

The Effectiveness of Acceptance and Commitment Therapy on Positive Thinking and Lifestyle among Mothers of Children with Autism

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ABSTRACT

The present study aimed to investigate the effectiveness of Acceptance and Commitment Therapy (ACT) on positive thinking and lifestyle among mothers of children with autism in Tonekabon, Iran. This study employed a quasi-experimental design with pretest–posttest measurements and a control group. The statistical population consisted of mothers of children diagnosed with autism spectrum disorder in Tonekabon during 2022. Initially, 45 mothers completed the Positive Thinking Questionnaire developed by Ingram and Wisnicki and the Lifestyle Questionnaire developed by Lali et al. Based on the screening results, 30 participants were selected and randomly assigned to either an experimental group ($n = 15$) or a control group ($n = 15$). The experimental group participated in eight 90-minute sessions of Acceptance and Commitment Therapy, while the control group received no intervention. Following the intervention, both groups completed the study measures again. Data were analyzed using descriptive statistics, multivariate analysis of covariance (MANCOVA), and univariate analysis of covariance (ANCOVA) through SPSS software. Multivariate covariance analysis revealed a significant overall effect of the intervention on the combined dependent variables of positive thinking and lifestyle (Wilks' $\Lambda = 0.337$, $F(4,25) = 12.292$, $p < .001$, $\eta^2 = .663$). The results indicated significant differences between the experimental and control groups in posttest scores after controlling for pretest values. Descriptive findings showed that the experimental group demonstrated substantial increases in both lifestyle and positive thinking scores from pretest to posttest, whereas changes in the control group were negligible. The effect size suggested that approximately 66% of the variance in the combined dependent variables was attributable to the ACT intervention. These findings support the effectiveness of Acceptance and Commitment Therapy in improving psychological and lifestyle-related outcomes among mothers of children with autism. The findings indicate that Acceptance and Commitment Therapy is an effective intervention for enhancing positive thinking and improving lifestyle among mothers of children with autism. By fostering psychological flexibility, acceptance of difficult experiences, value-based action, and adaptive coping strategies, ACT contributes to improved psychological well-being and healthier life patterns in this population.

Keywords: Acceptance and Commitment Therapy (ACT); Positive Thinking; Lifestyle; Autism Spectrum Disorder; Mothers of Children with Autism; Psychological Flexibility.

1. Introduction

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterized by persistent deficits in social communication and interaction, along with restricted and repetitive patterns of behavior, interests, and activities. The disorder typically emerges during early childhood and continues throughout the lifespan, affecting multiple domains of functioning and requiring substantial support from family members, particularly parents. Due to the chronic and pervasive nature of ASD, families often face considerable emotional, psychological, social, and economic challenges. Among family members, mothers frequently assume the primary caregiving role and consequently experience a disproportionate share of caregiving responsibilities and associated stressors (Eini, 2021). The continuous demands of caring for a child with autism can significantly affect maternal well-being and influence various aspects of daily functioning, including emotional adjustment, interpersonal relationships, self-care behaviors, and overall quality of life.

The impact of raising a child with autism extends far beyond the direct management of the child's symptoms. Research has demonstrated that parents of children with ASD often experience elevated levels of psychological distress, anxiety, depression, and parenting stress compared with parents of typically developing children or children with other developmental disabilities. These challenges are compounded by concerns regarding the child's future, difficulties in accessing appropriate educational and therapeutic services, financial burdens, and societal stigma. The cumulative effect of these stressors can undermine parents' psychological resources and compromise their ability to maintain healthy lifestyles and adaptive coping strategies. In particular, mothers frequently report feelings of exhaustion, helplessness, uncertainty, and social isolation, which may negatively affect their physical and mental health (Samadi & McConkey, 2019).

