


The Effectiveness of Cognitive Behavioral Therapy on Distress Tolerance and Psychological Hardiness in Adolescents Experiencing Parental Bereavement

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ABSTRACT

The present study was conducted to determine the effectiveness of cognitive behavioral therapy on distress tolerance and psychological hardiness in adolescents experiencing parental bereavement. The research method was quasi-experimental with a pretest-posttest design and a control group. The statistical population of the present study consisted of adolescents experiencing parental bereavement who were referred to the Arsam Psychological Services and Counseling Center in the city of Tonekabon in 2026. First, the Barrett and Scott Grief Experience Questionnaire (1998) was distributed among all participants. Then, 30 individuals with moderate grief experience (scores between 68 and 102) were selected through purposive and convenience sampling methods and were randomly assigned to two groups: an experimental group of 15 participants and a control group of 15 participants. Data were collected using the Distress Tolerance Questionnaire and the Psychological Hardiness Questionnaire. Subsequently, cognitive behavioral therapy was implemented for the experimental group in 8 sessions of 90 minutes each. After the completion of the cognitive behavioral therapy sessions, posttests were administered to both the experimental and control groups. The findings indicated a significant difference between the mean pretest and posttest scores of the experimental and control groups in terms of distress tolerance and psychological hardiness. Therefore, cognitive behavioral therapy has an effect on distress tolerance and psychological hardiness in adolescents experiencing parental bereavement.

Keywords: Cognitive behavioral therapy, distress tolerance, psychological hardiness, adolescents, parental bereavement experience.

1. Introduction

Parental bereavement during adolescence is considered one of the most distressing and life-altering experiences that can substantially disrupt emotional, cognitive, and social development. Adolescence itself represents a sensitive developmental period characterized by rapid biological, psychological, and interpersonal changes, and exposure to severe emotional stressors during this stage may intensify vulnerability to psychological maladjustment and emotional dysregulation (Colich et al., 2023; Sadock et al., 2015). The loss of a parent deprives adolescents of a primary attachment figure and emotional support system, often resulting in profound feelings of insecurity, loneliness, helplessness, and psychological instability. Research has demonstrated that adolescents who experience parental loss are at greater risk for depression, anxiety, traumatic stress reactions, emotional dysregulation, interpersonal difficulties, and maladaptive coping behaviors compared with their peers who have not experienced such losses (Dugal et al., 2016; Mirjani & Valadkhani, 2024). Furthermore, unresolved grief experiences during adolescence may persist into adulthood and contribute to long-term impairments in emotional functioning, self-concept, and psychological well-being (Neimeyer et al., 2016; Taukeni, 2015).

Grief is a multidimensional psychological process that involves emotional, cognitive, behavioral, and physiological responses to loss. Although grief reactions are generally considered a normal response to bereavement, prolonged or maladaptive grief responses can develop into clinically significant psychological disorders when individuals fail to effectively adapt to the reality of loss (Boelen et al., 2020; Prigerson et al., 2021). The concept of prolonged grief disorder has increasingly received attention in recent psychiatric classifications due to its substantial association with functional impairment and mental health difficulties. Individuals suffering from prolonged grief often experience persistent yearning, emotional numbness, intrusive memories, avoidance behaviors, and difficulties re-engaging with daily life (Rosner et al., 2021; Treml et al., 2020). Adolescents may be particularly vulnerable to complicated grief because their emotional regulation systems and coping mechanisms are still developing, making them less capable of managing overwhelming emotional experiences associated with parental loss (Colich et al., 2023; Prigerson et al., 2021).

One of the central psychological variables associated with adaptive functioning after traumatic experiences and bereavement is distress tolerance. Distress tolerance refers to an individual's perceived or actual ability to endure negative emotional states and persist in goal-directed behavior despite psychological discomfort (Mattingley et al., 2022; Veilleux, 2019). Individuals with low distress tolerance are more likely to perceive emotional distress as unbearable, engage in avoidance strategies, and experience heightened emotional reactivity. Conversely, individuals with higher distress tolerance tend to demonstrate greater emotional regulation, resilience, and adaptive coping in stressful situations (Allahmoradi et al., 2026; Zhong et al., 2025). In adolescents experiencing parental bereavement, low distress tolerance may contribute to maladaptive responses such as emotional withdrawal, rumination, impulsive behaviors, and difficulties adjusting to the loss. Since bereavement often exposes adolescents to intense and prolonged emotional pain, the capacity to tolerate distress becomes a critical protective factor for psychological adjustment and recovery (Mattingley et al., 2022; Veilleux, 2019).

