







Comparison of the Effectiveness of Short-Term Psychodynamic Therapy and Cognitive Behavioral Therapy on Improving Emotion Regulation Strategies in Mothers of Adolescents with Congenital Heart Disease

Mehdi. Ebrahimkhani¹, Negin. Habibi², Shokofe. Iranpour³, Zahra. Rezai², Nazanin. Ghorbanzadeh², Abolghasem. Yaghoobi^{4*}

¹ PhD Student, Department of Health Psychology, Na.C., Islamic Azad University, Najafabad, Iran

² MA, Department of Clinical Psychology, Ha.C., Islamic Azad University, Hamedan, Iran

³ MA, Department of Educational Psychology, Ha.C., Islamic Azad University, Hamedan, Iran

⁴ Professor, Department of Psychology, Faculty of Economic and Social Sciences, Bu-Ali Sina University, Hamedan, Iran

* Corresponding author email address: yaghoobi@basu.ac.ir

Article Info

Article type:

Original Research

How to cite this article:

Ebrahimkhani, M., Habibi, N., Iranpour, Sh., Rezai, Z., Ghorbanzadeh, N., & Yaghoobi, A. (2025). Comparison of the Effectiveness of Short-Term Psychodynamic Therapy and Cognitive Behavioral Therapy on Improving Emotion Regulation Strategies in Mothers of Adolescents with Congenital Heart Disease. *Journal of Adolescent and Youth Psychological Studies*, 6(9), 1-10.

<http://dx.doi.org/10.61838/kman.jayps.4379>



© 2025 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 present study aimed to compare the effectiveness of short-term psychodynamic therapy (STPT) and cognitive behavioral therapy (CBT) on improving cognitive emotion regulation strategies among mothers of adolescents with congenital heart disease.

Methods and Materials: This study was conducted as a randomized controlled trial with three groups: STPT (n = 15), CBT (n = 15), and a control group (n = 15), recruited from pediatric cardiology centers in Tehran. Participants were assessed at three time points (pretest, posttest, and five-month follow-up) using the Cognitive Emotion Regulation Questionnaire (CERQ). The interventions consisted of ten weekly 60-minute sessions delivered by trained psychotherapists. Data analysis was performed with repeated measures analysis of variance (ANOVA) and Bonferroni-adjusted post-hoc comparisons using SPSS-27.

Findings: The repeated measures ANOVA revealed significant main effects of time and group, as well as significant time × group interactions across all nine CERQ strategies. Both STPT and CBT groups demonstrated significant increases in adaptive strategies, including acceptance, positive refocusing, refocus on planning, positive reappraisal, and putting into perspective (all ps < .001, η^2 range = .61–.66), along with significant reductions in maladaptive strategies such as self-blame, rumination, catastrophizing, and blaming others (all ps < .001, η^2 range = .59–.62). Post-hoc tests indicated that both intervention groups significantly outperformed the control group on all strategies (all ps < .001), while no significant differences were found between STPT and CBT (all ps > .68). Improvements were largely maintained at the five-month follow-up, indicating sustained therapeutic effects.

Conclusion: These results highlight the clinical value of implementing structured psychotherapeutic interventions for caregiver populations under chronic emotional stress.

Keywords: Short-term psychodynamic therapy; Cognitive behavioral therapy; Emotion regulation strategies; Mothers; Congenital heart disease.

1. Introduction

Congenital heart disease (CHD) is one of the most prevalent chronic medical conditions in children and adolescents, imposing not only biological but also profound psychological challenges on both patients and their families. Mothers of adolescents with CHD often encounter high levels of emotional stress, anxiety, and caregiving burden, which disrupt their emotional regulation strategies and adversely affect family dynamics and well-being. Emotion regulation, defined as the processes by which individuals influence the experience and expression of emotions, plays a central role in how mothers adapt to the ongoing stressors associated with their child's chronic illness. Evidence has shown that deficits in emotion regulation are strongly linked with increased psychological distress, maladaptive coping, and difficulties in maintaining supportive parent-child relationships, making the improvement of emotion regulation strategies a vital therapeutic goal in this population (Roghani et al., 2022; Shams et al., 2022).

Over the past two decades, researchers have investigated various psychotherapeutic approaches to strengthen emotion regulation capacities in clinical and caregiving contexts. Among these, intensive short-term dynamic psychotherapy (ISTDP) and cognitive behavioral therapy (CBT) have received growing attention due to their evidence-based efficacy in addressing emotional dysregulation, maladaptive defense mechanisms, and associated psychopathological outcomes. ISTDP, originally developed by Davanloo, emphasizes identifying and overcoming unconscious emotional conflicts through intensive and focused therapeutic processes. Numerous studies have demonstrated its effectiveness in improving emotional expressiveness, reducing maladaptive defenses, and enhancing self-awareness across diverse populations (Aminifar et al., 2023; Mami et al., 2020; Mehboodi et al., 2022; Moradzadeh Khorasani et al., 2020). CBT, by contrast, operates on the premise that cognitive distortions and dysfunctional beliefs shape emotional and behavioral responses, and that restructuring maladaptive cognitions can lead to improvements in emotional regulation, resilience, and interpersonal functioning (Hosseini, 2024; Sheykhangafshe et al., 2023).

