



Comparison of the effectiveness of two methods of treatment based on acceptance and commitment and Beck cognitive therapy on aggression and irresponsibility of students

Mohammad Reza. Feizi Lafmajani¹, Valiollah. Farzad*², Ali. Delavar³& Anahita. Khodabakhshi Kolae⁴

1 .Ph. D student of Counseling Department, Science and Research Unit, Islamic Azad University, Tehran, Iran

2 .Associate Professor, Department of Psychology, Kharazmi University, Tehran, Iran

3 .Professor, Department of Psychology, Allameh Tabatabai University, Tehran, Iran

4. Associate Professor, Department of Psychology, Khatam University, Tehran, Iran

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Corresponding Author's Info

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Background and Aim: Young people, including students in any society, are considered the intellectual and spiritual assets of that society and are the builders of that society's future, so these people are the ones who must accept the responsibilities of that society in the future. Studying the specific issues of young people, successful education and ensuring their physical and mental health is one of the most important goals of government educational planners. Therefore, the aim of this study was to compare the effectiveness of two methods of treatment based on acceptance and commitment and Beck cognitive therapy on aggression and irresponsibility of students of Islamic Azad University· Islamshahr Branch. **Methods:** The present study was a quasi-experimental study with pre-test and post-test design and follow-up with the control group and using the selection of subjects in the experimental and control groups. The statistical population of this study is students who referred to the Mental Health Counseling and Services Center of Islamic Azad University· Islamshahr Branch from April 2014 to September 2017. The sample size was 45 students who were selected by purposive sampling method from the statistical population and were randomly assigned to three groups of acceptance and commitment therapy experiments (n = 15)· cognitive therapy (n = 15) and control (n = 15). Both experimental groups were trained for 10 sessions of 90 minutes and no intervention was performed for the control group (third group). The content of the interventions in the ACT and CT experimental groups was presented in 10 sessions based on the training package. The research instrument included a Minnesota Multidimensional Personality Questionnaire 2- Reconstructed Form. In this research· the statistical model of repeated measures measurement has been used. **Results:** The results showed that both treatments significantly improved aggression and irresponsibility compared to the treatment group, in other words, these two treatments in the post-test and follow-up stages were able to significantly reduce the scores of aggression and irresponsibility towards the treatment group. Moreover, the results showed that "group therapy based on acceptance and commitment" is more effective on the variable "aggression" than "Beck cognitive therapy"· While the effect of "Beck cognitive therapy" is more effective than "group therapy based on acceptance and commitment" on the variable "irresponsibility. **Conclusion:** According to the findings· it is concluded that group therapy based on acceptance and commitment can be effective in improving students' aggression and Beck cognitive therapy in improving their irresponsibility.



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Introduction

Undoubtedly, educated manpower is one of the important factors of growth and development in any country. This factor has been placed at the top of other factors and countries have achieved real growth and development which, along with God-given resources, knowledge and technology, have human resources with high knowledge, and secondly, they have used this expert workforce in an optimal way. In other words, the characteristics of today's world are rapid social transformations, transformations in which the members of the society play a role. It is expected that with their potential, extensive power and actual participation, they will set in motion various economic, social and family activities, etc., and be the foundation for the growth and excellence of society, family and themselves. In fact, the role and position of students as the foundations of changing culture and improving the scientific level and progress of society is very important. Investigating the situation and challenges of students in different dimensions, especially in academic and psychological levels, will play a significant role in improving the situation of this group. Health and well-being in its broadest sense is a phenomenon that is of interest and attention to all human beings, social groups and human societies. Health is described and explained in various discourses that are socially constructed. Although the concepts of health, mind, and body have been different in different places and times, but for all cultures and societies, they have played an essential role in human life experiences. Considering health as a concept affected by a complex set of biological, psychological, social, cultural, economic, religious and environmental factors, it should be acknowledged that in this sense, health is no longer the concern of medical science practitioners. Instead, all social scientists, especially sociologists and psychologists, are interested in investigating it. In many countries of the world, especially third world countries, the mental health dimension has received less attention due to the main attention to other health priorities, including infectious diseases in the past or chronic diseases in the present era. However, a look at the statistics and figures published on the prevalence of mental disorders in different countries of the world indicates that the mental health situation is critical. Young people, including students, are the intellectual

