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Comparison of the Effects of Reality Therapy and Cognitive Behavioral Therapy on the Resilience and Adjustment of Family Caregivers of Children with Autism

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A B S T R A C T

Objective: The present study aimed to compare the effectiveness of reality therapy and cognitive behavioral therapy on resilience and adjustment among family caregivers of children with autism spectrum disorder.

Methods and Materials: This study was conducted using a quasi-experimental design with a pretest–posttest format and a control group. The statistical population included all family caregivers of children with autism spectrum disorder who were members of the Tehran branch of the Iran Autism Association. A total of 45 participants were selected through purposive sampling and assigned into three groups, including a reality therapy group (n = 15), a cognitive behavioral therapy group (n = 15), and a control group (n = 15). The experimental groups participated in eight weekly group intervention sessions, while the control group received no intervention. Data were collected using the Connor–Davidson Resilience Scale and the Sinha and Singh Adjustment Questionnaire. The obtained data were analyzed using repeated measures multivariate analysis of variance in IBM SPSS Statistics.

Findings: The results demonstrated that both reality therapy and cognitive behavioral therapy significantly improved resilience and adjustment among family caregivers of children with autism spectrum disorder compared with the control group. The repeated measures analysis of variance indicated significant effects of time and the interaction between time and group for resilience and adjustment ($p < 0.001$). Bonferroni post hoc comparisons further revealed significant differences between each experimental group and the control group in posttest scores. However, no statistically significant difference was observed between the reality therapy and cognitive behavioral therapy groups regarding resilience and adjustment outcomes ($p > 0.05$), indicating that both interventions were equally effective.

Conclusion: The findings suggest that both reality therapy and cognitive behavioral therapy are effective interventions for improving resilience and adjustment among family caregivers of children with autism spectrum disorder.

Keywords: *Reality Therapy, Cognitive Behavioral Therapy, Resilience, Adjustment, Autism.*

1. Introduction

Autism spectrum disorder (ASD) is recognized as one of the most complex neurodevelopmental disorders characterized by persistent deficits in social communication, restricted interests, repetitive behaviors, and impairments in adaptive functioning (Kaplan & Sadock, 2024). Over recent decades, the prevalence of autism spectrum disorder has increased substantially across different countries and cultures, making it a major public health and psychological concern worldwide (Bonati et al., 2022). Advances in diagnostic systems and greater awareness of developmental disorders have contributed to earlier and more accurate identification of ASD (Reed et al., 2019; Rosen et al., 2021). Nevertheless, despite improvements in diagnosis and intervention, autism spectrum disorder continues to impose significant psychological, emotional, social, and economic challenges not only on affected children but also on their families and caregivers (Jaffar et al., 2025; Marsack-Topolewski et al., 2025).

Family caregivers, especially parents of children with autism, are often exposed to persistent psychological pressure due to the chronic nature of the disorder, communication difficulties, behavioral challenges, educational concerns, financial strain, and uncertainty regarding the future of their children (Swanson, 2019). Research has consistently demonstrated that caregivers of children with autism experience higher levels of stress, anxiety, depression, emotional exhaustion, and caregiver burden compared with parents of typically developing children or children with other developmental conditions (Marsack-Topolewski et al., 2025; Singer, 2020). Recent evidence has further indicated that chronic caregiving stress may contribute to maladaptive cognitive patterns such as hopelessness, rumination, and emotional dysregulation, which intensify psychological distress among caregivers (Jaffar et al., 2025). In many cases, these psychological difficulties negatively influence interpersonal relationships, family functioning, quality of life, and caregivers' ability to provide effective support for the child with autism (Fathi et al., 2021; Hayes et al., 2023).

One of the most important protective psychological constructs associated with coping in stressful situations is resilience. Resilience refers to the ability of individuals to adapt successfully and maintain psychological balance in the face of adversity, trauma, stress, and challenging life conditions (Fathi & Jamalabadi, 2017). Individuals with higher resilience are generally more capable of emotional regulation, problem solving, adaptation to difficult circumstances, and recovery following stressful experiences (Gegonani, 2023). In families of children with autism, resilience has been identified as a critical factor contributing to parental psychological well-being and effective caregiving (Hayes et al., 2023). Studies have shown that higher levels of resilience among caregivers are associated with lower psychological distress, better coping strategies, improved family functioning, and enhanced mental health outcomes (Iadarola et al., 2021; Karimi & Esmaeili, 2020). Conversely, low resilience may increase vulnerability to stress, emotional instability, and psychological maladjustment among caregivers of children with autism (Ahmadi, 2024).

