KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 13 December 2023
Revised 22 January 2024
Accepted 05 February 2024
Published online 01 March 2024

Applied Family Therapy Journal

Volume 5, Issue 1, pp 128-139

E-ISSN: 3041-8798

# The Effectiveness of Choice Theory-Based Parenting Education on Distress Tolerance, Family Cohesion, and Maternal Parenting Self-Efficacy in Mothers of Children with Oppositional Defiant Behaviors

Firoozeh. Oladzad Abbas Abadi[1], Ramezan. Hasan Zadeh[2*], Hossein Ali. Ghanazadegan[2]

[1] Phd student, Educational Psychology, Sari Branch, Islamic Azad University, Sari, Iran
[2] Asisstant Profrssor, Department of Educational Psychology, Sari Branch, Islamic Azad University, Sari, Iran

*** Corresponding author email address**: jhasanzadeh@iausari.ac.ir

A r t i c l e  I n f o

**Article type:**
*Original Research*

**How to cite this article:**
Oladzad Abbas Abadi, F., Hasan Zadeh, R., & Ghanazadegan, H. A. (2024). The Effectiveness of Choice Theory-Based Parenting Education on Distress Tolerance, Family Cohesion, and Maternal Parenting Self-Efficacy in Mothers of Children with Oppositional Defiant Behaviors. *Applied Family Therapy Journal, 5*(1), 128-139.
http://dx.doi.org/10.61838/kman.aftj.5.1.14



A B S T R A C T

**Objective:** The present study aimed to examine the effectiveness of Choice Theory-based parenting education on distress tolerance, family cohesion, and maternal parenting self-efficacy in mothers of children exhibiting oppositional defiant behaviors.

**Method:** This quasi-experimental study employed a pre-test, post-test, follow-up, and control group design. The sample population included all mothers of children aged 7-12 years with oppositional defiant behaviors covered by the Imam Khomeini Relief Committee in Sari during the 2021-2022 academic year. Using purposive non-random sampling based on scores from the Distress Tolerance Scale (Simons & Gaher, 2005), the Family Cohesion Scale (Shakeri, 2003), and the Parenting Self-Efficacy Questionnaire (Dumka, 1996) at pre-test, 30 eligible mothers were selected. These mothers were then randomly assigned into two groups of 15 each (experimental and control groups). Data were analyzed using repeated measures ANOVA with the assistance of SPSS version 27 software.

**Findings:** Results indicated that Choice Theory-based parenting education significantly improves distress tolerance, family cohesion, and maternal parenting self-efficacy in mothers of children with oppositional defiant behaviors.

**Conclusions:** Given these results, the use of this educational approach is recommended to enhance distress tolerance, family cohesion, and maternal parenting self-efficacy in mothers of children with oppositional defiant behaviors.

***Keywords:*** *Choice Theory-based parenting, distress tolerance, family cohesion, maternal parenting self-efficacy, oppositional defiant behavior.*

## 1. Introduction

The American Psychiatric Association, in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders, has identified seven types of disorders within the category of disruptive, impulse-control, and conduct disorders. These include oppositional defiant disorder, conduct disorder, intermittent explosive disorder, antisocial personality disorder, pyromania, kleptomania, and specified and unspecified disruptive, impulse-control, and conduct disorders (APA, 2022). Oppositional defiant disorder is one of the most common disorders among these

seven types, manifesting in childhood and adolescence, and besides conduct disorder and attention-deficit/hyperactivity disorder, it is a significant reason for seeking mental health clinic services (Aggarwal & Marwaha, 2022). This disorder is characterized by a recurrent and inappropriate pattern of negative, defiant, disobedient, and hostile behavior towards authority figures, such that these students are unable to get along with authority figures. As a disorder that is chronic and progressive, it significantly harms the interpersonal relationships and academic performance of affected students (Babaei et al., 2015; Esmailzadeh, 2019), causing them to experience a lower quality of life compared to other students (Liu et al., 2021). Parents of children with behavioral disorders such as oppositional defiant disorder significantly report higher levels of externalizing behaviors like aggression in their children compared to children without such disorders. Oppositional behavior is often part of the normal developmental phase of children aged two to three years and early adolescence, yet the prevalence of this disorder is reported to be between 2% and 16% in various studies (Aggarwal & Marwaha, 2022; dehkordi et al., 2022; Gomez & Stavropoulos, 2019; Liu et al., 2021). Various studies have highlighted that mothers of these children experience intense psychological stress and anxiety and are prone to mood disorders such as depression and anxiety (Afzali et al., 2016; dehkordi et al., 2022; Hommersen et al., 2006). Studies have also compared the psychological adjustment of fathers and mothers of children with oppositional defiant disorder and found that mothers of these children, compared to fathers, experience higher levels of stress related to family problems and pessimism about their children's future, and higher rates of antidepressant use and seeking treatment (Hommersen et al., 2006; Lin et al., 2018).

Parental self-efficacy relates to parents' judgments about their ability to perform crucial parenting duties successfully. Numerous studies have shown that parents with high self-efficacy are more likely to engage in positive parenting behaviors, which in turn enhances child development (Holloway et al., 2019). Results have shown that problematic behaviors in children are more related to mothers' self-efficacy than to fathers' (Albanese et al., 2019). The correlation between self-efficacy and parenting behavior has also been studied, showing that self-efficacy, parenting behavior, and child behavior are interactively related and influence each other. Parents of anxious or distressed children often feel less effective compared to other parents (Mohajeri et al., 2013; Nili et al., 2019a). Parents with low self-efficacy are more likely to use harsh and authoritarian methods, while parents with high self-efficacy employ more positive parenting methods such as warmth, sensitivity, positive affection, adaptability, and rule-setting. Children of parents with low self-efficacy are more stubborn and less compliant (Glatz & Trifan, 2019).