Another important construct related to psychological adaptation following stressful life experiences is psychological hardiness. Psychological hardiness is conceptualized as a personality characteristic involving commitment, control, and challenge, which enables individuals to perceive stressful experiences as manageable and meaningful rather than threatening (Pandey & Shrivastava, 2017; Zhang, 2011). Individuals with high psychological hardiness tend to demonstrate greater resilience, emotional stability, and effective coping strategies when confronted with adversity. In contrast, low hardiness is associated with vulnerability to stress, emotional exhaustion, and psychological maladjustment (Pandey & Shrivastava, 2017; Pouri, 2016). Adolescents who lose a parent frequently encounter profound emotional instability and disruptions in their sense of security and identity, which may weaken their psychological hardiness and compromise their ability to adapt to stressful life conditions. Consequently, strengthening psychological hardiness may facilitate adolescents' capacity to cope with grief-related emotional challenges and enhance their psychological resilience (Malek Varansfaderani et al., 2022; Taukeni, 2015).

Research has consistently shown that childhood trauma and emotionally distressing experiences are strongly associated with subsequent psychopathology and emotional

dysregulation. Exposure to traumatic loss during childhood or adolescence can affect emotional processing systems, stress-response mechanisms, and cognitive functioning, thereby increasing vulnerability to anxiety disorders, depressive symptoms, and maladaptive interpersonal patterns (Colich et al., 2023; Dugal et al., 2016). Adolescents who experience parental loss may also develop dysfunctional beliefs about safety, abandonment, helplessness, and self-worth, which can negatively influence their psychological adjustment and emotional coping abilities (Mirjani & Valadkhani, 2024; Neimeyer et al., 2016). Such maladaptive cognitions often intensify emotional suffering and hinder the healthy processing of grief experiences.

Given the significant emotional and psychological consequences of parental bereavement, the identification of effective psychological interventions for grieving adolescents has become increasingly important. Among evidence-based psychotherapeutic approaches, cognitive behavioral therapy (CBT) has received considerable empirical support for the treatment of emotional disorders and stress-related psychological difficulties (Bermphohl & Martin, 2025; Selvapandiyani, 2019). Cognitive behavioral therapy is based on the assumption that maladaptive thoughts, cognitive distortions, and dysfunctional behavioral patterns contribute to the development and maintenance of psychological distress. Through cognitive restructuring, emotional regulation training, behavioral activation, and coping-skills enhancement, CBT seeks to modify maladaptive cognitive schemas and promote adaptive emotional and behavioral functioning (Sadock et al., 2015; Selvapandiyani, 2019).

Cognitive behavioral therapy has demonstrated substantial effectiveness in improving emotional regulation, reducing psychological distress, and enhancing coping capacities across various clinical populations. Previous studies have shown that CBT can effectively reduce symptoms of depression, anxiety, rumination, and emotional distress while simultaneously improving resilience and adaptive functioning (Bayat et al., 2019; Bermphohl & Martin, 2025). Moreover, recent findings indicate that CBT interventions can significantly improve distress tolerance by helping individuals reinterpret emotional experiences, challenge catastrophic beliefs about distress, and develop healthier coping mechanisms (Allahmoradi et al., 2026; Yaghoubi et al., 2026). By increasing individuals' capacity to remain psychologically engaged during emotionally

difficult situations, CBT may reduce experiential avoidance and facilitate more adaptive emotional processing.

In addition to its effects on distress tolerance, CBT has also been associated with improvements in psychological hardiness and resilience-related constructs. Cognitive restructuring techniques may strengthen individuals' sense of control over stressful experiences, while behavioral interventions encourage active coping and engagement with life challenges. Such therapeutic processes are particularly relevant for bereaved adolescents who may experience feelings of helplessness, hopelessness, and emotional vulnerability following parental loss (Malek Varansfaderani et al., 2022; Zhong et al., 2025). By helping adolescents identify maladaptive beliefs related to grief and develop more adaptive interpretations of their experiences, CBT may foster greater emotional stability and psychological endurance.

Several studies have supported the effectiveness of CBT and related interventions in enhancing emotional functioning and coping capacities. Bayat et al. demonstrated that cognitive-behavioral stress management significantly reduced rumination and psychological distress among women exposed to marital infidelity (Bayat et al., 2019). Similarly, Allahmoradi et al. and Yaghoubi et al. reported that cognitive behavioral therapy significantly improved distress tolerance and cognitive flexibility among individuals with major depressive disorder (Allahmoradi et al., 2026; Yaghoubi et al., 2026). Other investigations have highlighted the relationship between emotional resilience variables such as hardiness, emotional self-efficacy, and adaptive coping with improved psychological adjustment under stressful conditions (Malek Varansfaderani et al., 2022; Pandey & Shrivastava, 2017). Furthermore, Zhong et al. emphasized the role of cognitive reappraisal and mental toughness in improving distress tolerance and adaptive functioning (Zhong et al., 2025).

