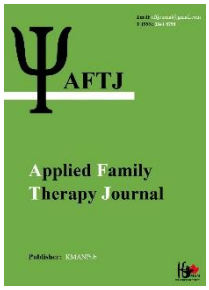
KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 04 November 2025
Revised 13 February 2026
Accepted 20 February 2026
Initial Published 21 February 2026
Final Publication 01 May 2026

Applied Family Therapy Journal

Volume 7, Issue 3, pp 1-11



E-ISSN: 3041-8798

The Effectiveness of Reflective Parenting on Meta-Parenting and Time Perspective among Mothers of Children Aged 7 to 12 Years with Generalized Anxiety Symptoms in Isfahan

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A r t i c l e I n f o

Article type:
Original Article

How to cite this article:
Rahimi, S., & Haji Heydari, M. (2026). The Effectiveness of Reflective Parenting on Meta-Parenting and Time Perspective among Mothers of Children Aged 7 to 12 Years with Generalized Anxiety Symptoms in Isfahan. *Applied Family Therapy Journal, 7*(3), 1-11.
http://dx.doi.org/10.61838/kman.aftj.5093

A B S T R A C T

Objective: Generalized anxiety in children can affect the mental health and emotional functioning of parents, particularly mothers. One effective approach in this domain is reflective parenting, which contributes to improving parent–child interactions. Accordingly, the present study was conducted in 2025 in the city of Isfahan.

Methods and Materials: This study employed a quasi-experimental design with a pretest–posttest control group. The statistical population consisted of all mothers of 7- to 12-year-old children with symptoms of generalized anxiety residing in Isfahan in 2025. From this population, 30 mothers were selected using purposive sampling and were randomly assigned to experimental and control groups. Participants in the experimental group received the reflective parenting program in ten 60-minute sessions, whereas participants in the control group did not receive this intervention. Research instruments included the standardized Meta-Parenting Questionnaire developed by Hawk and Holden (2006) and the Zimbardo Time Perspective Inventory (1999). The collected data were analyzed using multivariate analysis of covariance (MANCOVA) in SPSS version 27.

Findings: The findings indicated that the reflective parenting program had a significant effect on the total meta-parenting score and the problem-solving subscale ($p < .05$). Furthermore, the program led to a significant improvement in the future subscale ($p < .05$). However, there were no significant differences between the experimental and control groups with respect to the appraisal, reflection, and anticipation subscales, the total time perspective score, and the negative past, positive past, present-hedonistic, and present-fatalistic subscales ($p > .05$).

Conclusion: Therefore, it can be inferred that the reflective parenting program may be used as an effective approach to enhance meta-parenting among mothers of children with generalized anxiety symptoms and to modify their future-oriented time perspective.

Keywords: *Reflective parenting, meta-parenting, time perspective, generalized anxiety.*

1. Introduction

Generalized anxiety disorder (GAD) is among the most prevalent anxiety disorders in childhood and adolescence and is characterized by excessive, uncontrollable worry across multiple domains of life (Beesdo et al., 2009). Developmental research has shown that early manifestations of anxiety are associated with impairments in emotional regulation, interpersonal functioning, and academic performance, and they often persist into later developmental stages if left untreated (Beesdo et al., 2009). In addition to its direct impact on children, generalized anxiety symptoms reverberate within the family system, affecting parental psychological functioning, parenting practices, and the broader emotional climate of the household (Abuhadra et al., 2025). Recent cross-sectional findings indicate that parental anxiety, particularly generalized anxiety disorder in caregivers, is associated with maladaptive parenting patterns, heightened control, and reduced emotional responsiveness (Abuhadra et al., 2025). Environmental transmission models further demonstrate that children may internalize parental worry, intolerance of uncertainty, and experiential avoidance, thereby perpetuating intergenerational cycles of anxiety (Aktar et al., 2017).