Furthermore, research by Lin and colleagues (2018) indicated that another issue for parents of children with oppositional defiant disorder is low family cohesion (Lin et al., 2018). Emotional bonding and commitment, warmth in relationships, and the prevailing emotions in cohesive families create a sense of acceptance in children, and parents are sensitive and responsive to their needs. Additionally, a cohesive family can be a source of cognitive, emotional, and behavioral feedback, enabling children and adolescents to effectively navigate various situations (Asghari et al., 2014; Babaei et al., 2015). In cohesive families, family leadership and management are democratic, less autocratic, and younger family members also participate in decision-making (Walsh, 2014, as cited by Safizadeh & Motaghi, 2020). This family flexibility makes the family more cohesive. Family cohesion represents the solidarity among family members and is also the capital of any society that, if established in families, enables us to respond well to threats to the family (Navabinejad et al., 2024; Pirzadeh & Parsakia, 2023).

Distress is recognized as a chain of negative thoughts, perceptions, and emotions, potentially uncontrollable, that operates to resolve an internal issue with an uncertain outcome and one or more negative consequences (Topham et al., 2011). Individuals with low distress tolerance usually engage in inappropriate efforts to cope with negative emotions and resort to avoidance behaviors to alleviate their emotional pain (Ahmadi & Valizadeh, 2021; Veilleux, 2019). Some research has shown that distress can reduce the body's resistance to infection and also stimulate the thyroid, pancreas, and pituitary glands. Generally, various physical and psychological aspects of a person are affected by distress, which can lead to physical complications (Veilleux, 2019).

One of the effective methods for improving individual and interpersonal health of mothers is parenting education based on Choice Theory, as research by Esmaeilzadeh (2019) has indicated the effectiveness of Choice Theory-based parenting education on the parent-child relationship and symptoms of oppositional defiant disorder. One of the theories that has well addressed the relationship between parents and children and also the educational issues of children is Glasser's Choice Theory. Research has shown that Glasser's Choice Theory can improve the parent-child



AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

relationship and mothers' satisfaction with life (Nili et al., 2019b) and also improve parents' self-efficacy. Glasser emphasizes maintaining good, intimate, and satisfying relationships between parents and children by employing relationship-enhancing behaviors and avoiding relationship-destroying behaviors. He believes that a good relationship between parents and children allows the child to make choices about their behavior without external control and accept responsibility for their behavior (Glasser, 2000). The meaning of Choice Theory is autonomy. Education and learning of Choice Theory leads to our personal freedom and autonomy in all aspects of life. Parenting based on Choice Theory is one of the main concepts of Glasser's theory, with an emphasis on how to employ this theory in parenting and parental education. This parenting approach encourages an alternative view, replacing control with communication; in other words, using internal control methods so that adolescents show more cooperation (Guderzi, 2020; Hadian et al., 2023).

Finally, given that the mothers of children with oppositional defiant symptoms in this study are visitors to the Imam Khomeini Relief Committee, it seems that due to financial problems that are often accompanied by cultural, family, and social issues, they face significant challenges in raising their children. Considering the importance of the mental health of mothers of children with oppositional defiant symptoms and the role of distress tolerance, family cohesion, and maternal parenting self-efficacy on mothers' health and the necessity of intervention in this area, and the lack of a comprehensive and integrated research on the subject, the researcher in this study seeks to answer the following question: Does parenting education based on Choice Theory affect distress tolerance, family cohesion, and maternal parenting self-efficacy in mothers of children with oppositional defiant symptoms?

## 2. Methods

### *2.1. Study design and Participant*

The present study employed a quasi-experimental design, utilizing a pre-test, post-test with follow-up and control groups. The sample population consisted of all mothers of children displaying oppositional defiant behaviors covered by the Imam Khomeini Relief Committee in Sari during the 2021-2022 academic year. It is important to note that the children exhibiting oppositional defiant behaviors were diagnosed using the Oppositional Defiant Behavior Questionnaire by Hashemi et al. (2008). The sample size for this study was calculated using the specialized software GPower version 3.1. Given the presence of three variables and two groups, the required sample size was determined to be 30 in total. From among the mothers of children aged 7-12 years covered by the Imam Khomeini Relief Committee in Sari, who exhibited oppositional defiant behaviors, 30 individuals meeting the inclusion and exclusion criteria were selected using purposive non-random sampling based on scores from the relevant questionnaires in the pre-test. These individuals were then randomly divided into two groups of 15 (experimental and control groups). Entry criteria for the study included mothers aged 25-45, with children aged 7-11 exhibiting oppositional defiant behaviors, completion of a consent form, willingness to participate, low scores on the Parenting Self-Efficacy, Family Cohesion, and Distress Tolerance Questionnaires, coverage by the Imam Khomeini Relief Committee, absence of acute psychological and personality disorders based on scores from the revised psychological symptom checklist, commitment to attending all sessions, and no receipt of individual counseling services outside of the treatment sessions. Criteria for exclusion from the study included maternal addiction, use of psychiatric and psychoactive drugs, physical disability or intellectual impairment, absence from more than two treatment sessions, and self-reported psychiatric disorders.

The necessary data for this study were gathered through library research, including access to reputable domestic and international databases, university libraries, scientific and research centers, and related articles and books. Additionally, field-level data collection was conducted after coordinating with the relevant authorities of the Imam Khomeini Relief Committee in Sari, and providing explanations to officials and mothers of children with oppositional defiant behaviors in Sari during the 2021-2022 academic year. After targeted sampling of 30 mothers of children with oppositional defiant behaviors (based on the scores of the Hashemi et al., 2008 questionnaire), they were divided into two groups of 15 (experimental and control). After completing the training sessions, the relevant questionnaires were administered again to both groups.

### *2.2. Measures*

#### *2.2.1. Oppositional Defiant Disorder*

To assess oppositional defiant behavior, the Oppositional Defiant Behavior Questionnaire for children by Hashemi and colleagues (2008) was used. This questionnaire contains 8 questions scored on a 5-point Likert scale (very low = 0 to



AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

very high = 4), allowing for total scores ranging from 0 to 32. A score of 16 serves as the cutoff, with higher scores indicating high levels of oppositional defiant behavior and lower scores indicating low levels. The reliability coefficient for the Oppositional Defiant Disorder Questionnaire was obtained as 0.93 in the study by Hashemi and colleagues (2008) (Aggarwal & Marwaha, 2022; Fallahnejad et al., 2018).

