

Comparison of the Effectiveness of Compassion-Focused Therapy and Reality Therapy on the Mental Toughness of Mothers of Children with Autism Spectrum Disorder

Maryam. Goudarzi¹, Marjan. Albehbahani^{1*}

¹Department of Psychology, Shi.C., Islamic Azad University, Shiraz, Iran

* Corresponding author email address: marjan.albehbahai@iau.ac.ir

Article Info

Article type:

Original Research

How to cite this article:

Goudarzi, M., & Albehbahani, M. (2026). Comparison of the Effectiveness of Compassion-Focused Therapy and Reality Therapy on the Mental Toughness of Mothers of Children with Autism Spectrum Disorder. *Psychology of Woman Journal*, 7(2), 1-9.

<http://dx.doi.org/10.61838/kman.pwj.4862>



© 2026 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

Objective: The objective of this study was to compare the effectiveness of Compassion-Focused Therapy and Reality Therapy on improving the mental toughness of mothers of children with autism spectrum disorder.

Methods and Materials: This study employed a quasi-experimental design with a pretest–posttest control group. The statistical population consisted of mothers of children diagnosed with autism spectrum disorder in Shiraz in 2025, from whom 90 participants were selected using convenience and voluntary sampling based on defined inclusion and exclusion criteria. Participants were randomly assigned to two experimental groups (Compassion-Focused Therapy and Reality Therapy) and one control group. The Compassion-Focused Therapy intervention was implemented based on an eight-session protocol focusing on self-compassion, emotional acceptance, and reduction of self-criticism, while the Reality Therapy intervention was delivered in eight sessions emphasizing personal responsibility, present-focused behavior evaluation, and effective choice-making. The control group did not receive any psychological intervention during the study period. Mental toughness was assessed at pretest and posttest using the 48-item Mental Toughness Questionnaire (MTQ-48). Data were analyzed using descriptive statistics and inferential methods, including multivariate analysis of covariance, after verifying statistical assumptions.

Findings: The results of the analysis of covariance indicated a statistically significant difference among the three groups in posttest mental toughness scores after controlling for pretest effects. Both experimental groups showed significantly higher mental toughness compared to the control group, and Compassion-Focused Therapy was significantly more effective than Reality Therapy in enhancing mental toughness.

Conclusion: The findings suggest that while both therapeutic approaches are effective in strengthening mental toughness among mothers of children with autism, Compassion-Focused Therapy demonstrates superior effectiveness.

Keywords: autism spectrum disorder, mothers, mental toughness, compassion-focused therapy, reality therapy

1. Introduction

Autism spectrum disorder is a neurodevelopmental condition characterized by persistent difficulties in social communication, restricted interests, and repetitive patterns of behavior, which often require long-term care and specialized support. Beyond its developmental and behavioral dimensions, autism spectrum disorder exerts profound psychological, emotional, and social consequences on family systems, particularly on mothers who frequently assume the primary caregiving role. A growing body of evidence indicates that mothers of children with autism experience significantly higher levels of chronic stress, emotional exhaustion, anxiety, and psychological burden compared to mothers of typically developing children or those with other developmental conditions (Hall & Graff, 2011; Karst & Van Hecke, 2012; Martin et al., 2025). These sustained stressors not only undermine maternal mental health but also weaken psychological resources that are essential for effective coping, adaptive functioning, and long-term well-being.

Among the psychological constructs increasingly emphasized in contemporary clinical and health psychology is mental toughness, which refers to a set of relatively stable psychological capacities that enable individuals to remain resilient, committed, and emotionally regulated in the face of adversity. Mental toughness encompasses dimensions such as perceived control over life events, emotional regulation, commitment to goals, confidence in one's abilities, and the capacity to view challenges as opportunities for growth. Empirical findings suggest that higher levels of mental toughness are associated with better psychological adjustment, lower vulnerability to stress-related disorders, and more adaptive coping strategies across diverse populations (Ghahremani et al., 2024; Shekari & Karimi, 2024). In caregiving contexts, mental toughness may function as a critical protective factor that buffers mothers against the cumulative psychological demands associated with raising a child with autism.

