the evidence group in terms of reducing the amount of bulimia nervosa in the post-test stage by adjusting the pre-test scores. The results of pairwise comparisons test with Bonferroni adjustment are shown in Table 8.

Table-8: Examining the two-by-two differences between the experimental and control groups by adjusting the effect of the pre-test in the rate of bulimia nervosa

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group	Adjusted average	Difference in averages	Standard error	Significance level
Group therapy training based on acceptance and commitmen	20\632	-8\935	0\570	0\001
witness	29\568			

The results show that, the rate of bulimia nervosa among teenage girls in the acceptance and commitment-based group training group has decreased compared to the control group, and according to the Bonferroni adjustment test, this decrease was significant. The difference in the adjusted post-test scores of adolescent bulimia nervosa in the acceptance and commitment-based therapy group training group compared to the control group was -8.935. Therefore, the hypothesis of group training therapy based on acceptance and commitment is effective on the bulimia nervosa of second high school girls in Rasht.

Discussion and conclusion:

The present study was conducted with the aim of investigating the effectiveness of group therapy training based on acceptance and commitment on anxiety, depression and bulimia among 16-19 year old girls.The first hypothesis of the research is that group therapy based on acceptance and commitment is effective in reducing anxiety.Univariate covariance analysis was used to investigate the first sub-hypothesis of the research and to investigate the effect of acceptance and commitment-based therapy group training on subjects' anxiety.There is a significant difference between the treatment group based on acceptance and commitment and the evidence group in terms of reducing the level of anxiety in the post-test phase by adjusting the pre-test scores.The results show that the anxiety level of female students in the group therapy based on acceptance and commitment has decreased compared to the control group, and according to the Bonferroni homogeneity test, this decrease was significant.Therefore, the first sub-hypothesis of the research regarding the effectiveness of treatment based on acceptance and commitment to anxiety is confirmed. These results were consistent with the findings of previous studies Pourfarj(2010)Chalontri Shirazi(2016)Naib(2017)Esmaili et al(2017) Esman,Wilson,Strassil,& McNeil(2006) Nuneh et al(2009)Yang(2009).(2013) Herbert et al(2014).In explaining this finding, it is concluded that treatment based on acceptance and commitment improves feelings such as anxiety, depression and craving.Treatment based on acceptance and commitment is known as an effective treatment for depression and anxiety in adolescents, which sometimes leads to bulimia nervosa and has a high prevalence, because in ACT therapy, people are taught to stop thinking and acting from Avoid socially anxious thoughts.and situations,deal with this disorder by increasing psychological and mental acceptance of inner experiences such as thoughts and feelings that they have when speaking in public,and also by creating social goals and more commitment to them. Therefore, the treatment process and the results obtained in this research show that ACT can be a suitable treatment for reducing bulimia nervosa, anxiety and depression in female students. Because Acceptance and Commitment Therapy is fundamentally process-oriented and clearly emphasizes promoting acceptance of psychological experiences and commitment through increasing flexible and adaptive meaningful