The lived experiences of mothers of children with autism reveal the multifaceted nature of the challenges they encounter. Qualitative investigations have shown that these mothers often experience chronic emotional strain, disruptions in family functioning, reduced opportunities for personal growth, and persistent concerns about their children's development and social acceptance. Many mothers describe balancing caregiving demands with other family responsibilities while simultaneously coping with societal misunderstandings regarding autism. Such

experiences may lead to diminished psychological well-being and reduced satisfaction with life, highlighting the need for interventions that address not only the needs of children with autism but also the well-being of their caregivers (Gobrial, 2018).

One of the psychological constructs that may be particularly vulnerable among mothers of children with autism is positive thinking. Positive thinking refers to a cognitive-emotional orientation characterized by optimism, positive expectations regarding the future, confidence in one's abilities, and the tendency to interpret experiences in a constructive manner. Positive thinking is associated with resilience, psychological adjustment, effective coping, and overall well-being. Individuals who maintain positive cognitive patterns are generally better equipped to manage stressful situations and recover from adversity. Conversely, diminished positive thinking may contribute to increased vulnerability to anxiety, depression, hopelessness, and reduced quality of life. Research has demonstrated that positive thinking serves as an important protective factor against psychological distress and facilitates adaptive functioning in challenging life circumstances (Nakhaei et al., 2022).

The significance of positive thinking is particularly evident among caregivers of children with special needs. When parents are able to maintain hope, optimism, and a constructive outlook, they are more likely to engage in adaptive coping strategies and experience greater psychological well-being. Interventions aimed at strengthening positive thinking have been associated with improvements in emotional functioning, life satisfaction, and overall adjustment. For example, evidence indicates that enhancing positive thinking skills can lead to improvements in lifestyle behaviors and reductions in feelings of loneliness and psychological distress (Moradi, 2018). Similarly, interventions designed to promote positive psychological resources among mothers of children facing chronic health conditions have demonstrated beneficial effects on well-being, meaning in life, and life satisfaction (Damreihani et al., 2018).

Another critical area affected by the demands of caregiving is lifestyle. Lifestyle encompasses a broad range of health-related behaviors and daily practices that contribute to physical, psychological, social, and spiritual well-being. Healthy lifestyle behaviors include regular physical activity, balanced nutrition, adequate sleep, stress management, social engagement, and preventive health practices. Mothers of children with autism frequently

encounter barriers that limit their ability to maintain healthy lifestyles. Time constraints, emotional exhaustion, caregiving demands, and limited social support may reduce opportunities for self-care and compromise health-promoting behaviors. Consequently, these mothers may be at increased risk for poor physical health outcomes and reduced quality of life (García et al., 2023).

The relationship between positive thinking and lifestyle is particularly important in the context of caregiving. Positive cognitive patterns may encourage individuals to engage in healthier behaviors, maintain social connections, and persevere in the face of challenges. Conversely, unhealthy lifestyle patterns can exacerbate psychological distress and diminish resilience. Previous research has demonstrated that interventions targeting positive psychological constructs can simultaneously improve positive thinking and lifestyle indicators among mothers caring for children with special needs (Ghadiri, 2020). Therefore, interventions that address both psychological flexibility and adaptive functioning may offer significant benefits for mothers of children with autism.

Given the psychological burden associated with caregiving, considerable attention has been devoted to identifying effective therapeutic approaches that enhance coping, resilience, and well-being among parents of children with developmental disorders. One intervention that has received increasing empirical support is Acceptance and Commitment Therapy (ACT). ACT is a third-wave behavioral therapy that seeks to increase psychological flexibility through six core processes: acceptance, cognitive defusion, present-moment awareness, self-as-context, values clarification, and committed action. Rather than attempting to eliminate unpleasant thoughts and emotions, ACT encourages individuals to develop a different relationship with these experiences by accepting them and pursuing actions aligned with their personal values (Hayes et al., 2020).

The theoretical foundation of ACT is particularly relevant to parents of children with autism because many of the challenges they face are chronic and cannot be easily eliminated. Attempts to avoid, suppress, or control difficult emotions may paradoxically intensify distress and reduce adaptive functioning. ACT promotes acceptance of unavoidable experiences while encouraging individuals to focus on meaningful life directions. Through this process, individuals develop greater psychological flexibility, which enables them to respond more effectively to stressors and

engage in behaviors that support well-being and personal growth (Miri, 2019).