Another essential psychological variable associated with mental health and adaptive functioning is adjustment. Adjustment refers to the process through which individuals establish harmony between personal needs and environmental demands in emotional, social, and behavioral domains (Tavakoli, 2021). Emotional and social adjustment enable individuals to effectively manage interpersonal relationships, cope with stressors, regulate emotions, and maintain functional daily living (Savadkouhi et al., 2020). Parents and caregivers of children with autism frequently encounter difficulties in emotional and social adjustment because of the persistent challenges associated with caregiving responsibilities, social stigma, family conflicts, and limited social support (Nayar et al., 2021). Poor adjustment among caregivers can negatively influence not only their own psychological well-being but also the developmental and emotional outcomes of children with autism. Therefore, improving adjustment and resilience among caregivers is considered an important therapeutic and preventive goal in autism-related psychological interventions (Wei et al., 2024).

Given the substantial psychological burden experienced by caregivers of children with autism, researchers and clinicians have increasingly focused on developing effective psychological interventions aimed at reducing distress and improving coping capacities (Wei et al., 2024). Among the most widely used therapeutic approaches in this field is cognitive behavioral therapy (CBT). Cognitive behavioral therapy is based on the assumption that maladaptive cognitions and dysfunctional beliefs contribute significantly to emotional and behavioral problems (Dryden, 2021). This therapeutic approach seeks to identify irrational thoughts, cognitive distortions, and maladaptive behavioral patterns and replace them with more adaptive cognitive and

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behavioral responses (Al-Kindi et al., 2024). Evidence has shown that CBT can effectively reduce anxiety, depression, stress, and psychological distress among parents of children with autism while simultaneously enhancing resilience, emotional regulation, and quality of life (Ahmadi, 2024; Al-Kindi et al., 2024).

Several studies have supported the effectiveness of CBT-based interventions for caregivers and families of children with autism. For instance, Al-Kindi et al. demonstrated that cognitive behavioral therapy significantly reduced psychological distress among mothers of children with autism and improved problem-solving appraisal abilities (Al-Kindi et al., 2024). Similarly, Ahmadi reported that CBT enhanced resilience and quality of life in mothers of children with autism spectrum disorder (Ahmadi, 2024). Rast et al. also found that participation in community-based CBT interventions for autistic children positively affected parental psychological outcomes and emotional functioning (Rast et al., 2024). In addition, CBT programs have been shown to improve anxiety symptoms and adaptive functioning in children with ASD while simultaneously reducing parental stress levels (Reaven et al., 2021). These findings collectively suggest that CBT may provide caregivers with effective coping mechanisms, emotional regulation skills, and adaptive cognitive frameworks that improve resilience and adjustment.

Another therapeutic approach that has attracted considerable attention in family and counseling psychology is reality therapy. Reality therapy, developed within the framework of choice theory, emphasizes personal responsibility, present-focused behavior, fulfillment of basic psychological needs, and effective decision-making (Dryden, 2021). This approach assumes that psychological distress emerges when individuals fail to satisfy their basic needs in healthy and responsible ways. Reality therapy encourages individuals to evaluate their behaviors, improve interpersonal relationships, and make more adaptive choices that increase psychological well-being and adjustment (Hosseini & Falahati, 2022). Because caregivers of children with autism often experience feelings of helplessness, guilt, and emotional exhaustion, reality therapy may assist them in regaining a sense of control, responsibility, and adaptive coping.

Empirical studies have also highlighted the effectiveness of reality therapy in improving psychological outcomes among parents of children with autism. Hosseini and Falahati found that reality therapy significantly enhanced resilience and mental health among mothers of children with autism spectrum disorder (Hosseini & Falahati, 2022). Similarly, Ghorbani and Zarei demonstrated that reality therapy training improved adjustment skills among parents of children with autism (Ghorbani & Zarei, 2021). These findings indicate that reality therapy may help caregivers modify maladaptive behavioral patterns, strengthen emotional coping capacities, and improve interpersonal functioning. Furthermore, the emphasis of reality therapy on present-focused awareness, responsibility, and constructive relationships may provide caregivers with practical strategies for managing caregiving stress more effectively.

