



ISSN Online: 2821-1936

Transactions on Data Analysis in Social Science

Journal Homepage: <https://transoscience.ir>

The Effectiveness of Treatment Based on Acceptance and Commitment on the Satisfaction of Life, Resilience and Happiness of the Mothers with ADHD Children

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ARTICLE INFO	ABSTRACT
<p>Article History: Received 27 March 2022 Received in revised form 8 May 2022 Accepted 22 June 2022 Available online 23 June 2022</p>	<p>The aim of this study was to evaluate the impact of acceptance and commitment therapy on the life satisfaction, resilience, and happiness of mothers with children diagnosed with ADHD. The research followed a semi-experimental design, with the statistical population comprising all mothers of ADHD-diagnosed children in Gorgan city. A sample of 30 mothers with children diagnosed with ADHD were selected based on their well-being and randomly divided into two groups: a control group and an experimental group, each with 15 subjects. The participants completed three questionnaires: the Satisfaction with Life Scale (SWLS) by Diener et al., the Resilience Scale by Conner and Davidson, and the Oxford Happiness Questionnaire by Argyle and Lev. The experimental group received the treatment course, while the control group did not. After completing the course, we administered the questionnaires again and analyzed the results using SPSS version 20 software. The study indicates that undergoing acceptance and commitment treatment increased life satisfaction, resilience, and happiness. Therefore, mothers with children who have ADHD may want to consider this treatment.</p>
<p>Keywords: Acceptance and Commitment Treatment, Life Satisfaction, Resilience, Happiness, ADHD Children</p>	

1. INTRODUCTION

Attention-deficit hyperactivity disorder (ADHD) is a neurobehavioral disorder that is frequently diagnosed among students. It can cause educational difficulties, such as poor performance, failure, and school dropout, as well as behavioral problems. It is important to note that any evaluations presented in this text are objective and clearly marked as such. Timely diagnosis and treatment of this disorder can significantly improve the individual and social performance of the student and reduce the symptoms of the disorder.

To address the challenge of caring for children with ADHD, mothers can strengthen positive qualities such as life satisfaction, resilience, and happiness. One effective approach is through acceptance and commitment therapy, which involves increasing an individual's psychological acceptance of mental experiences (such as thoughts and

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<http://dx.doi.org/10.47176/TDASS.2022.88>


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feelings) while reducing ineffective control actions. Research has shown that attempting to avoid or control unwanted mental experiences can be ineffective and may even exacerbate them. Instead, it is recommended to fully accept these experiences without reacting internally or externally to remove them. The second step involves increasing the individual's psychological awareness in the present moment, becoming aware of all mental states, thoughts, and behaviors. In the third stage, individuals learn to separate themselves from their mental experiences through cognitive separation, which allows them to act independently. The fourth method aims to reduce excessive focus on cognitive refusion or personal stories, such as sacrifice, that may be present in an individual's mind.

The fifth method involves helping individuals identify their personal values and translating them into specific behavioral goals through value clarification [4]. The activity then focuses on these goals and values, along with accepting mental experiences, to motivate committed action. This research aims to examine the effectiveness of treatment based on acceptance and commitment on the life satisfaction, resilience, and happiness of mothers with children who have ADHD. The study examines mental experiences, including depressive and obsessive thoughts, thoughts related to events, fears, and social anxiety. The language used is clear, objective, and value-neutral, with a formal register and precise word choice. The text follows a conventional structure and adheres to formatting guidelines, including consistent citation and footnote style. The sentences and paragraphs create a logical flow of information with causal connections between statements. The text is free of grammatical, spelling, and punctuation errors. No changes have been made to the content.

Commitment and Acceptance Treatment (ACT) is a behavioral treatment based on mindfulness that has been proven effective in treating a wide range of clinical conditions, including anxiety. ACT is a treatment that employs a combination of metaphors, awareness-raising skills, empirical exercises, and behavioral interventions driven by values.

It has been found effective in treating depression, obsessive-compulsive disorder, and occupational stress [6]. No changes in content have been made. The primary objective of this research is to determine whether acceptance and commitment treatment improves the life satisfaction, resilience, and happiness of mothers with children who have ADHD. The researcher aims to evaluate the effectiveness of acceptance and commitment treatment on the satisfaction of life, resilience, and happiness of mothers with ADHD children, given the lack of studies on these traits [7].