Despite growing evidence supporting the effectiveness of CBT for emotional disorders and stress-related conditions, limited research has specifically examined its impact on distress tolerance and psychological hardiness among adolescents experiencing parental bereavement. Most previous studies have focused on adult populations or general psychological distress rather than grief-related emotional functioning in adolescents (Rosner et al., 2021; Trembl et al., 2020). Moreover, bereaved adolescents represent a particularly vulnerable group requiring targeted psychological interventions that address both emotional pain and adaptive coping processes. Since distress tolerance and

psychological hardiness play important roles in resilience and psychological adaptation following traumatic loss, investigating interventions capable of improving these constructs may contribute substantially to adolescent mental health outcomes.

Theoretical perspectives on grief further support the potential effectiveness of CBT in bereavement-related interventions. Meaning reconstruction theories emphasize that successful adaptation to loss involves reorganizing personal beliefs, emotional experiences, and self-identity following bereavement (Neimeyer et al., 2016). Cognitive behavioral approaches may facilitate this reconstruction process by helping adolescents reinterpret grief experiences, reduce maladaptive cognitions, and develop healthier coping strategies. In addition, evidence suggests that maladaptive emotional processing and low distress tolerance are associated with greater psychological dysfunction and poorer adjustment after traumatic experiences (Mattering et al., 2022; Veilleux, 2019). Therefore, interventions aimed at strengthening emotional endurance and psychological resilience may reduce the severity of grief-related psychological symptoms and improve long-term adaptation.

Considering the emotional vulnerability of bereaved adolescents, the high prevalence of grief-related psychological difficulties, and the limited research regarding effective interventions for this population, further investigation into therapeutic approaches targeting emotional regulation and resilience appears necessary. Cognitive behavioral therapy may provide adolescents with adaptive cognitive and behavioral tools for confronting emotional distress, processing grief experiences, and strengthening psychological functioning following parental loss. Therefore, the present study aimed to determine the effectiveness of cognitive behavioral therapy on distress tolerance and psychological hardiness in adolescents experiencing parental bereavement.

2. Methods and Materials

2.1. Study Design and Participants

The present study employed a quasi-experimental design using a pretest–posttest format with a control group. The statistical population consisted of adolescents experiencing parental bereavement who were referred to the Arsam Psychological Services and Counseling Center in the city of Tonekabon in 2026. Initially, the Barrett and Scott Grief Experience Questionnaire (1998) was administered to all eligible individuals in order to assess the severity of grief

experience. Among the respondents, 30 adolescents who obtained scores within the moderate grief range (68–102) were selected through purposive and convenience sampling methods. The selected participants were then randomly assigned into two groups, including an experimental group ($n = 15$) and a control group ($n = 15$). Before the intervention, both groups completed the pretest assessments measuring distress tolerance and psychological hardiness. Subsequently, the experimental group received cognitive behavioral therapy, while the control group received no psychological intervention during the study period. At the end of the intervention sessions, both groups completed the posttest assessments under similar conditions.

2.2. Measures

The Distress Tolerance Scale developed by Simmons and Gaher (2005) was used to assess the participants' level of distress tolerance. This self-report instrument consists of 15 items designed to evaluate individuals' capacity to tolerate emotional distress and negative psychological states. The questionnaire includes four subscales: tolerance, absorption, appraisal, and regulation. The tolerance subscale assesses the individual's ability to endure emotional distress, while the absorption subscale evaluates the degree to which negative emotions dominate attention and cognition. The appraisal dimension measures subjective evaluations and interpretations of distressing experiences, and the regulation subscale assesses efforts to alleviate emotional discomfort. Responses are scored on a Likert-type scale, and higher scores indicate greater distress tolerance and more adaptive emotional functioning. Previous studies have reported acceptable psychometric properties for the scale. In the study conducted by Alavi (2011), Cronbach's alpha coefficients for the subscales ranged from 0.70 to 0.82, while the reliability coefficient for the total scale was reported as 0.82. In addition, the scale demonstrated satisfactory criterion-related and convergent validity, and the internal consistency reliability obtained in the present study was reported as 0.71.