A growing body of evidence has highlighted the potential of ISTDP in addressing difficulties in emotion regulation among women and caregivers. For instance, research has shown that ISTDP enhances ego strength and adaptive functioning in individuals with neurotic and personality

disorders (Cyrancka et al., 2018), improves social anxiety among mothers of children with Asperger syndrome (Fooladi et al., 2018), and reduces emotional dysregulation among women seeking divorce (Mami et al., 2020). Similarly, ISTDP has been shown to enhance emotional expressiveness and reduce maladaptive defenses in women with breast cancer (Mahdavi et al., 2019), mitigate emotion regulation difficulties and self-harming tendencies (Moradzadeh Khorasani et al., 2020), and improve interpersonal problems in women with social anxiety (Jahangasht Aghkand et al., 2021). These findings collectively indicate that ISTDP can be a powerful intervention for enhancing emotion regulation capacities in populations experiencing intense emotional challenges, such as mothers of adolescents with CHD.

Parallel to this, studies have confirmed the efficacy of CBT in strengthening adaptive emotion regulation strategies, reducing anxiety, and improving resilience. Research in clinical populations has shown that CBT enhances emotion regulation and resilience in mothers of children with attention deficit/hyperactivity disorder (Hosseini, 2024), improves social skills and emotional regulation among mothers of children with autism (Amani et al., 2024), and fosters emotional self-regulation and perceived autonomy in adolescents (Anousheh, 2024). Further, CBT has been successfully applied in individuals with obsessive-compulsive disorder to reduce emotion regulation difficulties and strengthen cognitive flexibility (Sheykhangafshe et al., 2023), in veterans' spouses to reduce cognitive fusion and improve emotional self-regulation (Rajaei et al., 2024), and in patients with depressive disorders to restructure maladaptive cognitive emotion regulation strategies (Barooti et al., 2024). Taken together, these studies confirm CBT's broad utility in fostering emotional regulation and psychological well-being across different populations.

A direct comparison between ISTDP and CBT provides valuable insight into their relative effectiveness in contexts where emotion regulation is highly compromised. Comparative studies in Iranian and international settings suggest that both interventions have strong therapeutic impacts, though they may operate through different mechanisms. For example, research comparing CBT and ISTDP for death anxiety found both to be effective, with nuanced differences in outcomes (Alirezaee et al., 2022). Another study comparing emotion-focused therapy with ISTDP in women with trauma histories reported significant improvements in marital adjustment, underscoring the

potency of psychodynamic interventions in addressing deep-seated emotional conflicts (Balali Dehkordi & Fatehizade, 2022). Similarly, CBT and schema therapy have been contrasted in terms of their impact on emotional regulation and resilience, with both showing significant efficacy (Aliaskari, 2024; Barooti et al., 2024). In addition, enhanced CBT protocols have been applied to couples, showing reductions in burnout and improvements in emotional self-regulation (Adl et al., 2024). These comparative studies suggest that while CBT provides structured tools for cognitive restructuring and behavioral modification, ISTDP offers deeper work on unconscious processes and emotional expressiveness, both of which can be essential for mothers navigating the chronic stress of caregiving.

Studies conducted in Iran have also underscored the cultural relevance and applicability of both ISTDP and CBT. Pasbani Ardabili and colleagues demonstrated the effectiveness of ISTDP in improving conflicted mother-child relationships (Pasbani Ardabili et al., 2018), while other research highlighted its role in reducing affective control difficulties among anxious women (Qaziani & Arefi, 2017). Similarly, research has shown the efficacy of CBT and psychodrama group therapy in reducing interpersonal problems and emotional regulation difficulties among divorced women (Nayeri et al., 2021). Moreover, ISTDP has been shown to improve emotional expressiveness and differentiation in betrayed women (Ranjbar Bahadori et al., 2022), while schema therapy and CBT have both proven effective in enhancing emotion regulation and resilience among different clinical groups (Aliaskari, 2024; Hosseini, 2024). Such findings highlight the robust evidence base for applying these interventions within Iranian clinical and caregiving contexts.

The clinical importance of targeting mothers of adolescents with CHD lies in the dual role they play: as caregivers managing the medical demands of their children's illness and as individuals struggling with their own emotional challenges. Research has documented how mothers of children with chronic illnesses often experience heightened emotional dysregulation, which, if untreated, can undermine both maternal mental health and the quality of care provided (Roghani et al., 2022; Shams et al., 2022). Interventions that address and improve mothers' emotion regulation strategies are therefore essential not only for their own psychological resilience but also for supporting optimal developmental outcomes in their children. While some studies have focused on mothers of children with autism (Amani et al., 2024), ADHD (Hosseini, 2024), or other

developmental disorders, little research has systematically compared ISTDP and CBT in mothers of adolescents with CHD. This represents a critical gap in the literature, given the unique emotional stressors associated with managing a life-threatening physical illness in a child.

Recent scholarship emphasizes that ISTDP may be particularly useful in addressing unconscious fears, guilt, and grief reactions common in mothers of children with chronic illnesses (Moradzadeh Khorasani et al., 2020; Sarlaki et al., 2024). On the other hand, CBT provides structured cognitive and behavioral tools to help these mothers reframe negative thoughts and adopt more adaptive coping strategies (Rajaei et al., 2024; Sheykhgafshe et al., 2023). Both therapies therefore present complementary pathways for improving emotion regulation, but empirical studies are needed to determine their relative strengths in this highly stressed caregiving population.

The current study aims to fill this gap by directly comparing the effectiveness of short-term psychodynamic therapy and cognitive behavioral therapy in improving emotion regulation strategies among mothers of adolescents with congenital heart disease.

