

Effectiveness of Acceptance and Commitment Therapy (ACT) on Individual and Social Adaptation in Adolescents with Disabled Parents

Reyhane Maleki^{1*}, Sedigheh Rezaei Dehnavi²

¹MSC in Clinical Psychology, Department of Psychology, Najaf abad Branch, Islamic Azad University, Isfahan, Iran.

²Associate professor, Department of Psychology, Payame Noor university, Tehran, Iran.

Corresponding Author: Reyhane Maleki, MSC in Clinical Psychology, Department of Psychology, Najafabad Branch, Islamic Azad University, Isfahan, Iran. Email: reyhanealeki@yahoo.com

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Abstract

Background: Acceptance and commitment therapy (ACT) is an emerging form of cognitive-behavioral treatment that is based on functional context.

Objectives: The purpose of this study was to investigate the effectiveness of ACT in individual and social adaptation in adolescents with disabled parents.

Methods: The research design was a quasi-experimental, pre-test and post-test, with the control and experimental groups. The study population included all female adolescents with disabled parents in Mobarakeh, Isfahan, Iran, in 2017. The sample included 30 female adolescents with disabled parents selected using the purposive sampling method. The participants were randomly assigned to both experimental and control groups. The experimental group received ACT tests in 8 sessions, and each session lasted 90 minutes. The participants were assigned to each group before the intervention and at the end of the intervention using the California Psychological Inventory (CPI). Statistical analysis for this study was performed using SPSS-22 software for statistical calculations, and descriptive and inferential statistics were used for data analysis.

Results: According to the results, the mean \pm standard deviation (SD) of the individual adaptation and social adaptation variables in the experimental and control groups during the post-test period (130.58 ± 7.88 and 128.50 ± 7.79 , respectively), compared to the pre-test (44.8 ± 0.7128 and 45.5 ± 0.5128 , respectively), did not increase significantly. Moreover, the results indicated that there was no significant difference in the post-test period between individual adaptation scores ($F=1.191$; $P=0.288$; $\eta^2=0.054$) and social adaptation scores ($F=0.727$; $P=0.403$; $\eta^2=0.033$) of the experimental group and the control group.

Conclusions: The results showed that there was no significant difference between individual and social adaptation scores in the post-test stage. This study suggests that treatment attempts were not very effective.

Keywords: Acceptance and Commitment Therapy; Social and Individual Compatibility; Adolescents; Disabled Parent

1. Background

It is well established that parents with disabilities and their families make up a large proportion of the child welfare system. Limited recognized research describes the views of parents, “the child welfare professionals”, and attorneys about the system’s ability to support them or their children (1). Parents with disabilities pose several challenges in their teen’s life during adolescence. Minors/youth might have adult care responsibilities. However, they have not yet reached full cognitive maturity to truly understand their role and awareness of disability and its effects on their families (2). Despite the limited

knowledge or awareness of the prevalence of parental disabilities globally, there is growing concern internationally that parents with disabilities and their families face many challenges in relation to the child welfare system (3). Although there is limited information about how common parental disability is worldwide, there is increasing worry among individuals worldwide that parents with disabilities and their families face many difficulties with the child protection system (4).

There is no data available on the population of parents with disabilities (5). Although prevalence estimates vary



by data source, current estimates indicate that approximately 5 to 10% of US parents are disabled (6, 7). A sizable body of research showed that parents with disabilities and their families often have adverse experiences related to the child welfare system (8, 9). Research suggests that children who have parents with disabilities can experience both good and bad things. It is possible for these children to feel close to their parents and feel like they are important to them. However, they might also have more difficulties with their physical and mental health and how well they do at school, compared to other children. Children of parents with disabilities often live in more difficult socioeconomic circumstances than their peers, which complicates the interpretation of these results. The United States' most comprehensive study of caregivers showed that they live in lower-income households than other children, and 58% are interested in one or more activities in daily life (1).

Among the third-wave psychological approaches, acceptance and commitment therapy (ACT) has a good ability to control a person's attitudes and perceptions toward stressful life events (10). The underlying structure and concept of ACT is that psychological pain and suffering are caused by the avoidance of experience, cognitive fusion, and failure to respond to behavioral needs and values (11). The goal of ACT therapists is not the relief of symptoms but the outcome achieved as a by-product of treatment. Acceptance and commitment therapy alters the relationship between problematic thoughts and feelings so that individuals do not see them as symptoms of illness but learn to treat them as harmless (even when causing distress and discomfort) (12).