and spiritual assets of any society and are the builders of the future of that society, so these people are the ones who must accept the responsibilities of that society in the future. Examining the specific issues of young people, successful education and ensuring their physical and mental health is one of the most important goals of government educational planners. Students are one of the effective, important and future-creating social groups of any society, whose personality development and improvement of their knowledge and skills depend on knowing the factors affecting their "conditions and way of life". In the popular scientific literature, it is proposed and evaluated using the concept of quality of life (Bauman, IONESCU and Chau, 2011).

One of the variables that is particularly important among students is aggression. Aggression is defined as a behavior that has a cognitive defect in the evaluation process and problem solving. In such a way that these students have difficulty in coding the received social information and correctly interpreting social events and other people's intentions. On the other hand, they approach social situations with a confrontational and hostile approach, while assuming that others' behavior is provocative and hostile (Mouratori et al., 2018). Aggression can be defined as behavior that leads to harm or harm to others. One of the types of aggression that appears in early preschool years is hostile aggression, which includes two types of overt and relational aggression. Overt aggression (physical and verbal) includes hostile behaviors such as hitting, pushing, kicking, as well as threatening to perform these actions verbally. Relational aggression is a form of aggression that the aggressive person uses with the aim of disrupting the friendly and interpersonal relationships of the victim, spreading rumors or slander and forcing people to cut off communication with the person, thereby causing isolation. Another dependent variable is irresponsibility. Responsibility is not just a duty or a task that should be done by a person; On the contrary, it expresses a kind of feeling and state that is aroused by the person himself and includes the response and reaction of the person to the needs of others in an overt or hidden way. In contrast to irresponsibility, it means not giving an appropriate response to the needs and wants of others (Bauman, IONESCU and Chau, 2011). The aforementioned variables are both considered as personality traits.

Personality traits in students are one of the factors that, if not managed and timely treatment, will endanger the quality of life and disrupt students' daily functions. Personality traits have a destructive effect on their physical and mental health and cause a drop in their academic performance. Based on this, it is very important to investigate and identify the effective factors involved in students' vulnerability to these personality traits (Dorodgar, 2019).

Students referring to counseling centers definitely have special injuries and problems that must be effectively identified, counseled and treated. In counseling centers, various counseling and psychotherapy methods are used to solve the injuries and special problems of students. Today, we are facing the third generation of these treatments, which can be called acceptance-based models under the general title; Such as cognitive therapy based on mindfulness, metacognitive therapy, etc. One of these treatments, which has recently been in the center of researchers' serious attention, is Acceptance and Commitment Therapy (ACT), whose main goal is to create psychological flexibility; It means creating the ability to choose an action among different options that is more appropriate, rather than an action being performed or actually imposed on a person simply to avoid disturbing thoughts, feelings, memories, or desires. Taking advantage of new treatments in the field of psychotherapy and counseling, such as commitment and acceptance therapy, along with other psychological and cultural-social factors, can be effective in improving the mental state of students with psychological disorders. (Hayes et al., 2013). Treatment based on acceptance and commitment is a process-oriented approach that is known as one of the third wave psychotherapies. ACT is the only psycho-experiential intervention in which acceptance and mindfulness strategies are used along with commitment and behavior change strategies to increase psychological flexibility. The focus of ACT is to increase the flexible response to the environment and the adaptation of personal values to the environment in order to reduce anxiety in the individual. ACT targets the core of problems and its overall goal is to increase psychological flexibility as well as the ability to contact the present moment as fully as possible and change behavior in order to serve values. Psychological flexibility is built and stabilized through 6 cores. Each of these cores is

considered a psychological skill. The perspective of psychological flexibility in ACT treatment can lead to the reduction of anger, hostility and aggression (Khanerooz, 2019). Also, the results of recent researches show that the important feature of flexibility in ACT treatment can lead to the reduction of aggression and hostility (Hayes et al., 2013). In addition, the effectiveness of ACT treatment has been confirmed in many psychological problems, including anxiety, depression (Hayes et al., 2006), reduction of negative emotions and thoughts (Oraki, Ajani, and Rahmani, 2018).