Within this systemic perspective, parenting practices play a central role in shaping children's emotional trajectories. Parenting styles and behaviors have consistently been linked to child developmental outcomes, including emotional and behavioral adjustment (Awiszus et al., 2022). Overparenting, characterized by excessive involvement and control, has been associated with child anxiety, emotional dysregulation, and reduced autonomy (Cui et al., 2022; Segrin et al., 2015). Empirical work has shown that overparenting contributes to adolescents' trait anxiety through the frustration of basic psychological needs and increased emotion dysregulation (Sadoughi, 2024). Similarly, helicopter parenting has yielded mixed findings, with some evidence suggesting potential relational benefits but also risks for diminished autonomy and heightened anxiety (Hwang et al., 2023). Parenting stress and perceptions of child vulnerability may further intensify maladaptive patterns, particularly in contexts involving developmental or medical risk (Dempsey & Keller-Margulis, 2020; Gordo et al., 2022). Toxic stress exposure in childhood underscores the importance of supportive caregiving in buffering long-term psychological risk (Bucci et al., 2016).

Given these complexities, contemporary parenting interventions increasingly emphasize not merely behavioral control but reflective and mindful engagement. Reflective parenting, rooted in attachment and mentalization theory, refers to the caregiver's capacity to understand the child's behavior in terms of underlying mental states, including emotions, intentions, and beliefs (Slade, 2005). Parental reflective functioning has been identified as a critical predictor of sensitive caregiving and secure attachment relationships (Zeegers et al., 2017). Systematic reviews confirm that higher levels of parental reflective functioning are associated with adaptive parenting behaviors across infancy and early childhood (Stuhrmann et al., 2022). Moreover, reflective functioning predicts emotional availability in parent–child interactions and contributes to positive infant behavior (Salo et al., 2021).

Clinical and preventive programs designed to enhance reflective parenting have demonstrated promising outcomes. Meta-analytic findings suggest that parenting programs can effectively improve parental reflective functioning, though effect sizes vary across contexts (Lo & Wong, 2022). Randomized controlled studies indicate that increases in reflective functioning mediate improvements in positive caregiver behavior (Dexter & Wong, 2024). School-based parent training programs incorporating interactive components have shown reductions in parenting stress and enhancements in parenting competence (Buchanan-Pascall et al., 2023). In Iranian samples, reflective parenting training has improved maternal emotion regulation and parent–child relationship quality (Karimnejad Isfahani et al., 2025), as well as attachment security and reduced parenting stress (Mesbahi et al., 2021a, 2021b). Theoretical models emphasize that reflective parenting fosters self-awareness, emotional attunement, and flexible responding, thereby mitigating coercive or overcontrolling tendencies (Camoirano, 2017; Siegel & Hartzell, 2013). Slade's clinical framework further underscores the integration of attachment-informed reflective practice in therapeutic contexts (Slade, 2023).

Beyond immediate relational outcomes, reflective processes may influence broader parental cognitive orientations, including meta-parenting and time perspective. Meta-parenting refers to deliberate, effortful cognitions about parenting, encompassing anticipation, appraisal, reflection, and problem-solving (Hawk & Holden, 2006). This construct captures the extent to which parents consciously evaluate and regulate their parenting strategies. Psychometric validation studies have confirmed the

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E-ISSN: 3041-8798

reliability and factorial structure of the Meta-Parenting Questionnaire in diverse cultural contexts, including Iranian samples (Jolaeeha et al., 2017; Julaieha et al., 2017). Luyten and colleagues further advanced assessment of parental reflective functioning, highlighting its conceptual overlap with meta-cognitive parenting processes (Luyten et al., 2017).

Meta-parenting processes are intertwined with parental emotion regulation and coping capacities. Meta-analytic evidence demonstrates strong associations between parental emotion regulation and both parenting quality and child adjustment (Zimmer-Gembeck et al., 2022). Psychological flexibility within parenting contexts mediates the relationship between parenting stress and parenting styles (Fonseca et al., 2020). Coping strategies have been linked to reductions in psychological distress, underscoring the role of adaptive cognitive processing in well-being (Meng & D'Arcy, 2016). Furthermore, structured positive parenting systems such as Triple P emphasize the transformative potential of cognitively informed, emotionally attuned parenting practices for families and communities (Sanders & Mazzucchelli, 2017). Cognitive-behavioral approaches similarly target parental cognitions to enhance emotional and behavioral functioning in children (Smith et al., 2020).