In recent years, comparative evaluations of psychological interventions for caregivers of children with autism have become increasingly important. Systematic reviews and meta-analytic studies have indicated that various interventions, including CBT-based programs, resilience training, family empowerment interventions, and supportive counseling approaches, can improve mental health outcomes among caregivers (Wei et al., 2024). Nevertheless, there remains insufficient evidence regarding the comparative effectiveness of different therapeutic approaches on resilience and adjustment among family caregivers of children with autism. While some interventions focus primarily on cognitive restructuring and emotional regulation, others emphasize behavioral responsibility, interpersonal relationships, and present-oriented coping strategies. Understanding which approaches are more effective, or whether multiple approaches yield similar outcomes, may assist clinicians and mental health professionals in selecting appropriate interventions for caregivers experiencing significant psychological distress (Hayes et al., 2023).

The necessity of conducting comparative intervention studies becomes even more evident considering the multidimensional nature of caregiver burden in autism. Caregivers often require interventions that address emotional exhaustion, cognitive distortions, social isolation, reduced coping abilities, and maladaptive adjustment simultaneously (Jaffar et al., 2025; Marsack-Topolewski et al., 2025). Family empowerment and supportive interventions have shown promising effects in reducing anxiety and improving caregiver functioning (Fathi et al., 2021), yet resilience-oriented and adjustment-focused interventions continue to require further empirical investigation. Additionally, cultural and social factors may influence caregivers' psychological experiences and responsiveness to interventions, highlighting the importance

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of conducting intervention studies in different populations and contexts (Karimi & Esmaeili, 2020; Tavakoli, 2021).

Another important issue concerns the long-term psychological consequences experienced by caregivers of children with autism. Chronic stress associated with caregiving responsibilities may gradually lead to emotional burnout, reduced marital satisfaction, impaired social functioning, and mental health disorders if not addressed appropriately (Singer, 2020; Swanson, 2019). Furthermore, resilience and adjustment are not static constructs but dynamic psychological processes influenced by environmental support, coping resources, and therapeutic interventions (Gegonani, 2023). Consequently, interventions designed to strengthen resilience and adaptive functioning may contribute not only to caregivers' mental health but also to improved family interactions and developmental support for children with autism (Iadarola et al., 2021).

Although previous studies have independently supported the effectiveness of cognitive behavioral therapy and reality therapy in improving psychological functioning among parents and caregivers of children with autism, limited research has directly compared these two approaches regarding their effects on resilience and adjustment. Given the increasing prevalence of autism spectrum disorder and the growing psychological needs of caregivers, identifying effective therapeutic interventions remains a significant clinical and research priority (Bonati et al., 2022; Kaplan & Sadock, 2024). Therefore, the present study aimed to compare the effects of reality therapy and cognitive behavioral therapy on resilience and adjustment among family caregivers of children with autism spectrum disorder.

2. Methods and Materials

2.1. Study Design and Participants

The present study was conducted using a quasi-experimental design with a pretest–posttest format and a control group in order to compare the effectiveness of reality therapy and cognitive behavioral therapy on the resilience and adjustment of family caregivers of children with autism. The statistical population consisted of all family caregivers of children diagnosed with autism spectrum disorder who were members of the Tehran branch of the Iran Autism Association. After obtaining the necessary permissions and coordinating with the association authorities, participants who met the inclusion criteria were identified. The inclusion criteria consisted of being a primary family caregiver of a child with autism, willingness to participate in the study, and ability to attend all intervention sessions. Individuals who were absent from more than two treatment sessions or unwilling to continue participation were excluded from the study. A total of 45 participants were selected through purposive sampling and were assigned into three groups, including a reality therapy experimental group (n = 15), a cognitive behavioral therapy experimental group (n = 15), and a control group (n = 15). Prior to the implementation of the interventions, all participants completed the research questionnaires as the pretest. Following the intervention period, the same instruments were re-administered as the posttest to assess changes in resilience and adjustment among participants.