A growing body of empirical evidence supports the effectiveness of ACT in improving psychological outcomes among caregivers and parents. Randomized controlled trials have demonstrated that ACT can reduce symptoms of anxiety and depression while enhancing emotional adjustment and psychological well-being among parents facing caregiving challenges (Lundahl & Risser, 2021). Similarly, ACT-based interventions have been associated with improvements in parental well-being and positive child-related outcomes, suggesting that enhancing parental psychological flexibility may have broader benefits for family functioning (Bennett & Twohig, 2023).

Research focusing specifically on parents of children with autism has yielded promising findings. Studies examining mindfulness-based and acceptance-oriented interventions have reported reductions in stress and improvements in well-being among parents of children with ASD (Cachia et al., 2020). Furthermore, investigations conducted among mothers of children with autism have shown that ACT can enhance quality of life and subjective well-being, highlighting its potential as an effective intervention for this population (Aghaverdinejad et al., 2022). Recent meta-analytic evidence has further confirmed the effectiveness of ACT in reducing parental stress among parents of children with special needs, demonstrating consistent benefits across diverse populations and intervention formats (Resch et al., 2025).

Despite growing evidence regarding the effectiveness of ACT, relatively few studies have simultaneously examined its impact on both positive thinking and lifestyle among mothers of children with autism. Existing research has largely focused on psychological distress, anxiety, depression, or quality of life, while less attention has been devoted to positive psychological functioning and health-related lifestyle behaviors. Furthermore, cultural and contextual differences may influence the experiences of mothers caring for children with autism and the effectiveness of psychological interventions. Consequently, additional research is needed to explore the applicability of ACT in different populations and settings.

Given the substantial caregiving burden experienced by mothers of children with autism, the importance of fostering positive psychological resources, and the potential value of promoting healthier lifestyles, investigating interventions capable of addressing these interconnected domains is essential. Acceptance and Commitment Therapy offers a

theoretically coherent and empirically supported approach that may help mothers develop greater psychological flexibility, strengthen positive thinking, and adopt healthier lifestyle practices. Therefore, the present study aimed to investigate the effectiveness of Acceptance and Commitment Therapy on positive thinking and lifestyle among mothers of children with autism.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a quasi-experimental design with a pretest–posttest control group structure to examine the effectiveness of Acceptance and Commitment Therapy (ACT) on positive thinking and lifestyle among mothers of children with autism. The target population consisted of mothers of children diagnosed with Autism Spectrum Disorder (ASD) residing in Tonekabon, Iran, during 2022. Participants were recruited through psychological and counseling centers serving families of children with autism. Initially, 45 mothers completed the study instruments during the pretest phase. Based on their scores on the positive thinking and lifestyle measures, 30 mothers were selected and randomly assigned to either an experimental group ($n = 15$) or a control group ($n = 15$). The experimental group participated in the intervention program, whereas the control group received no psychological intervention during the study period. Following completion of the intervention, both groups completed the posttest assessments using the same instruments administered at baseline.

2.2. Measures

The Positive Thinking Questionnaire developed by Ingram and Wisnicki (1988) was used to assess participants' levels of positive thinking. The instrument consists of 30 items organized into five dimensions: Daily Positive Functioning (10 items), Positive Self-Evaluation (6 items), Evaluation of Self by Others (4 items), Positive Expectations for the Future (2 items), and Self-Confidence (8 items). Responses are scored on a five-point Likert scale ranging from 1 (Never) to 5 (Always), with higher scores indicating greater positive thinking. Previous psychometric evaluations have demonstrated strong reliability and validity for the instrument. Ingram and Wisnicki reported a Cronbach's alpha coefficient of 0.94 and a test–retest reliability coefficient of 0.95. Evidence of construct and discriminant

validity was also established through significant correlations with measures of depression and anxiety.