Another therapeutic approach in this field can be referred to cognitive therapy. In the therapeutic approach based on acceptance and commitment, unlike traditional cognitive therapy (Beck), the content of the patients' thoughts and beliefs is not evaluated, instead attention is paid to the processes of the formation of psychopathology in the context and context of the problem (Basaeri, 2016). The most important principle of cognitive therapy is that a person's condition is the result of his cognitions and thoughts. Everything depends on the outcome of your attitude; And it depends on how you interpret the events and what justification you have from others and from objects. As a result of negative thoughts, you become despondent and heavy and experience a sense of defeat and failure (Khanerooz, 2019). In cognitive therapy, it is necessary to move the dominant abnormal methods in information processing towards the norm methods and people become more aware of their information processing. Moreover, if necessary, instead of making changes in the data and matching them with the existing schemas, try to match their schemas with the data. According to Beck, false beliefs are usually formed in childhood and remain latent and inactive as a cognitive schema in long-term memory, and a change in this schema requires a change in cognition (Bayat, 2016). There are few researches that have dealt with cognitive therapy. Among them, we can mention the following: In a study, researchers treated 14 people with major depression and came to the conclusion that not only cognitive therapy is very useful for treating people with major depression; It also increases the psychosocial performance of these people (Azizi and Momeni, 2014). Regarding the variables investigated in this research, the researches conducted have investigated some of these variables, for example, Porfaraj Omran (Dosti et

al., 2016) conducted a research titled the effectiveness of ACT treatment on fear and social anxiety of students. The results showed that ACT treatment can significantly reduce students' fear and social anxiety. The researchers (Zare, 2017) reviewed the literature and research background related to the test of anger, violence and aggression between adults and youth using the psychological flexibility model and ACT therapy and positively evaluated the effect of this therapy on violence and aggression of youth.

Regarding the reasons for comparing these two therapeutic approaches in the current research, it can be said that Harley, quoting Shahrzadenia (Shehrzadenia and Agha Mohammadian, 2018) in an article entitled "Bridging the gap between cognitive therapy and ACT" writes: The terms "first generation", "second generation", and "third generation" or third wave are often used to describe the expansion of cognitive and behavioral therapy and the improvement of emotional disorders. "First generation" was coined in reference to the behavioral therapy that was dominant in the 1950s. A perspective that was recognized through the use of learning theory and methods focused on behavior change. The second generation refers to the "cognitive revolution" of the 1970s and approaches that combine cognitive and behavioral techniques but focus on the role of cognitions and making changes within this field. Beck's cognitive therapy tested and used most of these. Beck's cognitive therapy, as a standard or traditional cognitive therapy, is the established "main stream" distinct from other cognitive-behavioral approaches that have emerged recently.

Hayes introduces the term "third wave" or "third generation" in reference to cognitive-behavioral therapy approaches such as cognitive therapy based on mindfulness and therapy based on acceptance and commitment, which have emerged in recent years. However, these approaches are rooted in either the cognitive or the behavioral part of CBT, all of them rather than assuming that cognitions need to be changed or emphasizing the fact that feeling "better" is the preferred goal of treatment. Instead, they emphasize the promotion and promotion of accepting and "allowing" the experience and use of secular (worldly) mindfulness techniques originating from Buddhist thought. Currently, many approaches of the third wave are supported and the discussion about the role of secular mindfulness in psychology, health, and

educational sciences of the West has expanded. A few studies tried to compare ACT therapy with Beck's cognitive therapy, including Azizi (Azizi et al., 2019) in a research that investigated the effectiveness of two cognitive therapy approaches, ACT and Beck, on improving certain incompatible beliefs of kidney donors. The results showed that ACT treatment has a greater effect on the specific incompatible beliefs of kidney donors than Beck treatment. Also, Shulman et al. (2018) also showed in their research that Wells' metacognitive therapy is more effective than Beck's cognitive therapy in the treatment of depression (Shulman et al., 2018).