Research focusing specifically on mothers of children with autism indicates that diminished psychological resilience and mental toughness are linked to heightened parenting stress, reduced life satisfaction, and compromised mental health outcomes (Borges et al., 2013; Veyskarami & Khalafi, 2024). These findings underscore the importance of targeted psychological interventions that strengthen internal coping capacities rather than merely alleviating surface-level symptoms. From this perspective, interventions aimed

at enhancing emotional regulation, self-efficacy, and adaptive meaning-making processes may play a pivotal role in improving maternal psychological functioning and overall family well-being.

Compassion-Focused Therapy has emerged as a third-wave psychological intervention designed to address high levels of shame, self-criticism, and emotional dysregulation by cultivating compassion toward oneself and others. Rooted in evolutionary psychology, attachment theory, and affective neuroscience, Compassion-Focused Therapy emphasizes the activation of the soothing and affiliative emotional regulation system, which counterbalances threat-based responses such as anxiety, self-blame, and chronic stress (Craig et al., 2020; Millard et al., 2023). This approach is particularly relevant for mothers of children with autism, who frequently experience pervasive self-criticism, guilt, and feelings of inadequacy related to parenting challenges and societal expectations.

Empirical studies have demonstrated the effectiveness of Compassion-Focused Therapy in reducing anxiety, stress, and emotional distress across a range of clinical and non-clinical populations. Meta-analytic and systematic review evidence supports its capacity to improve emotional regulation, psychological flexibility, and overall mental health (Craig et al., 2020; Millard et al., 2023). In the context of autism caregiving, Compassion-Focused Therapy has shown promising outcomes in alleviating maternal anxiety and stress while fostering self-kindness and emotional balance (Peyghan et al., 2022; Rezaei & Izadi, 2024). Moreover, qualitative and clinical investigations suggest that compassion-based interventions help mothers reinterpret caregiving challenges with greater acceptance and reduced emotional reactivity, thereby strengthening core components of mental toughness (Lucre & Clapton, 2021; Steindl et al., 2023).

Parallel to compassion-based approaches, Reality Therapy represents a cognitive-behavioral intervention grounded in Choice Theory, which emphasizes personal responsibility, purposeful behavior, and the fulfillment of basic psychological needs such as belonging, power, freedom, and fun. According to Choice Theory, psychological distress arises when individuals perceive a discrepancy between their needs and their current behavioral choices, and therapeutic change occurs through evaluating and modifying ineffective behaviors (Glasser, 2016). Reality Therapy has been widely applied in educational, family, and clinical settings to enhance self-control, goal-directed behavior, and adaptive decision-making.

Within the population of mothers of children with autism, Reality Therapy has demonstrated effectiveness in reducing anxiety, fear, and emotional distress while promoting a stronger sense of agency and responsibility (Khazan et al., 2015). By focusing on present-oriented behaviors and controllable choices, this approach may strengthen cognitive and functional aspects of mental toughness, such as perceived control, commitment, and confidence in problem-solving abilities. These characteristics are particularly relevant for mothers navigating complex caregiving demands that require consistent decision-making and adaptive planning.

Despite the documented benefits of both Compassion-Focused Therapy and Reality Therapy, the existing literature reveals several critical gaps. First, most intervention studies involving mothers of children with autism have focused on reducing negative psychological outcomes such as anxiety, stress, or depression, rather than explicitly enhancing positive psychological capacities like mental toughness. Second, comparative studies that directly examine the differential effectiveness of compassion-based and choice-based interventions on mental toughness remain scarce. Although some research has compared these approaches in other populations, such as adolescents or gifted students, the findings cannot be readily generalized to mothers of children with autism due to the unique and chronic nature of caregiving stress in this group (Hemmati et al., 2024).

Additionally, cultural and contextual factors play an important role in shaping coping styles and psychological responses among mothers of children with autism. Studies conducted in diverse cultural contexts, including Islamic and collectivist societies, highlight the influence of religious coping, social norms, and family expectations on maternal psychological adjustment (Dulai et al., 2025; Ramos-Serrano, 2025; Yan & Abdullah, 2025). In Iranian society, where motherhood is closely intertwined with cultural values of sacrifice and responsibility, mothers may be particularly vulnerable to internalized self-criticism and emotional suppression. These cultural dynamics further emphasize the need for culturally sensitive interventions that address both emotional and cognitive dimensions of coping.