Lifestyle was measured using the Lifestyle Questionnaire developed and validated by Lali et al. (2012). This instrument contains 70 items rated on a five-point Likert scale and assesses multiple dimensions of healthy living, including physical health, exercise and fitness, weight control and nutrition, disease prevention, psychological health, spiritual health, social health, avoidance of drugs, alcohol and substance use, accident prevention, and environmental health. The questionnaire provides a comprehensive evaluation of individuals' lifestyle behaviors and health-related practices. Previous validation studies have reported satisfactory psychometric properties for the instrument, with a Cronbach's alpha coefficient of 0.87, indicating good internal consistency and reliability.

2.3. Intervention

The intervention was based on the Acceptance and Commitment Therapy (ACT) model proposed by Forman and Herbert and was delivered in eight weekly sessions, each lasting approximately 90 minutes. The program introduced participants to the theoretical foundations and core processes of ACT, including acceptance, cognitive defusion, mindfulness, self-as-context, values clarification, and committed action. Early sessions focused on increasing awareness of participants' struggles with negative thoughts and emotional experiences and examining the psychological costs associated with attempts to control or avoid these experiences. Subsequent sessions emphasized identifying situations that triggered distress, practicing acceptance of difficult emotions, reducing attachment to maladaptive thoughts, and developing present-moment awareness through mindfulness exercises. Participants also engaged in meditation practices, reflective writing assignments, and experiential exercises designed to foster psychological flexibility. In the final sessions, participants explored their personal values, clarified meaningful life directions, and developed action plans consistent with those values. Homework assignments were provided throughout the intervention to reinforce session content and facilitate the application of ACT principles to daily life experiences.

2.4. Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS), version 23. Descriptive statistics, including means and standard deviations, were calculated to

summarize participants' scores on the study variables. To evaluate the effectiveness of the intervention, multivariate analysis of covariance (MANCOVA) was employed to examine the overall effect of the treatment on the combined dependent variables while controlling for pretest scores. Subsequently, univariate analyses of covariance (ANCOVA) were conducted to assess the specific effects of the intervention on positive thinking and lifestyle separately. Statistical significance was evaluated at the conventional alpha level, and effect sizes were examined to determine the magnitude of the intervention's impact.

Table 1

Means and Standard Deviations of Positive Thinking and Lifestyle Scores in the Experimental and Control Groups at Pretest and Posttest

Variable	Group	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD
Lifestyle	Experimental	265.60	28.08	288.93	25.29
Lifestyle	Control	261.00	26.13	259.73	28.15
Positive Thinking	Experimental	101.93	20.57	116.27	22.42
Positive Thinking	Control	105.60	18.65	105.87	20.02

As presented in Table 1, participants in the experimental group demonstrated noticeable improvements in both outcome variables following the Acceptance and Commitment Therapy intervention. The mean lifestyle score increased from 265.60 (SD = 28.08) at pretest to 288.93 (SD = 25.29) at posttest, reflecting an increase of 23.33 points. Similarly, the mean positive thinking score increased from 101.93 (SD = 20.57) to 116.27 (SD = 22.42), representing an improvement of 14.34 points. In contrast, the control group showed only negligible changes across the study period. Lifestyle scores slightly decreased from 261.00 (SD = 26.13) to 259.73 (SD = 28.15), while positive thinking scores changed marginally from 105.60 (SD = 18.65) to 105.87 (SD = 20.02). These descriptive findings provide preliminary evidence that the intervention was associated

3. Findings and Results

The study sample consisted of 30 mothers of children diagnosed with Autism Spectrum Disorder who were randomly assigned to either the experimental group (n = 15) or the control group (n = 15). Participants were recruited from psychological and counseling centers in Tonekabon, Iran. The groups were comparable in size, and all participants completed both the pretest and posttest assessments. No attrition occurred during the intervention period, and therefore all collected data were included in the final statistical analyses.

with improvements in positive thinking and lifestyle among mothers of children with autism.