Self-constructive techniques can be effective in removing the mental link between social labels and personal identity and help increase psychological flexibility in self-identification (13). Recent experimental research has suggested the influence of ACT-related constructs, such as experience avoidance and cognitive integration, in parents. Lightfoot et al. showed that more work needs to be done in child welfare to effectively serve parents with disabilities. Parents with disabilities appear to be struggling because they cannot provide a record of their child's social needs based on their disability or because they have been diagnosed with a disability (14).

Children whose parents have a disability and are designated carers face social, emotional, and physical difficulties and challenges at school and elsewhere. Research into the experiences of children whose parents have mental health problems shows that they might have a

more emotional caring role than other children, which makes them problematic. These children also fear what happens at home when they are not present, which is a barrier to going to school (9).

2. Objectives

The research works of literature did not focus on understanding how adolescents whose parents have a disability are affected in terms of their mental health and how well they adjust to personal and social situations. Therefore, this study has been carried out for the first time. Due to the importance and necessity of dealing with this group, this study has innovation. This study helps the adjustment problems of adolescents whose parents are disabled. This study tried ways to enhance the parent-child relationships of adolescent females, which can have positive effects on their personal and social development. Therefore, this study aimed to investigate the impact of ACT on the individual and social adaptation of adolescent females of parents with disabilities.

3. Methods

This semi-experimental research involved the experimental group and the control group. The study population included all female adolescents with disabled parents in Mobarakeh, Isfahan, Iran, in 2017. The first researcher of this study, serving as a consultant, identified problems caused by frequent communication with female students whose parents had disabilities. Female students have conflicts with friends and parents in addition to extrovert and introvert problems, and this is one of the main reasons why this study was conducted. Therefore, the study participants comprised a group of 30 individuals who were carefully chosen through purposive sampling. They were then assigned to an experimental group ($n = 15$) and a control group ($n = 15$) in a simple random manner using a table of random numbers. The sample size in this study was determined based on previous studies and according to the values of G*Power software (effect size = 1.48, $1 - \beta = 0.95$, and $\alpha = 0.05$) (15). The choices made by all participants in the steps are depicted in a diagram (Figure 1). The inclusion criteria were giving consent to participate in the research, being a female adolescent with disabled parents, having at least 12 to 18 years, having one or both parents with a disability, having no history of drug abuse based on self-report, and participating in no concurrent treatment programs. The exclusion criteria were taking psychiatric medications and the absence of more than two treatment sessions.