In parallel, the construct of time perspective offers an additional lens through which to understand parental psychological functioning. Time perspective, conceptualized by Zimbardo and Boyd as a stable individual-differences variable reflecting orientation toward the past, present, and future, has been validated as a reliable and multidimensional construct (Zimbardo & Boyd, 1999). Balanced time perspectives are associated with adaptive psychological outcomes, whereas negative or distorted orientations correlate with anxiety and depression symptoms (McKay & Cole, 2020). In educational and familial contexts, time perspective predicts parental educational anxiety and expectations regarding children (Zhang et al., 2023). Family functioning, including cohesion and adaptability, has been linked to balanced time orientations (Oyanadel et al., 2023).

Future-oriented time perspective, in particular, appears protective in adolescent development, mediating the relationship between parental autonomy support and adaptive coping (Zeng et al., 2022). Within Iranian student populations, time perspective has been associated with motivation, hope, and purposefulness (Alipour Sabet Ray & Jadidi, 2021; Alipour Sabetray & Jadidi, 2022). These findings suggest that parental temporal orientation may influence not only their own emotional regulation but also their parenting practices and expectations for children. Excessive focus on negative past experiences or catastrophic future anticipation may amplify anxiety within parent–child interactions, whereas a balanced or constructive future orientation may foster resilience.

Emerging scholarship further integrates reflective capacities with mindful parenting frameworks. A comprehensive scoping review highlights conceptual and empirical overlap between mindful parenting and parental reflective functioning, suggesting that mindfulness-based approaches may enhance parents' capacity to mentalize and respond sensitively (Huynh et al., 2024). Mindful parenting interventions promote present-centered awareness, emotional attunement, and non-reactivity, all of which are essential for reflective engagement. Parental involvement and parenting styles have been shown to influence children's problem-solving and academic skills, reinforcing the broader developmental implications of reflective engagement (Lin et al., 2023). Educational interventions that train parents to use reflective questioning styles enhance children's reasoning abilities, demonstrating the cognitive benefits of reflective parental discourse (Spruijt et al., 2020).

Within families coping with mental health challenges, parental role functioning and relationship satisfaction significantly affect recovery trajectories and child well-being (Wynter et al., 2021). Caregiver parenting styles influence children's emotional and behavioral problems, with self-control mediating these associations (Pan et al., 2021). Cross-cultural research underscores variability in parenting practices and their psychological implications, highlighting the importance of contextually adapted interventions (Abuhadra et al., 2025; Hwang et al., 2023). Recent investigations in Middle Eastern and Asian contexts emphasize the relevance of culturally sensitive reflective parenting models for addressing anxiety-related vulnerabilities (Huynh et al., 2024; Karimnejad Isfahani et al., 2025).

Despite accumulating evidence supporting reflective parenting interventions, limited research has simultaneously examined their impact on meta-parenting cognitions and parental time perspective among mothers of children with generalized anxiety symptoms. Given the bidirectional interplay between parental cognitions, emotional regulation, and child anxiety (Aktar et al., 2017; Sadoughi, 2024), it is plausible that enhancing reflective capacities may recalibrate both deliberate parenting cognitions and temporal orientations toward a more adaptive future focus. Integrating reflective parenting frameworks (Slade, 2005,

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E-ISSN: 3041-8798

2023) with cognitive constructs such as meta-parenting (Hawk & Holden, 2006) and time perspective (Zimbardo & Boyd, 1999) offers a theoretically coherent and empirically grounded pathway for intervention.

Therefore, the present study aimed to examine the effectiveness of reflective parenting training on meta-parenting and time perspective among mothers of children aged 7 to 12 years with generalized anxiety symptoms in Isfahan.

2. Methods and Materials

2.1. Study Design and Participants

In terms of purpose, this study was applied, and in terms of methodology, it employed a quasi-experimental design with a pretest–posttest control group. The statistical population of the present study included all mothers of children aged 7 to 12 years with symptoms of generalized anxiety in the city of Isfahan during the second half of 2025. From this population, 30 mothers who had referred to a counseling clinic in Isfahan and met the inclusion criteria were selected through purposive sampling and were randomly and equally assigned to experimental and control groups.

