



Original Article

# The effectiveness of Acceptance and Commitment Group Therapy on psychological distress and negative automatic thoughts in mothers of children with autism spectrum disorder

Somayeh Heidari<sup>1</sup>; \*Ilnaz Sajjadian<sup>2</sup>; Andisheh Heidarian<sup>1</sup>

<sup>1</sup>MS. in general psychology, Department of psychology, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran..

<sup>2</sup>Assistant professor, Department of psychology, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

---

## Abstract

**Introduction:** Autism spectrum disorder has tremendous effect on family life. Mothers of children with autism face a lot of challenges. The present study was conducted with the aim of determining the effectiveness of acceptance and commitment group therapy on psychological distress and negative automatic thoughts of mothers of children with autism spectrum disorder.

**Materials and Methods:** Research method of this clinical trial is pretest-posttest with control group and a one-month follow-up period. The research population included all mothers of children with autism spectrum disorder who came to exceptional centers which are under supervision of welfare. Therefore, one center was identified and 30 mothers of children with autism spectrum disorder were selected through convenience sampling based on inclusion and exclusion criteria and were randomly assigned to experimental and control groups (each group had 15 members). The participants responded to research questionnaires including Deogatis's (2001) Brief Symptom Inventory and Hollon and Kendall's (1980) Automatic Thoughts Questionnaire before and after the intervention and one month later at follow-up stage. The test group was undergone acceptance and commitment group therapy based on Lylis et al. (2005) treatment package and no intervention took place on the control group during this period. For statistical analysis, statistical Package for Social Sciences version 22 was used.

**Results:** Analysis of covariance of repeated measures showed that there is significant difference between experimental group and control group in mothers' scores of cognitive distress, frequency and belief to negative automatic thoughts ( $P < 0.05$ ).

**Conclusion:** According to the research findings, this method can be used to reduce psychological distress and negative automatic thoughts of mothers of children with autism spectrum disorder.

**Keywords:** Acceptance and commitment therapy, Autism spectrum disorder, Psychological

---

## Please cite this paper as:

Heidari S, Sajjadian I, Heidarian A. The effectiveness of Acceptance and Commitment Group Therapy on psychological distress and negative automatic thoughts in mothers of children with autism spectrum disorder. *Journal of Fundamentals of Mental Health* 2016; 18(Special Issue): 515-524.

---

## Introduction

Autism spectrum disorder is a serious neurodevelopmental disorder that affects a child's

ability to communicate and socialize with others, as well as repeating certain behaviors, interests, and activities. This disease causes disruption in

---

## \*Corresponding Author:

Department of psychology, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan,

Irani.sajjadian@khuisf.ac.ir

Received: Aug. 22, 2016

Accepted: Sep. 29, 2016

social and occupational functions. Autism spectrum disorder is defined as a single disorder including autism, Asperger's syndrome, dissociative childhood disorder and other unspecified developmental disorders (1). The prevalence of autism spectrum disorder has increased significantly in the past decades and it is currently considered as one of the most common developmental disabilities (2). Currently, the prevalence of autism spectrum disease is estimated at 1 in 88 births (3). In the last two decades, the prevalence of autism spectrum disorder has grown significantly. But this statistic is not the same in all countries and is mostly related to the countries of England and America that reported the highest rate of autism. In Iran, during a research, the prevalence of autism in 5-year-old Iranian children was reported as 6.26 per 10,000 (4). Since autism is a disorder and not a disease, there are no specific symptoms for it, instead of symptoms there are various behavioral patterns that indicate autism. The psychological signs and symptoms of autism spectrum disorders include three groups. The first group is a serious injury in social relations, which includes impairment in the use of numerous non-verbal behaviors, failure to communicate. Repetition of language is the lack of spontaneous games. The group of three is limited, repetitive and formal patterns in behavior and interests, which include mental preoccupation, inflexible adherence to habits and customs (1). Psychological helplessness is a general term to describe unpleasant feelings. In other words, it is a mental disorder that interferes with a person's activities of daily living. Psychological helplessness can be created based on negative views of the environment, others and oneself. Sadness, anxiety, distraction, and symptoms of mental illnesses are manifestations of psychological helplessness. Autism spectrum disorder in children usually causes reactions such as anxiety, confusion, and worry about the future for mothers. This issue will put mothers in a state of despair, helplessness and indecision for a long time (5). The five warning signs of psychological helplessness include the following: 1- Loss of concentration: Every human being may lose the ability to concentrate on daily tasks for a short period of time during his life and return to normal again. If this situation is sporadic and temporary,

it is completely normal, but if the loss of concentration becomes continuous and the person is unable to concentrate on a specific task for more than a week, this is a worrying situation and you should think about solving this problem.