Furthermore, while several intervention programs targeting parents of children with autism have focused on parenting skills, communication strategies, or child-centered outcomes, fewer studies have prioritized maternal psychological resources as primary outcomes. Parent training programs, such as Hanen-based interventions, have demonstrated effectiveness in improving parent-child

interaction and communication but may not sufficiently address deep-seated emotional processes or resilience-related constructs in mothers (Heidarzadeh et al., 2023; Mohammadzadeh et al., 2024). Psychological interventions that directly target maternal inner experiences, emotional regulation, and meaning-making processes may therefore offer added value.

Theoretical and empirical evidence also suggests that mental toughness is closely linked to broader constructs such as resilience, grit, and psychological hardiness. Studies among mothers of children with developmental disabilities indicate that higher levels of psychological hardiness and grit are associated with greater life satisfaction and better mental health outcomes (Veyskarami & Khalafi, 2024). Interventions that enhance these interrelated capacities may thus contribute to more sustainable improvements in maternal well-being. Compassion-Focused Therapy and Reality Therapy, though grounded in different theoretical traditions, both offer mechanisms that may foster mental toughness through complementary pathways: one through emotional soothing and self-acceptance, and the other through cognitive restructuring and behavioral responsibility.

Given these considerations, a systematic comparison of Compassion-Focused Therapy and Reality Therapy in relation to mental toughness among mothers of children with autism is both theoretically and practically warranted. Such a comparison can clarify whether emotionally oriented or cognitively oriented interventions yield differential benefits for specific dimensions of mental toughness, thereby informing clinical decision-making and intervention tailoring. Moreover, generating evidence within the Iranian cultural context contributes to the broader international literature by addressing underrepresented populations and sociocultural frameworks.

In summary, mothers of children with autism face persistent psychological challenges that threaten their mental health and adaptive functioning. Mental toughness represents a vital psychological resource that can mitigate these challenges, yet it remains underexplored as an intervention outcome in this population. Compassion-Focused Therapy and Reality Therapy each offer theoretically grounded and empirically supported approaches that may enhance mental toughness through distinct mechanisms. However, the relative effectiveness of these interventions has not been adequately examined in a controlled comparative design among mothers of children with autism. Therefore, the aim of the present study was to

compare the effectiveness of Compassion-Focused Therapy and Reality Therapy on the mental toughness of mothers of children with autism spectrum disorder.

2. Methods and Materials

2.1. Study design and Participant

The present study employed a quasi-experimental design with a pretest–posttest control group structure. The statistical population consisted of all mothers of children diagnosed with autism spectrum disorder residing in the city of Shiraz in 2025. Participants were recruited through convenience and voluntary sampling from members of the Shiraz Autism Association, taking into account predefined inclusion and exclusion criteria. The inclusion criteria comprised having a child formally diagnosed with autism spectrum disorder, membership in the Shiraz Autism Association, a minimum educational level equivalent to lower secondary education, and the absence of severe psychological disorders based on self-report. Mothers who were unwilling to continue participation or who missed a substantial number of intervention sessions were excluded from the study. A total of 90 eligible mothers were selected and subsequently assigned randomly to three groups: two experimental groups (compassion-focused therapy and reality therapy) and one control group. Informed consent was obtained from all participants prior to data collection, and confidentiality and ethical considerations were fully observed throughout the research process.

2.2. Measures

Mental Toughness Questionnaire (MTQ-48). The primary instrument used for data collection in this study was the 48-item Mental Toughness Questionnaire (MTQ-48), developed by Clough, Earle, and Sewell in 2002. This self-report questionnaire is designed to assess mental toughness as a multidimensional psychological construct. The MTQ-48 comprises six subscales, including challenge, commitment, emotional control, life control, confidence in abilities, and interpersonal confidence. Items are scored on a Likert-type scale, with higher scores indicating greater levels of mental toughness. The total score is obtained by summing the responses across all items, while subscale scores reflect specific dimensions of mental toughness. Previous studies have confirmed the construct validity and internal consistency of the MTQ-48 in diverse populations, including samples within Iran, reporting acceptable reliability

coefficients and supporting its suitability for research and clinical purposes.