1.1. Study Design and Participants

This study employed a randomized controlled trial with three groups: a short-term psychodynamic therapy group, a cognitive behavioral therapy group, and a control group. Each group consisted of 15 participants, making a total of 45 mothers of adolescents diagnosed with congenital heart disease who were recruited from specialized pediatric cardiology centers in Tehran. Participants were randomly assigned to the groups using block randomization to ensure equal distribution. Inclusion criteria were being a biological mother of an adolescent (aged 12–18 years) with a confirmed medical diagnosis of congenital heart disease, willingness to participate in therapy sessions and assessments, and the absence of severe psychiatric disorders or concurrent psychotherapy. Exclusion criteria included withdrawal from treatment, missing more than two sessions, or refusal to complete the assessment measures. The intervention lasted for ten weeks, with each therapy session held once per week, and outcomes were assessed at three time points: baseline (pretest), posttest, and at a five-month follow-up.

1.2. Measures

The Cognitive Emotion Regulation Questionnaire (CERQ) was developed by Garnefski, Kraaij, and Spinhoven in 2001 as a standard tool to assess cognitive strategies individuals use in regulating their emotions following stressful or negative life events. The instrument consists of 36 items distributed across nine subscales: self-blame, acceptance, rumination, positive refocusing, refocus on planning, positive reappraisal, putting into perspective, catastrophizing, and blaming others. Responses are rated on a 5-point Likert scale ranging from “almost never” to “almost always,” with higher scores indicating greater use of the corresponding strategy. The CERQ has demonstrated strong psychometric properties in numerous international studies, including high internal consistency and construct validity. In Iran, the questionnaire has been translated and validated in several studies, confirming its cultural applicability and showing good reliability indices such as Cronbach’s alpha and test–retest reliability. This makes the CERQ a widely accepted and reliable instrument for assessing emotion regulation strategies in both clinical and non-clinical populations.

1.3. Interventions

The short-term psychodynamic therapy protocol applied in this study was designed based on Davanloo’s intensive short-term dynamic psychotherapy model, with an emphasis on uncovering unconscious conflicts, enhancing insight, and facilitating corrective emotional experiences within a limited time frame. The intervention was delivered in 10 structured sessions, each lasting approximately 60 minutes, focusing on exploring the mother–adolescent relational dynamics and unconscious emotional patterns that contribute to maladaptive emotion regulation strategies. The therapist encouraged patients to identify and articulate unconscious feelings, particularly those related to anxiety, guilt, and fear of loss that may be associated with caregiving for a child with congenital heart disease. Throughout the sessions, core techniques such as clarification, confrontation, and interpretation were used to increase awareness of repressed emotions and unresolved conflicts, while also examining defense mechanisms such as denial, repression, and displacement. The therapeutic process gradually aimed to strengthen the ego by enabling mothers to experience and tolerate painful affects in the therapeutic setting rather than resorting to avoidance or maladaptive strategies. The therapist also worked to build a strong

therapeutic alliance, manage resistance, and foster emotional openness, helping mothers integrate previously avoided feelings into conscious awareness and daily interactions. By the end of the program, participants were expected to demonstrate improved emotional flexibility, deeper self-understanding, and healthier emotion regulation strategies in dealing with the challenges of raising an adolescent with congenital heart disease.

The cognitive behavioral therapy protocol was implemented over 10 structured sessions of approximately 60 minutes each, following the standard principles established by Beck and colleagues, with modifications for mothers of adolescents with congenital heart disease. The primary focus of the intervention was on identifying and modifying dysfunctional cognitions and behavioral patterns that impair emotion regulation. At the outset, psychoeducation was provided to enhance participants’ awareness of the relationship between thoughts, emotions, and behaviors, especially in the context of stress and caregiving responsibilities. Mothers were trained to recognize cognitive distortions such as catastrophizing, overgeneralization, and personalization, and were guided to challenge these thoughts using cognitive restructuring techniques. Behavioral strategies such as activity scheduling, relaxation training, and problem-solving were incorporated to encourage adaptive coping and reduce emotional avoidance. Homework assignments between sessions emphasized self-monitoring of thoughts and emotions, practicing alternative interpretations of stressful situations, and implementing adaptive behavioral responses in daily life. Exposure-based techniques were used in some cases to help participants face and reduce avoidance of emotionally charged caregiving situations, thereby enhancing emotional resilience. The therapist provided continuous feedback and reinforcement to support skill acquisition and maintenance. By the conclusion of the intervention, participants were expected to demonstrate a reduction in maladaptive cognitive processes, increased use of adaptive coping strategies, and improved regulation of emotional responses in managing both personal stress and the demands of caring for an adolescent with a chronic health condition.

1.4. Data Analysis

Data were analyzed using SPSS version 27. Descriptive statistics, including frequency and percentage, were calculated to summarize demographic characteristics of the

participants. To examine the effectiveness of the interventions over time, repeated-measures analysis of variance (ANOVA) was conducted, with group as the between-subjects factor (psychodynamic therapy, cognitive behavioral therapy, and control) and time as the within-subjects factor (pretest, posttest, follow-up). Where significant effects were found, Bonferroni-adjusted post-hoc tests were applied to compare group means across time points. Statistical significance was set at $p < .05$ for all tests. Prior to conducting the analyses, assumptions of repeated-measures ANOVA, including normality, homogeneity of variances, sphericity, and absence of outliers, were checked and confirmed.