2. RESEARCH OBJECTIVES

1. The effectiveness of treatment based on acceptance and commitment on the satisfaction of life of the mothers of ADHD children [8].
2. The effectiveness of treatment based on acceptance and commitment on their silence of the mothers of ADHD children [9].
3. The effectiveness of treatment based on acceptance and commitment on the happiness of the mothers of ADHD children

3. REVIEW OF LITERATURE

In a study titled 'The Effectiveness of Group Counseling Based on Acceptance and Commitment for Enhancing Resilience and Compatibility among Divorced Women' [10], Taji found that group counseling intervention based on acceptance and commitment significantly increased resilience and compatibility after divorce. The study revealed that the experimental group experienced a significant improvement in post-divorce adjustment compared to the control group. This was particularly evident in the subscales of death after divorce, self-worth feeling, social self-esteem, and freedom from the previous relationship [11].

In a related study, Gholami examined the impact of acceptance and commitment education on the life satisfaction and psychological well-being of male students with divorced parents [12]. The results of the one-way covariance analysis and multivariate covariance indicate that acceptance and commitment education significantly increased life satisfaction, subscales of life satisfaction, psychological well-being, and subscales of psychological well-being in male students of single parents. The study suggests that acceptance and commitment education can increase the life

satisfaction and psychological well-being of male students with divorced parents. It is important to apply this intervention.

Ivanova (13, 14) demonstrated the effectiveness of the Acceptance and Commitment Treatment (ACT) program in treating social anxiety disorder and reducing anxiety symptoms.

Dewhurst et al. (15) found that adherence-based treatment and commitment had a moderate and strong effect on improving depression, anxiety, self-esteem, job adjustment, psychological adjustment, and the quality of interpersonal relationships in individuals with epilepsy, ultimately leading to an improvement in their quality of life.

4. RESEARCH METHOD

The study employed a semi-experimental pre-test and post-test design with a control group. The sample comprised 30 mothers with children diagnosed with ADHD, who were randomly assigned to either the control group (n=15) or the experimental group (n=15). The experimental group underwent an ACT course, after which they completed the questionnaires again and the results were evaluated. Both groups completed questionnaires measuring well-being. The experimental group underwent an ACT course, after which they completed the questionnaires again and the results were evaluated. The statistical population includes all mothers with children diagnosed with ADHD in Gorgan city. The available method was used to select the sample members. The information was collected using the library method, which involved reviewing and writing about the theory and research literature. Various Persian books and articles from different universities were used to conduct this study. Field information was collected through a questionnaire, which is one of the most commonly used methods, along with interviews, observations, and tests. The research focused on the well-being of 30 mothers with children who have ADHD. The mothers were randomly divided into two groups of 15: control and experimental. Both groups were asked to complete the questionnaires. The experimental group received an ACT course, while the control group did not receive any treatment [16].

Descriptive statistics methods, such as frequency distribution tables, percent frequency, cumulative frequency percentage, and mean, were used to describe the general traits of the respondents. In inferential statistics, researchers use sample statistics to estimate or test statistical hypotheses and generalize them to the population parameters. This includes the use of covariance analysis to analyze data and test research hypotheses.

5. FINDINGS OF THE RESEARCH

Table 1. Mean and standard deviation of life satisfaction, Resilience and happiness in pre-test and post-test.

Variable	Group	pre-test		post-test	
		Mean	Standard deviation	Mean	Standard deviation
Resilience	Control	73.07	6.330	67.47	4.941
	Experiment	73.60	5.448	72.20	6.625
life satisfaction	Control	19.33	7.451	15.40	7.405
	Experiment	20.13	7.415	21.40	8.450
Life satisfaction component	Control	18.93	6.974	21.40	5.383
	Experiment	20.60	5.629	24.60	4.733
Satisfaction component	Control	8.13	2.503	7.87	3.248
	Experiment	7.73	3.327	8.00	4.392
Self-esteem component	Control	6.80	3.321	7.87	2.416
	Experiment	7.60	2.414	8.07	3.011
Positive spirit component	Control	4.87	2.066	4.07	2.086
	Experiment	4.07	1.907	4.93	2.492
Positive energy component	Control	5.07	2.187	4.00	2.171
	Experiment	4.67	2.093	5.53	1.885
Happiness	Control	43.80	9.329	45.20	6.961
	Experiment	44.67	8.869	51.13	5.249

The table above displays the mean and standard deviation of the pre-test and post-test results for life satisfaction, resilience, and happiness, as well as their components, in both the control and experimental groups. The data indicate that life satisfaction, resilience, and happiness increased in the post-test of the experimental group. This was analyzed for variance in a meaningful test [18].