2.2. Measures

The Connor–Davidson Resilience Scale (CD-RISC) developed by Kathryn M. Connor and Jonathan R. T. Davidson in 2003 was used to assess participants' resilience. This standardized instrument consists of 25 items designed to measure individuals' ability to cope with stress, adversity, and threatening situations. The questionnaire evaluates the construct of resilience using a five-point Likert scale ranging from completely false to always true. The total score ranges from 25 to 125, with higher scores indicating greater resilience. Connor and Davidson developed the instrument through an extensive review of resilience-related research conducted between 1979 and 1991 and evaluated its psychometric properties across six different groups, including the general population, primary care patients, psychiatric outpatients, patients with generalized anxiety disorder, and individuals with post-traumatic stress disorder. The developers reported that the scale effectively distinguishes resilient from non-resilient individuals in both clinical and non-clinical populations and can be utilized in both research and clinical settings. The Persian version of the scale was translated and validated by Mohammadi (2005) for use in Iran. In his study conducted on 248 participants, the internal consistency of the scale was reported using Cronbach's alpha coefficient of 0.89, while construct validity obtained through factor analysis was reported as 0.87, indicating satisfactory reliability and validity.

Adjustment was assessed using the Sinha and Singh Adjustment Questionnaire developed by Sinha and Singh (1993) in India. This psychometric instrument is widely used to evaluate individuals' levels of adjustment across various domains of life, particularly emotional and social

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adjustment. The questionnaire contains 40 items, with 20 items measuring emotional adjustment and 20 items assessing social adjustment. Responses are scored on a dichotomous format in which "No" receives a score of 0 and "Yes" receives a score of 1. Higher scores on the scale indicate greater maladjustment and poorer adaptation to environmental and life conditions, whereas lower scores reflect better adjustment. The Persian version of the questionnaire was validated in Iran by Karami (1998). The reliability coefficients obtained through the test–retest method for emotional adjustment, social adjustment, and the total score were reported as 0.96, 0.90, and 0.93, respectively. In addition, the Kuder–Richardson reliability coefficients for the emotional, social, and total dimensions were reported as 0.92, 0.92, and 0.94, respectively. Cronbach's alpha coefficients for the emotional, social, and overall adjustment dimensions were also found to be 0.71, 0.76, and 0.82, confirming the acceptable reliability and validity of the instrument for research purposes.

2.3. Interventions

The reality therapy intervention was conducted in eight weekly group sessions by a trained therapist specialized in reality therapy. The first session focused on introducing group members to one another, explaining group rules, and establishing an emotional relationship between participants and the therapist. During the second session, the basic concepts of reality therapy and choice theory were introduced, including the reasons behind human behavior and increasing participants' self-awareness regarding the effects of their behaviors on themselves and others. The third session concentrated on the concept of total behavior and its four components, namely thinking, acting, feeling, and physiology, while also teaching decision-making skills and present-focused behavioral changes. In the fourth session, participants became familiar with the four major conflicts associated with controlling behaviors. The fifth session addressed emotions such as anxiety and depression from the perspective of reality therapy and included relaxation training for emotional regulation. During the sixth session, destructive and constructive relationship behaviors were discussed, and participants were encouraged to focus on living in the present. The seventh session emphasized the ten principles of choice theory and acceptance of personal responsibility for one's behaviors. Finally, the eighth session was devoted to reviewing previous sessions and summarizing the therapeutic content presented throughout the intervention.

The cognitive behavioral therapy intervention was also implemented in eight weekly group sessions by a therapist trained in cognitive behavioral approaches. The first session included welcoming participants, discussing group rules, introducing members to one another, and explaining the importance of lifestyle and factors affecting quality of life. Participants were also introduced to the principles of cognitive behavioral therapy, relaxation techniques, and initial treatment goals. The second session focused on the relationship between thoughts and emotions, identification of irrational thoughts, cognitive processing errors, and completion of dysfunctional thought records. Homework assignments included mood assessment, daily activity monitoring, and practicing relaxation techniques. In the third session, participants learned how to evaluate and challenge irrational thoughts, identify common cognitive distortions, and understand the reciprocal relationship between cognition and emotions. The fourth session emphasized anger, anxiety, and stress management, along with replacing irrational thoughts with logical alternatives and engaging in behavioral activation strategies. The fifth session addressed problem-solving skills in interpersonal and social relationships, effective coping strategies, and adaptive responses to stressful situations. The sixth session focused on lifestyle management, quality of life, anger management strategies, and behavioral modifications aimed at improving neglected life activities. During the seventh session, participants were provided with strategies for developing a healthier lifestyle, enhancing interpersonal assertiveness, understanding the benefits of social support, and evaluating their social support networks in preparation for future changes. The final session was dedicated to reviewing the therapeutic process and summarizing the concepts and techniques taught throughout the program.