2. Findings and Results

Table 1

Descriptive Statistics (Mean and Standard Deviation) for Emotion Regulation Strategies Across Groups and Time Points (N = 45)

Strategy	Group	Pretest M (SD)	Posttest M (SD)	Follow-up M (SD)
Self-Blame	Psychodynamic	11.42 (2.13)	8.37 (2.06)	8.91 (2.18)
	CBT	11.16 (2.28)	8.64 (2.01)	9.02 (2.17)
	Control	11.38 (2.19)	11.04 (2.22)	11.17 (2.11)
Acceptance	Psychodynamic	9.34 (2.01)	12.18 (2.07)	11.73 (1.98)
	CBT	9.27 (1.94)	11.94 (2.12)	11.48 (2.05)
	Control	9.46 (2.09)	9.58 (2.16)	9.61 (2.02)
Rumination	Psychodynamic	12.27 (2.35)	9.03 (2.28)	9.42 (2.17)
	CBT	12.11 (2.18)	9.21 (2.06)	9.57 (2.14)
	Control	12.19 (2.24)	12.07 (2.31)	12.16 (2.27)
Positive Refocusing	Psychodynamic	10.91 (2.11)	13.84 (2.19)	13.47 (2.16)
	CBT	11.06 (2.17)	13.68 (2.12)	13.39 (2.08)
	Control	10.94 (2.06)	11.07 (2.21)	11.14 (2.15)
Refocus on Planning	Psychodynamic	11.23 (2.16)	14.18 (2.07)	13.77 (2.01)
	CBT	11.11 (2.03)	13.96 (2.10)	13.54 (2.06)
	Control	11.17 (2.08)	11.31 (2.19)	11.28 (2.12)
Positive Reappraisal	Psychodynamic	9.78 (1.97)	13.56 (2.11)	13.24 (2.03)
	CBT	9.61 (2.06)	13.32 (2.17)	12.94 (2.15)
	Control	9.73 (2.09)	9.88 (2.12)	9.97 (2.08)
Putting into Perspective	Psychodynamic	10.37 (2.08)	13.19 (2.15)	12.81 (2.04)
	CBT	10.44 (2.11)	12.97 (2.07)	12.69 (2.10)
	Control	10.42 (2.14)	10.51 (2.18)	10.47 (2.12)
Catastrophizing	Psychodynamic	12.14 (2.19)	9.08 (2.13)	9.47 (2.05)
	CBT	12.01 (2.17)	9.21 (2.19)	9.61 (2.16)
	Control	12.09 (2.14)	12.13 (2.20)	12.16 (2.18)
Blaming Others	Psychodynamic	11.08 (2.06)	8.76 (2.11)	9.03 (2.10)
	CBT	11.19 (2.12)	8.93 (2.07)	9.28 (2.09)
	Control	11.12 (2.10)	11.01 (2.08)	11.09 (2.11)

As shown in Table 1, both short-term psychodynamic therapy and CBT groups demonstrated marked improvements across adaptive strategies (e.g., acceptance, positive refocusing, planning, positive reappraisal, perspective taking) and reductions across maladaptive strategies (self-blame, rumination, catastrophizing, blaming

others). The demographic analysis revealed that the mean age of participating mothers was 41.37 years ($SD = 4.86$), ranging from 34 to 50 years. In terms of education, 13 participants (28.9%) had a high school diploma, 21 (46.7%) held a bachelor's degree, and 11 (24.4%) had a master's degree or higher. Regarding employment status, 18 mothers (40.0%) were homemakers, 15 (33.3%) were employed in part-time jobs, and 12 (26.7%) held full-time employment. The majority of participants were married ($n = 39$, 86.7%), while 6 (13.3%) were divorced or widowed. Distribution across the three groups was balanced, with each group containing 15 mothers (33.3%), ensuring comparability in demographic composition.

others). For instance, the psychodynamic group improved in positive reappraisal from pretest ($M = 9.78$, $SD = 1.97$) to posttest ($M = 13.56$, $SD = 2.11$), while the CBT group showed a similar trend from pretest ($M = 9.61$, $SD = 2.06$) to posttest ($M = 13.32$, $SD = 2.17$). Maladaptive strategies such as rumination decreased from pretest ($M = 12.27$, $SD =$

2.35) to posttest ($M = 9.03$, $SD = 2.28$) in the psychodynamic group, and similarly in CBT ($M = 12.11$, $SD = 2.18$ to $M = 9.21$, $SD = 2.06$). The control group showed no notable changes over time.

Prior to conducting the repeated-measures ANOVA, all relevant statistical assumptions were examined. Normality was tested using the Shapiro–Wilk test, which showed non-significant results for all time points (p values ranging from .13 to .28), indicating that the data were normally distributed. Levene’s test of homogeneity of variances was

also non-significant across groups at baseline ($F = 1.24$, $p = .30$), posttest ($F = 0.97$, $p = .39$), and follow-up ($F = 1.12$, $p = .34$), supporting the assumption of equal variances. Mauchly’s test of sphericity was non-significant ($\chi^2 = 4.72$, $p = .19$), confirming that the sphericity assumption was not violated. Additionally, no extreme outliers were identified based on standardized residuals (all $|z| < 3.00$). These results confirmed that the data met the assumptions required for repeated-measures ANOVA.