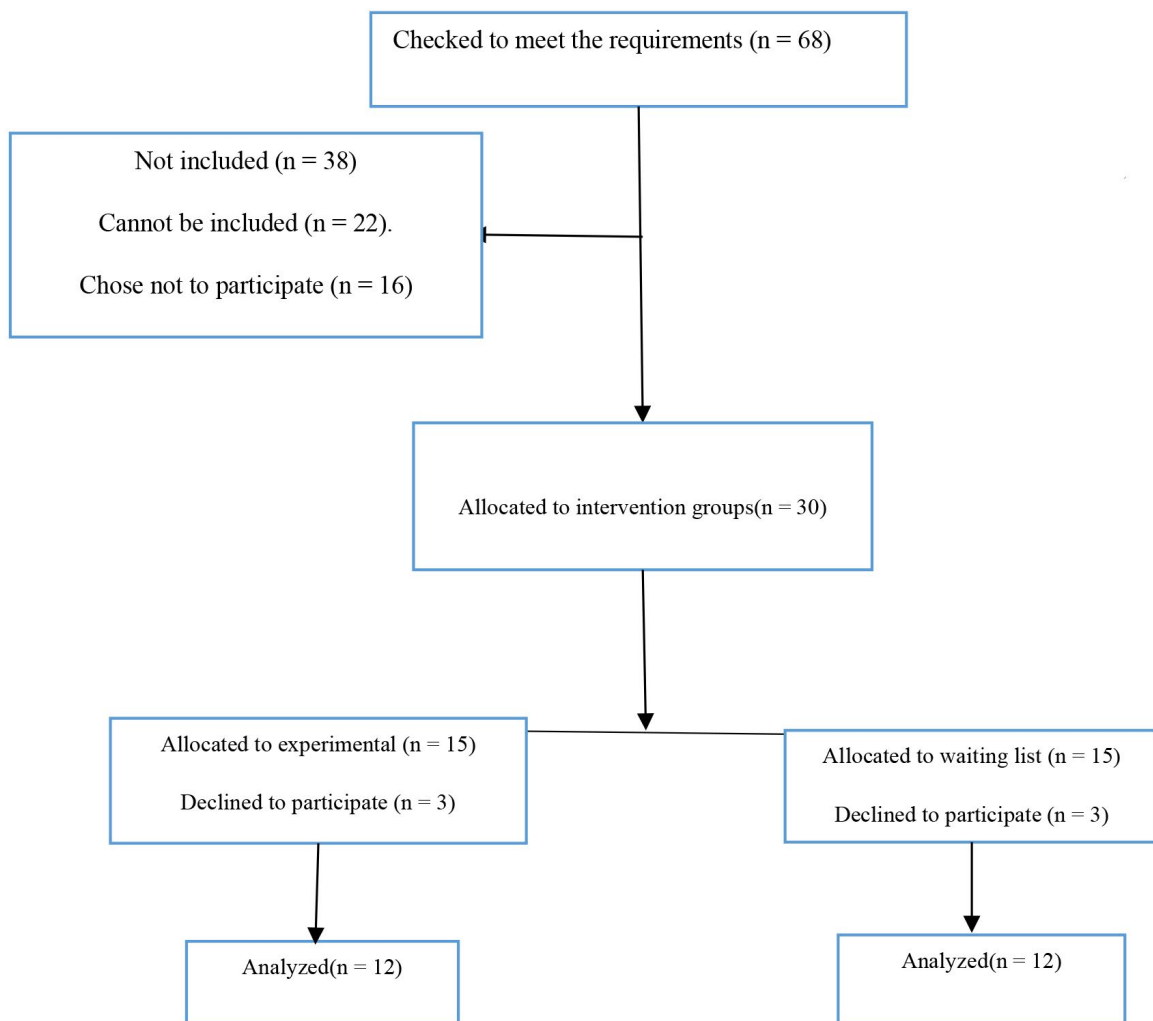


Figure 1. The CONSORT flow diagram

To carry out the study, Mobarakeh's social service was first contacted, and the office received an official permit to begin work. Individuals who met the criteria to be included in this study were contacted to participate in the study, and some of them stated not to participate. In the end, out of all those who qualified, 30 declared themselves ready, of whom 15 cases were in the experimental group, and 15 cases were randomly assigned to a control group. Implementing this study was spread from the beginning of June to the end of August. The participants met the eligibility criteria and gave consent to participate in the research. The subjects were chosen and subjected to the pre-test. All participants were tested using the California Psychological Inventory (CPI). The experimental group's adolescents were offered a total of 8 sessions of acceptance and commitment therapy (16). Subsequently, these individuals received 8 group sessions of acceptance and commitment-based intervention once a week, starting in June. The questionnaires were completed once again after conducting eight 90-minute sessions per week and

implementing the interventions. Alongside the gathering of the eight experimental groups, a separate meeting was organized for the waiting list participants to complete the post-trial questionnaires. After completing the experimental group study sessions, the following test was administered to the two groups. Due to the long study period, 6 participants withdrew from the study, and 24 questionnaires were included in the statistical analysis. A description of the sessions is briefly presented in Table 1. Out of respect for ethical issues, we recruited study participants who declared complete satisfaction. It was also explained to the participants that their information would be kept confidential and that the results would be published anonymously and in groups. Statistical analysis for this study was performed using SPSS-22 software for statistical calculations, and descriptive and inferential statistics were used for data analysis. Moreover, to verify significant differences between the test and control groups after adjusting for pre-test scores, analysis of covariance (ANCOVA) was performed.

Table 1. Acceptance and Commitment Therapy Sessions

Sessions	Description of Meetings
First session	Introduction to the group and introduction of treatment sessions based on acceptance and commitment, getting to know the group members, determining the rules governing the meetings, valuing painting as individual work, and group discussion.
Second session	Paying attention to struggle with difficult thoughts - the goal is to help adolescents express their thoughts and feelings without words. Creative frustration - the goal is to achieve a shared sense of trying unsuccessful solutions to solve their problems and emotional pain. Learning from experience for liberation - using the metaphor of the Chinese finger trap to show that the world of mind and the world of experience are different.
Third session	The issue is control - experiencing purposeful and voluntary forgetting - showing that all thoughts are a product of our own mind, we cannot remove them with control movements, creating a willingness to let go of the rope - using "struggle" and metaphor or Monster simulation and how to create different alternatives or solutions for this struggle.
Fourth session	Mind as a metaphor - The purpose of this work is to create an experience about the process of forming thoughts and releasing difficult thoughts - this exercise is an experience of release or detachment from negative thoughts.
Fifth session	Moving toward values using the metaphor of bus passengers - used as a role play to explain the concept of how we deal with problematic thoughts and manage them, living in the present - aims to encourage students to be aware of all senses. It is related to the activity of painting and paying attention to the conditions around them.
Sixth session	Discussing values in terms of adults - the purpose of bringing up values is to create a feeling for them, to create value in clay - clay sculptures should evoke the path in which value is to be acquired.
Seventh session	Relating the desire and will created during the last session to a committed and specific action and adopting a valuable path in life, writing goals for committed and specific actions.
Eighth session	Reflecting on the artwork and the work done - group discussion, creating a poem or part of a piece of writing that reflects the experience - artistic activity, celebrating and collecting output criteria.