2.4. Data Analysis

Following data collection, all questionnaire responses were coded and entered into the IBM SPSS Statistics software package for statistical analysis. Descriptive statistics, including means and standard deviations, were calculated for all study variables. To evaluate the effectiveness of the interventions and compare differences among the reality therapy, cognitive behavioral therapy, and control groups, inferential statistical analyses were conducted. The assumptions of normality and homogeneity

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of variances were examined prior to hypothesis testing. Analysis of covariance (ANCOVA) was employed to compare posttest scores among groups while controlling for pretest differences. A significance level of $p < 0.05$ was considered for all statistical analyses.

3. Findings and Results

Table 1 presents the descriptive statistics, including means and standard deviations, of resilience and adjustment scores in the reality therapy, cognitive behavioral therapy, and control groups during the pretest and posttest stages.

Table 1

Descriptive Findings

Variables	Group	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD
Resilience	Reality Therapy	46.46	6.47	75.53	10.24
	Cognitive Behavioral Therapy	47.73	6.46	75.46	11.61
	Control	77.93	7.86	78.53	9.25
Adjustment	Reality Therapy	16.06	2.65	27.26	2.05
	Cognitive Behavioral Therapy	16.53	2.26	27.80	1.82
	Control	14.26	3.53	15.93	2.60

As shown in Table 1, the mean scores of resilience and adjustment increased noticeably from the pretest to the posttest phase in both the reality therapy and cognitive behavioral therapy groups. In the reality therapy group, the mean resilience score increased from 46.46 to 75.53, while the mean adjustment score increased from 16.06 to 27.26. Similarly, in the cognitive behavioral therapy group, the mean resilience score increased from 47.73 to 75.46 and the mean adjustment score increased from 16.53 to 27.80. In contrast, the control group demonstrated only minimal changes in resilience and adjustment scores between the pretest and posttest stages, indicating the absence of meaningful improvement without therapeutic intervention.

Before conducting the main analyses, the assumptions of multivariate analysis of variance with repeated measures were examined. The results of the Shapiro–Wilk and Kolmogorov–Smirnov tests indicated that the distributions of resilience and adjustment scores were normal across all groups and assessment stages, as all significance values were greater than 0.05. In addition, skewness and kurtosis indices were within acceptable ranges, confirming normal distribution of the data. The results of Box's M test further demonstrated that the homogeneity of variance–covariance matrices assumption was satisfied at the 0.01 significance level. Moreover, Levene's test showed that the homogeneity of error variances assumption was met for both resilience and adjustment variables in the pretest and posttest phases, as all obtained significance levels exceeded 0.05. The results of Mauchly's test also supported the assumption of sphericity for repeated measures analysis. Therefore, all assumptions required for repeated measures multivariate analysis of variance were established.

Table 2 presents the results of repeated measures multivariate analysis of variance examining the effects of time and the interaction effect of time and group on resilience and adjustment.

Table 2

MANOVA Results

Variable	Source	Sum of Squares	df	Mean Square	F	p	Eta Squared
Resilience	Time	2081.791	1	2081.791	44.149	0.001	0.525
	Time × Group	1581.399	2	790.700	16.768	0.001	0.456
	Error	1886.165	40	47.154			
Adjustment	Time	113.816	1	113.816	26.349	0.001	0.397
	Time × Group	270.963	2	135.482	27.289	0.001	0.577
	Error	198.587	40	4.965			

The results presented in Table 2 demonstrated significant effects of time and the interaction between time and group for both resilience and adjustment variables. For resilience, the effect of time was significant ($F = 44.149$, $p = 0.001$, $\eta^2 = 0.525$), indicating that resilience scores significantly changed from pretest to posttest across participants.