Suppose the mentioned contents and the importance of mental health and improving the conditions of students and this point that as far as the researcher has investigated and searched, no research similar to the current research has been done. Therefore, the current research aims to answer this basic question: Is there a difference between the effectiveness of group therapy based on acceptance and commitment and Beck's cognitive therapy on aggression, irresponsibility of students of Islamic Azad University, Islamshahr Branch?

Method

The current research is a quasi-experimental type of research with a pre-test and post-test design and follow-up with a control group. The statistical population of this research was formed by all the students referred to the counseling and mental health services center of Islamic Azad University, Islamshahr branch in the second semester of the academic year 2017-2018, and their number was about 473, of which 251 were girls and 222 were boys. Considering that the minimum sample size of 15 people is considered in the experimental researches (Delavar, 2011), 45 students were selected from the statistical population by purposeful sampling. Then they were randomly assigned in three groups (two experimental groups and one control group). The criteria for entering the research are the age range of 18-40 years, obtaining high grades in aggressiveness and irresponsibility and satisfaction and obtaining signatures from them; And the exclusion criteria of the research was being treated (whether drug or psychotherapy) in other centers. In the next step, explanations were given to the students about the logic of the treatment and the research purpose of the treatment. The students were assured that all their information will remain confidential, and the students will be informed that there is no need to enter their first and last names. Finally, the students were assured that the results of the questionnaires and treatment

have no effect on the promotion or degradation of their position. After this stage, a contract was signed with the subjects of the experimental groups in order to participate in the treatment sessions. In the next stage, which was the same as the pre-test, the questionnaire was given to people in order to measure the dependent variables. 10 treatment sessions for each treatment were performed by the researcher twice a week for 90 minutes each time. After completing the treatment sessions, the subjects of all three groups were examined again in terms of the dependent variable as a post-test. Finally, the data obtained from the pre-test and post-test were analyzed and one month after the post-test, the students answered these questionnaires again for the selection stage.

Tools

1. Minnesota Multifaceted Personality Questionnaire. In this research, to measure irresponsibility and aggression, subscales of the reconstructed high form of the MMPI-2 questionnaire were used. This version has 338 questions that include 8 narrative scales and 42 original scales (33). Their sub-scales are

discussed below. Aggression (AGGR): measures the subject's aggressive behavior with 18 questions. A subject with mild or severe arousal tends to be the manager of others, and one of the most important characteristics of the subject's arousal is aggressive aggression. In these people, the secretary's arrogance towards himself and disregard for equality are clearly observed. Scores range from 0 to 18. Irresponsibility (DISC): with 20 questions, it shows irresponsible behaviors and lack of behavioral control. People who show elevation in this scale show a significant weakness in impulse control and cannot easily control their impulses to deal with gambling, morbid fireworks, impulses related to physical conflicts, sexual behaviors, and destroying the rights of others. Scores range from 0 to 20.

2. Treatment interventions. A summary of the content of the treatment sessions is given in Tables 1 and 2:

Table 1. Content of ACT therapy sessions (Hayes et al., 2013)

Session	Content
1	Getting to know the group members and establishing a therapeutic relationship Description of the rules of the group, introduction and general description of the therapeutic approach
2	Overall assessment and examination of disturbing thoughts and feelings in group members Measuring ways to control these thoughts and feelings Make a list of advantages and disadvantages of problem control methods Feedback of the second session
3	Review the assignments of the previous session Clarifying the ineffectiveness of controlling negative visas Metaphors and the teaching of tendency towards negative emotions and experiences Examining the outside world and its law in ACT therapy
4	Teaching that people in the group accept their thoughts and feelings without judging whether they are good or bad Emotions and their difference with thoughts and feelings Emphasis on the principle of acceptance, feedback and assignment of how much we accept ourselves and the feelings of others.
5	Review the assignments of the previous session Examining the values of each person, clarifying the values, goals, actions and internal and external obstacles and deepening these concepts. Feedback and assignment: preparing a list of obstacles in the realization of values Review the assignments of the previous session
6	Understanding fusion and faulting using metaphors and allegories