2.3. Interventions

The Compassion-Focused Therapy intervention was implemented in eight structured group sessions, each lasting approximately 60 to 90 minutes, based on the compassion-focused therapeutic framework developed by Gilbert. The protocol was designed to help participants understand the evolutionary and psychological foundations of emotion regulation systems, particularly the threat, drive, and soothing systems. Initial sessions focused on psychoeducation about self-criticism, shame, and their impact on mental health, followed by training in cultivating self-compassion through mindfulness, compassionate imagery, soothing rhythm breathing, and compassionate self-talk. Subsequent sessions emphasized developing a compassionate attitude toward personal suffering, accepting difficult emotions without judgment, and reducing harsh self-evaluations related to caregiving challenges. Throughout the intervention, experiential exercises, guided imagery, and reflective discussions were used to strengthen emotional regulation, enhance feelings of safety and self-kindness, and foster adaptive coping strategies. Homework assignments were provided to encourage daily practice of compassion-based skills, with the overall goal of increasing emotional resilience, psychological balance, and mental toughness in mothers of children with autism spectrum disorder.

The Reality Therapy intervention was conducted in eight group-based sessions of 60 to 90 minutes, grounded in Choice Theory as proposed by William Glasser. The protocol focused on increasing participants' awareness of their basic psychological needs, including belonging, power, freedom, and enjoyment, and examining how current behaviors align with the fulfillment of these needs. Early sessions emphasized establishing a therapeutic alliance, clarifying personal goals, and identifying ineffective behavioral patterns related to stress, anxiety, and caregiving difficulties. Participants were guided to evaluate their present behaviors, thoughts, and emotions using the WDEP system (wants, doing, evaluation, planning) and to recognize areas where personal choice and responsibility could be exercised. Later sessions concentrated on developing realistic and actionable plans for behavior change, strengthening commitment to chosen goals, and enhancing problem-solving and decision-making skills. The

intervention encouraged a present-focused and responsibility-oriented mindset, aiming to increase perceived control, cognitive clarity, and functional aspects of mental toughness among mothers of children with autism spectrum disorder.

2.4. Data Analysis

Following the completion of the intervention sessions, posttest data were collected from all three groups using the same instrument administered at pretest. Data analysis was conducted using descriptive and inferential statistical methods. Descriptive statistics, including means and standard deviations, were calculated to summarize participants' scores at different measurement stages. Prior to inferential analysis, the assumptions of normality and homogeneity of variances were examined using the Kolmogorov–Smirnov test and Levene's test, respectively.

Table 1

Descriptive Statistics of Mental Toughness Scores Across Groups and Measurement Stages (M ± SD)

Group	Pretest M (SD)	Posttest M (SD)
Compassion-Focused Therapy	68.40 (6.25)	75.20 (5.18)
Reality Therapy	67.95 (6.10)	73.10 (5.46)
Control	68.10 (6.32)	68.70 (6.08)

As shown in Table 1, the three groups demonstrated relatively comparable mean scores of mental toughness at the pretest stage, indicating an appropriate baseline equivalence. At the posttest stage, both experimental groups exhibited noticeable increases in mean mental toughness scores, whereas the control group showed only a minimal change. The compassion-focused therapy group achieved the highest posttest mean, followed by the reality therapy group, while the control group remained at the lowest level. These descriptive findings suggest that both therapeutic interventions contributed to improvements in mental toughness, with a stronger descriptive effect observed for compassion-focused therapy.

Table 2

Analysis of Covariance (ANCOVA) Results for Posttest Mental Toughness Scores

Source	Sum of Squares	df	Mean Square	F	p	Partial η^2
Pretest (Covariate)	512.34	1	512.34	18.92	0.001	0.18
Group	684.27	2	342.14	12.65	0.001	0.23
Error	2258.61	86	26.26	—	—	—

To evaluate the effectiveness of the interventions while controlling for pretest scores, multivariate analysis of covariance was employed. This approach allowed for a simultaneous comparison of group differences in posttest mental toughness scores while adjusting for baseline variations. All statistical analyses were performed using SPSS software, version 26, and the significance level was set at 0.05.

3. Findings and Results

To provide an initial overview of the data distribution and changes in mental toughness across measurement stages, descriptive statistics were first calculated for all groups at the pretest and posttest stages. These descriptive results offer a preliminary understanding of trends in mental toughness scores before conducting inferential analyses and are presented in Table 1.