The inclusion criteria were as follows: willingness to participate in the study, mothers' age range between 18 and 60 years, having a child with anxiety symptoms based on questionnaire assessment, not participating in any psychological programs concurrent with the present study, and absence of any chronic physical illness in mothers or children that could interfere with the research process and its outcomes. The exclusion criteria included unwillingness to continue participation in the sessions and absence from more than two sessions during the intervention period.

2.2. Measures

Meta-Parenting Questionnaire: This questionnaire was developed by Hawk and Holden (2006) in the United States. The instrument was designed to assess parents' conscious cognitive processes in the domain of childrearing and focuses on parents' thoughts, evaluations, reflections, and problem-solving skills when مواجهing parenting situations. The questionnaire was developed to measure parental meta-parenting and consists of 21 items encompassing four primary components: anticipation (conscious attention to parenting issues prior to their occurrence), appraisal (parents' evaluations of themselves, their child, and the environment), reflection (reconsideration of past interactions with the child), and problem-solving (definition, implementation, and evaluation of parenting solutions). Items are scored on a five-point Likert scale ranging from 1 to 5. The minimum obtainable score on this instrument is 21 and the maximum is 105, with higher scores indicating a higher level of meta-parenting. In the preliminary study by Hawk and Holden (2006), the reliability of the questionnaire, assessed using Cronbach's alpha coefficients, ranged from 0.64 to 0.77 for the subscales, indicating acceptable reliability. In Iran, Joulaiha et al. (2017) examined the validity and reliability of this questionnaire in a sample of 170 mothers in Tehran. Exploratory factor analysis demonstrated a four-factor structure, with these four factors accounting for 38.63% of the total variance of the scale. Confirmatory factor analysis also supported this structure. Correlation coefficients among the components ranged from 0.61 to 0.80 and were significant at $p < .01$, indicating satisfactory construct validity of the instrument.

Time Perspective Questionnaire: The Time Perspective Questionnaire was developed by Philip Zimbardo, Professor of Psychology at Stanford University, and his colleagues in 1999 to assess individuals' perceptions of time (past, present, and future). This instrument is one of the most valid and widely used questionnaires in cognitive-social psychology and emotion regulation, examining individuals' subjective temporal framework. The questionnaire consists of 36 items and assesses six subscales: Negative Past (a negative attitude and recall of unpleasant past experiences), Positive Past (a positive and nostalgic attitude toward the past), Present-Hedonistic (a focus on immediate pleasures and living in the present without regard to consequences), Present-Fatalistic (a passive attitude toward the present and a sense of inability to change it), Future (orientation toward long-term goals and planning for the future), and Negative Future (in some versions, concern and anxiety about the future; this subscale is not always included in the original version). Scoring is based on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Zimbardo and Boyd (1999), in their preliminary studies in the United States, reported Cronbach's alpha coefficients for the subscales ranging from 0.70 to 0.90, indicating desirable internal consistency. The six-factor structure of the questionnaire was confirmed through both exploratory and confirmatory factor analyses. In Iran, the psychometric properties of the Persian version of this instrument were examined by Alipour Sabet Raei and Jadidi (2021). In this study, conducted on an Iranian sample, confirmatory factor

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E-ISSN: 3041-8798

analysis indicated that the proposed six-factor structure by Zimbardo was consistent with the Iranian data. Cronbach's alpha coefficients for the various subscales ranged from 0.72 to 0.88. Furthermore, convergent and discriminant validity were confirmed through correlations with other measures of time-related attitudes, indicating satisfactory construct validity.

