

The Effectiveness of Acceptance and Commitment Therapy on Self-control of Single-parent High School Students in Kerman, Iran

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Abstract

Background: Many single-parent or parentless individuals tend to engage in social misconduct due to family and community incompetence and lack of support. The present study investigated the effectiveness of acceptance and commitment therapy on the self-control of single-parent high school students in Kerman, Iran.

Methods: This was a quasi-experimental study with a pretest-posttest design and a control group. The study population were single-parent high school students in Kerman, Iran in the academic year 2023-2024. A total number of 30 participants were selected through convenience sampling and randomly divided into two groups of 15. First, all participants completed the Tangney Self-Control Scale (SCS) as a pre-test measure. The experimental group underwent eight sessions of acceptance and commitment therapy, while the control group did not receive any intervention. Then, the research instruments were applied as a post-test measure. Data analysis was conducted using SPSS version 25, particularly for univariate analysis of covariance.

Results: There was a significant difference in self-control at the post-test stage between the two groups of Acceptance and commitment therapy and the control group, even after accounting for the pre-test scores ($P=0.003$). Additionally, the data revealed a significant contrast in self-control improvement from the pre-test to the post-test stage within the acceptance and commitment therapy group ($P=0.002$). However, no notable change was observed in self-control in the control group throughout the study ($P=0.484$). Furthermore, no significant difference was found between the pre-test and post-test stages in the control group ($P=0.233$).

Conclusions: According to our results, Acceptance and Commitment Therapy (ACT) is effective in improving self-control among single-parent high school students in Kerman, Iran. Thus, ACT is recommended in counseling and psychotherapy centers, especially for students who lack proper supervision and have only one guardian.

Keywords: Acceptance and commitment therapy, Self-control, Single-Parent, Students

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1. Introduction

For centuries, fathers have been recognized as the cornerstone of the family in the majority of human civilizations. It is the duty of a father to take on responsibilities and make final decisions in matters related to economy, education, child-raising, social issues, among others. The mother usually softens the feelings and emotions of the children in the family. Parents' coordination, harmony, and like-mindedness play a determining role in the unity of the family, happiness, and physical and mental well-being of its members (1). Single parenthood, as a sociological and psychological phenomenon, threatens the social structure of the society worldwide. Many single-parent or parentless individuals tend to engage in social misconduct due to family and community incompetence and a lack of support. When a family becomes a parentless family or a single parent for reasons such as death,

divorce, leaving home, and long absences, the children of the family face emotional, social, and educational complexities and may even be exposed to social issues such as delinquency, economic and cultural problems (2). Single parenthood is when a child is raised by only one parent due to reasons like death, divorce, abandonment, legal issues, military service, or illegitimate birth. This situation can occur temporarily or permanently (3).

Children with single parents often face various problems due to their circumstances. According to previous study, mental disorders are more common in single-parent families (4). The living conditions of children, families, and home environments play a crucial role in the development of behavioral disorders. Poverty, malnutrition, homelessness, divorce, single parenthood, and child exploitation have a deep impact on the behavior of children and adolescents. Single-parent families may arise as a result of family

disruption or the death of one parent. Children in these families are more likely to experience economic poverty, low self-esteem, and academic dropout compared with children from two-parent families (5). Research also indicated that children raised in single-parent households experience higher levels of anxiety compared with children in other types of families (6, 7). The absence of one parent can result in increased anxiety and hinder a child's ability to navigate the world and form connections with others (8). Being raised by only one parent can give rise to a range of challenges and difficulties, including feelings of isolation, a sense of responsibility for their parents' divorce, conflicting allegiances between parents, a lack of understanding on how to handle parental conflicts, exposure to family instability, deviant behavior, and criminal activity, as well as feelings of depression, inadequacy (9), emotional detachment, and anger (10). Additionally, children from single-parent families may exhibit hyperactivity, aggression, distractibility, trouble socializing with peers, and struggle with self-control and impulse regulation (11).