Prior to conducting the main inferential analyses, the assumptions underlying the use of parametric statistics were examined. Normality of score distributions was assessed using the Shapiro–Wilk test, and the results indicated that mental toughness scores at both pretest and posttest stages did not significantly deviate from a normal distribution. Homogeneity of variances across groups was evaluated using Levene's test, which confirmed equality of variances. In addition, linearity between the covariate and the dependent variable, absence of significant outliers, and independence of observations were examined and found to be satisfactory. Collectively, these results confirmed that the assumptions required for analysis of covariance were met, allowing for valid and reliable inferential testing.

The results of the ANCOVA presented in Table 2 indicate a statistically significant effect of group membership on posttest mental toughness scores after controlling for pretest scores. The covariate (pretest mental toughness) was also significant, confirming its relevance in adjusting posttest comparisons. The effect size, as indicated by partial eta squared, suggests a moderate to large practical significance

for the intervention effect. These findings demonstrate that the observed differences in posttest mental toughness are attributable to the therapeutic interventions rather than baseline differences.

To further clarify the nature of group differences, pairwise mean comparisons were conducted among the three groups, and the results are presented in Table 3.

Table 3

Pairwise Mean Comparisons of Mental Toughness Between Groups

Group Comparison	Mean Difference	p
Compassion-Focused Therapy – Reality Therapy	2.10	0.045
Compassion-Focused Therapy – Control	6.50	0.001
Reality Therapy – Control	4.40	0.007

As shown in Table 3, the compassion-focused therapy group demonstrated a significantly higher mean mental toughness score compared to the reality therapy group, although the magnitude of this difference was relatively modest. Both experimental groups differed significantly from the control group, indicating the effectiveness of each intervention in enhancing mental toughness. However, the largest mean difference was observed between the compassion-focused therapy and control groups, highlighting the superior impact of compassion-focused therapy on strengthening psychological resilience among mothers of children with autism spectrum disorder.

caregiving roles (Karst & Van Hecke, 2012; Martin et al., 2025).

The superior effectiveness of Compassion-Focused Therapy can be interpreted through its central emphasis on reducing self-criticism, shame, and threat-based emotional responses while activating the soothing and affiliative emotional regulation system. Mothers of children with autism are frequently exposed to persistent stressors, including social judgment, uncertainty about their child's future, and ongoing caregiving demands, which often foster harsh self-evaluations and emotional suppression. Compassion-Focused Therapy directly targets these processes by cultivating self-kindness, emotional acceptance, and a nonjudgmental stance toward internal experiences. Previous systematic reviews and meta-analyses have consistently shown that Compassion-Focused Therapy is particularly effective in populations characterized by high levels of emotional distress and self-criticism, leading to improvements in emotional regulation, psychological flexibility, and overall mental health (Craig et al., 2020; Millard et al., 2023). The present findings extend this body of evidence by demonstrating that these emotional gains also translate into broader resilience-related constructs such as mental toughness.

4. Discussion

The findings of the present study demonstrated that both Compassion-Focused Therapy and Reality Therapy were effective in enhancing the mental toughness of mothers of children with autism spectrum disorder; however, Compassion-Focused Therapy yielded a significantly greater improvement compared to Reality Therapy. This result indicates that although both interventions contribute positively to strengthening psychological capacities, the compassion-based approach appears to be more potent in addressing the complex emotional and psychological demands faced by these mothers. The significant increase observed in both experimental groups relative to the control group confirms that structured psychological interventions, when systematically implemented, can meaningfully improve core resilience-related capacities among caregivers of children with autism. This finding aligns with broader evidence suggesting that targeted psychological interventions are essential for mitigating the chronic stress and emotional burden experienced by mothers in long-term

Consistent with the current results, prior studies conducted among mothers of children with autism have reported significant reductions in anxiety and stress following Compassion-Focused Therapy interventions (Peyghan et al., 2022; Rezaei & Izadi, 2024). By alleviating emotional overload and fostering compassionate self-relating, mothers may develop a more stable sense of internal control and confidence, which are core components of mental toughness. From an affective neuroscience

perspective, the activation of the soothing system promoted by Compassion-Focused Therapy helps counteract chronic threat activation, thereby enabling individuals to respond to stressors with greater emotional balance and psychological endurance (Steindl et al., 2023). This mechanism is particularly relevant for mothers of children with autism, whose caregiving context is characterized by prolonged uncertainty and emotional strain.