#### 2.2.2. *Distress Tolerance*

Developed by Simons and Gaher (2005), this scale serves as a self-assessment index for emotional distress tolerance, comprising 15 items across four subscales: Tolerance (tolerance, emotional upset), Absorption (absorption by negative emotions), Appraisal (mental estimation of distress), and Regulation (regulation of efforts to alleviate distress). Responses are scored on a 5-point Likert scale, with 1 indicating complete agreement and 5 indicating complete disagreement. The cutoff point for the questionnaire is 45. Alpha coefficients for these subscales are 0.72, 0.82, 0.78, and 0.70, respectively, with an overall scale alpha of 0.82. The scale has demonstrated good criterion and convergent validity (Hosseinzadeh et al., 2020; Mosavi & Syyad Tabaei, 2023).

#### 2.2.3. *Family Cohesion*

Adapted from Olson's (1999) integrated model about family by Shakeri (2003), this questionnaire consists of 16 items scored on a Likert scale, ranging from strongly agree to strongly disagree. The maximum achievable score on this test is 80 and the minimum is 16, with a cutoff point of 48. The reliability and validity of this scale were confirmed in a study on 48 subjects, reporting a Cronbach's alpha coefficient of 0.89. Factor analysis yielded a single general factor (g) labeled as flexibility. The reliability of the questionnaire in the research using Cronbach's alpha was 0.78 (Navabinejad et al., 2024; Pirzadeh & Parsakia, 2023).

#### 2.2.4. *Parenting Self-Efficacy*

Introduced by Dumka, this questionnaire consists of 10 items scored on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree), with items 1, 3, 5, 6, and 8 reverse scored. The lowest possible score is 10 and the highest is 70, with a cutoff point of 40. The questions are applicable to both fathers and mothers. The reliability of the questionnaire was calculated using Cronbach's alpha at 80%. Additionally, the construct validity of this measure was examined using exploratory factor analysis, which showed that all items loaded onto a single factor, with a Cronbach's alpha of 0.76 and split-half reliability of 0.73 (Ashori et al., 2015).

### 2.3. *Interventions*

#### 2.3.1. *Choice Theory-Based Parenting Program*

The Choice Theory-based parenting program was implemented over eight 90-minute sessions by a therapist based on the Choice Theory parenting program (Glasser, 2000).

Session 1: Introduction and Group Cohesion

In the first session, the primary focus is on introducing the members and establishing a connection between the members and the therapist. The educational program's objectives are explained, emphasizing the critical role of parents in the effectiveness of the program. This session aims to familiarize group members with each other, clarify group rules, foster participation, and promote group cohesion.

Session 2: Understanding Behaviors and Introducing Constructive Actions

This session delves into the how and why of behavior, introducing the concepts of Choice Theory and the importance of internal control. The goals are to familiarize participants with the foundational concepts of Choice Theory, emphasizing internal over external control, and to introduce constructive behaviors that can be applied in parenting.

Session 3: Recognizing Basic Human Needs

The third session involves identifying and listing basic human needs with the effort of group members and the help of the therapist, discussing the importance of fulfilling these needs. The objectives include introducing Glasser's basic needs, exploring members' views, and sharing parents' experiences with interaction problems with their children based on unmet basic needs.

Session 4: Reducing Emotional Distance

This session emphasizes reducing the emotional distance between children and parents by teaching effective techniques such as quality time. It explains different perceptions of reality and acquiring different feelings, aiming to improve the quality of the parent-child relationship and help parents understand and enter the qualitative and real world of their children.

Session 5: Principles of Choice Theory



AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

The fifth session presents the ten principles of Choice Theory, educating members about taking responsibility for their behaviors. Practical exercises and the visualization of constructive and harmful behaviors are conducted. The goals are to experience more personal freedom and autonomy by choosing internal control over external control and to discuss parents' experiences based on the ten principles with role-playing supervised by the therapist.

Session 6: Recognizing Signs of Defiance

This session introduces signs of oppositional defiant behavior in simple language and discusses how emotions, feelings, and behavioral discrepancies can be destructive. The focus is on introducing constructive behaviors that enable better situational choices and achieving internal control instead of destructive habits.

Session 7: Introducing Seven Harmful Habits

The content of the seventh session revolves around introducing seven harmful habits and how their destructive impact affects emotions, feelings, and behavioral discrepancies. The objectives are to emphasize the seven harmful habits associated with external control that lead to relationship destruction and to replace them with seven beneficial communication habits.

Session 8: Conclusion and Post-Test

The final session serves as a summary of all previous sessions and involves conducting the post-test. This session aims to review the learned material, address any doubts and questions, resolve issues related to the application of the principles learned in previous sessions, and answer questions. The session concludes with a review of opinions, sharing of experiences and feelings, and the administration of the post-test to the experimental group.

### *2.4. Data Analysis*

Data from this study were analyzed using repeated measures ANOVA and follow-up, facilitated by SPSS software version 22.

## 3. Findings and Results

The demographic analysis of the study population showed that among the mothers participating in the research, 8 mothers (17.77%) were aged 25-30 years, 12 mothers (26.67%) were aged 30-35 years, 15 mothers (33.33%) were aged 35-40 years, and 10 mothers (22.23%) were aged 40-45 years. Among the children of participating mothers, 10 children (22.23%) were aged 7-8 years, 12 children (26.67%) were aged 8-9 years, 14 children (31.10%) were aged 9-10 years, and 9 children (20%) were aged 10-11 years. Among the participating mothers, 11 (24.45%) were employed, and 34 (75.55%) were homemakers.