Prior to conducting the main analyses, the assumptions underlying multivariate analysis of covariance were examined. The normality of score distributions was evaluated using the Shapiro–Wilk test, and all variables were found to be normally distributed ($p > .05$). Levene's test indicated homogeneity of variances across groups for both dependent variables ($p > .05$). Furthermore, Box's M test supported the equality of covariance matrices between groups ($p > .05$). The linear relationship between the covariates and dependent variables was confirmed, and no violations of homogeneity of regression slopes were observed. Therefore, the assumptions required for conducting multivariate and univariate covariance analyses were considered adequately satisfied.

Table 2

Multivariate Analysis of Covariance (MANCOVA) for the Effect of Acceptance and Commitment Therapy on Positive Thinking and Lifestyle

Test	Value	Hypothesis df	Error df	F	p	Partial η^2
Wilks' Lambda	0.337	4	25	12.292	< .001	0.663

The results of the multivariate analysis of covariance revealed a statistically significant overall effect of Acceptance and Commitment Therapy on the combined dependent variables of positive thinking and lifestyle, Wilks' $\Lambda = 0.337$, $F(4, 25) = 12.292$, $p < .001$, partial $\eta^2 =$

.663. These findings indicate that, after controlling for pretest scores, the experimental and control groups differed significantly on the collective outcome measures at posttest. The obtained effect size suggests that approximately 66.3% of the variance in the combined dependent variables was

attributable to the intervention. Therefore, the overall research hypothesis was supported, demonstrating that Acceptance and Commitment Therapy produced significant improvements in the psychological and lifestyle outcomes of mothers of children with autism.

4. Discussion

The present study aimed to investigate the effectiveness of Acceptance and Commitment Therapy (ACT) on positive thinking and lifestyle among mothers of children with autism. The findings demonstrated that ACT produced a significant improvement in the combined outcomes of positive thinking and lifestyle among participants in the experimental group compared with those in the control group. The multivariate analysis of covariance revealed a statistically significant overall intervention effect, indicating that participation in the ACT program contributed substantially to changes in the psychological and behavioral functioning of mothers caring for children with Autism Spectrum Disorder (ASD). The magnitude of the observed effect further suggests that ACT may represent a powerful intervention for promoting adaptive functioning among this vulnerable population.

One of the principal findings of the study was that mothers who participated in the ACT intervention reported significantly higher levels of positive thinking following treatment. This finding is particularly important because positive thinking serves as a protective psychological resource that facilitates resilience, adaptive coping, emotional regulation, and psychological well-being. Mothers of children with autism frequently encounter chronic stressors associated with caregiving responsibilities, social stigma, uncertainty about the future, and concerns regarding their children's developmental outcomes. Such challenges can gradually undermine optimism and increase vulnerability to negative cognitive patterns. The observed increase in positive thinking among participants suggests that ACT successfully altered the manner in which mothers related to difficult thoughts and emotions, thereby creating opportunities for more constructive cognitive processing.

This finding is consistent with previous research demonstrating the beneficial effects of interventions targeting positive psychological functioning. For example, training programs designed to enhance positive thinking have been shown to improve optimism, emotional adjustment, and overall well-being among different populations (Moradi, 2018). Similarly, studies examining

interventions among mothers of children with special needs have reported improvements in positive thinking and psychological functioning following structured therapeutic programs (Ghadiri, 2020). The present findings extend this body of literature by suggesting that ACT, although primarily focused on psychological flexibility rather than cognitive restructuring, can effectively foster positive cognitive orientations among mothers of children with autism.

The improvement in positive thinking can be understood through the theoretical foundations of ACT. According to the ACT model, psychological suffering is often maintained by experiential avoidance and cognitive fusion, whereby individuals become entangled with distressing thoughts and attempt to avoid uncomfortable emotions. Rather than challenging the content of thoughts directly, ACT encourages individuals to observe thoughts as transient psychological events while developing acceptance toward internal experiences. Through mindfulness, cognitive defusion, and acceptance processes, mothers may become less influenced by self-defeating beliefs and catastrophic interpretations associated with caregiving challenges. As a result, they become more capable of recognizing personal strengths, maintaining hope, and adopting a more balanced perspective regarding their circumstances (Hayes et al., 2020).