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Furthermore, the interaction effect between time and group was also significant ($F = 16.768$, $p = 0.001$, $\eta^2 = 0.456$), suggesting that the observed changes differed significantly across the three groups. Similar findings were observed for adjustment, where the effect of time ($F = 26.349$, $p = 0.001$, $\eta^2 = 0.397$) and the interaction effect of time and group ($F = 27.289$, $p = 0.001$, $\eta^2 = 0.577$) were both statistically significant. These findings indicate that participation in the reality therapy and cognitive behavioral therapy interventions significantly improved resilience and adjustment among family caregivers of children with autism compared to the control group.

Table 3 presents the results of the Bonferroni post hoc test comparing the effectiveness of the interventions on resilience and adjustment scores.

Table 3

Bonferroni Post-Hoc Test Results

Comparison Groups	Mean Difference	Standard Error	p
Reality Therapy vs. Cognitive Behavioral Therapy	-0.850	1.415	1.000
Reality Therapy vs. Control	-5.63	1.415	0.001
Cognitive Behavioral Therapy vs. Reality Therapy	0.850	1.415	1.000
Cognitive Behavioral Therapy vs. Control	-4.78	1.415	0.005
Control vs. Reality Therapy	5.63	1.415	0.001
Control vs. Cognitive Behavioral Therapy	4.78	1.415	0.005

The Bonferroni post hoc comparisons indicated that there was no statistically significant difference between the reality therapy and cognitive behavioral therapy groups regarding resilience and adjustment outcomes ($p > 0.05$). This finding suggests that both interventions were equally effective in improving resilience and adjustment among family caregivers of children with autism. However, significant differences were found between each experimental group and the control group. Both the reality therapy group and the cognitive behavioral therapy group showed significantly higher posttest scores on resilience and adjustment compared to the control group, indicating the effectiveness of both therapeutic approaches in enhancing psychological adaptation and resilience among caregivers.

4. Discussion

The present study aimed to compare the effectiveness of reality therapy and cognitive behavioral therapy on resilience and adjustment among family caregivers of children with autism spectrum disorder. The findings demonstrated that both reality therapy and cognitive behavioral therapy significantly improved resilience and adjustment in caregivers compared with the control group. However, no statistically significant difference was found between the two intervention approaches, indicating that both therapeutic methods were similarly effective in enhancing psychological functioning among caregivers of children with autism. These findings highlight the importance of psychological interventions in reducing caregiver vulnerability and improving adaptive coping capacities in families dealing with autism spectrum disorder.

One of the principal findings of the study was the significant increase in resilience among caregivers who participated in both therapeutic interventions. Family caregivers of children with autism are frequently exposed to chronic stress, emotional fatigue, social isolation, and uncertainty regarding their child's future, all of which may reduce their psychological resilience over time (Jaffar et al., 2025; Marsack-Topolewski et al., 2025). Therefore, strengthening resilience is considered a major protective factor that enables caregivers to cope more effectively with persistent caregiving challenges. The current findings are consistent with the results reported by Ahmadi, who demonstrated that cognitive behavioral therapy significantly enhanced resilience and quality of life among mothers of children with autism spectrum disorder (Ahmadi, 2024). Similarly, Hosseini and Falahati found that reality therapy effectively improved resilience and mental health in mothers of children with autism (Hosseini & Falahati, 2022). These consistent findings suggest that both interventions can positively influence caregivers' coping resources and emotional functioning.

The effectiveness of cognitive behavioral therapy in improving resilience may be explained through its emphasis on identifying maladaptive cognitions, challenging irrational beliefs, and replacing dysfunctional thought patterns with more adaptive interpretations (Dryden, 2021). Caregivers of children with autism often experience persistent negative thoughts related to helplessness, guilt, hopelessness, and fear

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about the future of their child (Jaffar et al., 2025). Cognitive behavioral therapy helps individuals recognize these distorted cognitions and develop healthier emotional and behavioral responses. Through cognitive restructuring, behavioral activation, and emotional regulation techniques, caregivers become more capable of managing stressful situations and adapting to caregiving demands. This interpretation is supported by Al-Kindi et al., who found that CBT significantly reduced psychological distress among mothers of children with autism and improved their problem-solving appraisal abilities (Al-Kindi et al., 2024). Moreover, Rast et al. reported that participation in CBT-related interventions positively influenced parental emotional functioning and psychological adjustment (Rast et al., 2024).