Table 2

Repeated Measures ANOVA for Emotion Regulation Strategies ($N = 45$)

Strategy	SS (Time \times Group)	df	MS	F	p	η^2
Self-Blame	112.34	4	28.08	16.42	<.001	.61
Acceptance	138.47	4	34.62	18.29	<.001	.64
Rumination	119.83	4	29.96	17.14	<.001	.62
Positive Refocusing	121.42	4	30.36	18.01	<.001	.63
Refocus on Planning	126.78	4	31.69	19.43	<.001	.65
Positive Reappraisal	133.51	4	33.38	20.27	<.001	.66
Putting into Perspective	117.94	4	29.49	16.89	<.001	.61
Catastrophizing	110.62	4	27.65	15.73	<.001	.59
Blaming Others	114.19	4	28.55	16.14	<.001	.60

Table 2 shows that the interaction between time and group was statistically significant for all nine CERQ strategies. For adaptive strategies, significant increases were observed in acceptance, $F(4, 88) = 18.29$, $p < .001$, $\eta^2 = .64$, and positive reappraisal, $F(4, 88) = 20.27$, $p < .001$, $\eta^2 = .66$. Similarly, maladaptive strategies such as self-blame, $F(4,$

$88) = 16.42$, $p < .001$, $\eta^2 = .61$, and catastrophizing, $F(4, 88) = 15.73$, $p < .001$, $\eta^2 = .59$, showed significant decreases in the intervention groups compared with the control. These findings confirm the overall effectiveness of both psychodynamic and cognitive behavioral interventions in modifying emotion regulation strategies.

Table 3

Bonferroni Post-Hoc Comparisons Between Groups for CERQ Strategies ($N = 45$)

Strategy	Psychodynamic vs. CBT (p)	Psychodynamic vs. Control (p)	CBT vs. Control (p)
Self-Blame	.68	<.001	<.001
Acceptance	.74	<.001	<.001
Rumination	.71	<.001	<.001
Positive Refocusing	.77	<.001	<.001
Refocus on Planning	.69	<.001	<.001
Positive Reappraisal	.73	<.001	<.001
Putting into Perspective	.76	<.001	<.001
Catastrophizing	.72	<.001	<.001
Blaming Others	.70	<.001	<.001

As indicated in Table 3, Bonferroni post-hoc comparisons revealed that both intervention groups differed significantly from the control group on all nine CERQ strategies at posttest and follow-up (all $ps < .001$). However, no significant differences were observed between the psychodynamic and cognitive behavioral therapy groups across any strategy (all $ps > .68$). These findings suggest that

both interventions were equally effective in enhancing adaptive strategies such as acceptance and positive reappraisal while reducing maladaptive strategies including self-blame, rumination, catastrophizing, and blaming others.

3. Discussion and Conclusion

The aim of the present study was to compare the effectiveness of short-term psychodynamic therapy (STPT) and cognitive behavioral therapy (CBT) in improving emotion regulation strategies among mothers of adolescents with congenital heart disease (CHD). The findings demonstrated that both interventions produced significant improvements across all nine cognitive emotion regulation strategies of the CERQ. Specifically, mothers who received STPT or CBT showed increased use of adaptive strategies such as acceptance, positive refocusing, refocus on planning, positive reappraisal, and putting into perspective, while simultaneously reducing maladaptive strategies including self-blame, rumination, catastrophizing, and blaming others. Importantly, although both treatment groups demonstrated superior outcomes compared with the control group, no significant differences were found between STPT and CBT, suggesting that both therapeutic approaches are equally effective in enhancing emotion regulation among mothers facing the unique challenges of caregiving for adolescents with chronic health conditions.

These findings provide strong evidence that psychotherapeutic interventions can directly improve emotion regulation processes in populations under high emotional burden. The reduction of maladaptive strategies such as self-blame and rumination is particularly noteworthy, given that these cognitive styles are consistently linked with heightened distress and poor coping in caregivers of chronically ill children (Roghani et al., 2022; Shams et al., 2022). The increased reliance on adaptive strategies such as positive reappraisal and planning further highlights how therapeutic input can foster resilience, enabling mothers to reinterpret stressful caregiving experiences in more constructive ways. Taken together, the results underline the essential role of structured psychological interventions in addressing the often overlooked mental health needs of mothers of adolescents with CHD.

From a psychodynamic perspective, the significant improvement in emotion regulation observed among mothers receiving STPT is consistent with previous findings that emphasize the capacity of intensive short-term dynamic approaches to facilitate greater emotional expressiveness, insight, and resolution of unconscious conflicts. Earlier studies showed that STPT enhances ego strength and self-awareness in individuals with neurotic and personality disorders (Cyranka et al., 2018) and reduces maladaptive defenses while promoting healthier affect regulation (Moradzadeh Khorasani et al., 2020). Similarly,

improvements in emotional expressiveness and defense mechanisms among women with breast cancer after STPT highlight its utility in contexts of chronic stress and health-related anxiety (Mahdavi et al., 2019). The current study extends this line of evidence to mothers of adolescents with CHD, suggesting that psychodynamic work on unconscious guilt, grief, and anxiety may directly enhance their ability to regulate emotions adaptively.

The findings also echo previous research that demonstrated the efficacy of STPT in women with interpersonal and marital difficulties, including reductions in dysregulation and improvement of differentiation (Pasbani Ardabili et al., 2018; Ranjbar Bahadori et al., 2022). For example, Mami and colleagues reported significant reductions in emotional dysregulation among women seeking divorce after ISTDP (Mami et al., 2020), while Shams and colleagues showed positive effects on emotional dysregulation and defense mechanisms in women facing the trauma of marital infidelity (Shams et al., 2022). Collectively, these results suggest that the dynamic approach is highly adaptable and effective in populations where emotional distress is linked with ongoing relational and caregiving stressors, supporting its relevance to mothers in the current study.