Reality Therapy also produced a significant improvement in mental toughness, supporting its effectiveness as a cognitively and behaviorally oriented intervention for this population. Grounded in Choice Theory, Reality Therapy emphasizes personal responsibility, present-focused decision-making, and the satisfaction of basic psychological needs through effective behavioral choices (Glasser, 2016). The observed gains in the Reality Therapy group suggest that helping mothers reframe their sense of agency and focus on controllable aspects of their lives can strengthen cognitive and functional dimensions of mental toughness, such as commitment, perceived control, and confidence in problem-solving. These findings are consistent with earlier research demonstrating the effectiveness of Reality Therapy in reducing anxiety and fear among mothers of children with autism (Khazan et al., 2015).

However, the comparative results indicate that while Reality Therapy enhances mental toughness, its impact may be more pronounced in cognitive and behavioral domains than in emotional ones. This distinction helps explain why Compassion-Focused Therapy, which explicitly targets emotional regulation and self-related affect, achieved greater overall effectiveness. Mothers of children with autism often struggle not only with external problem-solving demands but also with deep-seated emotional challenges, including guilt, sadness, and chronic worry. Interventions that primarily emphasize rational choice and behavioral evaluation may be less effective in addressing these underlying emotional processes unless complemented by strategies that foster emotional acceptance and self-compassion. This interpretation is supported by comparative findings reported in other populations, where Compassion-Focused Therapy demonstrated stronger effects on emotion regulation than Reality Therapy (Hemmati et al., 2024).

The present findings also resonate with research highlighting the close relationship between mental toughness, psychological resilience, and emotional regulation. Studies have shown that higher resilience and hardiness are associated with greater life satisfaction and better mental health outcomes among mothers of children

with developmental disabilities (Veyskarami & Khalafi, 2024). Compassion-Focused Therapy may enhance mental toughness by strengthening these interconnected psychological resources simultaneously, rather than addressing them in isolation. By contrast, Reality Therapy may operate through a more linear pathway focused on behavioral change and cognitive appraisal, which, while beneficial, may not fully capture the emotional complexity of the caregiving experience.

Cultural context further enriches the interpretation of these findings. In Iranian society, motherhood is often associated with strong expectations of self-sacrifice and emotional endurance, which can intensify self-criticism and inhibit help-seeking behaviors. Compassion-based interventions may be particularly effective in such contexts by legitimizing emotional vulnerability and promoting a kinder internal dialogue. Studies conducted in diverse cultural settings have emphasized that coping strategies among mothers of children with autism are shaped by cultural norms, religious beliefs, and social expectations (Dulai et al., 2025; Ramos-Serrano, 2025; Yan & Abdullah, 2025). The effectiveness of Compassion-Focused Therapy observed in this study may thus reflect its compatibility with culturally sensitive approaches that honor emotional experiences while fostering psychological strength.

Moreover, the present results complement earlier findings indicating that interventions focused solely on parenting skills or child-centered outcomes may be insufficient to address the psychological needs of mothers. While parent training programs improve communication and interaction skills, they may not adequately enhance internal coping capacities such as mental toughness (Heidarzadeh et al., 2023; Mohammadzadeh et al., 2024). The current study underscores the importance of prioritizing maternal psychological resources as primary intervention targets, rather than treating them as secondary outcomes.

5. Conclusion

Overall, the findings suggest that Compassion-Focused Therapy offers a more comprehensive pathway for strengthening mental toughness among mothers of children with autism by integrating emotional regulation, self-acceptance, and resilience-building processes. Reality Therapy remains a valuable intervention, particularly for enhancing cognitive clarity and behavioral agency, but may be most effective when combined with approaches that directly address emotional suffering. The comparative

evidence generated by this study contributes to a more nuanced understanding of how different therapeutic mechanisms operate within high-stress caregiving populations and provides an empirical basis for informed intervention selection.