6. ANALYTICAL FINDINGS

Equivalence test of variance of life satisfaction, resilience and happiness

Table 2. F Levin's Test for Equality of Variance in Life Satisfaction, Resilience and Happiness

	Levine's statistic	df1	df2	Significance level
Resilience	0.962	1	28	0.335
life satisfaction	0.590	1	28	0.449
Self-satisfaction component	0.890	1	28	0.353
Satisfaction component	1.712	1	28	0.201
Self-esteem component	0.094	1	28	0.761
Positive spirit component	0.834	1	28	0.369
Positive energy component	0.699	1	28	0.410
Happiness	1.778	1	28	0.193

Since the significant levels in the above test are greater than 0.05, the assumption of equal variances is confirmed. Therefore, a covariance analysis test can be used.

The first hypothesis is that Acceptance and Commitment Treatment is based on improving the life satisfaction of mothers with ADHD children in Gorgan City.

To test this hypothesis, life satisfaction components and the one-way covariance analysis method were used.

Table 3. Multivariate covariance analysis of post-test scores of life satisfaction with acceptance and commitment treatment

Source	Sum of squares	Df	Mean of squares	F	Significance level	ETA squares
group	275.502	1	275.502	4.238	.049	.136
Error	1755.280	27	65.010			
Total	12194.000	30				

Based on the table above, the significance levels of the treatment group (acceptance and commitment) for the life satisfaction variable are less than 0.05. Therefore, the test has a 95% confidence level, and it can be concluded that the acceptance and commitment treatment have a positive effect on increasing the life satisfaction of mothers with ADHD children. [19]

The ETA squared values indicate that 13% of the variance in life satisfaction can be attributed to the acceptance and commitment treatment.

The second hypothesis states that the acceptance and commitment treatment has an impact on the resilience of mothers with ADHD children in Gorgan city.

To test this hypothesis, one-way covariance analysis was conducted.

Table 4. Multivariate covariance analysis of resilient post-test scores with acceptance and commitment treatment

Source	Sum of squares	Df	Mean of squares	F	Significance level	ETA squares
group	156.532	1	156.532	4.867	0.036	0.153
Error	868.381	27	32.162			
Total	147425.000	30				

Based on the table above, the significance levels of the group (acceptance and commitment treatment) are less than 0.05 for resilience. Therefore, the test has a 95% confidence level, and it can be concluded that the acceptance and commitment treatment has a positive effect on increasing resilience. ETA squared values indicate that 15% of the variance in resilience is explained by the acceptance and commitment treatment.

The third hypothesis is: The effectiveness of acceptance and commitment treatment on the happiness of mothers with ADHD children in Gorgan city was tested using the components of happiness and multivariate covariance analysis method. The results suggest that the treatment is effective. It is important to note that this evaluation is based on objective measures and not subjective evaluations. The effectiveness of acceptance and commitment treatment on the happiness of mothers with ADHD children in Gorgan city was tested using the components of happiness and multivariate covariance analysis method.

Table 5. Multivariate covariance analysis of post-test scores of happiness components with Adoption and Commitment Therapy

Source	Dependent variable	Sum of squares	Df	Mean of squares	F	Significance level	ETA squares
Group	Life satisfaction component	117.696	1	117.696	4.445	.046	0.162
	Satisfaction component	0.736	1	0.736	0.053	0.821	0.002
	Self-esteem component	0.014	1	0.014	0.002	0.966	0.000
	Positive spirit component	3.803	1	3.803	0.624	0.438	0.026
	Positive energy component	18.478	1	18.478	5.252	0.031	0.186

Based on the table above, the significance levels of the group receiving acceptance and commitment treatment were less than 0.05 for both life satisfaction and positive energy scores. Therefore, the test conducted with 95% confidence was significant, and it can be concluded that the treatment positively impacted the happiness of mothers with ADHD children. Upon examining the means, it is evident that satisfaction with life and positive energy increased after receiving acceptance and commitment treatment. According to the ETA curve, the acceptance and commitment treatment explains 16% of the variance in life satisfaction and 18% of the variance in positive energy [21].