Emotions are an inherent part of every individual's structure. Individuals cannot distance themselves from their emotions. Instead, they must control them properly (12). Self-control involves the ability to regulate and modify our responses in order to prevent undesirable actions, enhance positive ones, and achieve long-term goals. Studies demonstrated that self-control is essential for ensuring overall health and happiness (13). Scientific data suggested that people who possess strong self-discipline are more apt to experience favorable results to manage impulsive behaviors, adapting to different situations, and excelling in tasks (14). For example, a person with high self-control can control their emotions and anger when they arise, indicating a relationship between self-control, social behavior, and aggression. What is often overlooked among these factors, called the missing link, is self-control. Self-control does not seek to change attitudes and personality, but to bring behavior under control and, if necessary, change them (15). The results of previous research suggested a negative relationship between psychological problems and self-control; in fact, individuals with psychological issues have lower levels of self-control and are more prone to risky behaviors (16).

Researchers identified several factors and

strategies that can help improve self-control in individuals (17, 18). They have found that individuals with better self-control are healthier and happier. One study showed that students with more order and discipline achieve higher grades and have a higher chance of being accepted into competitive university entrance exams; furthermore, it demonstrated that self-control is a more important factor than intelligence scores in scientific success (19). Research demonstrated that there are multiple therapeutic approaches to address psychological issues, including acceptance and commitment therapy (20). Acceptance and commitment therapy is a form of cognitive-behavioral intervention that focuses on fostering new, healthier behavior patterns by enhancing psychological flexibility, which involves fully engaging with the present moment and being mindful as a conscious individual. By implementing the psychological flexibility model through the six core processes of acceptance and commitment therapy, individuals can sustain lasting changes in behavior by taking committed actions towards their chosen values and by accepting and embracing conflicting thoughts, rules, and emotions as part of themselves, rather than as determinants of their ultimate behavior (21). Acceptance and mindfulness are central processes of psychological flexibility (22). Another important focus of this approach is on valuable action and behavioral change among treatment-resistant patients and mental health professionals (23). Veage and colleagues suggested that following personal values is related to well-being and efficacy (24). In addition, acceptance and commitment therapy has proven to be beneficial in promoting mental health and psychological well-being, as well as facilitating health behavior change (21, 23, 25), decision-making and value selection, and increasing acceptance and growth after emotional breakdown (23, 25). Given the importance of factors in improving psychological problems, preventing harm, and promoting adolescent mental health, such as those who seek counseling and psychological services due to mental problems, acquiring necessary skills to reduce mental problems, and scarcity of related clinical and controlled research, this study sought to answer the question of whether acceptance and commitment therapy affects self-control in single-parent high school students in Kerman, Iran.

2. Methods

The present study employed a quasi-

experimental design with pretest-posttest measurements and a control group. The target population included single-parent high school students in Kerman, Iran during the academic year 2023-2024. Thirty participants were selected using convenience sampling technique and then randomly assigned to two groups of equal size. The randomization process involved participants choosing numbers from an envelope. The sample size was determined based on previous research and G*Power software values of $\alpha=0.05$, $\text{Mean}\pm\text{SD}=41.27\pm7.01$ and 48.17 ± 7.57 , and power test=0.8 (26). The inclusion criteria were being a single-parent student with no specific physical or mental health issues, willingness to participate, and parental consent. The exclusion criteria were a lack of cooperation, experiencing severe illness, missing more than one session, or inability to complete tasks. Participants were classified into control, and experimental groups based on assigned numbers. The experimental group received acceptance and commitment therapy, while the control group was put on a waitlist. Both groups underwent pretest and posttest assessments simultaneously. Acceptance and commitment therapy (ACT)

involves experiential exercises and metaphors to foster non-judgmental acceptance of therapeutic experiences (Table 1). This approach is not aimed solely at acceptance but also at promoting action towards personal goals. Hayes' method was used for ACT training (23), consisting of eight weekly sessions lasting two hours each. The CONSORT flow chart is shown in Figure 1.

