Iran J Psychiatry 2026; 21: 2: 179-191

Original Article *https://doi.org/10.18502/ijps.v21i2.21220*

Investigating the Relationship between Childhood Trauma and Attachment Styles with Prolonged Grief Symptoms

Fatemeh Serjouie[1], Amir Sam Kianimoghadam[1*], Hoda Doosalivand[1], Zeinab Farjampanah[2], Abbas Masjedi-Arani[1]

Abstract

Objective: Childhood trauma and attachment styles are critical factors influencing prolonged grief symptoms in bereaved adults. This study investigates the relationship between childhood trauma, attachment styles, and prolonged grief symptoms considering the mediating role of mentalization, shame, and guilt in bereaved adults.
Method: The present research is a cross-sectional descriptive study with a correlational design utilizing path analysis. The statistical population of this study includes bereaved individuals, selected by the convenience sampling method. A total of 311 participants completed to the PG-13-R, CTQ, RAAS, RFQ, and SSGS questionnaires. SPSS 24 and PLS 3 were employed for data analysis using path analysis modeling. PLS-SEM, a variance-based approach suitable for non-normal and complex models with multiple mediators, was used for path analysis modeling.
Results: The study results demonstrated a significant direct relationship of childhood trauma (β = 0.29, P = 0.006) and attachment styles (β = 0.23, P = 0.020) with prolonged grief symptoms. The critical finding in this research concerns the mediating variables. According to the results, shame significantly mediated the overall model (β = 0.10, P = 0.042), specifically between between attachment styles and prolonged grief symptoms (β = 0.10, P = 0.044), while mentalization and guilt were not significant mediators. In total, 60% of the variance in prolonged grief symptoms can be explained by predictive variables (R^2 = 0.609), including childhood trauma, attachment style, mentalization, shame, and guilt.
Conclusion: These findings emphasize the role of shame in the prolonged grief symptoms among adults with childhood trauma histories and insecure attachments. Therefore, the findings suggest that interventions targeting shame could be effective in reducing prolonged grief symptoms.

Key words: *Bereavement; Guilt; Mentalization; Prolonged Grief Disorder; Shame*

1. Department of Clinical Psychology, School of Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
2. Department of Clinical Psychology, School of Medicine, Kermanshah University of Medical Sciences, Kermanshah, Iran.

***Corresponding Author:**
Address: Department of Clinical Psychology, School of Medicine, Shahid Beheshti University of Medical Sciences, Arabi Avenue, Daneshjoo Boulevard, Velenjak, Tehran, Iran, Postal Code: 1985713871.
Tel: 98-91 01044425, Fax: 98-21 19 83963113, Email: kianimoghadam@sbmu.ac.ir

Article Information:
Received Date: 2025/02/27, Revised Date: 2025/09/15, Accepted Date: 2025/11/26

While the vast majority of bereaved individuals work through acute grief within the span of a few months, a sizable minority develop Prolonged Grief Disorder (PGD). PGD was officially added as a diagnosis in the DSM-5-TR. Prevalence estimates have varied by type of loss: meta-analytic reviews have shown approximately 10% after largely non-violent losses (1), but substantially higher rates (pooled ≈ 49%) after unnatural/violent losses (e.g., accident, suicide, homicide) (2). Violent/traumatic losses are associated with markedly higher PGD, PTSD, and MDD compared to natural losses (3). Childhood trauma, conceptualized as being exposed to stressful and unmanageable events such as emotional, physical, or sexual abuse and neglect, has been identified as a strong predictor of prolonged symptoms of grief (4). Adult survivors tend to be more emotionally reactive when they undergo stressful life events, which may trigger higher levels of grief when they experience significant losses, such as the loss of a partner (5). According to the Multidimensional Grief Theory (MGT), the overlap between reactions to trauma and the reactions to grief confirms the significance of studying both when determining grief outcomes (6, 7).