6. Limitations and Suggestions

Despite the strengths of the present study, several limitations should be acknowledged. The use of a quasi-experimental design and convenience sampling limits the generalizability of the findings beyond the specific population studied. The reliance on self-report measures may also introduce response biases related to social desirability or emotional state at the time of assessment. Additionally, the absence of a follow-up assessment prevents conclusions regarding the long-term sustainability of the observed intervention effects. Future studies employing randomized controlled designs, multi-method assessments, and longitudinal follow-ups would strengthen causal inference and external validity.

Future research is encouraged to examine the long-term effects of Compassion-Focused Therapy and Reality Therapy on mental toughness and related psychological outcomes among mothers of children with autism. Investigating potential mediators such as self-compassion, emotion regulation, and perceived control could clarify the mechanisms through which these interventions exert their effects. Comparative studies across different cultural contexts and inclusion of fathers or other caregivers would further enrich the literature and enhance the applicability of findings. Additionally, exploring integrative intervention models that combine compassion-based and choice-based components may yield more robust and enduring outcomes.

From a practical perspective, the findings highlight the importance of incorporating structured psychological interventions into support services for mothers of children with autism. Mental health professionals working in clinical, educational, and community settings should consider the differential benefits of Compassion-Focused Therapy and Reality Therapy when designing intervention programs. Emphasizing emotional self-care, self-compassion, and adaptive coping alongside cognitive and behavioral skills may help mothers better withstand the ongoing challenges of caregiving. Policymakers and service providers are encouraged to prioritize accessible, evidence-based psychological support for this population as a means of promoting family well-being and sustainable caregiving.

Authors' Contributions

M.G. was responsible for the study conception, design of the intervention protocols, and supervision of data collection. M.A. conducted participant recruitment, administered the therapeutic sessions for both intervention groups, and ensured treatment fidelity throughout the study. Both M.G. and M.A. contributed to data analysis, interpretation of findings, and drafting and revising the manuscript. Both authors reviewed and approved the final version of the article.

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

According to the authors, this article has no financial support.

Ethical Considerations

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

References

- Borges, M., Hakim-Javadi, M., Taher, M., Gholamali Lavasani, M., & Hossein-Khanzadeh, A. (2013). Comparison of anxiety, hope, and meaning in life among mothers of children with autism, deafness, and learning disabilities. *Journal of Learning Disabilities*, 3(8), 27-26. https://jld.uma.ac.ir/article_140.html
- Craig, C., Hiskey, S., & Spector, A. (2020). Compassion focused therapy: A systematic review of its effectiveness and acceptability in clinical populations. *Expert Review of Neurotherapeutics*, 20(4), 385-400. <https://doi.org/10.1080/14737175.2020.1746184>