2.1. Measures

2.1.1. Tangney Self-Control Scale (SCS): The Brief Self-Control Scale was created by Tangney and co-workers to assess individuals' level of self-control as a trait (27). This questionnaire consists of 13 questions and provides an overall score based on a Likert scale with a range of scores from 0 to 52. To standardize the self-control scale, Tangney and co-workers administered the shortened form on two separate samples, resulting in a Cronbach's alpha coefficients of 0.83 and 0.85 for the two groups (27). A higher score on this questionnaire indicates better self-control. The questionnaire has two subscales: initial self-control and inhibitory self-control, with the initial self-control subscale

Table 1: Content of acceptance and commitment therapy sessions

Session 1	Establishing a connection with the patient, agreeing on treatment goals, psychological instruction
Session 2	Exploring life events and reflecting on them, assessing effectiveness, using challenges for growth
Session 3	Identifying lack of control as an issue, presenting desire as a potential solution, taking deliberate steps forward
Session 4	Utilizing cognitive detachment strategies, disrupting dysfunctional thought patterns, reducing dependence on thoughts and emotions
Session 5	Considering oneself as a larger context, challenging self-identity, and presenting oneself as an observer, highlighting the distinction between self, internal experiences, and actions
Session 6	Utilizing mental exercises, breaking free from mental chatter, learning to observe internal experiences as a progression
Session 7	Introducing personal values, highlighting the downsides of fixating on outcomes, recognizing the practical benefits of life
Session 8	Grasping the essence of desire and dedication, aligning actions with values

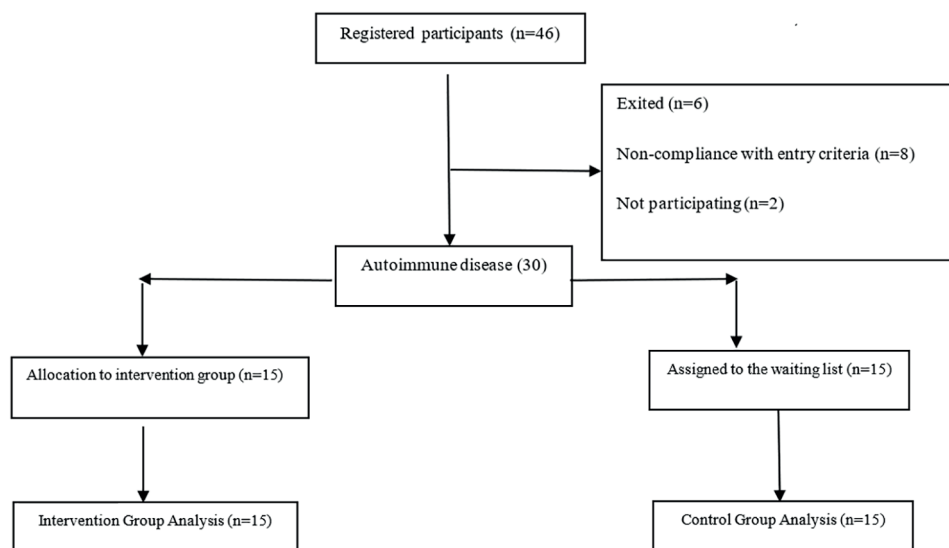


Figure 1: The figure shows the flow diagram of the study.

better predicting desirable behaviors than the other subscale and the inhibitory self-control subscale predicting the prevention of undesirable behaviors. The questionnaire (BSCS) had a Cronbach's alpha coefficient of 0.81, indicating good reliability. The ICC coefficient was 0.88 with a confidence interval of (0.8–0.93), supporting the consistency of the tool. A two-factor solution was identified through exploratory factor analysis (EFA), explaining 42% of variance (28). A study conducted in Iran also found a CVR of ≥ 0.56 for all items and a CVI index of ≥ 0.79 for all items (29).