Psychological hardiness was assessed using the Ahvaz Psychological Hardiness Inventory (AHI), a 20-item scale developed by Kiaomarsi et al. (1998). The questionnaire was originally designed to measure psychological hardiness among university students through factor analysis conducted on a sample of 523 male and female students at Shahid Chamran University of Ahvaz. The instrument consists of 20 items rated on a four-point Likert scale ranging from "Never" (0) to "Often" (3). The total score ranges from 0 to

60, with higher scores reflecting greater psychological hardiness. Scores between 0 and 15 indicate low psychological hardiness, scores between 15 and 30 represent moderate psychological hardiness, and scores above 30 indicate high psychological hardiness. Evidence supporting the construct validity of the instrument was demonstrated through significant Pearson correlation coefficients between the Ahvaz Psychological Hardiness Inventory and other established measures of hardiness. These coefficients were reported as 0.51 for the total sample, 0.61 for female participants, and 0.46 for male participants. The reliability of the questionnaire in the present study was confirmed using Cronbach's alpha, which yielded a coefficient of 0.82.

The Barrett and Scott Grief Experience Questionnaire (1998) was employed to identify adolescents experiencing parental bereavement and determine the severity of grief symptoms. This instrument contains 34 items scored on a five-point Likert scale ranging from "Never" (1) to "Always" (5). Participants' total scores are obtained by summing responses across all items, resulting in a minimum possible score of 34 and a maximum score of 170. Scores between 34 and 68 indicate low grief experience, scores between 68 and 102 indicate moderate grief experience, and scores above 102 reflect severe grief experience. The developers of the questionnaire confirmed its construct and concurrent validity, and Cronbach's alpha reliability coefficient was reported as 0.85. In Iran, Mahdipour et al. (2009) confirmed the validity of the instrument and reported a Cronbach's alpha coefficient of 0.86, indicating satisfactory reliability for use in Iranian populations.

2.3. Intervention

The intervention program consisted of cognitive behavioral therapy administered to the experimental group in eight 90-minute sessions conducted on a weekly basis. The therapeutic program focused on identifying and modifying maladaptive thoughts and dysfunctional cognitive patterns associated with parental bereavement and emotional distress. During the initial sessions, participants were introduced to the principles of cognitive behavioral therapy, the relationship between thoughts, emotions, and behaviors, and the impact of grief-related cognitions on

emotional functioning. Subsequent sessions emphasized cognitive restructuring techniques, identification of irrational beliefs, emotional awareness, stress management, and adaptive coping strategies. Behavioral techniques such as relaxation training, problem-solving skills, and behavioral activation were also incorporated to enhance emotional regulation and resilience. The final sessions concentrated on strengthening psychological hardiness, increasing tolerance toward distressing emotions, improving self-control, and preventing relapse. Throughout the intervention, participants were encouraged to practice therapeutic exercises and coping strategies in daily life situations related to grief and emotional challenges.

2.4. Data Analysis

Data analysis was conducted using descriptive and inferential statistical methods. Descriptive statistics, including means and standard deviations, were calculated to summarize participants' demographic characteristics and research variables. Inferential analyses were performed to evaluate the effectiveness of cognitive behavioral therapy on distress tolerance and psychological hardiness. After confirming the assumptions of normality and homogeneity of variances, covariance analysis was used to compare posttest scores between the experimental and control groups while controlling for pretest differences. Statistical analyses were performed using SPSS software, and the significance level for all tests was considered at $p < 0.05$.

3. Findings and Results

The study sample consisted of 30 adolescents experiencing parental bereavement who were randomly assigned into an experimental group (15 participants) and a control group (15 participants). The participants were within the adolescent age range and had all obtained moderate scores on the Barrett and Scott Grief Experience Questionnaire during the screening phase. Both groups completed the pretest and posttest assessments. No participant withdrew from the intervention process, and all collected questionnaires were complete and suitable for statistical analysis.

Table 1

Mean and Standard Deviation of Distress Tolerance and Psychological Hardiness in the Experimental and Control Groups

Variable	Group	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD
Distress Tolerance	Experimental	37.87	5.58	46.35	6.53
	Control	36.34	5.37	35.14	5.24
Psychological Hardiness	Experimental	27.14	6.47	40.37	8.74
	Control	28.86	6.86	29.68	6.16

The descriptive findings presented in Table 1 indicate differences between the pretest and posttest scores of the experimental and control groups. In the experimental group, the mean score of distress tolerance increased from 37.87 in the pretest to 46.35 in the posttest, while the control group showed no meaningful increase across measurement stages. Similarly, the mean score of psychological hardiness in the experimental group increased from 27.14 at the pretest stage to 40.37 at the posttest stage, whereas only minimal changes were observed in the control group. These descriptive findings suggest that cognitive behavioral therapy may have contributed to improvements in distress tolerance and psychological hardiness among adolescents experiencing parental bereavement.