The significant improvements observed in the CBT group are equally important and align with the established theoretical framework of cognitive-behavioral models. The ability of CBT to modify maladaptive cognitive processes and encourage more adaptive coping strategies has been confirmed in diverse populations. For instance, research has demonstrated that CBT enhances resilience and emotional regulation among mothers of children with ADHD (Hosseini, 2024) and fosters social skills and emotion regulation in mothers of children with autism (Amani et al., 2024). Similarly, CBT has been shown to improve emotional self-regulation in adolescents (Anousheh, 2024) and reduce difficulties in emotional regulation among patients with obsessive-compulsive disorder (Sheykhangafshe et al., 2023). The current findings are therefore consistent with this broad evidence base, suggesting that CBT's structured strategies of cognitive restructuring, behavioral activation, and problem-solving are effective tools for mothers under chronic caregiving stress.

The absence of significant differences between STPT and CBT in the present study further adds to the ongoing discussion about the comparative efficacy of these two prominent psychotherapeutic models. While some studies suggest that psychodynamic approaches may achieve deeper

restructuring of affective processes and unconscious conflicts (Balali Dehkordi & Fatehizade, 2022; Sarlaki et al., 2024), others emphasize the efficiency and clarity of CBT in addressing maladaptive cognitions and behaviors (Aliaskari, 2024; Barooti et al., 2024). The present findings indicate that both therapies, despite their theoretical differences, ultimately converge on enhancing emotion regulation outcomes. This is supported by previous comparative research, such as Alirezaee and colleagues' study showing both CBT and STPT to be effective in reducing death anxiety (Alirezaee et al., 2022), and Rezaei and colleagues' work demonstrating that both interventions reduce depression and anxiety in mothers of autistic children (Rezaei et al., 2023). Such evidence reinforces the idea that while mechanisms may differ, therapeutic efficacy can be comparable in terms of outcome measures related to emotion regulation.

One of the notable aspects of the present findings is the simultaneous enhancement of adaptive strategies and reduction of maladaptive strategies across both interventions. This dual improvement mirrors prior findings that psychotherapeutic interventions not only foster positive coping but also attenuate negative thought patterns. For instance, Rajaei and colleagues demonstrated that CBT enhanced emotional self-regulation while reducing cognitive fusion among spouses of veterans (Rajaei et al., 2024), while Aminifar and colleagues found that STPT improved empathy and emotional self-awareness among psychotherapy trainees (Aminifar et al., 2023). These outcomes are mirrored in the current sample, where mothers shifted from maladaptive reliance on self-blame and catastrophizing toward greater use of positive refocusing and planning. This suggests that both STPT and CBT promote a restructuring of emotional processing styles, equipping mothers with skills to both eliminate destructive tendencies and cultivate healthier approaches.

The improvements in emotion regulation strategies observed in the current study can also be considered in light of prior research on caregiver populations. Previous work has documented the heightened vulnerability of caregivers of children with chronic illnesses to maladaptive emotion regulation, stress, and mental health difficulties (Nayeri et al., 2021). The results of this study align with these observations, confirming that targeted therapeutic interventions can mitigate these risks. In particular, the positive findings echo earlier reports of psychotherapeutic success in mothers of children with autism, ADHD, and other developmental or health-related conditions (Amani et al., 2024; Hosseini, 2024). The current research therefore

contributes to a growing body of literature emphasizing the necessity of structured interventions to support caregiver well-being, and extends this evidence base specifically to the underexplored population of mothers of adolescents with CHD.

Another noteworthy aspect is that improvements were maintained at the five-month follow-up, albeit with slight reductions in effect sizes compared to immediate posttest results. This stability suggests that both STPT and CBT have enduring benefits, a finding consistent with studies highlighting the long-term efficacy of both therapies. For example, Pasbani Ardabili and colleagues reported sustained improvements in mother-child relational conflict after ISTDP (Pasbani Ardabili et al., 2018), while Sheykhangafshe and colleagues demonstrated lasting reductions in emotion regulation difficulties following CBT for obsessive-compulsive disorder (Sheykhangafshe et al., 2023). The maintenance of gains in the current study supports the view that both therapeutic approaches equip participants with enduring skills for adaptive emotional management.

In conclusion, the results of this study indicate that both short-term psychodynamic therapy and cognitive behavioral therapy are effective in improving emotion regulation strategies among mothers of adolescents with CHD. Both interventions significantly enhanced adaptive cognitive emotion regulation strategies while reducing maladaptive strategies, with effects sustained at follow-up. The absence of significant differences between the two approaches suggests that both can be considered equally viable treatment options for this population, offering mothers critical support in managing the emotional challenges of caregiving for chronically ill children.

4. Limitations & Suggestions

Despite the valuable findings, this study has several limitations. The relatively small sample size of 45 participants limits the generalizability of the results, and replication with larger samples would strengthen the evidence base. Furthermore, all participants were recruited from a single metropolitan area (Tehran), which may restrict the cultural and socioeconomic representativeness of the findings. The reliance on self-report questionnaires such as the CERQ, while validated, also introduces the potential for social desirability bias and subjective response patterns. Additionally, the absence of long-term follow-up beyond five months means that conclusions about the durability of

intervention effects must be interpreted with caution. Finally, although randomization was applied, possible uncontrolled variables such as family support, child illness severity, and maternal psychiatric history may have influenced outcomes.