**Table 1**

*Means and Standard Deviations of Distress Tolerance, Family Cohesion, and Parental Self-Efficacy in the Sample*

| Variable | Group | Pre-test | Post-test | Follow-up | Pre-test SD | Post-test SD | Follow-up SD |
|---|---|---|---|---|---|---|---|
| Family Cohesion | Control | 26.70 | 26.85 | 26.50 | 3.82 | 3.84 | 3.73 |
| | Experimental | 26.85 | 33.30 | 33.05 | 3.88 | 3.90 | 3.85 |
| Parental Self-Efficacy | Control | 20.90 | 20.75 | 20.60 | 2.62 | 2.03 | 2.55 |
| | Experimental | 20.15 | 24.75 | 24.30 | 2.52 | 2.95 | 2.90 |
| Distress Tolerance | Control | 30.25 | 30.10 | 30.35 | 5.14 | 6.22 | 6.18 |
| | Experimental | 30.35 | 37.60 | 37.50 | 5.17 | 6.25 | 6.23 |

The descriptive indices in Table 1 indicate that the mean scores for family cohesion, parental self-efficacy, and distress tolerance in the post-test phase increased compared to the pre-test phase, and this increase remained stable and persistent in the follow-up phase.

**Table 2**

*Univariate Analysis of Covariance Results for Distress Tolerance in the Experimental and Control Groups*

| Research Stage | Dependent Variable | Sum of Squares (SS) | Degrees of Freedom (df) | Mean Squares (MS) | F | Significance Level (P) | Effect Size (Eta) |
|---|---|---|---|---|---|---|---|
| Post-test | Group Membership | 115.42 | 1 | 115.42 | 35.46 | 0.001 | 0.62 |
| Follow-up | Distress Tolerance | 112.13 | 1 | 112.13 | 33.16 | 0.001 | 0.59 |


AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

The results in Table 2 indicate that the F-statistics from the univariate analysis of covariance for the variable of distress tolerance are significant in both the post-test (F = 35.46, P = 0.001) and follow-up (F = 33.16, P = 0.001), suggesting that the Choice Theory-based intervention had an effect on mothers' distress tolerance. To precisely determine the extent of difference between the experimental and control groups in distress tolerance, the Bonferroni test was used for comparing adjusted means. The results of this test are reported in Table 3.

**Table 3**

*Bonferroni Post-hoc Test Results for Comparing Adjusted Means of Distress Tolerance in Post-test and Follow-up Between Experimental and Control Groups*

| Variable | Groups Compared | Adjusted Means Difference | Standard Deviation | Significance Level |
|---|---|---|---|---|
| Post-test Distress Tolerance | Experimental (Choice Theory-based) - Control | 7.50 | 2.05 | 0.001 |
| Follow-up Distress Tolerance | Experimental (Choice Theory-based) - Control | 7.15 | 2.01 | 0.001 |

As observed in Table 3, there is a significant difference in distress tolerance between the experimental and control groups (P < 0.05), indicating that the experimental group, receiving the behavioral training, exhibited greater distress tolerance in both the post-test and follow-up compared to the control group.

**Table 4**

*Univariate Analysis of Covariance Results for Family Cohesion in the Experimental and Control Groups*

| Research Stage | Dependent Variable | Sum of Squares (SS) | Degrees of Freedom (df) | Mean Squares (MS) | F | Significance Level (P) | Effect Size (Eta) |
|---|---|---|---|---|---|---|---|
| Post-test | Group Membership | 108.30 | 1 | 108.30 | 28.42 | 0.001 | 0.56 |
| Follow-up | Family Cohesion | 110.08 | 1 | 110.08 | 29.85 | 0.001 | 0.58 |

The results in Table 4 indicate that the F-statistics from the univariate analysis of covariance for the variable of family cohesion are significant in both the post-test (F = 28.42, P = 0.001) and follow-up (F = 29.85, P = 0.001), meaning that the Choice Theory-based intervention had an impact on the family cohesion of mothers of children with oppositional defiant symptoms. To accurately determine the extent of difference between the experimental and control groups in family cohesion, the Bonferroni test was used for comparing adjusted means. The results of this test are reported in Table 5.

**Table 5**

*Bonferroni Post-Hoc Test Results for Comparing Adjusted Means of Family Cohesion in Post-Test and Follow-Up between Experimental and Control Groups*

| Variable | Groups Compared (Experimental based on Choice Theory - Control) | Adjusted Means | Mean Difference | Standard Deviation | Significance Level |
|---|---|---|---|---|---|
| Post-Test Family Cohesion | 26.85 – 33.30 | 6.50 | 1.93 | 0.001 | |
| | Control - Experimental (based on Choice Theory) | 33.30 - 26.85 | -6.50 | 1.93 | 0.001 |
| Follow-Up Family Cohesion | 26.50 – 33.05 | 6.55 | 1.95 | 0.001 | |
| | Control - Experimental (based on Choice Theory) | 33.05 - 26.50 | -6.55 | 1.95 | 0.001 |

As shown in Table 5, there is a significant difference in the variable of family cohesion between the experimental group and the control group (P < 0.05). In other words, the experimental group, which received behavioral training, had


AFTJ
Applied Family Therapy Journal
E-ISSN: 3041-8798

greater family cohesion in both the post-test and follow-up compared to the control group.

**Table 6**

*Results of the Univariate Analysis of Covariance for the Variable of Parental Self-Efficacy in the Experimental and Control Groups*

| Research Phase | Dependent Variable | Sum of Squares (SS) | Degrees of Freedom (df) | Mean Squares (MS) | F-value | Significance Level (P) | Effect Size (Eta) |
|---|---|---|---|---|---|---|---|
| Post-Test | Parental Self-Efficacy | 105.24 | 1 | 105.24 | 25.16 | 0.001 | 0.52 |
| Follow-Up | Parental Self-Efficacy | 103.18 | 1 | 103.18 | 24.06 | 0.001 | 0.50 |

The results in Table 6 indicate that the univariate analysis of covariance F-value for the variable of parental self-efficacy in the post-test (F = 25.16, P = 0.001) and follow-up (F = 24.06, P = 0.001) was significant. This means that the intervention based on Choice Theory had an effect on the parental self-efficacy of mothers with children exhibiting oppositional defiance symptoms. A Bonferroni post-hoc test was used to precisely determine the magnitude of differences in family cohesion between the experimental and control groups. The results of this test are reported in Table 7.