Before conducting the multivariate analysis, the assumptions of normality and homogeneity of variances were examined. The results of the Shapiro–Wilk test demonstrated that the significance levels for distress tolerance and psychological hardiness in both the experimental and control groups were greater than 0.05, indicating that the distribution of scores did not significantly deviate from normality. Furthermore, Levene’s test confirmed the homogeneity of variances assumption for both variables, as the obtained significance values for distress tolerance ($p = 0.453$) and psychological hardiness ($p = 0.468$) were greater than 0.05. Therefore, the assumptions required for conducting multivariate covariance analysis were satisfied, and the analysis proceeded accordingly.

Table 2

Results of Analysis of Covariance for Distress Tolerance and Psychological Hardiness

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Distress Tolerance	Pretest	1358.867	1	1358.867	16.47	0.001	0.59
	Group	1657.247	1	1657.247	34.32	0.001	0.54
	Error	654.386	27	24.236			
Psychological Hardiness	Pretest	1689.178	1	1689.178	16.24	0.001	0.51
	Group	1967.128	1	1967.128	29.68	0.001	0.56
	Error	856.968	27	31.739			

The results of the analysis of covariance presented in Table 2 indicate that after controlling for pretest scores, the effect of group membership on posttest scores was statistically significant for both distress tolerance and psychological hardiness. For distress tolerance, the group effect was significant ($F = 34.32, p < 0.001, \eta^2 = 0.54$), indicating that cognitive behavioral therapy significantly increased distress tolerance in the experimental group compared with the control group. Similarly, for psychological hardiness, the group effect was statistically significant ($F = 29.68, p < 0.001, \eta^2 = 0.56$), demonstrating that adolescents who received cognitive behavioral therapy reported significantly higher levels of psychological hardiness at posttest compared with participants in the control group. The obtained effect sizes indicate that

cognitive behavioral therapy had a substantial effect on improving both distress tolerance and psychological hardiness among adolescents experiencing parental bereavement.

4. Discussion

The present study aimed to investigate the effectiveness of cognitive behavioral therapy on distress tolerance and psychological hardiness among adolescents experiencing parental bereavement. The findings demonstrated that cognitive behavioral therapy significantly increased distress tolerance and psychological hardiness in the experimental group compared with the control group. These findings suggest that cognitive behavioral therapy can serve as an effective psychological intervention for improving

emotional adaptation and strengthening resilience-related capacities among adolescents dealing with the emotional consequences of parental loss. Adolescents who participated in the intervention showed greater ability to tolerate emotional distress and demonstrated higher levels of psychological hardiness following treatment, indicating that cognitive behavioral therapy contributed to more adaptive cognitive and emotional functioning after bereavement.

One of the major findings of the present study was the significant improvement in distress tolerance among adolescents who received cognitive behavioral therapy. This finding is consistent with previous research indicating that cognitive behavioral interventions can effectively improve individuals' capacity to cope with emotional distress and reduce maladaptive emotional reactions (Allahmoradi et al., 2026; Yaghoubi et al., 2026). Distress tolerance refers to an individual's ability to endure and manage negative emotional states without engaging in dysfunctional coping strategies or emotional avoidance (Mattingley et al., 2022; Veilleux, 2019). Adolescents experiencing parental bereavement often encounter overwhelming emotional experiences, including sadness, helplessness, fear, anger, and emotional instability, which may reduce their ability to tolerate psychological discomfort. Cognitive behavioral therapy appears to improve this capacity by helping adolescents recognize and challenge maladaptive thoughts, reinterpret distressing experiences, and adopt more adaptive emotional regulation strategies.

The effectiveness of cognitive behavioral therapy in increasing distress tolerance can be explained through several cognitive and behavioral mechanisms. One of the primary goals of cognitive behavioral therapy is identifying irrational beliefs and catastrophic interpretations associated with stressful events and replacing them with more balanced and adaptive cognitions (Sadock et al., 2015; Selvapandiyar, 2019). Adolescents who lose a parent may develop dysfunctional cognitive patterns such as beliefs about helplessness, abandonment, vulnerability, or hopelessness. Such maladaptive cognitions intensify emotional pain and reduce individuals' ability to tolerate distressing emotional experiences. Through cognitive restructuring techniques, participants learn to reinterpret emotional reactions as manageable rather than intolerable, which subsequently reduces emotional avoidance and increases emotional endurance. In addition, behavioral strategies implemented in cognitive behavioral therapy encourage gradual exposure to distressing emotions and situations, thereby increasing

adolescents' confidence in their ability to manage difficult emotional experiences.