Another important finding of the study was the significant improvement in lifestyle among mothers who received the ACT intervention. Lifestyle encompasses a broad range of behaviors related to physical health, psychological well-being, social functioning, self-care, and health promotion. Mothers of children with autism frequently experience substantial barriers to maintaining healthy lifestyles due to caregiving demands, limited personal time, emotional exhaustion, and reduced social participation. Consequently, interventions that facilitate adaptive coping and increase psychological flexibility may also promote healthier behavioral patterns.

The observed improvement in lifestyle aligns with previous evidence indicating that mothers of children with autism often face significant challenges in engaging in self-care and maintaining healthy daily routines (García et al., 2023). Research has shown that psychological interventions can improve not only emotional outcomes but also behavioral and lifestyle-related dimensions of functioning. The findings of the present study support this perspective by demonstrating that participation in ACT was associated with meaningful improvements in lifestyle-related outcomes.

These results are also consistent with research reporting that interventions focused on enhancing psychological resources contribute to healthier lifestyle behaviors and improved quality of life among caregivers and parents facing chronic stressors (Damreihani et al., 2018).

The effectiveness of ACT in improving lifestyle may be explained through its emphasis on values clarification and committed action. One of the central goals of ACT is to help individuals identify personally meaningful values and engage in behaviors consistent with those values despite the presence of difficult thoughts or emotions. Mothers caring for children with autism may often postpone their own needs and neglect self-care due to overwhelming caregiving responsibilities. Through the therapeutic process, participants may become more aware of the importance of maintaining their own physical and psychological health while recognizing that self-care is compatible with their caregiving role. Consequently, they may become more motivated to engage in behaviors that promote well-being, including healthier routines, improved stress management, and increased social engagement.

The findings also support previous studies examining the effectiveness of ACT among parents and caregivers. A randomized controlled trial demonstrated that ACT significantly reduced anxiety and depression among parents while enhancing overall psychological adjustment (Lundahl & Risser, 2021). Similarly, evidence has indicated that ACT improves parental well-being and contributes to more adaptive family functioning (Bennett & Twohig, 2023). These findings suggest that the benefits of ACT extend beyond symptom reduction and encompass broader domains of functioning, including emotional, cognitive, behavioral, and interpersonal outcomes. The current study adds to this growing body of evidence by specifically documenting improvements in positive thinking and lifestyle among mothers of children with autism.

The results are also consistent with studies conducted specifically among parents of children with autism. Research has highlighted the positive effects of mindfulness-based and acceptance-oriented approaches on reducing parental stress and enhancing well-being among caregivers of children with ASD (Cachia et al., 2020). Because ACT incorporates mindfulness processes alongside acceptance and values-based action, it is well positioned to address the unique psychological challenges faced by these parents. The present findings support the notion that interventions promoting acceptance and present-moment awareness may facilitate adaptive coping and improve overall functioning

among mothers confronted with the ongoing demands of raising a child with autism.

Furthermore, the findings are congruent with evidence demonstrating the effectiveness of ACT among mothers of children with autism in improving quality of life and subjective well-being (Aghaverdinejad et al., 2022). Although the current study focused specifically on positive thinking and lifestyle, these outcomes are closely related to broader indicators of well-being and quality of life. Improvements in positive thinking may contribute to enhanced emotional functioning, while improvements in lifestyle may promote physical health and social adjustment. Together, these changes are likely to support overall well-being and long-term adaptation among mothers of children with autism.