**Table 7**

*Bonferroni Post-Hoc Test Results for Comparing Adjusted Means of Parental Self-Efficacy in Post-Test and Follow-Up between Experimental and Control Groups*

| Variable | Groups Compared (Experimental based on Choice Theory - Control) | Adjusted Means | Mean Difference | Standard Deviation | Significance Level |
|---|---|---|---|---|---|
| Post-Test Parental Efficacy | 20.75 – 24.75 | 4 | 1.58 | 0.001 | |
| | Control - Experimental (based on Choice Theory) | 24.75 - 20.75 | -4 | 1.85 | 0.001 |
| Follow-Up Parental Efficacy | 20.60 – 24.30 | 3.70 | 1.80 | 0.001 | |
| | Control - Experimental (based on Choice Theory) | 24.30 - 20.60 | -3.70 | 1.80 | 0.001 |

As observed in Table 7, there is a significant difference in the variable of parental self-efficacy between the experimental group and the control group (P < 0.05). In better terms, the experimental group receiving behavioral training showed greater parental self-efficacy in both the post-test and follow-up compared to the control group.

## 4. Discussion and Conclusion

The present study was conducted to examine the effectiveness of parenting education based on Choice Theory on distress tolerance, family cohesion, and parental self-efficacy among mothers of children with symptoms of oppositional defiant disorder. The findings showed that Choice Theory-based parenting education significantly affects mothers' distress tolerance, and this effectiveness was maintained during the follow-up period. These findings are consistent with several similar studies (Nili et al., 2019a, 2019b; Watson, 2016; Wubbolding, 2006). Having a child with oppositional defiant symptoms impacts all family members and their internal and external interactions, necessitating a reevaluation of family dynamics. Dealing with children with oppositional defiant disorder poses significant challenges. Parents of these children face long-term supervision, additional costs, and stigma, experiencing physical and psychological conflicts in caring for the child; these parents experience greater crises compared to parents who do not care for such children (Gomez et al., 2022; Hommersen et al., 2006). Evidence suggests that some families never fully adjust to this situation. Problems caused by such a child negatively affect each family member and various family functions. However, mitigating these effects requires a scientific understanding of them. Generally, parents feel angry about the situation they are in while simultaneously loving their child; this emotional duality can disrupt parents' mental health (Gomez & Stavropoulos, 2019; Khodakarami et al., 2020). Adequate knowledge, purposeful goal setting, and proper planning taught in Choice Theory lead to positive outcomes. Repeating and reinforcing these outcomes results in higher distress

tolerance in parents of children with oppositional defiant symptoms. Choice Theory education increases joy and hope, reduces anxiety about performing tasks, and effectively increases flexibility and tolerance for parents' challenges (Jafarnezhad et al., 2022). Essentially, Choice Theory helps individuals control their choices, filling the gap that people need to be taught to be responsible for their behavioral choices and to make changes in their lives and adhere to these changes. In this therapeutic approach, accepting reality and making moral judgments about the rightness of behaviors is emphasized. Given that the parenting approach based on Choice Theory believes that poor relationships or conflicts between parents and children with oppositional defiant symptoms stem from control and power struggles, it is clear that establishing a relationship based on respect, acceptance, and understanding, clarifying and emphasizing self-imposed limits rather than imposing limits on the child, can improve any relationship. Therefore, the effectiveness of the training can be attributed to parents considering the importance of Choice Theory psychology and the conditions governing oppositional defiant disorder, realizing that if they exert less control initially and instead remind their children of their limits, they can have a greater impact on their child; therefore, they have reduced their controlling actions, thereby forming better relationships and experiencing higher distress tolerance. Also, Glasser (200) believes that people need to be responsible to enjoy better feelings about themselves and life. According to Choice Theory, every human has five basic needs: love and belonging, power, freedom, fun, and survival, and an individual can feel responsible, capable, confident, and self-respecting when they can effectively meet their basic needs and believe they control their life's conditions and can create better circumstances for themselves (Glasser, 2000). In Choice Theory education, parents learn that the only way to satisfy the need for love and power in their children is to gain trust, respect, and affection, and while controlling children might attract their affection, it will never earn their respect and trust (Javidipour & Dehghan, 2022). According to this theory, we can only control our behavior, and parents learn that the only thing we can give our child is information. This information could be threats, punishments, bribes, or incarceration; but it still counts as information. Glasser believes that external control psychology, except for extreme methods like creating physical constraints for an uncontrollable child, has no other solution to the problem. Another significant factor increasing the program's impact could be that mothers, by discussing their problems in educational sessions, receive constructive suggestions, strategies, experiences, empathy, support, and acceptance from the group. In effect, the group provided a supportive umbrella for the mothers that could help in improving their distress tolerance.

The findings also demonstrated that Choice Theory-based parenting education impacts the family cohesion of mothers of children with symptoms of oppositional defiant disorder, and this effectiveness persisted during the follow-up period. This finding aligns with several similar studies (Hossein Panahi & Goodarzi, 2018; Oji et al., 2020; Robey et al., 2011; Soltanian et al., 2022). Ellison (2010) defines family cohesion as "the emotional bonds that family members have with each other." In the phenomenon of cohesion, we witness four different dimensions, including disengagement (weak), separation (weak to medium), dependency (medium to high), and intense intermingling (enmeshment). The paradox governing the concept of family cohesion is the relentless effort to maintain it at any cost and under any circumstances, which often has adverse effects. As a result, rigid structures arise that do not withstand the challenges of internal and external worlds for changes (Navabinejad et al., 2024; Pirzadeh & Parsakia, 2023).

Based on this, and in explaining the results of the study examining the effectiveness of Choice Theory-based parenting education on the family cohesion of mothers of children with symptoms of oppositional defiant disorder, it can be stated that from the perspective of Choice Theory, mothers are taught that each individual can only control their behavior and the only thing they can give others is information, and the only method by which they can control environmental events is through the choice of behavior and actions. For this reason, Glasser (200) advises parents to set aside bullying and coercion, imposition, punishment, reward, deceit, domination, criticism, blame, complaints, annoyance, ranking, and withdrawal, and instead choose compassion and listening, support, negotiation, encouragement, loving, being friendly, trust, acceptance, welcoming, and respect to help family cohesion. Also, one of the goals of Choice Theory is to reduce external control psychology and foster internal control psychology in individuals (Glasser, 2000). Accordingly, in parenting, it tries to reduce the use of destructive external control habits in relationships and believes that by reducing destructive external control habits and replacing them with loving internal control habits, relationships between parents and children will improve. The results of this study confirm that teaching internal control and the absence of the use of external control in parent-child relationships, which were



AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

discussed in the early sessions of the intervention in this research, have improved the quality of relationships and family cohesion. Due to the fact that in Choice Theory-based parenting, family members try to have a better understanding of their needs and the ideal world of themselves and their child and can find a more suitable meaning for their children's behavior; thus, parents' understanding of their child's problematic behavior increases, and this helps parents to have behavior appropriate and consistent with their children's behavior (Nili et al., 2019a, 2019b).