2- Irregular weight changes are another obvious sign of mental imbalance, abnormal weight changes, including a sharp increase or decrease in weight. Also, a person's psychological condition may cause severe loss of appetite or overeating, and his eating habits will change.

3- A strong tendency to drink alcohol or smoke is another characteristic of mental disturbance and distress.

4- The desire to be alone and isolated, which is usually a consequence of depression, can be a warning sign and alarm for mental distress.

5- Self-harm is also a symptom of mental instability. When you suddenly have an unconscious desire to endanger yourself or at least you are not paying attention to your health, it is a sign of mental instability (6).

Spontaneous negative thoughts are cognitions that interfere between external events and a person's emotional response to them (7). From this point of view, we call these thoughts negative because they are related to unpleasant emotions, and from this point of view, we call them spontaneous because they come to people's minds by themselves and do not arise from any conscious reasoning process. These thoughts may be interpretations of current experiences or predictions about future events or recollections of things that happened in the past (8). Negative spontaneous thoughts are a form of dysfunctional thoughts that contribute to anxiety. People who suffer from negative spontaneous thoughts usually experience feelings of fear and worry, and this issue has a significant impact on their quality of life (9). In a research conducted by Narimani et al. (14), they stated that feelings such as guilt, failure, and deprivation caused by the child's abnormality can cause the mother to withdraw and not be interested in establishing a relationship with the environment, as well as lowering self-esteem and feelings of self-deprecation, worthlessness, and sadness in the mother, which result in low self-esteem, depression, and jeopardy of the mother's mental health. In a research conducted by Brian Do1 (15) regarding stress and psychological retardation in mothers with children with autism

spectrum disorders and mothers with children with non-autistic or normal disorders, it has been shown that the parents of children with autism spectrum disorders Compared to parents of normal children with autism, parents of children with non-autistic disorders are at risk of increasing high levels of stress and psychological helplessness and psychological symptoms such as depression and anxiety. In a study conducted by Gao Diano regarding stress and psychological helplessness among mothers with children with autism disorder in preschool and elementary school and factors related to stress and psychological helplessness in Johor Bahru and Hang Zuhu, it was stated that stress and psychological helplessness –Cognitiveness among mothers with a child with autism spectrum disorder at a lower age i.e. preschool is more than children at a higher level i.e. primary schools. It was also found that the factors related to stress are related to mothers' understanding and the relationship between husband and wife, and the factors related to psychological helplessness are related to cultural factors and the relationship between husband and wife (16). In a research conducted by Eisenhower et al. (17), they announced that parents, especially mothers of children with autism spectrum disorders, often report higher levels of psychological helplessness than mothers of normal children. In another study conducted by Dulong and Dwyer, it has been stated that the prevalence of bipolar disorder in parents of children with autism is higher than in the normal population (18). Treatment based on acceptance and commitment is an approach to psychological interventions that is not defined based on specific techniques but based on certain theoretical processes. Based on theoretical concepts, acceptance and commitment therapy is a psychological intervention based on modern behavioral psychology that includes the theory of the communication framework, in which the processes of attention, awareness, and acceptance as well as commitment and behavior change are used to achieve psychological flexibility (19).

Acceptance and commitment therapy has six central processes that lead to psychological flexibility. These six processes are: acceptance, failure, self as background, connection with the present, values and committed action (20).