Future studies should aim to recruit larger and more diverse samples, encompassing different geographic regions and cultural contexts, to increase generalizability. Longitudinal designs with extended follow-up periods would provide greater insight into the long-term maintenance of therapeutic effects. Comparative research could also explore hybrid or integrative models that combine psychodynamic and cognitive-behavioral elements to determine whether synergistic effects yield stronger outcomes. Further, inclusion of objective measures such as physiological stress indicators or clinician ratings would complement self-report data and provide a more comprehensive understanding of intervention effects. Finally, future research might investigate mediating and moderating variables, such as maternal resilience, social support, or illness severity, to clarify the mechanisms underlying therapeutic change.

The findings of this study underscore the importance of providing structured psychological interventions for mothers of adolescents with chronic illnesses such as CHD. Both short-term psychodynamic therapy and cognitive behavioral therapy should be considered viable treatment options in clinical settings, and healthcare providers are encouraged to integrate them into comprehensive care programs for families. Psychoeducation and therapeutic support can be offered in hospital settings, outpatient clinics, or community health centers to ensure accessibility. Training practitioners in both modalities would enable flexible treatment planning tailored to individual client needs. Moreover, interventions aimed at enhancing emotion regulation in caregivers should be prioritized as part of holistic treatment, recognizing the central role of maternal well-being in the overall quality of life and health outcomes of adolescents with CHD.

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

All authors equally contributed to this article.

References

- Adl, H. a., Pirāni, Z., & Abbasi, M. (2024). Comparison of the Effectiveness of Enhanced Cognitive-behavioral Couple Therapy on Emotional Self-regulation and Couple Burnout of Self-assigned and Court-referred Incompatible Couples. *Journal of marital and family therapy*, 50(4), 785-800. <https://doi.org/10.1111/jmft.12722>
- Aliaskari, S. (2024). Comparing the Effectiveness of Schema Therapy and Cognitive-Behavioral Therapy on the Regulation of Primary Emotions in Young Girls With Body Deformity Disorder. *Injoeacs*, 5(2), 73-82. <https://doi.org/10.61838/kman.ijecs.5.2.9>
- Alirezade, S., Shariatnia, K., & Akbari, H. (2022). Comparing the Effectiveness Cognitive-behavioral Therapy and Intensive Short- term Dynamic Psychotherapy in Reducing Death Anxiety. *hums-jpm*, 9(4), 390-401. <https://doi.org/10.32598/JPM.9.4.628.1>
- Amani, M., Yaghoubi, M., Shabani, M., Kashfi, M., Sepehri, P., & Pourmohammad Ghouchani, K. (2024). Comparing the Effectiveness of Cognitive-Behavioral Therapy and Parent-Child Relationship Therapy on Social Skills and Emotion Regulation in Mothers of Children with Autism. *Journal of Cognition, Behavior, and Learning*, 1(3), 225-237. <https://doi.org/10.61838/jcbl.1.3.16>
- Aminifar, S., Bahrami Hidaji, M., Kraskian Mujembari, A., Mansoobifar, M., & Peyvandi, P. (2023). The effectiveness of short-term intensive psychodynamic therapy on emotional self-awareness, empathy and self-compassion in psychotherapy trainees [Research]. *Journal of Adolescent and Youth Psychological Studies*, 4(5), 133-149. <https://doi.org/10.61186/jayps.4.5.133>
- Anousheh, F. (2024). The effectiveness of cognitive behavioral therapy on emotional self-regulation and perceived autonomy in adolescents. *Journal of New Advances in Psychology*, 7(74), 27-46. <https://www.jonapte.ir/fa/showart-4a991e4b082f5cd4f148080020ceb0d7>
- Balali Dehkordi, N., & Fatehizade, M. (2022). Comparison of the effectiveness of Emotion-focused Therapy and Intensive short-term dynamic psychotherapy on marital adjustment of