The present findings are also in line with research emphasizing the relationship between emotional regulation, cognitive flexibility, and distress tolerance (Allahmoradi et al., 2026; Zhong et al., 2025). Zhong et al. reported that cognitive reappraisal and mental toughness significantly contribute to increased distress tolerance and adaptive emotional functioning among individuals exposed to stressful conditions (Zhong et al., 2025). Similarly, Allahmoradi et al. and Yaghoubi et al. found that cognitive behavioral therapy significantly improved distress tolerance and cognitive flexibility among patients with major depressive disorder (Allahmoradi et al., 2026; Yaghoubi et al., 2026). These findings suggest that cognitive behavioral therapy may strengthen adolescents' emotional coping capacities by promoting flexible thinking patterns and reducing maladaptive emotional responses. Since bereaved adolescents frequently experience persistent emotional distress and cognitive rumination related to the loss of a parent, improving distress tolerance may help them process grief experiences more adaptively and reduce vulnerability to psychological disorders.

Another important finding of the present study was the significant increase in psychological hardiness among adolescents who participated in the cognitive behavioral therapy program. This finding is consistent with theoretical and empirical evidence indicating that psychological hardiness functions as a protective factor against stress and emotional maladjustment (Pandey & Shrivastava, 2017; Zhang, 2011). Psychological hardiness involves the dimensions of commitment, control, and challenge, all of which contribute to individuals' capacity to confront adversity with resilience and persistence. Adolescents experiencing parental bereavement often face disruptions in emotional security, social support, and self-identity, which may weaken their sense of control and psychological resilience. Cognitive behavioral therapy appears to strengthen psychological hardiness by modifying maladaptive cognitive schemas, enhancing problem-solving skills, and encouraging active coping with emotional difficulties.

The increase in psychological hardiness observed in the present study may also be explained by the emphasis of cognitive behavioral therapy on strengthening individuals' perceptions of self-efficacy and control over stressful experiences. Cognitive behavioral interventions help individuals recognize that emotional reactions are

influenced not only by external events but also by cognitive interpretations and behavioral responses (Berpohl & Martin, 2025; Selvapandiyam, 2019). As adolescents learn to identify negative automatic thoughts and replace them with more realistic and adaptive cognitions, they may gradually develop greater confidence in their ability to cope with emotional challenges. This enhanced sense of competence and control likely contributes to improvements in psychological hardiness. Furthermore, cognitive behavioral therapy encourages adolescents to engage actively with stressful experiences rather than avoiding them, thereby reinforcing resilience and emotional endurance.

The findings related to psychological hardiness are consistent with studies highlighting the importance of resilience-related constructs in psychological adaptation following stressful life events (Pandey & Shrivastava, 2017; Pouri, 2016). Pandey and Shrivastava demonstrated that hardiness is positively associated with adaptive psychological functioning and stress resilience (Pandey & Shrivastava, 2017). Likewise, Zhang reported that hardiness is associated with adaptive personality traits and greater emotional stability among university students (Zhang, 2011). Adolescents who develop stronger psychological hardiness may be better equipped to interpret stressful experiences as manageable challenges rather than overwhelming threats. In the context of parental bereavement, this adaptive orientation may facilitate emotional adjustment and reduce the severity of grief-related psychological difficulties.

The present findings can also be interpreted within the framework of grief and meaning reconstruction theories. According to meaning reconstruction perspectives, adaptation to bereavement requires individuals to reorganize their beliefs, emotions, and sense of identity following the experience of loss (Neimeyer et al., 2016). Adolescents experiencing parental bereavement may struggle to integrate the reality of the loss into their cognitive and emotional worldviews, resulting in confusion, emotional instability, and psychological distress. Cognitive behavioral therapy may facilitate the meaning reconstruction process by helping adolescents challenge maladaptive interpretations of the loss and develop more coherent and adaptive perspectives regarding themselves and their future. By improving emotional regulation and cognitive processing, cognitive behavioral therapy may assist adolescents in integrating the bereavement experience into a more stable psychological framework.

The effectiveness of cognitive behavioral therapy observed in the present study is also consistent with evidence regarding the psychological consequences of traumatic and emotionally distressing experiences during childhood and adolescence (Colich et al., 2023; Dugal et al., 2016). Research has shown that childhood trauma and significant emotional loss are associated with heightened vulnerability to psychopathology, emotional dysregulation, and interpersonal difficulties. Colich et al. emphasized that traumatic experiences during childhood and adolescence can influence corticolimbic development and increase susceptibility to emotional disorders (Colich et al., 2023). Similarly, Dugal et al. reported that interpersonal trauma during childhood may lead to long-term psychological and interpersonal impairments (Dugal et al., 2016). Considering that parental bereavement constitutes a profound interpersonal and emotional trauma, interventions aimed at improving coping capacities and emotional regulation are particularly important for adolescents exposed to such experiences.