The central processes of therapy based on acceptance and commitment teach people how to stop inhibiting thoughts, how not to mix with disturbing thoughts and make the person tolerate unpleasant emotions more. Many of the clinical symptoms and manifestations seen in autism spectrum disorder, such as avoidance, inhibition of thought, disturbed quality of life, mood problems, are considered in treatment based on acceptance and commitment (21). In a research, Davis et al. (10) found that parents of children with special needs have more dysfunctional attitudes, spontaneous thoughts, and negative emotions than parents of normal children. Also, insufficient emotional development, difficulty in organizing behavior and excitement, and negative emotional experience are characteristic of people who have children with special needs. Families with children with autism spectrum disorders, with many stressful factors and challenges, including unexpected disabilities, annoying behaviors and behavioral disorders of the child, difficulty in finding services, confusion in finding effective treatment, darkening of interactions with others. And the rest of society is facing. Without focusing on the family and educating the parents, family resources (money, energy, time, and ability to cope) are increasingly reduced, marital conflicts and emotional problems increase (11). The increase in the volume of clinical referrals to specialists and centers for psychological and rehabilitation services makes it necessary to identify the educational and rehabilitation needs of mothers. Most mothers have reactions of denial, confusion, anger and depression when they are diagnosed with autism spectrum disorders. In fact, a child with autism spectrum disorder as a mental pressure factor for mothers can affect their emotions and reduce the ability of mothers to deal with and accept the child's problems (12). In this field, several researches have been conducted, including the effectiveness of transdiagnostic treatment on worry, rumination, feeling trapped, and impatience of mothers of people with autism spectrum disorder, which shows that transdiagnostic treatment on worry, rumination, and feeling trapped. And the boredom of mothers of people with autism spectrum disorder is effective (13). Every year, the number of children

with autism spectrum disorders increases, until the American National Institute of Mental Health<sup>1</sup> has estimated the prevalence of this disorder in 99 people in 2010. Currently, the prevalence rate of autism spectrum disorder in America and Other countries is about 1% in both children and adults (1). Due to problems related to communication abilities, people with autism spectrum disorder often display extreme behaviors (temper or impulsive behaviors) that cause more challenges for the mothers of these children. Mothers with a child with an autism spectrum disorder tend to report stress more than mothers with a child without this disability or other disabilities (Don's syndrome, physical and disability disorders) (22). Unfortunately, the extensive efforts of interventions designed to reduce the symptoms of autism spectrum disorder for children with this disorder have not been general for their parents and caregivers (12). By helping the parents of children with autism spectrum disorder, teaching techniques such as willingness/acceptance and cognitive impairment, they learn to identify and deal with some of the obstacles in their lives. Also, cognitive dissonance seems to help parents to gain flexibility in the face of distressing situations that are based on cognitive evaluation (for example: comparing their child with other children, beliefs about their own ability to manage their situations, feelings of blame and victimization). Considering the prevalence of this disorder and the psychological problems of mothers and the lack of research in this field, the present study was conducted with the aim of investigating the effectiveness of group therapy based on acceptance and commitment on psychological helplessness and negative self-concepts of mothers with children with autism spectrum disorder.

**Materials and Methods**

The current research is of a clinical type with a pre-test-post-test design with a control group. In this research, according to the subject under study, the statistical population of the research was made up of all mothers with children with autism spectrum disorder who referred to exceptional educational centers under the supervision of the welfare organization (4 centers) in the city of Isfahan in the fall of 2014. In this research, sampling has been available in the form of a sample, in this way, among the 4 exceptional educational centers under the supervision of the welfare organization, one center was identified from among the mothers with children with autism spectrum disorder who referred to the said center, the number of 30 subjects were randomly selected and replaced into two groups of 15 people, control and experimental. This research is a semi-experimental type and considering that the sample size for this type of research is 15 people (23). The treatment consisted of 8 group sessions and the treatment plan was taken from the treatment sessions of Lillis et al. (24). Metaphors and exercises of that session were used in each session. Assignments were given at the end of each session. In the last session, the post-test was conducted. The topics and summary of the meetings are given in Table 1. The experimental group received treatment based on acceptance and commitment for 8 sessions of 2 hours, no intervention was done on the control group during this period.