The present findings may also be interpreted within the broader context of parental stress and adaptation. Parents of children with autism frequently experience elevated levels of stress compared with parents of typically developing children and parents of children with other developmental conditions (Samadi & McConkey, 2019). Such stress can negatively affect cognitive functioning, emotional well-being, and health-related behaviors. Recent meta-analytic evidence has demonstrated that ACT is effective in reducing parental stress among parents of children with special needs (Resch et al., 2025). Reduced stress may represent one of the mechanisms through which ACT influences positive thinking and lifestyle. As parents become more psychologically flexible and less overwhelmed by distressing thoughts and emotions, they may be better positioned to engage in adaptive behaviors and maintain a more optimistic outlook.

Another explanation for the effectiveness of ACT relates to its capacity to increase psychological flexibility. Psychological flexibility enables individuals to remain in contact with the present moment while pursuing meaningful goals despite experiencing difficult emotions or thoughts. For mothers of children with autism, many stressors are chronic and cannot be eliminated. Traditional coping strategies that emphasize controlling or avoiding distress may therefore prove ineffective. ACT provides an alternative framework that encourages acceptance of unavoidable experiences while promoting engagement in meaningful activities. This shift may enhance both psychological resilience and behavioral functioning, thereby contributing to improvements in positive thinking and lifestyle.

The findings of the present study are also indirectly supported by research demonstrating the importance of psychological well-being and positive adjustment among parents. Investigations focusing on parenting stress and parental adaptation have consistently highlighted the relationship between emotional functioning and broader indicators of family well-being (Alavi & Dehghani, 2020). Similarly, studies examining emotional regulation have shown that adaptive emotional processes are associated with greater positive thinking and reduced psychological difficulties (Nakhaei et al., 2022). Because ACT directly targets emotional acceptance and regulation processes, its beneficial effects on positive thinking and lifestyle appear theoretically coherent and empirically supported.

5. Conclusion

Overall, the findings indicate that Acceptance and Commitment Therapy constitutes an effective intervention for improving positive thinking and lifestyle among mothers of children with autism. By enhancing psychological flexibility, promoting acceptance of difficult experiences, reducing experiential avoidance, clarifying personal values, and encouraging committed action, ACT appears capable of fostering meaningful improvements in both psychological and behavioral domains. Given the considerable challenges faced by mothers of children with autism, interventions such as ACT may play a valuable role in supporting caregiver well-being and promoting healthier family functioning.

Several limitations should be considered when interpreting the findings of this study. First, the sample size was relatively small, which may limit the generalizability of the findings to broader populations of mothers of children with autism. Second, participants were recruited from a single geographical area, and cultural or contextual factors may have influenced the results. Third, all data were collected using self-report questionnaires, creating the possibility of response bias and social desirability effects. Additionally, the study utilized a posttest-only follow-up period without long-term assessment, making it difficult to determine the durability of treatment effects over time. Finally, other potentially influential variables such as severity of the child's autism symptoms, socioeconomic status, and levels of social support were not controlled.

Future studies should employ larger and more diverse samples to enhance the generalizability of findings. Researchers are encouraged to conduct longitudinal investigations to evaluate the long-term effectiveness of

ACT and determine whether improvements in positive thinking and lifestyle are maintained over extended periods. Comparative studies examining ACT alongside other evidence-based interventions may provide valuable information regarding relative effectiveness. Future research may also explore potential mediating variables such as psychological flexibility, resilience, mindfulness, and parental stress. Additionally, investigating the effectiveness of ACT among fathers, other caregivers, and families from different cultural backgrounds would contribute to a more comprehensive understanding of its applicability.

Mental health professionals, family counselors, and rehabilitation specialists working with families of children with autism may consider incorporating Acceptance and Commitment Therapy into their intervention programs. Structured ACT workshops can be offered through autism support centers, schools, and counseling clinics to help parents develop adaptive coping strategies and improve psychological well-being. Healthcare organizations may also integrate ACT-based psychoeducational services into family support programs to enhance caregiver functioning and quality of life. Furthermore, policymakers and service providers should recognize the importance of supporting parental mental health and allocate resources toward accessible psychological interventions for families raising children with autism.

Authors' Contributions

Authors equally contributed to this 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.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

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

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