2.3. Intervention

The reflective parenting intervention protocol, adapted from Cooper and Redfern (2021), was implemented in ten 60-minute sessions structured to progressively enhance mindful and reflective parenting capacities. The first session introduced the concept of mindful (reflective) parenting and emphasized the importance of mindfulness in parent–child relationships, with initial mindfulness exercises practiced in emotionally charged interactions with the child. The second session focused on parental functions within the mindful parenting framework, including the development of a "parental map" and clarification of the parent's role in guiding and supporting the child, accompanied by the task of constructing an individualized parental map. The third session addressed parents' emotion regulation skills, highlighting awareness of parental emotional states as a prerequisite for sensitive responsiveness, and included reflective techniques and emotion management exercises. The fourth session explored the parent's role as a facilitator in the child's learning and socio-emotional development, emphasizing supportive responses across developmental stages and practical exercises aimed at strengthening effective relational patterns. The fifth session concentrated on assisting children in identifying and regulating their own emotions, teaching relaxation strategies for both parents and children, and promoting empathic dialogue. The sixth session introduced principles of positive discipline, including clarity of rules, consistency, and reinforcement of desirable behaviors, with structured behavioral practice assignments. The seventh session aimed to strengthen reflective skills within the broader family system by addressing spousal communication, sibling relationships, and family conflict management, supported by guided family interaction exercises. The eighth session focused on meeting children's fundamental psychological needs—security, affection, belonging, autonomy, and play—through a reflective approach, with practice in identifying and responsively addressing these needs. The ninth session evaluated parents' application of acquired skills, monitored perceived behavioral changes in children, and included a "mindful day" exercise along with daily emotional tracking reports. The tenth and final session reviewed parents' successes and challenges in implementing reflective parenting skills, facilitated peer exchange of experiences and practical solutions, and reinforced skills through structured assignments such as providing positive feedback to the child and maintaining daily emotional awareness reports.

2.4. Data Analysis

The data in this study were analyzed in two sections: descriptive and inferential statistics. In the descriptive section, measures of central tendency and dispersion, including the mean and standard deviation, were calculated for the study variables. In the inferential section, to test the research hypotheses, multivariate analysis of covariance (MANCOVA) was conducted using SPSS version 27.

3. Findings and Results

The examination of demographic information indicated that the mean and standard deviation of the participants' age in the experimental group were 37.41 (SD = 4.45), and in the control group were 35.01 (SD = 4.65). Furthermore, the mean and standard deviation of the children's age in the experimental group were 8.41 (SD = 1.24), and in the control group were 8.46 (SD = 1.18).

Table 1 presents the descriptive statistics of the research variables in the experimental and control groups at the pretest and posttest stages.

Table 1

Descriptive Statistics of the Research Variables

Variable	Subscale	n	Phase	Experimental Group M	Experimental Group SD	Control Group M	Control Group SD
Meta-Parenting	Total Score	15	Pretest	61.33	9.65	65.93	11.78
		15	Posttest	62.81	11.71	55.06	6.79
	Appraisal	15	Pretest	16.81	3.82	19.86	6.46
		15	Posttest	17.61	3.33	14.81	3.58
	Reflection	15	Pretest	14.21	3.87	15.21	3.34

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E-ISSN: 3041-8798

		15	Posttest	15.06	3.03	13.33	1.56
	Problem-Solving	15	Pretest	18.93	2.63	18.21	4.07
		15	Posttest	19.26	2.12	16.06	2.65
	Anticipation	15	Pretest	11.41	3.61	13.53	3.77
		15	Posttest	12.86	3.37	10.86	2.94
Time Perspective	Negative Past	15	Pretest	25.01	7.22	24.73	8.53
		15	Posttest	23.61	5.81	24.66	3.59
	Positive Past	15	Pretest	21.21	2.98	21.01	4.17
		15	Posttest	19.61	3.91	18.26	2.78
	Present-Hedonistic	15	Pretest	26.73	4.68	28.93	4.35
		15	Posttest	26.01	5.31	27.21	2.56
	Present-Fatalistic	15	Pretest	8.73	3.75	9.41	3.56
		15	Posttest	10.53	8.31	10.26	2.98
	Future	15	Pretest	22.61	3.62	20.81	5.84
		15	Posttest	22.46	3.24	15.86	3.87

The results presented in Table 1 indicate that the mean scores of meta-parenting and its subscales (appraisal, reflection, problem-solving, and anticipation), as well as the subscales of time perspective (negative past, positive past, present-hedonistic, present-fatalistic, and future), changed from pre-intervention to post-intervention.

To determine the statistical significance of the differences in the mean scores of the research variables, multivariate analysis of covariance (MANCOVA) was conducted. Prior to performing this test, its assumptions were examined and confirmed, including normality of data distribution using the Shapiro–Wilk test, homogeneity of variances using Levene's test, absence of multicollinearity among covariates using Pearson's correlation coefficient, homogeneity of regression slopes, and homogeneity of variance–covariance matrices using Box's M test.