Both groups completed the short symptom list questionnaires before the treatment sessions of the experimental group and after the treatment sessions.

**Table 1.** Summary of lylis at.al (24) acceptance and commitment therapy sessions

First session: introduction and fundamental basis of therapy	1-introduction 2-rules of the sessions 3-considering patients' expectations of therapy 4-review stress, acceptance therapies 5-review therapy and program goals 6-home assignment
Second session: Options and providing therapy preparations	1-review home assignment 2-relationship between stress and parents' acceptance and care 3-parents' acceptance 4- concluding the discussion of the second session and giving home assignment
Third session: learning life with stress	1-stress acceptance 2-undrestanding life values 3-acceptance and care exercises 4- concluding the discussion of the third session and giving home assignment
Fourth session: values and actions	1-clarifying values 2-values' obstacles 3-goals and actions (behaviors) 4- concluding the discussion of the fourth session and giving home assignment
Fifth session: Tendencies, thoughts and feelings	1-review home exercise and activity start 2- mental tricks 3- concluding the discussion of the fifth session and giving home assignment
Sixth session: action, start working	1-feedback 2-action planning 3-self-observer 4-conclusion of presented discussions
Seventh session: commitment	1-tendency 2-commitment to values and actions despite obstacles 3- concluding the discussion of the seventh session and giving home assignment
Eighth sessions: maintenance of therapy gains	1-commitment 2-recurrence 3-goodbye 4-permanent assignment

### Research instruments

*A) Brief Symptom Inventory (BSI):* It is one of the most concise tests in a set of integrated tools designed by Dragides to measure psychological distress. Extensive tools have been used in this field, including the short symptom questionnaire and the revised disability list. Both tests had good presence in terms of psychometric characteristics, which showed satisfactory criteria of internal consistency and retest validity and sensitivity to change (25). Finally, in 2001, Dragides provided a new and expanded version of these two instruments called the Brief Symptom Checklist. This tool has only four dimensions of the previous tool. These four scales are: the physical dimension where helplessness is caused by the understanding of physical malpractice, focusing on symptoms arising from cardiovascular, gastrointestinal, and other bodily system symptoms. Then depression, which shows the symptoms of apathy and restless mood, reluctance and joylessness, hopelessness and suicidal ideas. The anxiety dimension includes nervous states, tension, movement restlessness, and the panic dimension, which shows the states of fear and panic.

The selection of these four scales was in accordance with the two special basic criteria stated by Dragides: 1- Checking that about 80% of psychological disorders belong to depression and anxiety disorders and 2- The fact that the presence of developed symptoms and physical manifestation The symptoms that are triggered in most depressing and anxiety situations are not discovered in primary care and are covered by other physical symptoms. According to the

designers, this new tool has a satisfactory measure of reliability for all dimensions (between 0.74 and 0.84) and the overall distress index (0.89). In the mentioned research, Cronbach's alpha coefficient for 18 questions was 0.92.

*B) Negative Self-Future Thoughts Questionnaire (ATQ):* This questionnaire was compiled by Holen and Kendall. The text of the questionnaire contains 30 phrases in which examples of spontaneous thoughts of depressed patients are presented. Subjects choose the options marked with grades 1 to 5 according to their level of belief in these thoughts and the frequency of their occurrence during the past week. The internal reliability of this questionnaire has been reported by calculating Cronbach's alpha coefficient of 0.97. In order to check the internal reliability of self-generated thoughts questionnaire, Ghasemzadeh et al obtained Cronbach's alpha coefficient of 0.96 by performing the test on 125 Iranian students. Also, by re-implementing this test in two weeks on 30 male and female high school students, the reliability coefficient of 0.87 for beliefs and the coefficient of 0.85 for the frequency of occurrence of beliefs has been obtained. The Cronbach's alpha coefficient of this study for negative self-inflicted thoughts was 0.97 in the frequency section and 0.96 in the repetition section (26).

### Results

Descriptive indices of research variables according to evaluation stage and group membership are presented in Table 2.