2.2. Data Analysis

SPSS version 25 was used to examine the data collected from the univariate analysis of covariance. Before the study, the researchers checked the assumptions necessary for parametric tests. Specifically, they assessed the normality of data distribution in the groups using the Shapiro-Wilk test. The findings of this test revealed that the P values of the research variables in both the experimental and control groups were above 0.05. Similarly, Levene's test results demonstrated that the self-control variable met the assumption of homogeneity of variances as its significance level was over 0.05.

3. Results

The findings indicated that the most common age range in both groups was 31- 40. Additionally, the chi-square test results revealed no significant

difference between the two groups in education, age, and income level ($P=0.889$, $P=0.900$, $P=0.696$) (Table 2). The Shapiro-Wilk test assessed the normality of the self-control distribution higher than 0.05 significance levels (Acceptance and commitment therapy: $SW=0.901$, $P=0.100$ and the control group: $SW=0.916$, $P=0.172$). The results of Levene's test to verify the equality of variance among the groups regarding self-control displayed a significance level ($F=2.937$, $P=0.205$) greater than 0.05, indicating that there was no discrepancy in the variance of scores of these variables in the pre-test stage between the two groups (Table 2).

According to the findings presented in Table 3, there was a significant difference in self-control at the post-test stage between the two groups of acceptance and commitment therapy and control, even after accounting for the pre-test scores ($P=0.003$). Additionally, the data revealed a significant contrast in self-control improvement from the pre-test phase to the post-test phase within the acceptance and commitment therapy group ($P=0.002$). However, no significant change was observed in self-control in the control group throughout the study ($P=0.484$). Furthermore, there was no significant difference found between the pre-test and post-test stages in the control group ($P=0.233$).

4. Discussion

The present study aimed to investigate how

Table 2: Demographic findings of the experimental and control groups

Variables		Acceptance and commitment therapy		Control		χ^2	P value
Education	Diploma	6	40%	6	40%	0.234	0.889
	Bachelor	5	33.33%	6	40%		
	Master & PhD	4	26.67%	3	20%		
Age	20-30	3	20%	4	26.67%	0.209	0.900
	31-40	8	53.33%	7	46.66%		
	41-50	4	26.67%	4	26.67%		
Income level (based on self-report)	Top	2	13.33%	2	13.33%	0.722	0.696
	Average	8	53.33%	10	66.67%		
	Down	5	33.33%	3	20%		

Table 3: Mean \pm SD of the self-control in experimental and control groups

Variables	Groups	Mean \pm SD		Within group P value
		Pre-test	Post-test	
Self-control	Acceptance and commitment therapy	41.27 \pm 7.01	45.47 \pm 7.57	0.002
	Control group	39.47 \pm 6.89	39.87 \pm 7.31	0.233
	Between group P value	0.484	0.003	-

SD: Standard Deviation

acceptance and commitment therapy affects self-control in single-parent high school students in Kerman, Iran. We found a notable decrease in self-control following the therapy. In the pre-test stage, the group showed a substantial effect. Additionally, there was a noticeable improvement in self-control in the experimental group, indicating that acceptance and commitment therapy can positively affect the self-control of single-parent high school students in Kerman, Iran, resulting in a significant enhancement in their self-control. The outcomes of this theory align with the conclusions drawn by Taheri and colleagues, who discovered that engaging in acceptance and commitment therapy can lower anxiety levels and enhance self-regulation in high school students, ultimately resulting in better overall performance (30). Similarly, Danesh-Mirkohan and co-workers revealed that acceptance and commitment therapy can effectively enhance emotional self-control, emotional adaptability, and core life principles in female students dealing with obsession (31). Furthermore, Siahpoosh and GolestaniBakht illustrated how acceptance and commitment therapy can enhance psychological adaptability and all aspects of emotional regulation, which include resisting emotional responses, restricting engagement in goal-oriented actions and tasks, battling impulse control issues, lack of emotional awareness, limited access to effective emotional regulation methods, and absence of emotional clarity (32). Østergaard and co-workers discovered that acceptance and commitment therapy can be beneficial for individuals who are experiencing symptoms of distress, are content, and feeling anxious. They observed substantial enhancements in mental well-being, flexibility, and distress levels before and after the therapy sessions (33). Mirsharifa and colleagues also found that acceptance and commitment therapy (ACT) can be effective in treating depression and anxiety disorders. They noted a decrease in depression and anxiety symptoms and overall positive changes in behavior and attitudes, along with an increase in self-confidence. These results reinforce the benefits of ACT (34).