The findings of the present study are additionally supported by previous evidence regarding the broad effectiveness of cognitive behavioral therapy in reducing emotional distress and enhancing adaptive functioning. Berpohl and Martin demonstrated that cognitive behavioral therapy and mindfulness-based interventions significantly reduce bodily distress and improve emotional functioning across clinical populations (Berpohl & Martin, 2025). Bayat et al. also found that cognitive-behavioral stress management reduced rumination and psychological distress among women exposed to marital betrayal (Bayat et al., 2019). These findings collectively suggest that cognitive behavioral interventions are effective in reducing maladaptive cognitive-emotional patterns across various stressful and traumatic conditions. The present study extends this body of evidence by demonstrating the effectiveness of cognitive behavioral therapy specifically among adolescents experiencing parental bereavement.

Another important implication of the present findings relates to the role of social and emotional support in adolescent adaptation following bereavement. Adolescents who lose a parent frequently experience reduced emotional security, increased loneliness, and diminished psychological support systems (Taukeni, 2015). Such conditions may intensify emotional vulnerability and hinder adaptive coping. Cognitive behavioral therapy may partially compensate for these deficits by providing adolescents with emotional support, coping strategies, and opportunities for

emotional expression within a structured therapeutic environment. By increasing emotional awareness and teaching adaptive coping skills, cognitive behavioral therapy may reduce feelings of helplessness and foster greater emotional resilience among bereaved adolescents.

5. Conclusion

The findings of the present study should be considered in relation to the increasing recognition of prolonged grief disorder as a distinct clinical condition (Boelen et al., 2020; Prigerson et al., 2021). Adolescents experiencing persistent grief reactions may exhibit severe emotional distress, difficulties functioning, and heightened vulnerability to mental health disorders. Since distress tolerance and psychological hardiness appear to play important protective roles in emotional adaptation, interventions targeting these variables may reduce the risk of prolonged and maladaptive grief reactions. The results of the present study therefore support the inclusion of cognitive behavioral interventions within psychological support programs designed for bereaved adolescents.

One limitation of the present study was the relatively small sample size and the restriction of participants to adolescents referred to a single counseling center in the city of Tonekabon, which may limit the generalizability of the findings to broader populations. Another limitation involved the use of self-report questionnaires, which may be influenced by response bias and participants' subjective perceptions. In addition, the study lacked a long-term follow-up phase, making it difficult to determine the stability and persistence of treatment effects over time. The absence of comparison with other therapeutic approaches also limited the ability to evaluate the relative effectiveness of cognitive behavioral therapy compared with alternative interventions.

Future research is recommended to examine the long-term effectiveness of cognitive behavioral therapy on grief-related psychological outcomes among adolescents through follow-up assessments conducted several months after treatment completion. Researchers are also encouraged to investigate the comparative effectiveness of different therapeutic approaches, such as acceptance and commitment therapy, mindfulness-based interventions, and family-centered therapies, in improving emotional adjustment following parental bereavement. Furthermore, future studies may benefit from including larger and more diverse samples from different cultural and social backgrounds and

examining additional variables such as depression, anxiety, resilience, social support, and quality of life.

From a practical perspective, the findings of the present study highlight the importance of implementing structured psychological interventions for adolescents experiencing parental bereavement. Mental health professionals, school counselors, and family therapists may utilize cognitive behavioral therapy techniques to strengthen distress tolerance and psychological hardiness among bereaved adolescents. Educational and counseling centers can also develop supportive programs focused on emotional regulation, adaptive coping strategies, and resilience enhancement for vulnerable adolescents. Early psychological intervention following parental loss may reduce the likelihood of long-term emotional maladjustment and contribute to healthier psychological development during adolescence.

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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Ethical Considerations