**Table 2.** Descriptive indices of the scores of the research variables, separated into two groups and three stages of the research

		Experimental			Control		
		Pre-test	Post-test	Follow-up	Pre-test	Post-test	Follow-up
Psychological distress	Mean	5.32	3.33	0.48	3.99	4.25	3.47
	Standard deviation	4.03	3.30	0.66	2.49	2.42	2.04
Frequency of automatic thoughts	Mean	71.60	55.93	44.40	69.07	70.66	69.07
	Standard deviation	32.35	22.39	12.43	29.86	29.09	23.68
Belief to automatic thoughts	Mean	67.33	53.20	42.07	60.27	61.80	64.73
	Standard deviation	28.15	21.27	11.65	21.61	21.49	19.98

In general, it can be seen in the descriptive findings that the average scores in all research variables in the post-test and follow-up phase in the experimental group improved more than the control group. In order to perform variance analysis with repeated measures, presuppositions

are required that these presuppositions (normality of research variables in two groups, equality of variances) were confirmed. In Table 3, Box's test is presented to check the equality of covariances in the research variables.

**Table 3.** Box's test to check the equality of covariances of scores in research variables in two groups

Variable	M Box coefficient	F coefficient	DF 1	DF 2	P
Psychological distress	61.859	9.102	6	5680.302	0.001
Frequency of automatic thoughts	40.017	5.88	6	5680.302	0.001
Belief to automatic thoughts	41.357	6.085	6	5680.302	0.001

As can be seen in Table 2, the assumption of equality of covariances or relations between variables has not been confirmed in all research variables. The significance obtained in all variables is less than 0.05. Considering that other presuppositions are respected and the size of the groups is equal, the parametric test of variance analysis with repeated measures can be used. The purpose of Mochli's test is to check the

assumption of uniformity of covariances or equality of covariances with the total covariance. If the significance is higher than 0.05 in Mochli's test of sphericity, the sphericity assumption test is usually used, and if it is not confirmed, a conservative test such as Greenhouse-Geisser is used for repeated measurement variance analysis. The results of Mochli's test are presented in Table 4.

**Table 4.** Mochli's test to check the equality of covariances of grades in two groups

Variable	Statistics	X2	DF	P
Psychological distress	0.779	2.749	2	0.034
Frequency of automatic thoughts	0.674	10.656	2	0.005
Belief to automatic thoughts	0.577	14.868	2	0.001

As seen in Table 4, the assumption of uniformity of covariances was not confirmed using the Machli test in the variables. Therefore, the Greenhouse-Geisser coefficient should be used in examining the variables of psychological

helplessness and the frequency and belief in negative thoughts. The results of the analysis of variance with repeated measures are presented in Table 5.

**Table 5.** Results of analysis of variance with repeated measurements regarding research variables in pre-test, post-test and follow-up in two groups

Variable	Source	Sum of squares	DF	Mean of squares	F	P	Effect size	Statistical power
Psychological distress	Research stages	112.040	1.640	68.410	21.920	0.001	0.440	1.00
	groups	107.500	1	107.500	29.190	0.001	0.510	1.00
	Interaction of groups with stages	70.020	1.640	42.750	13.700	0.001	0.329	0.992
Frequency of automatic thoughts	Research stages	2775.489	1.508	1840.276	10.090	0.001	0.265	0.949
	groups	2774.400	1	2774.400	13.273	0.001	0.322	0.970

	Interaction of groups with stages	2841.622	1.508	1884.125	10.330	0.001	0.270	0.954
Belief to automatic thought	Research stages	1646.600	1.405	1171.921	8.254	0.003	0.228	0.884
	groups	1622.400	1	16622.400	10.128	0.004	0.266	0.925
	Interaction of groups with stages	3318.467	1.405	2361.825	16.635	0.001	0.373	0.995

Based on the findings in Table 5, the difference between the psychological therapy scores ( $P < 0.01$ ), as well as the difference between the stages of the research, the difference between the scores of frequency of spontaneous thoughts ( $P < 0.01$ ), belief in spontaneous thoughts, is significant in three stages of the research. Also, the mean scores of all research variables in the two experimental and control groups were significant ( $P < 0.05$ ). The results have shown that nearly 51% of the individual differences in psychological helplessness variables are related to the difference between the two groups. Also, 32.2% and 26.6%, respectively, related to the frequency and belief in spontaneous thoughts, are related to the difference between the groups. In addition, the interaction between research stages and group

membership is also significant in all research variables. In other words, the difference between scores in all research variables in three stages of research in two groups is significant. Therefore, it can be concluded that treatment based on commitment and acceptance has been effective in improving psychological helplessness and improving the frequency and belief in negative spontaneous thoughts in mothers of children with autism.