This issue itself reduces controlling behaviors and increases the intimacy and connection between the parent and child. In fact, according to the studies conducted, if a common semantic space is created between parents and children and the contradiction of values and needs is minimized, it can increase the intimacy of relationships and improve communication between parents and children. On the other hand, parents, by receiving education on the symptoms of oppositional defiance, realize that their child may have difficulty understanding their perspective and because they are still unstable in terms of cognitive structures, parents are likely to show more patience, which helps children feel better about their parents and understand the relationship better and helps increase cohesion. Based on this, Choice Theory emphasizes the current relationship. In this relationship, avoiding dwelling on the past and not exaggerating in complaints and paying attention to the things that the child can do, not only reduces the duration of conflict; but also shows them that they can manage their relationships with minimal conflict. In Choice Theory, the emphasis is mainly on the present and choice. The past only matters when it is related to present actions. What has happened to us in the past has a profound and undeniable effect on our current conditions, but we can appropriately satisfy our basic needs and parents can plan for their satisfaction in the future. Also, parents in this educational method learn that children's problems are mainly due to their inability to realize the five basic needs. As long as we feel bad, one or more of our basic needs have not been met (Glasser, 2000; Guderzi, 2020; Nili et al., 2019b).

According to Glasser, the need to love and belong is the primary need, and satisfying it is the most difficult, and parents can prioritize their program to satisfy these important needs, repair communication bridges between themselves and their children, and improve their relationships. Other results showed that Choice Theory-based parenting education affects the parental self-efficacy of mothers of children with symptoms of oppositional defiance, and this effectiveness was also sustained during the follow-up period.

This finding is consistent with several similar studies, for example, the results of the prior studies (Nili et al., 2019a, 2019b; Ülker Tümlü et al., 2017). They showed that Choice Theory-based parenting education increases mothers' sense of self-efficacy, Isanejad and Xandan (2017) showed that Choice Theory-based treatment has a positive and significant effect on positive parenting styles and behavioral-emotional problems of children (Isanejad & Xandan, 2017). Hossein Panahi and Goodarzi (2018) showed that Choice Theory education is significantly effective in increasing reasoning and reducing aggression (Hossein Panahi & Goodarzi, 2018). Also, Haji Gholami Yazdi (2013) showed that parenting education affects parents' self-efficacy beliefs. Establishing and maintaining appropriate parent-child relationships provides the ground for the psychosocial development of children and can be said to increase the sense of efficacy in parents. Parental self-efficacy is a mediator between parenting methods and children's developmental outcomes (Haji Gholami Yazdi, 2013). Parental self-efficacy, in addition to its impact on the mother-child interaction, predicts the mother's disciplinary style, mother's beliefs about parenting methods, and even her sensitivity and responsiveness. Therefore, mothers who feel effective in their parenting role have warm and regular relationships with their children, and conversely, mothers who feel ineffective have problems in their relationship with their children. Parents with low self-efficacy experience more parental stress and less parental satisfaction. Therefore, their children exhibit more behavioral problems. Low levels of parental self-efficacy often lead to weak persistence, depression, and reduced satisfaction in the parenting role.

## 5. Suggestions and Limitations

The present research also faced limitations. In this study, sampling was only done among mothers of children with symptoms of oppositional defiance under the coverage of the Imam Khomeini Relief Committee in the city of Sari, which limits the generalization of the research findings. Other limitations of this study include the inability to match the intervention and control groups in terms of demographic variables and treatment stage, which was not feasible due to the small sample size. Given that the effects of educational and training techniques require more time to respond, in this study, due to time constraints, the post-test was conducted immediately after the end of the desired period. Researchers


AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

are advised to examine the effectiveness of different educational, economic, social, and cultural variables and models in their research. Since the study population is families under the coverage of the Relief Committee, and as a result, the results are limited to this group, it is recommended that future research use a mixed statistical population so that a mix of all social strata from different social bases is present. It is suggested that future research be conducted in a wider geographical area to provide more confidence in the generalization of the results. From the findings of this research, mental health professionals can be advised to design and apply appropriate methods inspired by parental behavioral education and Choice Theory-based parenting education to increase the self-efficacy of mothers with children with oppositional defiant disorder. The Ministry of Health, Welfare Organization, Organization of Psychology and Counseling with the implementation of parental behavioral education and Choice Theory-based parenting education, provide the ground for psychologists, doctors, and nurses to become more familiar with these concepts.

## Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

## Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

## Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

## Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

## Declaration of Interest

The authors report no conflict of interest.

## Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

## Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

## References

Afzali, L., Ghsemzadeh, S., & Hahemi bakhshi, M. (2016). The effectiveness of family-centered interventions on clinical symptoms of children with oppositional defiant disorder. *Empowering Exceptional Children*, *7*(4), 87-94. https://www.ceciranj.ir/article_63705_30e23f21a5f3122e0d80862c41d286c1.pdf

Aggarwal, A., & Marwaha, R. (2022). Oppositional Defiant Disorder. In *StatPearls [Internet]*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/n/statpearls/article-26231/

Ahmadi, V., & Valizadeh, H. (2021). The Effectiveness of Acceptance and Commitment-Based Therapy on the Quality of Life and Death Anxiety in the Elderly. *Aging Psychology*, *7*(2), 166-153. https://doi.org/10.22126/jap.2021.6370.1528

Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child: Care, Health and Development*, *45*(3), 333-363. https://doi.org/10.1111/cch.12661

APA, A. P. A. (2022). *Diagnostic And Statistical Manual Of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR)*. https://doi.org/10.1176/appi.books.9780890425787