Table 2 presents the multivariate test results for the total scores of meta-parenting and time perspective and their components in the experimental and control groups based on Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root.

Table 2

Multivariate Analysis of Covariance (MANCOVA) Results

Source	Test	Value	F	Hypothesis df	Error df	p
Group	Pillai's Trace	0.829	4.369	10	9	.018
	Wilks' Lambda	0.171	4.369	10	9	.018
	Hotelling's Trace	4.855	4.369	10	9	.018
	Roy's Largest Root	4.855	4.369	10	9	.018

The results of the four multivariate tests presented in Table 2 indicate that the experimental and control groups differed significantly in at least one of the variables related to meta-parenting, time perspective, or their components ($p < .05$).

To identify the specific differences, a univariate MANCOVA was conducted, the results of which are presented in Table 3.

Table 3

Univariate MANCOVA Results

Dependent Variable	Source	SS	df	MS	F	p	η^2	Power
Meta-Parenting	Pretest	247.537	1	247.537	3.063	.093	.118	.389
	Group	494.707	1	494.707	6.122	.021	.210	.659
Appraisal	Pretest	3.483	1	3.483	0.242	.627	.010	.076
	Group	52.725	1	52.725	3.670	.068	.138	.451
Reflection	Pretest	29.756	1	29.756	5.941	.023	.205	.646
	Group	28.713	1	28.713	5.733	.025	.200	.631
Problem-Solving	Pretest	21.164	1	21.164	3.900	.060	.145	.473

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	Group	51.115	1	51.115	9.421	.005	.291	.836
Anticipation	Pretest	0.383	1	0.383	0.044	.836	.002	.055
	Group	21.437	1	21.437	2.458	.131	.097	.324
Negative Past	Pretest	100.157	1	100.157	6.256	.020	.214	.668
	Group	0.056	1	0.056	0.003	.953	.000	.050
Positive Past	Pretest	97.726	1	97.726	11.904	.002	.341	.910
	Group	22.977	1	22.977	2.799	.108	.108	.361
Present-Hedonistic	Pretest	2.945	1	2.945	0.176	.678	.008	.069
	Group	4.258	1	4.258	0.255	.618	.011	.077
Present-Fatalistic	Pretest	9.739	1	9.739	0.252	.621	.011	.077
	Group	22.528	1	22.528	0.583	.453	.025	.113
Future	Pretest	12.693	1	12.693	0.996	.329	.042	.160
	Group	228.533	1	228.533	17.933	.001	.438	.982

As shown in Table 3, after controlling for pretest scores as covariates, significant differences were observed between the experimental and control groups in the total meta-parenting score and in the reflection and problem-solving components ($p < .05$). In other words, the reflective parenting intervention resulted in significant changes in the total meta-parenting score as well as in the reflection and problem-solving components. However, the differences between the experimental and control groups in the appraisal and anticipation subscales were not statistically significant ($p > .05$). Regarding time perspective, a significant difference was observed between the experimental and control groups in the future subscale ($p < .05$). Thus, the reflective parenting program produced significant changes in the future time perspective. Nevertheless, the intervention did not result in significant improvements in the negative past, positive past, present-hedonistic, or present-fatalistic components ($p > .05$).

4. Discussion

The present study examined the effectiveness of reflective parenting training on meta-parenting and time perspective among mothers of children aged 7 to 12 years with generalized anxiety symptoms. The findings indicated that, after controlling for pretest scores, reflective parenting training led to significant improvements in the total meta-parenting score, as well as in the reflection and problem-solving subscales. However, no significant differences were observed in the appraisal and anticipation subscales. Regarding time perspective, the intervention significantly improved the future orientation subscale, while no significant changes were found in negative past, positive past, present-hedonistic, or present-fatalistic orientations.