According to the results obtained in the table above, the difference between the pre-test, post-test and follow-up stages has become significant in all research variables, so the results of pairwise comparisons of the averages of the three research stages using the LSD test are shown in Table 6.

**Table 6.** Pairwise comparison of the mean scores of the research variables in the three stages of the research

Variables	Phase	Mean differences	Standard deviation error	P
Psychological distress	Pre-test – post-test	0.860*	0.33	0.014
	Pre-test – follow-up	2.680*	0.50	0.001
	Post-test – follow-up	1.810*	0.40	0.001
Frequency of automatic thoughts	Pre-test – post-test	7.033	2.94	0.024
	Pre-test – follow-up	13.600	3.733	0.001
	Post-test – follow-up	6.567	2.215	0.006
Belief to automatic thoughts	Pre-test – post-test	6.300	2.449	0.016
	Pre-test – follow-up	10.400	3.268	0.004
	Post-test – follow-up	4.100	1.808	0.031

The results of the pairwise comparisons of the average differences in the three stages of the test in Table 6 show that in the variable of psychological helplessness, the difference between the two stages of the pre-test and the post-test ( $P < 0.05$ ), and with the follow-up ( $P < 0.05$ ). The difference between the post-test with

follow-up ( $P < 0.05$ ) is significant. In the variables of belief in spontaneous thoughts, the frequency of spontaneous thoughts, the difference between the two stages of pre-test and post-test ( $P < 0.05$ ) and follow-up ( $P < 0.05$ ), the difference between post-test and follow-up ( $P < 0.05$ ), significant has been obtained.

## Discussion

The results of the research have shown that the treatment based on commitment and acceptance in psychological helplessness had an effect not only in the post-test phase but also in the follow-up phase. The research findings are based on the findings of Brian Do and Eisenhower (15,17). The fact that psychological helplessness in mothers with a child with autism spectrum disorder is more than normal mothers is consistent with the findings of Saunders and Bigdley (27,28). It is consistent with the fact that the training of parents with a child with autism spectrum disorder reduces depression, anxiety, stress, and conflicts between parents in child-rearing. Since sadness, grief, anxiety and distraction are manifestations of psychological helplessness, the intensity of psychological helplessness depends on the situation and how we perceive that situation. Clinical evidence has shown that psychological symptoms such as anxiety, depression and mental fatigue are more common in mothers of children with pervasive developmental disorders compared to mothers of mentally retarded children. For example, these mothers score higher in all subscales of the 90 syndrome index (obsession-incontinence, interpersonal sensitivity, depression and anxiety, somatization, paranoid thoughts, fear and anger) (29). The goal of treatment based on acceptance and commitment is to create a rich and meaningful life while the person accepts the inevitable suffering in it, and the effectiveness of this treatment has been found in a wide range of clinical conditions such as depression, obsessive-compulsive disorder, and anxiety (30).

This therapy believes that feelings such as anxiety, sadness, grief, etc. are an integral part of life and cannot be controlled and should only be accepted. The function of control as a problem, in this therapy, was to help clients experience the paradoxical effects of their attempts to control thoughts and feelings. In most cases, attempts to control thoughts and feelings are not only ineffective, but also the importance of thinking and feeling.

This makes the thought and feeling bigger instead of smaller. If clients can get in touch with their thoughts and feelings, then they are more likely to let go of control and try different ways. In this therapy, using the metaphor of the

sensitive apparatus as self-control is the problem, helping clients to learn to control their emotions. It causes problems.