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activities, regardless of the content of the psychological experiences. A feature that does not exist in the cognitive-behavioral approach. The goal of therapeutic methods used in acceptance and commitment therapy is not to increase realistic, effective, and logical thinking or to encourage feelings, but rather to reduce avoidance of these psychological experiences and increase awareness of them, especially focusing on the present moment without prejudiceIt is a non-confrontational and non-evaluative method. In this process, the patient learns to distance himself from pain and disturbed states in order to reduce these experiences on behavior.The goals of treatment are to improve performance by increasing the level of psychological flexibility.Accepting and increasing attention and acting on values in reducing the severity of overeating and eating habits with a therapeutic method based on acceptance and commitment is the mediator of change.In other words, it can be said that treatment based on acceptance and commitment in patients creates psychological acceptance of reality and the patient finds new skills to face his problem and this feature makes the person flexible.The second hypothesis. Group training therapy based on acceptance and commitment is effective in reducing depression.In order to investigate the second sub-hypothesis of the research and to investigate the effect of group therapy based on acceptance and commitment on subjects' depression, univariate covariance analysis was used.The results show that the level of depression of female students in the acceptance and commitment-based group therapy training group has decreased compared to the control group, and according to the Bonferroni consistency test, this decrease was significant.Therefore, the second sub-hypothesis of the research regarding the effectiveness of treatment based on acceptance and commitment on depression is confirmed.These results were consistent with the findings of previous studies Sabour (2014)Rezaei,Sharifi,Ghazanfari,Aflaki and Bahader(2019)Naib(2017) Khatbari and Shiroudi(2019)Chaleshtri Shirazi(2016) Darshi(2016)Nouri et al.In explaining these results, it can be said that the treatment based on acceptance and commitment leads to the reduction of anxiety,depression and bulimia nervosa, and through the creation and development of acceptance and increasing the practice of values, therapeutic changes are evident.In clients, therapy based on acceptance and commitment refers to accepting as much mental experiences and connection with the present moment as possible and participating in activities that are consistent with personal values.Acceptance of the process seems to be the key to the effectiveness of this type of therapy.The main structure of treatment is based on the acceptance and commitment of psychological flexibility, which means the ability to take effective actions in line with individual values despite problems and sufferings.It can also be said that emotional control strategies, performing behavioral commitment exercises, clarifying values, techniques for identifying values-based behaviors and acceptance all led to the reduction of depression symptoms in this research.In ACT therapy, people learn how to let go of thought-limiting beliefs, push away intrusive thoughts,strengthen the observing self instead of the conceptualized self, and accept events instead of controlling them. The third hypothesis.Group therapy training based on acceptance and commitment is effective in reducing bulimia nervosa.In order to investigate the third sub-hypothesis of the research and to investigate the effect of group training based on acceptance and commitment on subjects' overeating, univariate covariance analysis was used.The results of univariate covariance analysis

showed that group training based on acceptance and commitment led to a reduction in binge eating in the post-test of the experimental group.Therefore, the third sub-hypothesis of the research regarding the effectiveness of the treatment based on acceptance and commitment on bulimia nervosa is confirmed.These results were consistent with the findings of previous studies Javarcio et al(2013)Ashrafi(2019) Abdul Karimi et al(2017)Omidi(2019).In explaining this finding,it is inferred that based on ACT therapy in the treatment of eating disorders, people try to deal with psychological pressure and choose a coping style to reduce it.Choosing incompatible coping strategies instead of resolving conflicts can lead to various eating disorders. Adolescents,especially girls, in most cases pay special attention to their body weight and shape, and often try to deal with the pressures caused by the critical and challenging period of puberty, they adopt a wrong attitude towards eating, and this exposure may lead to Behavioral behaviors.Challenges and issues.In acceptance and commitment therapy, therapy focuses on helping the client cope with stress and feelings of low self-esteem in interpersonal situations.The therapist learns to recognize the emotions that cause eating disorders, especially binge eating.In addition, problematic interpersonal behaviors often trigger negative emotions.In cognitive-behavioral groups, therapists learn to rethink the way they think about eating and are actually helped to change their behaviors.limitations of the research:One of the limitations of this research is the simultaneous implementation of the research with the spread of the corona virus, which has caused concern and worry to the participants despite the observance of health precautions. Failure to control the history of mental illnesses such as anxiety and severe depression and genetic factors are other limitations of this research that should be considered in the generalizability of the results.Ethical considerations:All people participated in the research with consent and knowledge.The research participants were assured that the information obtained from them would be kept secure.If for any reason the sessions were terminated or suspended before the scheduled time, the researcher informed the participants.The intervention that took place was free and no money was charged from any of the people.Those who want to know their marks result will be given their marks result.Conflict of interest:The authors hereby declare that this work is the result of an independent research and does not have any conflict of interest with other organizations and individuals.Acknowledgments:The authors of the article are grateful to all the participants in the research.

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