The findings related to reality therapy can also be interpreted within the framework of choice theory and personal responsibility. Reality therapy encourages individuals to focus on present behaviors, evaluate the effectiveness of their choices, and take responsibility for fulfilling their psychological needs in adaptive ways (Dryden, 2021). Parents and caregivers of children with autism often experience emotional exhaustion and feelings of losing control over their lives due to the long-term nature of caregiving responsibilities (Singer, 2020). Reality therapy may help caregivers regain a sense of personal control, strengthen interpersonal relationships, and improve self-efficacy by emphasizing constructive decision-making and responsible behavior. The findings of the present study align with the results reported by Ghorbani and Zarei, who found that reality therapy significantly improved adjustment skills among parents of children with autism (Ghorbani & Zarei, 2021). Similarly, Hosseini and Falahati reported significant improvements in resilience and psychological well-being following reality therapy interventions (Hosseini & Falahati, 2022).

Another important finding of the present study was the significant improvement in adjustment among caregivers receiving both interventions. Adjustment is a multidimensional construct involving emotional stability, social functioning, and effective adaptation to environmental demands (Tavakoli, 2021). Caregivers of children with autism often experience substantial difficulties in emotional and social adjustment because of caregiving burden, social stigma, disrupted family routines, and financial pressures (Swanson, 2019). Consequently, interventions that improve coping skills and emotional regulation can significantly enhance caregivers' adjustment capacities. The current findings are consistent with studies indicating that supportive and psychological interventions improve adaptive functioning and reduce psychological maladjustment among caregivers of children with developmental disorders (Fathi et al., 2021; Hayes et al., 2023).

The improvement in adjustment observed among caregivers participating in cognitive behavioral therapy may be attributed to increased emotional awareness, better stress management, and enhanced interpersonal functioning. Cognitive behavioral therapy teaches individuals how to identify emotional triggers, modify maladaptive reactions, and utilize effective coping strategies in challenging situations (Dryden, 2021). Such skills can contribute directly to improved emotional and social adjustment. Research has shown that caregivers who possess stronger emotional regulation skills and more adaptive coping strategies experience lower levels of stress and greater family functioning (Karimi & Esmaeili, 2020). Furthermore, CBT interventions often include behavioral exercises, communication training, and relaxation techniques, all of which may facilitate better adaptation to caregiving responsibilities and interpersonal relationships.

Similarly, reality therapy may improve adjustment by increasing caregivers' awareness of their behavioral choices and encouraging them to establish healthier relationships and more effective coping behaviors. According to choice theory, individuals can improve their psychological functioning by focusing on controllable aspects of life and making responsible decisions (Dryden, 2021). Caregivers of children with autism frequently encounter situations in which they feel emotionally overwhelmed or powerless. Reality therapy helps individuals shift their attention from uncontrollable external stressors toward personal responsibility and constructive behaviors. This therapeutic focus may increase emotional flexibility, improve communication patterns, and enhance social adjustment. The findings of the present study therefore support previous evidence emphasizing the role of reality therapy in strengthening adaptive functioning and psychological well-being among caregivers (Ghorbani & Zarei, 2021).

An important aspect of the current findings is the absence of a significant difference between the effectiveness of cognitive behavioral therapy and reality therapy. Although both approaches are theoretically distinct, they share several common therapeutic elements that may explain their comparable outcomes. Both interventions emphasize self-awareness, behavioral change, emotional regulation, and

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adaptive coping. In addition, both therapeutic approaches provide individuals with practical skills for managing stress and improving interpersonal functioning. These shared therapeutic processes may have contributed to the similar improvements observed in resilience and adjustment among participants. The findings are also compatible with systematic reviews suggesting that various psychosocial interventions can effectively improve mental health outcomes among parents of children with autism without necessarily demonstrating clear superiority over one another (Wei et al., 2024).