Also, the findings of this research are with the findings of Speak and Single (31,32). The fact that interventions based on mindfulness are effective on anxiety and depression and rumination of adults with autism is in harmony with the findings of Mohseni's research (13) on the effect of metacognitive therapy on the rumination of mothers with children with autism. The spectrum of autism is effective, indirect and aligned. Thoughts that arise without effort or choice, and are usually distorted, cause emotional responses. Such thoughts can be organized as internal cognitive schemas. These thoughts are called "automatic" because of their sudden appearance, which is usually not the result of a specific event and is not necessarily caused by directed thinking (33). When a problem occurs, the influx of negative spontaneous thoughts in people leads the person to depression. Acceptance and commitment therapy changes the context in which thoughts occur and reduces the impact and importance of problematic personal events. Clinically, clients learn to see thoughts as just thoughts, feelings as just feelings, memories as memories, and physical symptoms as just physical symptoms, none of the internal events when experienced, are inherently harmful to human health. Their trauma comes from the fact that they are seen as traumatic, unhealthy and bad experiences that they claim to be, and therefore must be controlled and eliminated (34).

By relying on faulting, this therapy has taught mothers of children with autism spectrum disorder, along with the train metaphor, to distinguish between the world constructed in their thoughts and thinking, as an ongoing process. The distinction helps to distinguish between the person who is thinking and the verbal categories that people attribute to themselves by thinking. Breaking it leads to mental peace, but not because the mental war necessarily ends, but because the person is no longer in the war zone of the mind. Therefore, mothers with a child with autism spectrum disorder have found that with this approach, they no longer have thoughts.

They should not have self-attachment, because attachment to their thoughts prevents them from



dealing with the realities and issues of life, and the person will not be able to respond and react appropriately in different situations of life.

It is suggested to implement this approach on other groups to expand its generalizability. It is also suggested that this treatment method be compared with other psychological treatment methods on this statistical population. In order to reduce the psychological helplessness (anxiety and depression dimension) of this treatment method in counseling and psychotherapy centers (clinical environments) should be used for mothers with children with autism spectrum disorders and educational meetings and workshops should be organized for counselors and therapists with this approach. Also, in order to reduce negative spontaneous thoughts, this treatment method should be used in counseling and psychotherapy centers (clinical environments) for mothers with children with

autism spectrum disorder, and educational meetings and workshops should be organized for counselors and therapists with this approach.

### Conclusion

The findings of this research showed that group therapy based on acceptance and commitment has been effective in reducing psychological helplessness and negative self-esteem of mothers of children with autism spectrum disorder. Treatment based on acceptance and commitment has increased psychological and behavioral flexibility in the areas where the avoidance of experience prevails helps the person to live in the present, to accept feelings as feelings and thoughts as thoughts. The group face was one of the possible factors that caused the cooperation of the mothers and the significant effectiveness of this treatment in changing their mental state.

### References

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5<sup>th</sup> ed. Washington: American Psychiatric Association; 2013.
2. Newschaffer CJ, Croen LA, Daniels J, Giarelli E, Grether JK, Levy SL. The epidemiology of autism spectrum disorders. *Ann Rev Public Health* 2007; 28: 238-58.
3. Centers for Disease Control and Prevention. Prevalence of Autism Spectrum Disorders-Autism and Developmental Disabilities monitoring network. United States. 2012; 61(3): 1-19.
4. Samadi M. [National study on the prevalence of autism]. 2012. (Persian)
5. Porhaidar. [The role of parents in teaching children with autism disorder treatment]. *Shargh newspaper*. 2014. (Persian)
6. Daryabary. The symptoms of psychological distress; 2012.
7. Sadock BJ, Sadock VA. Kaplan and Sadock comprehensive textbook of psychiatry. 18<sup>th</sup> ed. New York: Williams and Wilkins; 2005.
8. Havton C, Ceass S. [Cognitive behavioral therapy: A practical guide in treating mental disorders]. Tehran: Arjmand; 1998. (Persian)
9. Poorsharifi, Yadegari, Mahmoodalipoor, Hashemi, Hagh. [The effectiveness of cognitive behavioral therapy in reducing your thought consequent negative child-centered child with anxiety disorders]. Tabriz University; 2012. (Persian)
10. Davies M, Stankov L, Roberts RD. Emotional intelligence: In search of an elusive construct. *J Pers Soc Psychol* 1999; 75(3): 989-1015.
11. Johnson E, Hastings RP. Facilitating factors and barriers to the implementation of intensive home-based behavioural intervention for young children with autism. *Child Care Health Dev* 2002; 28(2): 123-9.
12. Anan RM, Warner LJ, McGillivray JE, Chong IM, Hines SJ. Group intensive family training (GIFT) for preschoolers with autism spectrum disorders. *Behav Intervent* 2008; 23(3): 165-80.
13. Mohseni D. [Transdiagnostic therapy in treatment of the mothers of children with autism]. Isfahan University; 2016. (Persian)
14. Narimani, Aghamhamadian, Rajabi. [Mental health of mothers of exceptional children with mothers of children]. *Journal of mental health* 2008; 33: 15-24. (Persian)