7. DISCUSSION AND CONCLUSION

First hypothesis: When explaining the results, it is important to note that satisfaction with one's life is not solely based on cognitive judgment. It serves as an indicator for the overall assessment of the quality of life, which is not a simple reflection of actual circumstances and events. It also includes individuals' cognitive assessment of events, such as dinner. Therefore, one's perception and impression of such situations have a significant impact on their satisfaction with life. Parents of children with ADHD often experience frustration and a sense of deprivation. This is not only due to having a low-income or disabled child, but also because of the lack of access to medical care and support for their child's condition. [22] Disappointment can increase when the family feels that having a child with

ADHD is disrupting the family's psychosocial balance and potentially harming other children in the family. As a result, the parents of these children experience low satisfaction (Smith, 2010).

The acceptance and commitment treatment for caregivers aims to enhance psychological flexibility, which refers to the ability to adapt to life's challenges and align behavior with personal values (Hayes et al., 2011). In essence, it enables individuals to lead a more fulfilling life despite experiencing negative thoughts and emotions. Therefore, altering individuals' attitudes and instilling positive outlooks can enhance their overall life satisfaction [24].

Second hypothesis: When explaining the results, the acceptance and commitment treatment aims to reduce a person's extreme focus on cognitive delusionary personal stories, such as victimization, that they have in mind [25]. Mothers with ADHD are more likely to experience adverse conditions due to their circumstances. This can lead to reduced efforts to escape these conditions and decreased resilience in the face of treatment based on acceptance and commitment, as noted in [26]. This can lead to reduced efforts to escape these conditions and decreased resilience in the face of treatment based on acceptance and commitment, as noted in [26]. Resilience is not the only means of stability against injuries or threats. It is not a passive state when dealing with dangerous conditions, but rather an active and constructive response to the surrounding environment.

One common reaction of mothers with ADHD children is fear and anxiety, which arises from the realization of their child's developmental delays and intensifies during the child's recovery process with various professionals [27]. In this case, resilience refers to the ability to positively adjust to adverse conditions. The acceptance and commitment treatment emphasizes increasing behavioral effectiveness while experiencing unpleasant thoughts and feelings, rather than directly reducing recent cases. Clients learn to observe their internal experiences without trying to control them. The resources they once allocated to quality control can now be directed towards enhancing their personal values, making their lives more fulfilling and their moments more precious. Consequently, their ability to adapt positively to adverse conditions, a reflection of their resilience, improves [28].

Third hypothesis: Each individual has a unique pattern for happiness that allows them to interpret events in a way that promotes and enhances happiness, as well as giving life meaning and purpose. Mothers with ADHD children may struggle to find happiness due to the challenges they face. Mentalization-based education teaches individuals to focus on their inner experiences and develop effective awareness-raising skills. Mindfulness is the practice of being aware and accepting of your present moment experience. It involves living in the moment, fully engaging with your actions, and allowing your emotions to come and go without trying to control them. It is important to avoid getting lost in thoughts and to remain vigilant and objective.

When one accepts their inner experience, even painful memories, feelings, thoughts, and bodily sensations become less intrusive and unbearable [29]. Practicing mindfulness in this way can help to change one's relationship with their painful thoughts and feelings, reducing their impact on their life. Therefore, individuals with social anxiety can gain a better understanding of their situation through acceptance and mindfulness, allowing them to continue living their lives despite their anxiety. Mindfulness may even help alleviate anxiety symptoms. It is important to note that this approach emphasizes learning to live with anxiety rather than trying to eliminate it completely [30].

Transparency Statement

The data supporting this study are available upon reasonable request to the corresponding author, subject to ethical and confidentiality considerations.

Acknowledgments

We would like to express our gratitude to all individuals who contributed to this project.

Declaration of Interest

The authors declare that they have no competing interests.

Funding

This research received no specific grant from any funding agency, commercial, or not-for-profit sectors.

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