Acceptance and commitment therapy operates under the belief that individuals hold responsibility for their own choices, decisions, objectives, and overall satisfaction in their lives. External circumstances and the actions of others do not possess control over us unless we permit them to

do so. Within the dynamic of any relationship, the ability to enact change lies exclusively within the individual themselves and not within the control of others (23). By focusing on altering their behavior rather than that of others, individuals can enhance their relationships. This approach suggests that using effective methods of communication and embracing internal control psychology (such as listening, supporting, encouraging, respecting, trusting, accepting individuals as they are, and embracing differences) is the most effective way to improve relationships (32-34). The primary aim of acceptance and commitment therapy is not to directly alter the client but to assist them in developing alternative approaches to relating to their experiences and wholeheartedly engaging in a life aligned with their values and meaningfulness. This treatment seeks to enhance psychological and behavioral flexibility in domains where experiential avoidance hinders an individual's fundamental existence. Acceptance and commitment therapy strengthens an individual's capacity to make the most appropriate choices among various options. Moreover, the ability to fully engage with the present moment and adapt or maintain behaviors in accordance with life objectives is invaluable and significant (25).

In explaining this hypothesis, it can be said that self-control in ACT is enhanced through six main processes, namely acceptance, failure, self as a background, present-focused awareness, values, and committed action. This method stands out from other psychotherapies due to its consideration of both motivational and cognitive aspects, thus ensuring a more effective and sustainable treatment outcome (31-34). Acceptance and commitment therapy encourages individuals to change their perspectives on thoughts and internal experiences, viewing them as passing mental events. Clients are taught to perceive thoughts as only thoughts, feelings as only feelings, and memories as only memories. In situations where avoidance of experiences arises, acceptance and cognitive defusion processes aid individuals in breaking free from avoidance patterns and their regulating principles (23, 25).

4.1. Limitations

One of the limitations of this study is the use of the convenience sampling method which

may affect the reliability of the findings. Also, the instrument used in this study relies on self-reporting. The absence of a follow-up course due to time constraints is another shortcoming. Additionally, difficulties were encountered in obtaining permission from organizations to accompany and cooperate with the researcher. It is recommended to compare the impact of acceptance and commitment therapy on self-control among single-parent high school students with alternative treatment methods like cognitive behavioral therapy. Furthermore, it is crucial to investigate other communities, such as individuals facing marital problems. The examination of other factors influencing single-parent students, such as satisfaction levels and communication skills, should also be addressed.

5. Conclusions

It can be concluded that Acceptance and Commitment Therapy (ACT) is effective in improving self-control among single-parent high school students in Kerman, Iran. It is recommended to implement this therapy in counseling and psychotherapy centers, especially for students who lack proper supervision and have only one guardian. Furthermore, counselors in educational centers should undergo comprehensive training in ACT during regular and practical courses to ensure that students are able to take full advantage of its usefulness and effectiveness.

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Authors' Contribution

Negar Bahremand Nia: Substantial contributions to the conception and design of the work; the acquisition, analysis, and interpretation of data for the work, drafting the work. Azam Vaziri Nasab: Substantial contributions to the conception and design of the work; the acquisition, analysis, and interpretation of data for the work, drafting the work and reviewing it critically for important intellectual content. All authors have read and approved the final manuscript and agree to be

accountable for all aspects of the work, such that the questions related to the accuracy or integrity of any part of the work.

Ethical Approval

The Ethics Review Board of Zarand Branch, approved the present study with the code of IR.IAU.KERMAN.REC.1402.113. Also, written informed consent was obtained from the participants.

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Conflict of Interest: None declared.

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