	Conducting experimental exercises to understand the concept of faulting: in this training session "walk with your mind". Feedback and assignment of mindfulness techniques with acceptance.
7	Review the assignments of the previous session Introducing types of fusion, self-conceptualization and learning how to break it, using descriptions instead of evaluations among sentences. A reference to values and a compliance score check. Feedback and assignment: preparing a list of types of mixing in group people.
8	Check the assignment of the previous session Connection with the present time, clarifying the concept of self-observer (chess board) Feedback, presentation of the task: record cases where people were able to observe thoughts using mindfulness techniques.
9	Searching for unresolved issues in group members by identifying behavioral plans regarding accepted matters and creating a commitment to act on them. Feedback, presentation of the task: a report of the steps of tracking the value and reflecting on the achievements of the meetings.
10	An overview of the presented materials, a summary of the mechanism reviewed during the sessions, feedback and post-test

Table 2. Content of cognitive therapy sessions (Beck, 2019)

Session	content
1	Getting to know the group members and establishing a therapeutic relationship
2	Description of the rules of the group, introduction and general description of the therapeutic approach
3	Behavioral interview and taking an initial history about the situations in which disturbing thoughts come to them and how to tolerate each of them with the situation, summarizing the contents of the meeting and doing homework
4	Review the assignments of the previous session
5	Explanation of specific cognitive beliefs and their types
6	Summarizing the contents of the meeting and doing homework
7	Review the assignments of the previous session
8	Teaching the stimulus-thought-emotion-behavior relationship
9	Summarizing the contents of the meeting and doing homework
10	Review the assignments of the previous session

Results

Table 3 shows the mean and standard deviation and other descriptive characteristics of the research variables in three groups.

Table 3. Statistical indicators of "aggression" and "irresponsibility" scale in students of Islamshahr University

Variable	Stage						
		M	SD	Skewness	Kurtosis	Min	Max
ACT	Pre-test	82/33	4/89	-0/41	-1/53	75	89
	Post-test	80/33	5/17	-0/31	-1/77	73	87

		Follow-up	80/20	5/22	-0/35	-1/65	72	87
Aggression	CBT	Pre-test	81/93	4/02	-0/07	-1/05	75	89
		Post-test	81/60	3/92	-0/17	-1/31	75	88
		Follow-up	81/46	3/88	-0/27	-1/54	75	87
	Control	Pre-test	83/26	3/23	-0/84	-1/03	78	87
		Post-test	83/40	3/85	-0/61	-1/27	77	88
		Follow-up	83/40	3/77	-0/38	-1/15	77	88
	ACT	Pre-test	86/40	3/08	1/61	1/64	82	95
		Post-test	85/88	3/11	1/42	2/25	82	94
		Follow-up	85/73	2/84	1/26	1/87	82	93
Irresponsibility	CBT	Pre-test	85/46	1/92	-0/22	0/27	82	89
		Post-test	84/40	1/88	-/15	0/53	81	88
		Follow-up	84/13	2/09	-0/63	0/96	80	88
	Control	Pre-test	80/85	1/97	0/91	1/22	82	91
		Post-test	86/00	2/00	-0/12	-0/41	82	89
		Follow-up	85/93	2/01	-0/61	1/59	81	89

Using quadruple multivariate tests, there is a significant relationship between the measurement levels of the dependent variable "aggression" in three stages (pre-test, post-test and follow-up) with an emphasis on the effectiveness of the treatment. Therefore, it is possible to emphasize the validity of the research data and there is a positive relationship between the scores of each subject in three stages, and it represents the relationship of the experimental data within the subject in the three stages of pre-test, post-test and follow-up with emphasis on the

dependent variable "aggression". According to Mauchly's test of sphericity, it can be stated that Mauchly's W was (0.499). Referring to the base of the squared logarithm of the approximate theoretical distribution, which is (28.50), it can be said that the Machly test was significant at $\alpha=0.01$ level. As a result, the multivariate normal distribution has been observed and the hypothesis of using the statistical model of repeated sampling is observed and the test of repeated measurements can be used.