The significant improvement in total meta-parenting suggests that reflective parenting training enhanced mothers' deliberate and effortful cognitive engagement with parenting processes. Meta-parenting encompasses conscious monitoring, evaluation, and regulation of parenting strategies (Hawk & Holden, 2006). The observed changes align with theoretical perspectives that conceptualize reflective functioning as a metacognitive capacity enabling parents to think about their own and their child's mental states (Slade, 2005). By strengthening reflective capacities, parents become more capable of pausing, considering alternative interpretations of child behavior, and responding in a thoughtful rather than reactive manner (Siegel & Hartzell, 2013). The current findings are consistent with systematic reviews demonstrating that interventions targeting parental reflective functioning lead to measurable improvements in reflective capacities (Lo & Wong, 2022; Stuhrmann et al., 2022). Furthermore, randomized studies have shown that increases in reflective functioning mediate improvements in positive caregiving behaviors (Dexter & Wong, 2024), supporting the notion that reflective enhancement is not merely cognitive but behaviorally consequential.

The significant improvement in the reflection subscale is particularly noteworthy. Reflection refers to the parent's ability to reconsider and mentally revisit past interactions with the child in order to derive insight and adjust future responses (Hawk & Holden, 2006). Reflective parenting interventions explicitly train this capacity, often through mindfulness exercises and mentalization-based discussions (Huynh et al., 2024). Clinical frameworks emphasize that enhancing reflective functioning allows parents to reinterpret challenging child behaviors as meaningful expressions of internal states rather than as intentional defiance (Slade, 2023). Empirical evidence indicates that higher reflective functioning predicts emotional availability and more adaptive parent–child interactions (Salo et al., 2021; Zeegers et al., 2017). In the context of children with generalized anxiety symptoms, reflective insight may help mothers differentiate between developmentally normative

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fears and anxiety-driven cognitions, thereby reducing overreactive or overcontrolling responses.

The significant change observed in the problem-solving subscale further suggests that reflective parenting training strengthened mothers' capacity to define, implement, and evaluate effective parenting strategies. Cognitive-behavioral models underscore the role of structured problem-solving in managing child emotional and behavioral difficulties (Smith et al., 2020). Moreover, positive parenting systems highlight that deliberate planning and consistent responses are central to effective child management (Sanders & Mazzucchelli, 2017). By integrating reflective awareness with practical strategies, the intervention may have facilitated adaptive coping in mothers, consistent with research linking psychological flexibility and cognitive processing to improved parenting styles (Fonseca et al., 2020; Meng & D'Arcy, 2016). Given that parenting stress and perceptions of child vulnerability can impair adaptive problem-solving (Dempsey & Keller-Margulis, 2020; Gordo et al., 2022), strengthening this domain is particularly relevant for mothers of anxious children.

In contrast, the absence of significant change in appraisal and anticipation subscales warrants consideration. Appraisal involves evaluative judgments about oneself, the child, and the parenting context (Hawk & Holden, 2006). Anticipation reflects proactive consideration of potential parenting challenges. These domains may be more deeply rooted in stable cognitive schemas or culturally shaped expectations, making them less amenable to short-term intervention. Prior research indicates that parental anxiety is associated with entrenched cognitive biases and intolerance of uncertainty (Abuhadra et al., 2025; Aktar et al., 2017). Such cognitive patterns may require more intensive or longer-duration interventions to shift meaningfully. Additionally, cultural norms surrounding parental responsibility and expectations may influence appraisal processes (Cui et al., 2022; Hwang et al., 2023). Therefore, the selective improvement in reflection and problem-solving may reflect the intervention's primary emphasis on mindful awareness and behavioral strategy rather than deep restructuring of evaluative beliefs.

Regarding time perspective, the significant enhancement in future orientation suggests that reflective parenting training positively influenced mothers' temporal outlook. Time perspective theory posits that future orientation is associated with goal-setting, planning, and adaptive coping (Zimbardo & Boyd, 1999). Balanced and future-oriented time perspectives are inversely related to anxiety and depressive symptoms (McKay & Cole, 2020). In parenting contexts, future orientation has been linked to autonomy support and constructive coping in adolescents (Zeng et al., 2022). Furthermore, time perspective predicts parental educational anxiety and expectations toward children (Zhang et al., 2023). By cultivating reflective awareness and intentional responding, the intervention may have shifted mothers' focus from immediate emotional reactivity to longer-term developmental goals. This interpretation is consistent with research demonstrating that time balance is associated with healthier family functioning and adaptability (Oyanadel et al., 2023).