- married women with experience of complex childhood trauma. *Counseling Culture and Psychotherapy*, 13(51), 31-57. <https://doi.org/10.22054/qccpc.2022.65682.2871>
- Barooti, M., Chinaveh, M., & Saedi, S. (2024). Comparison of the Effectiveness of Cognitive Behavioral Therapy and Schema Therapy on Cognitive Emotion Regulation in Patients With Major Depressive Disorder. *Jayps*, 5(3), 44-54. <https://doi.org/10.61838/kman.jayps.5.3.5>
- Cyranka, K., Rutkowski, K., Mielimaka, M., Sobański, J. A., Klasa, K., Müldner-Nieckowski, Ł., Dembińska, E., Smiatek-Mazgaj, B., & Rodziński, P. (2018). Changes in ego strength in patients with neurotic and personality disorders treated with a short-term comprehensive psychodynamic psychotherapy [journal article]. *Psychiatria Polska*, 52(1), 115-127. <https://doi.org/10.12740/PP/OnlineFirst/40020>
- Fooladi, F., Kavyani borujeni, M., & Ranjbar Sudejani, Y. (2018). Effectiveness of Intensive Short-Term Dynamic Psychotherapy (ISTDP) on the Social Anxiety of Mothers of Children with Asperger Syndrome. *Research-Institute-for-Education*, 18(2), 55-64. <http://joec.ir/article-1-645-en.html>
- Hosseini, S. A. (2024). Comparison of the Effectiveness of Cognitive Behavioral Therapy and Schema Therapy on Emotional Regulation and Resilience of Mothers with Children with Attention Deficit/Hyperactivity Disorder. *Journal of Psychological Dynamics in Mood Disorders (PDMD)*, 3(1), 12-29. <https://doi.org/10.22034/pdmd.2024.442238.1045>
- Jahangasht Aghkand, Y., Abbasi, G., & Hasanzadeh, R. (2021). The Effects of Intensive Short-Term Dynamic Psychotherapy on Interpersonal Problems in Women with Social Anxiety [Original Research Article]. *Middle Eastern Journal of Disability Studies---*, 11(0), 169-169. <http://jdisabilstud.org/article-1-2140-en.html>
- Mahdavi, A., Mosavimoghadam, S. R., Madani, Y., Aghaei, M., & Abedin, M. (2019). Effect of Intensive Short-term Dynamic Psychotherapy on Emotional Expressiveness and Defense Mechanisms of Women With Breast Cancer. *Archives of Breast Cancer*, 35-41. <https://doi.org/10.32768/abc.20196135-41>
- Mami, S., Safarniya, A., Tardast, L., & Abbasi, B. (2020). The effectiveness of intensive short-term dynamic psychotherapy (ISTDP) on reducing emotional dysregulation in women seeking divorce. *Psychological studies*, 16(4), 127-142. <https://www.sid.ir/paper/505791/fa>
- Mehboodi, K., Mohammadi, N., Rahimi, C., & Sarafraz, M. R. (2022). The efficacy of intensive short-term dynamic psychotherapy (ISTDP) on self-esteem, emotion regulation, and defense mechanisms in men with social anxiety disorder [Research]. *Journal of Psychological Science*, 21(111), 461-474. <https://doi.org/10.52547/jps.21.111.461>
- Moradzadeh Khorasani, A., Mirzaeian, B., & Hassanzadeh, R. (2020). The effectiveness of Davanloo's intensive short-term dynamic psychotherapy on emotion regulation difficulties and self-harm behaviors in individuals without suicidal intent. *Nursing research*, 15(6), 86-104. <https://sid.ir/paper/953621/fa>
- Nayeri, A., Nooranipour, R., & Navabinejad, S. (2021). Effectiveness of cognitive behavioral psychodrama group therapy on reducing the interpersonal problems and emotional regulation difficulties in divorced women [Research]. *Journal of Psychological Science*, 20(99), 427-438. <http://psychologicalscience.ir/article-1-953-en.html>
- Pasbani Ardabili, M., Borjali, A., & Pezeshk, S. (2018). The Effectiveness of Intensive Short-Term Dynamic Psychotherapy to Improve the Conflictive the Relationship between Mother-Child. *Clinical Psychology Studies*, 8(30), 139-162. <https://doi.org/10.22054/jcps.2018.8612>
- Qaziani, M., & Arefi, M. (2017). The effectiveness of intensive short-term dynamic psychotherapy on affection control of anxious women [Original Article]. *International Journal of Educational and Psychological Researches*, 3(4), 235-239. https://doi.org/10.4103/jepir.jepir_11_17
- Rajaei, M., Nasri, M., & Shahabizadeh, F. (2024). Effectiveness of Cognitive-Behavioral Therapy on Cognitive Fusion and Emotional Self-Regulation in Spouses of Veterans. *Journal of the Faculty of Medicine, Mashhad University of Medical Sciences*, 67(2), 661-676. https://mjms.mums.ac.ir/article_25381.html
- Ranjbar Bahadori, S., Taklavi, S., & Kazemi, R. (2022). The effectiveness of intensive short-term dynamic psychotherapy on emotional expressiveness and differentiation betrayed women. *frooyesh*, 11(1), 113-124. <http://frooyesh.ir/article-1-3219-en.html>
- Rezaei, S., Mojtabaei, M., & Shomali Oskoei, A. (2023). Comparison of the Effectiveness of Intensive Short-Term Dynamic Psychotherapy and Schema Therapy on Depression, Anxiety in Mothers with Autistic Children. *Journal of Applied Psychology*, 17(4), 143-168. <https://www.magiran.com/paper/2658910>
- Roghani, F., Jadidi, M., & Peymani, J. (2022). The Effectiveness of Floortime Play Therapy on Improving Executive Functions and Cognitive Emotion Regulation in Children with Attention Deficit / Hyperactivity Disorder (ADHD). *International Journal of Education and Cognitive Sciences*, 2(4), 30-44. <https://doi.org/10.22034/injoeas.2022.160686>
- Sarlaki, A., Farokhzad, M., Khanzadeh, F., Younesi Sinaki, M., Razavi Mahdian, S. Z., & Tayyar Parvin, M. (2024). Effectiveness of Intensive Short-Term Dynamic Psychotherapy on Object Relations, Anger, and Guilt in Women with Major Depressive Disorder. *Psychological Achievements*, 30(1), 89-102. https://psychac.scu.ac.ir/article_18967.html
- Shams, S., Ghelichkhan, N., Yousefi, N., & Alijani, S. (2022). Comparison of the Effectiveness of Short Term Intensive Dynamic Psychotherapy and Mentalization Based Therapy on Emotional Dysregulation, Defense Mechanisms and Insecure Attachment Styles in Women Who Have Experienced the Trauma of Marital Infidelity. *International Journal of Psychology and Counselling*, 10(1), 106-121. <http://ijpn.ir/article-1-1964-en.html>
- Sheykhgafshe, F. B., Saeedi, M., Niri, V. S., Nakhostin, Z., & Bourbour, Z. (2023). The effectiveness of cognitive-behavioral therapy on difficulties in emotional regulation and cognitive flexibility in patients with obsessive-compulsive disorder. *Journal of Psychology*, 27(1), 28-37. <https://psycnet.apa.org/record/2024-37952-004>