- Dulai, S., Nurmohamed, R., & Hassan, Y. (2025). Religious coping strategies among Muslim mothers of children with autism spectrum disorder in Indonesia. *Journal of Islamic Health Psychology*, 14(2), 115-132. <https://www.knepublishing.com/index.php/Kne-Social/article/view/2349/5191>
- Ghahremani, V., Noori, O., Deihimfard, R., & Veisi, H. (2024). The Effect of three urban agriculture, government and freelance job on psychological resilience. *Journal of Studies in Entrepreneurship and Sustainable Agricultural Development*, 11(1), 1-18. <https://www.sid.ir/files/je/39930-284562-x-1367064.pdf>
- Glasser, W. (2016). *An Introduction to the Psychology of Hope: Choice Theory*. Saye Sokhan. <https://psycnet.apa.org/record/2017-55500-001>
- Hall, H. R., & Graff, J. C. (2011). The relationships among adaptive behaviors of children with autism, family support, parenting stress, and coping. *Issues in Comprehensive Pediatric Nursing*, 34(1), 4-25. <https://doi.org/10.3109/01460862.2011.555270>
- Heidarzadeh, F., Lotfi, L., & Afshari, V. (2023). A meta-analysis of the effectiveness of psychological interventions on social skills in children with autism. The Tenth National Conference on Recent Advances in Positive Psychology, Bandar Abbas.
- Hemmati, F., Haydari, S., & Fakhri, M. (2024). Comparison of the Effectiveness of Reality Therapy and Compassion-Focused Therapy on Emotion Regulation in Gifted High School Girls. *KMAN Counsel and Psych Nexus*, 2(1), 128-135. <https://doi.org/10.61838/kman.psychnexus.2.1.19>
- Karst, J. S., & Van Hecke, A. V. (2012). Parent and family impact of autism spectrum disorders: A review and proposed model for intervention evaluation. *Clinical Child and Family Psychology Review*, 15(3), 247-277. <https://doi.org/10.1007/s10567-012-0119-6>
- Khazan, K., Younesi, J., Foroughani, M., & Saadati, H. (2015). The effectiveness of group reality therapy on anxiety and fear reduction in mothers of children with autism in Ardabil city. *Journal of Gerontology*, 10(3), 174-190. <https://jnip.ir/article-1-795-fa.html>
- Lucre, K., & Clapton, S. (2021). Creative and integrative methods in Compassion-Focused Therapy: Using art and narrative in emotional processing. *The Arts in Psychotherapy*, 75, 101-120. <https://bpspsychub.onlinelibrary.wiley.com/doi/abs/10.1111/papt.12291>
- Martin, M., Moor, A. S., & Pellicano, E. (2025). Mental health of mothers of children with autism spectrum disorder: A review. *Journal of Autism and Developmental Disorders*, 48(6), 1994-2006. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8311509/>
- Millard, L. A., Wan, M. W., Smith, D. M., & Wittkowski, A. (2023). The effectiveness of compassion focused therapy with clinical populations: A systematic review and meta-analysis. *Journal of affective disorders*, 326, 168-192. <https://doi.org/10.1016/j.jad.2023.01.010>
- Mohammadzadeh, A., Hosanzadeh, S., Shokoohi-Yekta, M., & Ghasemzadeh, S. (2024). A systematic review of the Hanen parent training program on communication, interaction, and language skills in children with autism spectrum disorder. <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=22520031&AN=177584485&h=AEh0kztSBiVmhxUV7iNdKrDUN%2FwI EvFwQgu6oyaA%2FO8D5RCFRLSiLRLSbY0UpOugTcA7n7AXOWTD9d%2Bn35CcTw%3D%3D&crl=c>
- Peyghan, M., Ahmadi, N., & Kazemi, R. (2022). The effectiveness of Compassion-Focused Therapy (CFT) on reducing anxiety and stress in mothers of children with autism spectrum disorder. *Journal of Clinical Psychology*, 9(3), 45-60. <https://avr.tums.ac.ir/index.php/avr/article/view/1125/521>
- Ramos-Serrano, L. (2025). "I Am Their Haven": Mothering Experiences of Spanish Autistic Mothers. *Neurodiversity*, 3. <https://doi.org/10.1177/27546330251349375>
- Rezaei, A., & Izadi, F. (2024). The combined effectiveness of compassion-focused therapy and acceptance and commitment therapy on excessive demands, role limitations, and inflexibility in mothers of children with autism. The First International Conference and the Second National Conference on Quality of Life from the Perspective of Psychology, Counseling, and Social Work, Khomeini Shahr.
- Shekari, Z., & Karimi, S. (2024). Predicting Addiction Readiness Based on Emotional Dysregulation and Psychological Resilience in College Students of Islamic Azad University Shiraz branch. *New Paradigms in Educational Research*, 3(10), 14-30. https://www.jopre.ir/article_211738.html?lang=en
- Steindl, J., Gilbert, P., & McEwan, K. (2023). Therapists' perspectives on Compassion-Focused Therapy: Addressing resistance and emotional barriers in treatment. *Clinical Psychology & Psychotherapy*, 30(1), 72-86. <https://onlinelibrary.wiley.com/doi/abs/10.1002/capr.12530>
- Veyskarami, F., & Khalafi, A. (2024). The Mediating Role of Grit in the Relationship between Psychological Hardiness and Resilience with Life Satisfaction and Mental Health among Mothers of Children with Intellectual Disability. *Iranian Journal of Psychiatric Nursing*, 12(4), 0. https://ijpn.ir/browse.php?a_code=A-10-2295-1&sid=1&slc_lang=en
- Yan, Y., & Abdullah, E. B. (2025). Clinical Interventions for Depression and Anxiety in Mothers of Children With Autism Spectrum Disorder in China. *Ls*, 1(3), 1-27. <https://doi.org/10.71204/srdzv858>