3.1. California Psychological Inventory

The California Psychological Inventory (CPI) is a self-implementation test that Gough designed in 1948 to identify the characteristics of a stable personality in healthy populations (17). The responsibility scale has 42 items with two agree and disagree options. This scale assesses conscientiousness, responsibility, trustworthiness, acting under discipline, and believing that reason must prevail over life. The questionnaire reliability coefficient is 0.70 ($P < 0.001$). The internal consistency coefficients of this questionnaire are from 0.52 to 0.82 (18). The Cronbach's alpha reliability of this scale in Iran in two different studies are 0.57 and 0.76. The test-retest reliability coefficient of this scale in 2 weeks is 0.73 ($P < 0.001$) (17, 18).

3.2. Data Analysis

Both descriptive and inferential statistics were used for data analysis in SPSS-22 software with a significance level of 0.05. Descriptive measures, such as mean and standard deviation, were employed to describe variables at the de-

scriptive level; however, the ANCOVA test was employed at the inferential level. The normality assumption of data was assessed by conducting the Kolmogorov-Smirnov test. Levene's test was used to check the assumption of equal variance of dependent variables.

4. Results

The average age in the control and experimental groups was 16.75 and 15.33 years, respectively. In the control group, 3 cases (25%) of the parents had a problem with nerves, 4 cases (33.3%) had a problem with physical disability, 3 cases (25%) had a problem with blindness, and 2 cases (16.7%) had a problem with hearing. In the experimental group, 2 of the parents (16.7%) had a problem with nervousness, 5 cases (41.7%) had a physical disability, 1 case (8.3%) had a mental disability, 2 cases (16%) had blindness, and 2 cases (16.7%) had deafness. In the two experimental and control groups, 100% of the fathers had disabilities, although 1 of the mothers in the experimental group and 2 of the mothers in the control group had disabilities.

Table 2. Descriptive Statistics Results

Variables	Post-test	Pre-test
Individual adaptation		
Experiment	128.7 ± 8.44	130.58 ± 7.88
Control	125.5 ± 7.30	126.42 ± 6.57
Social adaptation		
Experiment	128.5 ± 5.45	128.50 ± 7.79
Control	131.4 ± 5.59	129.50 ± 7.72

As shown in Table 2, the mean post-test individual and social adjusted scores of the experimental and control groups increased, compared to the pre-test. According to the results in Table 2, the mean \pm standard deviation of the individual adaptation and social adaptation variables

in the experimental and control groups during the post-test period (130.58 ± 7.88 and 128.50 ± 7.79 , respectively), compared to the pre-test (44.8 ± 0.7128 and 45.5 ± 0.5128 , respectively) did not increase significantly.

Table 3. Results of Univariate Analysis of Covariance

Variables	SS	df	MS	F	P-Value	η^2	Power of a Test
Individual Adaptation	868.749	1	868.749	72.086	0.001	0.774	1.000
	14.348	1	14.348	1.191	0.288	0.054	0.181
Social Adaptation	408.359	1	408.359	14.256	0.001	0.404	0.949
	20.829	1	20.829	0.727	0.403	0.033	0.129

As shown in Table 3, after removing the effect of the pre-test on the dependent variable and subjecting it to the calculated F coefficient, there is no significant difference in the post-test period between the adjusted mean of participants' individual adaptation scores ($F = 1.191$; $P = 0.288$; $\eta^2 = 0.054$) and social adaptation scores ($F = 0.727$; $P = 0.403$; $\eta^2 = 0.033$) according to group members (experimental group and control group).