Table 4. Tests of between-subject effects of commitment and acceptance-based group therapy (ACT), cognitive behavioral therapy (CBT) on "aggression"					
Change source	Sum of squares	Df	Mean squares	F	Sig
Effectiveness	17/911	2	8/956	/26/447	0/001
Error	444/28	84	0/339		

According to table number 4, the amount of F obtained from the effectiveness of group therapy based on commitment and acceptance (ACT) and

cognitive therapy (CBT) on "aggression" has a significant difference at the level of $\alpha=0.01$ between the three mentioned groups. Therefore,

Tukey's post hoc test is used to compare the effectiveness of two groups. According to table number 5, it can be stated that there is a significant difference at $\alpha=0.01$ level between the two groups of commitment and acceptance with control and cognitive back with control. Therefore, the effectiveness of the treatment on

the reduction of "aggression" has been achieved. Emphasizing the comparison of the effectiveness of the two groups, it was stated that although the effectiveness of commitment and acceptance therapy is higher than cognitive therapy, but this difference is not statistically significant.

Table 5. Bonferroni's post hoc test related to the comparison of "aggression" in three groups (experiment with group therapy based on commitment and acceptance, Beck's cognitive therapy and control)

	ACT	CBT	Control
ACT	-----	0/711	2/422
CBT	-0/711	-----	1/553
Control	-2/422**	-1/553**	-----

Using quadruple multivariate tests, there is a significant relationship between the measurement levels of the dependent variable "irresponsibility" in three stages (pre-test, post-test and follow-up) with an emphasis on the effectiveness of the treatment. Therefore, it is possible to emphasize the validity of the research data and there is a positive relationship between the scores of each subject in three stages and it represents the correlation of experimental data within the subject in the three stages of pre-test, post-test and follow-up with emphasis on the

dependent variable "irresponsibility". According to Mauchly's test of sphericity, it can be stated that Mauchly's w was (0.747). Referring to the base of the squared logarithm of the approximate theoretical distribution, which is (11.967), it can be said that the Machly test was significant at $\alpha=0.01$ level. As a result, the multivariate normal distribution has been observed and the hypothesis of using the statistical model of repeated sampling is observed and the test of repeated measurements can be used.

Table 6. Tests of between-subject effects of commitment and acceptance-based group therapy (ACT), Beck's cognitive therapy on "irresponsibility"

Change source	SS	Df	MS	F	Sig
Effectiveness	9/437	2	4/719	17/216	0/001
Error	23/022	84	0/274		

According to table number 6, there is a significant difference between the three mentioned groups at $\alpha=0.01$ level. Therefore, Bonferroni post hoc test is used to compare the effectiveness of two groups. According to table number 7, there is a significant difference at the level of $\alpha=0.05$ between the two groups of commitment and acceptance with control and

cognitive back with control. Therefore, the treatment's effectiveness on reducing "irresponsibility" has been obtained. Emphasizing the comparison of the effectiveness of the two groups, it was stated that although the effectiveness of commitment and acceptance therapy is higher than cognitive therapy, this difference is not statistically significant.

Table 7. Post hoc Bonferroni test related to the comparison of "irresponsibility" in three groups (experiment with group therapy based on commitment and acceptance, Beck's cognitive therapy and control)

	ACT	CBT	Control
ACT	-----	0/088	1/333
CBT	0/088	-----	1/244
Control	-1/333*	-1/244*	