Asghari, F., Saadat, S., Atefi Karajvandani, S., & Janalizadeh Kokaneh, S. (2014). The Relationship between Academic Self-Efficacy and Psychological Well-Being, Family Cohesion, and Spiritual Health Among Students of Kharazmi University [Original research article]. *Iranian Journal of Medical Education*, *14*(7), 581-593. http://ijme.mui.ac.ir/article-1-3250-en.html

Ashori, M., Afrooz, G., Arjmandnia, A., Pormohammadreza-tajrishi, M., & Ghobari-Bonab, B. (2015). The Effectiveness of Positive Parenting Program (Triple-P) on Parental Self-Efficacy and Mother-Child Interaction in Childeren Suffering from Intellectual Disability [Original article]. *The Journal of Shahid Sadoughi University of Medical Sciences*, *23*(5), 489-500. http://jssu.ssu.ac.ir/article-1-3117-en.html

Babaei, N., Balali, E., Naghdi, A., & Karimi, A. (2015). The Study of Religiosity Impact on Family Cohesion in Hamedan. *Quarterly Journal of Social Development (Previously Human Development)*, *9*(4), 7-26. https://doi.org/10.22055/qjsd.2015.11927

dehkordi, D. J., Aghaee, A., & Shamsipoor, M. (2022). The Effectivness of Paranting Training Based Acceptance and Commitment and Filialtherapy on Oppositional Defiant Disorder in Pre-school Children and Life Satisfaction of Mothers. *Knowledge & Research in Applied Psychology*, *1*(23), 137-154. https://doi.org/10.30486/jsrp.2020.583896.1668

Esmailzadeh, Z. (2019). Effectiveness of parenting education based on Choice Theory on parent-child relationship and clinical symptoms of Oppositional Defiant Disorder. *Empowering Exceptional Children*, *10*(3), 97-108. https://doi.org/10.22034/ceciranj.2020.200510.1263

Fallahnejad, M. A., Kazemi, F., Pezeshk, S., Majd Rezayi, M. H., & Rasooli, V. (2018). Effectiveness Visual Storytelling On Externalizing and internalizing behaviors Children With



AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

Oppositional Defiant Disorder. *Journal of Exceptional Children*, *17*(3), 5-18. https://www.magiran.com/paper/1784831

Glasser, W. (2000). *Counseling with choice therapy: The new reality therapy*. Harper-Collins. https://www.amazon.com/Counseling-Choice-Theory-William-Glasser/dp/0060953667

Glatz, T., & Trifan, T. A. (2019). Examination of Parental Self-Efficacy and Their Beliefs About the Outcomes of Their Parenting Practices. *Journal of Family Issues*, *40*(10), 1321-1345. https://doi.org/10.1177/0192513x19835864

Gomez, R., & Stavropoulos, V. (2019). Oppositional Defiant Disorder Dimensions: Associations with Traits of the Multidimensional Personality Model among Adults. *Psychiatric Quarterly*, *90*(4), 777-792. https://doi.org/10.1007/s11126-019-09663-y

Gomez, R., Stavropoulos, V., Gomez, A., Brown, T., & Watson, S. (2022). Network analyses of Oppositional Defiant Disorder (ODD) symptoms in children. *BMC psychiatry*, *22*(1), 263. https://doi.org/10.1186/s12888-022-03892-5

Guderzi, A., Kikhosravani, M., Deira, A., and Ganji, K. (2020). The Effectiveness of Reality Therapy on Marital Flexibility, Marital Burnout and Social Commitment in Couples Seeking Divorce in Malayer. *Women and Family Studies*, *49*(13), 7-27. https://doi.org/10.30495/jwsf.2020.1898346.1442

Hadian, S., Havasi soomar, N., Hosseinzadeh Taghvaei, M., Ebrahimi, M. I., & Ranjbaripour, T. (2023). Comparing the effectiveness of acceptance and commitment therapy and reality therapy on the responsibility and self-efficacy of divorced women [Research]. *Advances in Cognitive Sciences*, *25*(3), 47-63. https://doi.org/10.30514/icss.25.3.47

Haji Gholami Yazdi, A. a. A., Maryam. (2013). The effect of parenting skill training on parents' worry, anxiety and self-efficacy beliefs.

Holloway, S. D., Suzuki, S., Kim, S., Nagase, A., Wang, Q., Campbell, E. J., Golshirazi, M., Iwatate, K., & Nishizaka, S. (2019). Development and cross-national validation of a revised version of the Berkeley Parenting Self-efficacy Scale. *Early Childhood Research Quarterly*, *47*, 309-320. https://www.sciencedirect.com/science/article/pii/S0885200618301649

Hommersen, P., Murray, C., Ohan, J. L., & Johnston, C. (2006). Oppositional Defiant Disorder Rating Scale:Preliminary Evidence of Reliability and Validity. *Journal of Emotional and Behavioral Disorders*, *14*(2), 118-125. https://doi.org/10.1177/10634266060140020201

Hossein Panahi, N., & Goodarzi, M. (2018). The Effectiveness of the education of the components of choice theory on Reducing Parent-Child Conflict of Girl Students [Research]. *Shenakht Journal of Psychology and Psychiatry*, *5*(2), 43-52. https://doi.org/10.29252/shenakht.5.2.43

Hosseinzadeh, Z., Ghorban Shirodi, S., Khalatbari, J., & Rahmani, M. A. (2020). The Comparison of the Effectiveness of Emotionally Focused Couple Therapy and Couple Therapy with Reality Therapy Approach on Couple's Functional Flexibility and Distress Tolerance. *Applied Psychology*, *14*(2), 122-101. https://doi.org/10.52547/apsy.14.2.101

Isanejad, O., & Xandan, F. (2017). Comparing the Effect of Positive Parenting Program Training (Triple P) and Parent Management Training (PMT) on Parenting Styles and Emotional-Behavioral Problems in Children [Research]. *Journal of counseling research*, *16*(62), 98-125. http://irancounseling.ir/journal/article-1-525-en.html