5. Discussion

The study was conducted to investigate the effectiveness of ACT in individual and social adaptation among adolescent females of parents with disabilities in Mobarakeh. The results showed that there is no significant difference between individual adaptation scores in the post-test stage. Therefore, the utilization of ACT does not alter the individual and social adjustment of adolescents who have parents with disabilities. Most studies have demonstrated the impact of the ACT method on different variables and groups, and in this study, the results are contrary to the results of previous studies. Therefore, most studies disagree with the obtained results (19-21).

For example, Saliminezhad et al. evaluated the effectiveness of mindfulness, acceptance, and commitment-based therapy on intelligence and social adaptation in aggressive adolescents. The results showed both treatments had a positive effect on the intelligence and social adaptation of aggressive adolescents (19). Moreover, a study conducted by Asadzadeh et al. showed the effectiveness of ACT in improving the psychological well-being of individuals with anxiety (20). Additionally, Choobdari et al. investigated the effectiveness of acceptance and commitment group therapy (ACT) and cognitive-behavioral therapy (CBT) on the personal and social adaptation of abusers. The findings demonstrated that ACT and CBT have influenced the personal and social adaptation of drug addicts (21). By explaining the effectiveness of this treatment, it can be said that, according to related theories, changes in adaptation occur as individuals react to their own private internal events, which reduces their ability to engage in negative thoughts and enhances their acceptance (19).

Considering that the primary goal of ACT is to induce psychological flexibility, the underlying processes of this

treatment are incorporated to enhance social adaptability. Therefore, without creating social adaptation, it is impossible to move forward on the value path, and a treatment based on acceptance and commitment will form the basis for creating adaptation (22). Adaptation is a dynamic flow that refers to accepting and performing appropriate behavior and actions under the environment and environmental changes, and its opposite concept is incompatibility, showing an inappropriate reaction to environmental stimuli and situations that are harmful to the individual or others. In another explanation of this finding, it can be said that due to the emphasis of therapy based on commitment and acceptance, the two techniques of "clarification of values" and "committed action" are also effective in this field.

Encouraging individuals to clarify their values and designing goals and actions based on values helps this group of teenagers resolve their value conflicts and increase their commitment to actions to achieve goals and move toward values despite problems (21, 22). By explaining the results of previous studies, it can be said that according to ACT, adolescents enhance their ability to relate the present with the past or the future. Moreover, they find their personal biographies much more interesting than they think because there is evidence of interesting points in their history. This therapy helps adolescents' metacognitive abilities and growth in their capacity for personal expression and judgment and induces better analysis of individual thoughts, feelings, and behaviors under therapeutic conditions (23).

The reasons for the inconsistency of the findings with earlier research included that only adolescents took part in this study, and probably the presence of one or both parents in the educational program would change the outcome of the hypothesis and would have linked it to the research conducted. Another reason for the inconsistency of this study could be the inappropriate use of an instrument to measure individual-society compatibility. In this topic, it can be understood that individuals' situational assessment and personality type play an important role in human adaptation and that stressed individuals see things more strongly due to their assessment of an incident or situation. Therefore, it can be said that acceptance and commitment-based training of 8

sessions and intensive direction is not enough to correct this trait and requires longer time and continuous practice at home. Since the effectiveness of this approach depends on repeating the exercises that individuals learn in each session, the lack of improvement in personal-social adaptability can be attributed to these exercises being done only in group study sessions and for a period of 2 months. Since the participants may have neglected to do these exercises and homework and did not spend enough time on this task, the desired effect was not achieved.

Inevitably, every study encounters some limitations. The most important limitation is the non-random selection of the sample group so that the project participants are intentional, and this can generalize the results to other groups. Due to a limited sample selection, the current study was only performed on adolescent females; therefore, caution should be exercised when generalizing the findings to male and female adolescents. In future studies, the effects of intervention and moderation variables, such as intelligence, parental literacy, and economic status, should also be controlled. A similar study is required to be performed with a larger sample size and greater generalizability of the data on male and female adolescents. It is suggested to conduct studies in groups of sampling and randomization to become more certain of the outcome of treatment. It is also suggested that research be conducted on a larger sample because the current sample size does not provide qualitative answers to certain hypotheses. Some suggest that school counselors should also use ACT to improve personal relationships, increase coping capacity, and deal with disobedience, oppositional disobedience, and hyperactivity disorder.

5.1. Conclusions

In this study, what adolescents learned during the interaction was exposure without the mediation of negative and destructive emotions, fully entering the present moment, and accepting their parents and their feelings. This study tried ways to enhance the parent-child relationships of adolescent females, which can have positive effects on their personal and social development. This study suggests that treatment attempts were not very effective.

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