15. Brain D. Parenting-related stress and psychological distress in mothers of toddlers with autism spectrum disorders; 2013.
16. Gaudiano BA. A review of acceptance and commitment therapy (ACT) and recommendations for continued scientific advancement. The scientific review of mental health practice; 2011.
17. Eisenhower AS, Baker BL, Blacher J. Preschool children with intellectual disability: Syndrome specificity, behaviour problems, and maternal well-being; 2005.
18. DeLong GR, Dwyer JT. Correlation of family history with specific autistic subgroups: Asperger's Syndrome and Bipolar Affective Disease. *J Autism Dev Disord* 1988; 18(4): 593-600.
19. Hayes SC. Acceptance and commitment therapy, relational frame theory and the third wave of behavioral and cognitive therapies. *Behav Ther* 2004; 35: 639-65.
20. Hayes SC, Luoma J, Bond F, Masuda A, Lillis J. *Acceptance and Commitment Therapy: Model, processes, and outcomes*; 2006.
21. Towing MP. The application of acceptance and commitment therapy in obsessive-compulsive disorder. *Cogn Behav Pract* 2009; 16(1): 18-28.
22. Phetrasuwan S, Miles MS. Parenting stress in mothers of children with autism spectrum disorders. *Journal for specialists in pediatric nursing* 2009; 14(3): 157-65.
23. Molavi H. [The computer program for social sciences]. Isfahan: Puyesh Andisheh; 2008. (Persian)
24. Lillis S. Measuring avoidance and inflexibility in weight related problem of behavioral consultation and therapy. 2005: 15-52.
25. Derogates LR. *Brief Symptom Inventory (BSI)-18. Administration, scoring and procedures manual*. Minneapolis: NCS Pearson, Inc; 1998.
26. Hollen SD, Kendall P. development of an automatic thoughts questionnaire. *Cognit Ther Res* 1980; 4.
27. Sanders. The handicapped child: psychological effects of parental, marital and sibling relationship. *Psychiatric clinics of North America* 2005; 14: 199-217.
28. Bigdelee. [The effectiveness of acceptance and commitment therapy intervention on anxiety and mental health of parents of children with autism]. Tabriz University; 2012. (Persian)
29. Eifert GH, Forsyth JP, Hayes SC. *Acceptance and commitment therapy anxiety disorder: A practitioners treatment to using mindfulness, acceptance and value based behavior change strategies*. Oakland: Newharbinger; 2005.
30. Hayes. *Introduction to caring for the mind based on acceptance and commitment therapy*. 2015.
31. Speke V, Nyklicek I, Cuijpers P, Pop V. Predictor of outcome of group and internet based cognitive behavior therapy. *J Affect Disord* 2013; 9(4): 97-137.
32. Singh NN, Singh AN, Lancioni G., Singh J, Winton, A. S. W. Adkins, A. D. Mindfulness training for parents and their children with ADHD increases the children's compliance. *J Child Fam Stud* 2011; 19: 157-66.
33. Esmaeizadeh. [The effect of education tool for children of your negative automatic thoughts control group]. Tabriz University; 2012. (Persian)
34. Hayes SC, Strosahl KD. *A practical guide to acceptance and commitment therapy*. USA: Springer; 2010.