Jafarnezhad, M., Ghobari Bonab, B., & Bagheri, F. (2022). Effectivness of Family Oriented Training Program Based on Parents Behavioral Management on The Clinical Symptoms and School Performance of Children with Attention Deficit Hyperactivity Disorder [Research]. *Journal of Exceptional Children*, *22*(2), 45-60. http://joec.ir/article-1-1472-en.html

Javidipour, N., & Dehghan, M. (2022). Efficiency of the Parents' Behavioral Training Model (Barkley) on the Emotional Regulation of the Children with Attention Deficit Hyperactivity Disorder. *Quarterly Psychology of Exceptional Individuals*, *12*(45), 145-169. https://www.magiran.com/paper/2455791

Khodakarami, F., Hosseinkhanzadeh, A., & Taher, M. (2020). The Effect of the Presence of Oppositional Defiant Disorder in Children on the Quality of the Relationships among their Family Members [Review Article]. *Journal of Exceptional Education (J Except Educ)*, *2*(160), 21-36. http://exceptionaleducation.ir/article-1-1437-en.html

Lin, X., Li, L., Heath, M. A., Chi, P., Xu, S., & Fang, X. (2018). Multiple Levels of Family Factors and Oppositional Defiant Disorder Symptoms Among Chinese Children. *Family Process*, *57*(1), 195-210. https://doi.org/10.1111/famp.12269

Liu, M.-C., Chang, J. C., & Lee, C.-S. (2021). Interactive association of maternal education and peer relationship with oppositional defiant disorder: an observational study. *BMC psychiatry*, *21*(1), 160. https://doi.org/10.1186/s12888-021-03157-7

Mohajeri, A., Pouretamad, H., Shokri, O., & Khoshabi, K. (2013). The effectiveness of parent-child interaction therapy on the parenting self-efficacy of mothers of children with hyperactive introversion. *Applied Psychology*, *7*(2), -. https://apsy.sbu.ac.ir/article_95862_78b552136577f8830ca97451edea4d43.pdf

Mosavi, S. Z., & Syyad Tabaei, S. R. (2023). Prediction of obsessive compulsive disorder based on rumination and distress tolerance in the corona epidemic. *Rooyesh-e-Ravanshenasi Journal (RRJ)*, *12*(4), 159-166. https://frooyesh.ir/browse.php?a_id=4172&slc_lang=en&sid=1&printcase=1&hbnr=1&hmb=1

Navabinejad, S., Rostami, M., & Parsakia, K. (2024). Influences of Family Structure and Intimacy on Emotional Divorce: A Cross-Sectional Analysis. *Journal of Psychosociological Research in Family and Culture*, *2*(1), 23-30. https://journals.kmanpub.com/index.php/jprfc/article/view/2193

Nili, Z., Bagheri, F., & Salimi Bejstani, H. (2019a). Designing and Effectiveness of Parenting Curriculum with Emphasis on Selection Theory on Increasing Parental Self-Efficacy. *Journal of Excellence in counseling and psychotherapy*, *30*(8), 1-10. https://sanad.iau.ir/en/Journal/jci/Article/670657?jid=670657

Nili, Z., Bagheri, F., & Salimi Bejstani, H. (2019b). Effectiveness of instructional plan of child-rearing with emphasis on choice theory on improvement of parent-child relationship and life-satisfaction of mothers. *Quarterly of Counseling Culture and Psychotherapy*, *10*(39), 99-122. https://www.magiran.com/paper/2033292

Oji, A., Heidari, A., Bakhtiarpour, S., & Saraj Khorami, N. (2020). Comparison of the Effectiveness of matrix therapy and modern group reality therapy based on choice theory on resilience and social adjustment in methamphetamine-dependent men who are treated with buprenorphine [Research]. *Research on Addiction*, *13*(54), 47-66. http://etiadpajohi.ir/article-1-2016-en.html

Pirzadeh, S., & Parsakia, K. (2023). A Comparative Study of Family Structure (Cohesion and Flexibility) and Functioning in People with and without Drug Abuse. *International Journal of Body, Mind & Culture*, *10*(1), 82-89. https://doi.org/10.22122/ijbmc.v10i1.278

Robey, P., Burdenski, T. K., Britzman, M., Crowell, J., & Cisse, G. S. (2011). Systemic Applications of Choice Theory and Reality Therapy: An Interview With Glasser Scholars. *The Family Journal*, *19*(4), 427-433. https://doi.org/10.1177/1066480711415038

Soltanian, V., Yousefi, Z., & Khayatan, F. (2022). Comparison of the Effectiveness of Power Regulation Training in the Family with the Effectiveness of Reality Therapy Method on Control Methods and Emotional Experience towards Husband in Married Women of Isfahan City [Research]. *Islamic Life Style*, *6*(1), 784-794. http://islamiclifej.com/article-1-1856-en.html

Topham, G. L., Wampler, K. S., Titus, G., & Rolling, E. (2011). Predicting parent and child outcomes of a filial therapy program. *International Journal of Play Therapy*, *20*(2), 79-93. https://doi.org/10.1037/a0023261

Ülker Tümlü, G., Akdoğan, R., & Türküm, A. (2017). The process of group counseling based on reality therapy applied to the parents of children with disabilities. *International Journal of Early Childhood Special Education*, *9*(2). https://avesis.anadolu.edu.tr/yayin/11345728-69f0-42e5-b689-536520a5c187/the-process-of-group-counseling-based-on-reality-therapy-applied-to-the-parents-of-children-with-disabilities

Veilleux, J. C. (2019). The relationship between distress tolerance and cigarette smoking: A systematic review and synthesis. *Clinical psychology review*, *71*, 78-89. https://doi.org/10.1016/j.cpr.2019.01.003

Watson, S. (2016). The Role of Executive Functions in Classroom Instruction of Students with Learning Disabilities. *International Journal of School and Cognitive Psychology*, *03*. https://doi.org/10.4172/2469-9837.1000167

Wubbolding, R. E. (2006). Evolution of psychotherapy: a conference of inner control. *International Journal of Reality Therapy*, *26*(1), 35. https://search.proquest.com/openview/234bd8484e577dacd123665d5a6fb951/1?pq-origsite=gscholar&cbl=28902