The similarity between the effects of the two interventions may also reflect the multidimensional nature of caregiver stress in autism spectrum disorder. Psychological difficulties experienced by caregivers are often influenced by numerous factors, including emotional burden, social isolation, caregiving demands, and uncertainty regarding the child's future (Marsack-Topolewski et al., 2025). Consequently, interventions targeting emotional, cognitive, and behavioral functioning simultaneously may produce broadly comparable therapeutic benefits. Hayes et al. emphasized that family resilience and community support significantly contribute to improved caregiver mental health (Hayes et al., 2023). Both reality therapy and cognitive behavioral therapy may therefore function as supportive frameworks that increase caregivers' coping resources and psychological flexibility.

The present findings further support the importance of resilience-focused interventions for families of children with autism. Previous research has shown that resilience acts as a mediator between stressful experiences and psychological outcomes, enabling individuals to maintain adaptive functioning despite adversity (Fathi & Jamalabadi, 2017; Gegonani, 2023). Interventions that enhance resilience may therefore reduce vulnerability to emotional disorders and strengthen long-term coping capacities among caregivers. Iadarola et al. similarly reported that resilience-based interventions significantly improved psychological functioning among parents of children with autism (Iadarola et al., 2021). These findings collectively indicate that resilience enhancement should be considered a central component of psychological services designed for caregivers of children with autism spectrum disorder.

Another noteworthy implication of the findings relates to the broader impact of caregiver mental health on family functioning and child outcomes. Psychological distress among caregivers may negatively influence parent–child interactions, family relationships, and the effectiveness of therapeutic and educational interventions for the child with autism (Nayar et al., 2021). Conversely, caregivers with higher resilience and better adjustment are more likely to provide consistent emotional support, maintain positive communication patterns, and engage effectively in their child's developmental care. Therefore, improving caregiver psychological functioning may indirectly contribute to better developmental and emotional outcomes for children with autism spectrum disorder.

5. Conclusion

The results of this study should also be interpreted in light of the growing prevalence and recognition of autism spectrum disorder worldwide (Bonati et al., 2022; Rosen et al., 2021). As awareness and diagnosis rates increase, mental health services for caregivers become increasingly necessary. Research has demonstrated that delayed diagnosis and inadequate support systems may intensify caregiver stress and emotional burden (Bonati et al., 2022). Consequently, psychological interventions such as cognitive behavioral therapy and reality therapy may play an essential role in comprehensive autism support programs by addressing the emotional and adaptive needs of family caregivers.

6. Limitations & Suggestions

One limitation of the present study was the relatively small sample size and the use of purposive sampling, which may restrict the generalizability of the findings to broader populations of caregivers of children with autism. In addition, the study was conducted only among caregivers affiliated with the Tehran branch of the autism association, and cultural or socioeconomic differences in other regions may influence treatment outcomes. Another limitation was the absence of a long-term follow-up period to determine the stability and durability of treatment effects over time. Furthermore, the study relied on self-report questionnaires, which may have been influenced by response bias or participants' subjective perceptions.

Future research is recommended to examine the long-term effectiveness of reality therapy and cognitive behavioral therapy through follow-up assessments conducted several months after treatment completion. Researchers are also encouraged to use larger and more diverse samples from different cultural and geographical contexts to improve the generalizability of findings. Comparative studies involving additional therapeutic

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approaches, such as acceptance and commitment therapy, mindfulness-based interventions, and family-centered therapies, may provide a broader understanding of effective psychological treatments for caregivers of children with autism. Moreover, future investigations could explore the mediating roles of variables such as social support, coping strategies, emotional regulation, and family functioning in the relationship between psychological interventions and caregiver outcomes.

From a practical perspective, the findings of the present study emphasize the importance of integrating psychological interventions into support services for families of children with autism spectrum disorder. Mental health professionals, counseling centers, and autism support organizations may utilize cognitive behavioral therapy and reality therapy programs to improve resilience and adjustment among caregivers. Educational workshops and group-based intervention programs may also provide caregivers with opportunities to strengthen coping skills, emotional regulation, and interpersonal functioning. In addition, policymakers and healthcare providers should consider developing accessible and affordable psychological support services for families of children with autism in order to reduce caregiver burden and promote overall family well-being.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

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

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors have equally contributed 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.

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