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

References

- Allahmoradi, M., Yaghoubi, M., Ebrahimi, F., Pourmohammadghouchani, K., & Norouziani, Z. (2026). Comparison of the Effectiveness of Cognitive Behavioral Therapy and Acceptance and Commitment Therapy on Referential Thoughts, Cognitive Flexibility, and Distress Tolerance in Patients with Major Depression. *Psychological Dynamics in Mood Disorders*, 1-18. <https://maherpub.com/pdmd/article/view/628>
- Bayat, B., Tavakoli, B., & Ghanadi, N. (2019). The effectiveness of cognitive-behavioral stress management training on rumination and psychological distress in women exposed to spousal infidelity. *Applied Family Therapy Quarterly*, 3(10), 22-77.
- Bermppohl, F. M. g., & Martin, A. (2025). Efficacy of Cognitive Behavioral Therapy and Acceptance- And Mindfulness-Based Treatments in Adults With Bodily Distress: A Network Meta-Analysis. *Psychotherapy and psychosomatics*, 94(3), 207-224. <https://doi.org/10.1159/000544825>
- Boelen, P. A., Eisma, M. C., Smid, G. E., & Lenferink, L. I. (2020). Prolonged grief disorder in section II of DSM-5: A commentary. *European Journal of Psychotraumatology*, 11(1), 1771008.
- Colich, N. L., Hanford, L. C., Weissman, D. G., Allen, N. B., Shirliff, E. A., Lengua, L. J., Sheridan, M. A., & McLaughlin, K. A. (2023). Childhood trauma, earlier pubertal timing, and psychopathology in adolescence: The role of corticolimbic development. *Developmental Cognitive Neuroscience*, 59, 101187.
- Dugal, C., Bigras, N., Godbout, N., & Belanger, C. (2016). Childhood interpersonal trauma and its repercussions in adulthood: An analysis of psychological and interpersonal sequelae.
- Malek Varansfaderani, H., Mohammadpanah Ardakan, A., & Manfi, S. (2022). Predicting emotional self-efficacy based on family communication patterns with the mediating roles of anger rumination and ego strength in adolescents. Seventh International Conference on Psychology, Educational Sciences, and Child Rights in the Islamic World, Tehran.
- Mattingley, S., Youssef, G. J., Manning, V., Graeme, L., & Hall, K. (2022). Distress tolerance across substance use, eating, and borderline personality disorders: A meta-analysis. *Journal of affective disorders*, 300, 492-504.
- Mirjani, R., & Valadkhani, F. (2024). The role of childhood trauma in predicting attitudes toward romantic relationships. Fourth National and First International Conference on Child and Adolescent Clinical Psychology, Ardabil.
- Neimeyer, R. A., Keese, N. J., & Fortner, B. V. (2016). Loss and meaning reconstruction: Propositions and procedures. In R. Malkinson, S. Rubin, & E. Witztum (Eds.), *Traumatic and nontraumatic loss and bereavement: Clinical theory and practice* (pp. 197-230). Psychosocial Press.
- Pandey, D., & Shrivastava, P. (2017). Mediation effect of social support on the association between hardiness and immune response. *Asian Journal of Psychiatry*, 26, 52-55.
- Pouri, S. (2016). Comparison of psychological capital, hardiness, and quality of life between divorced and normal women in Aqqala County. Provincial Conference on Women's Health, Aliabad Katoul.
- Prigerson, H. G., Kakarala, S., Gang, J., & Maciejewski, P. K. (2021). History and status of prolonged grief disorder as a psychiatric diagnosis. *Annual Review of Clinical Psychology*, 17, 109-126.
- Rosner, R., Comtesse, H., Vogel, A., & Doering, B. K. (2021). Prevalence of prolonged grief disorder. *Journal of affective disorders*, 287, 301-307.
- Sadock, B. J., Sadock, V. A., & Ruiz, P. (2015). *Kaplan and Sadock's synopsis of psychiatry* (M. Ganji, Trans.; 2 ed.). Savalan.
- Selvapandiyani, J. (2019). Status of cognitive behaviour therapy in India: Pitfalls, limitations and future directions-A systematic review and critical analysis. *Asian Journal of Psychiatry*, 41, 1-4.
- Taukeni, S. G. (2015). Orphan adolescents' lifeworlds on school-based psychosocial support. *Health Psychology and Behavioral Medicine*, 3(1), 12-24.
- Treml, J., Kaiser, J., Plexnies, A., & Kersting, A. (2020). Assessing prolonged grief disorder: A systematic review of assessment instruments. *Journal of affective disorders*, 274, 420-434.
- Veilleux, J. C. (2019). The relationship between distress tolerance and cigarette smoking: A systematic review and synthesis. *Clinical psychology review*, 71, 78-89.
- Yaghoubi, M., Ebrahimi, F., Pour Mohammad Ghochani, K., & Noorouziani, Z. (2026). A Comparison of the Effectiveness of Cognitive Behavioral Therapy and Acceptance and Commitment Therapy on Referential Thoughts, Cognitive Flexibility, and Distress Tolerance in Patients with Major Depression. *Psychological Dynamics in Mood Disorders*, 1-18. <https://doi.org/10.1002/da.22878>
- Zhang, L. F. (2011). Hardiness and the Big Five personality traits among Chinese university students. *Learning and Individual Differences*, 21(1), 109-113.
- Zhong, Z. M., Jiang, H., Wang, H., & Liu, Y. (2025). The Association Between Mindfulness and Athletes' Distress Tolerance: The Mediating Roles of Cognitive Reappraisal and Mental Toughness. *Behavioral Sciences*, 15(3), 298. <https://doi.org/10.3390/bs15030298>