The lack of significant change in negative past, positive past, present-hedonistic, and present-fatalistic orientations may indicate that these temporal dimensions are relatively stable dispositional constructs. Although reflective parenting emphasizes present-centered awareness, it may not directly target entrenched retrospective or fatalistic beliefs. Iranian research has shown that time perspective interacts with motivational processes and hope in shaping purposefulness (Alipour Sabet Ray & Jadidi, 2021; Alipour Sabetray & Jadidi, 2022). However, modifying past-oriented schemas may require trauma-informed or cognitive restructuring approaches beyond the scope of reflective parenting. Given that toxic stress and adverse experiences can shape persistent negative past orientations (Bucci et al., 2016), more specialized interventions may be necessary to influence these domains.

The broader significance of the findings lies in their implications for intergenerational anxiety transmission. Environmental transmission models highlight that parental worry and maladaptive cognitive styles contribute to child anxiety development (Aktar et al., 2017). Overparenting and psychological control have been associated with increased anxiety and emotional dysregulation in children and adolescents (Sadoughi, 2024; Segrin et al., 2015). By enhancing reflective capacities, mothers may become better equipped to recognize their own anxiety-driven impulses and avoid excessive control. Research indicates that parenting styles and parental involvement significantly influence child developmental outcomes (Awiszus et al., 2022; Lin et al., 2023). Interventions that strengthen reflective and mindful capacities may therefore disrupt maladaptive cycles of anxiety within families.

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E-ISSN: 3041-8798

5. Conclusion

Overall, evidence suggests that parent–child interactive programs reduce parenting stress and enhance parental competence (Buchanan-Pascall et al., 2023). Reflective parenting training may contribute to similar outcomes by fostering self-awareness and emotional attunement. In line with attachment-based frameworks (Slade, 2005), strengthening maternal reflective functioning may promote secure attachment relationships, which serve as protective factors against anxiety. Cross-cultural studies underscore the importance of culturally sensitive adaptations of parenting interventions (Abuhadra et al., 2025; Huynh et al., 2024). The current findings contribute to the growing body of evidence supporting reflective parenting approaches in non-Western contexts, complementing prior Iranian studies demonstrating improvements in attachment and parenting stress (Mesbahi et al., 2021a, 2021b).

6. Limitations & Suggestions

The present study has several limitations. First, the relatively small sample size limits the generalizability of the findings and may have reduced statistical power for detecting changes in certain subscales. Second, reliance on self-report measures may have introduced response biases, including social desirability and subjective interpretation of items. Third, the absence of a long-term follow-up prevents conclusions regarding the دوام effects of the intervention. Fourth, the study focused exclusively on mothers, thereby limiting insight into paternal reflective functioning and broader family dynamics. Finally, the quasi-experimental design, although rigorous, cannot fully eliminate potential confounding variables.

Future studies should employ larger and more diverse samples to enhance generalizability and statistical robustness. Longitudinal designs with follow-up assessments are recommended to evaluate the sustainability of intervention effects. Comparative studies examining reflective parenting alongside other evidence-based interventions may clarify differential mechanisms of change. Incorporating observational measures of parent–child interaction and physiological indicators of stress regulation would provide multi-method validation. Additionally, exploring moderating variables such as parental anxiety severity, socioeconomic status, and cultural beliefs may deepen understanding of intervention responsiveness.

From a practical perspective, integrating reflective parenting training into community mental health services and school-based counseling programs may offer accessible support for families of children with anxiety symptoms. Training clinicians in mentalization-based and mindful parenting approaches can enhance intervention quality. Psychoeducational workshops emphasizing reflective dialogue, emotion regulation, and future-oriented goal setting may empower parents to respond adaptively to child anxiety. Policymakers and family service providers should consider incorporating reflective parenting modules into preventive programs to strengthen parental cognitive and emotional capacities.

Acknowledgments

We would like to express our appreciation and gratitude to all those who cooperated in carrying out this study.

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.

Funding

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

Authors' Contributions

S.R. contributed to the development of the research proposal, implementation of the intervention sessions, participant recruitment, and preparation of the initial manuscript draft. M.H.H. supervised the study, guided the methodological design and statistical analysis procedures, and critically reviewed and refined the manuscript to ensure theoretical and analytical rigor. Both authors contributed to data interpretation, revised the manuscript, and approved the final version for publication.

Declaration

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

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