Conclusion

The purpose of this research was to compare the effectiveness of two methods of commitment and acceptance therapy and Beck's cognitive therapy on aggression and irresponsibility of Islamic Azad University Islamshahr students. The effectiveness of group therapy based on acceptance and commitment and Beck's cognitive therapy on aggression was investigated using a mixed repeated measurement statistical model. The results showed that "group therapy based on acceptance and commitment" is more effective than "Beck's cognitive therapy" on the "aggression" variable (0.001). Also, the results of the analysis of variance with repeated measurements showed that the results obtained in the follow-up stage were also stable and the results were close to the results of the post-test stage. In this regard, the finding that "group therapy based on acceptance and commitment" is more effective than "Beck's cognitive therapy" on the "aggression" variable is somewhat consistent with the results of researches. (Oraki, Ajani, and Rahmanian, 2018; Basaeri, 2016; Khanehrouz, 2019; Bayat, 2016; Azizi & Momeni, 2014). According to the pathological model from the point of view of acceptance and therapeutic commitment, all problems, unpleasant behavior and psychological abnormalities as well as the feeling of dissatisfaction with life and suffering in life are caused by psychological inflexibility. Psychological inflexibility means behaving compulsively and being stuck in the process of life, which leads to feeling unsatisfied with activities in life and unhappiness with life. Based on the pathology model, from the point of view of acceptance and therapeutic commitment, psychological inflexibility is caused by six traumatic processes in life, which are: Experiential avoidance, cognitive fusion, staying in the past and future, conceptualized self-attachment, lack of values or unclear values, and not acting or behaving impulsively. What can be said in explaining the findings of this research is that experiential avoidance (unwillingness to experience unpleasant feelings and internal thoughts) in the long term causes more symptoms of aggression disorder. Another assumption of this research is that when the mind says it knows everything about a subject, more irrational reactions occur. Failure in the treatment of acceptance and commitment means

taking a step back and being an observer of thoughts, which causes thoughts to be considered only thoughts and not pure reality. Therefore, the absolute fact of not assuming verbal meanings helps greatly in reducing extreme reactions, including types of aggression (Hayes et al., 2013). On the other hand, it can be explained in this way that focused therapy exercises based on acceptance and commitment help students to directly contact their stressful events, especially in group sessions. It also helps to replace undesirable thoughts and emotions with positive experiences instead of controlling or fighting with them. It is clear that in the therapy sessions, the feelings of these students regarding anger, hostility, and all kinds of verbal and physical aggression are accepted, and the feelings related to them are expressed and adjusted in feedback with other group members. It is obvious that if these students' negative feelings are softened in therapy sessions, and if they recognize their personal values and turn them into desirable behavioral goals, a state of mental peace will be achieved, which will reduce aggressive and hostile behaviors (Hays et al., 2006).

The effectiveness of group therapy based on acceptance and commitment and Beck's cognitive therapy on irresponsibility was investigated using a mixed repeated measurement statistical model. The results showed that "Beck's cognitive therapy" is more effective than "group therapy based on acceptance and commitment" on the variable "irresponsibility" (0.001). Also, the results of the analysis of variance with repeated measurements showed that the results obtained in the follow-up stage were also stable and the results were close to the results of the post-test stage. In this regard, the finding that "Beck's cognitive therapy" is more effective than "group therapy based on acceptance and commitment" on the variable of "irresponsibility" is consistent with the results of researches. (Khaneroz, 2019; Bayat, 2015; Azizi & Momeni, 2014; Azizi et al., 2019; Shulman et al., 2018). In order to explain the above, it is necessary to state that in irresponsible people, as Beck (2019) stated; There is a negative cognitive pattern. Therefore, in line with Beck's argument, cognitive symptoms play a more central role than emotions in describing irresponsible people to the extent that cognition instead of emotion is considered their main characteristic. Cognitive therapy training was used in the present research. The most important action of the cognitive

reconstruction methods was to teach the students adapted thinking patterns so that they can discover the negative and distorted thinking patterns in themselves. Then, in this way, they recognize the harmful effects of this thought pattern and replace their ineffective cognitive perceptions with more appropriate and correct thought patterns. The researcher used the cognitive education method to change the beliefs, attitudes and incorrect assumptions of these students. These methods are based on the premise that if students are trained to recognize and correct distortions of reality, they can be better positioned to change their own dysfunctional emotional and behavioral responses. Cognitive symptoms, which can include beliefs, interpretations, negative self-talk (negative automatic thoughts) and distorted cognitive process, were determined as the target of cognitive intervention. In addition, the purpose of prescribing exercises for the experimental group was to test their assumptions and dysfunctional beliefs that were identified. Therefore, people's irresponsibility decreased and this level was visible in the post-test and follow-up.

Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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