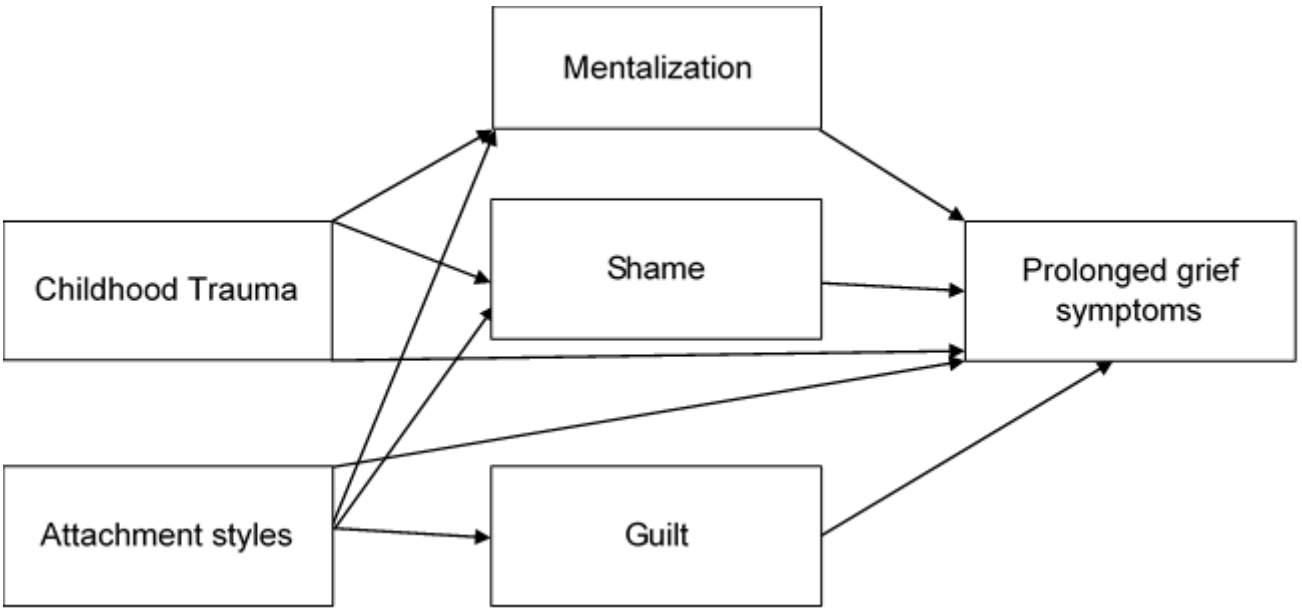
Attachment style is another variable influencing the expression of prolonged grief symptoms. According to attachment theory, children develop internal relational models as a function of relationships with primary caregivers, which, in turn, guide their cognition and action in later interpersonal relationships and the actual expression of grieving. Individuals with different attachment styles have different grieving processes. Those who have an anxious attachment style tend to focus intensely on the loss, have difficulty with coping styles, and exhibit prolonged and high-intensity grieving responses characterized by rumination and preoccupation with the loss. In contrast, individuals with an avoidant attachment style tend to feel sadness and have delayed or subdued grieving responses (8-10). Insecure attachment is found to be a risk factor for the experience of high-intensity and prolonged grief processes (11).

Mentalization can potentially affect the link between childhood trauma, attachment style, and prolonged grief symptoms. Mentalization, the process by which people interpret behavior on the basis of mental states such as needs, feelings, and motivations, is seen as a transdiagnostic and transtheoretical variable leading to mental disorders. Two types of mentalization dysfunction are seen in relation to mentalization: hyper-mentalizing, indicating over-attribution of mental states, and hypo-mentalizing, indicating under-attribution of mental states (12). Trauma in childhood affects the formation of reflective functioning and is correlated with diminished mentalization capacity (13-16). Mentalization capacity protects people from the development of psychopathology (17, 18). Secure attachment also plays a dominant role in mental development and the formation of internal representational worlds of emotional conditions and works positively on the process of mentalization. Deficits in the process of mentalization impair the ability to reflect on the inner mental conditions of self as well as others, especially in highly stressful emotional conditions, and contribute to psychological disorders (19, 20). In one cross-sectional survey of survivors of suicide loss that covered 152 participants, the results show that mentalization deficits are substantially connected to symptoms of grief (21, 22).

Shame can act as a mediator between childhood trauma, attachment style, and prolonged grief symptoms. Shame is the experience of deep feelings of inadequacy or unworthiness brought on by feelings of perceived criticism and rejection, and childhood trauma, including sexual abuse along with physical abuse, can be followed by the lasting feelings of shame that amplify emotional distress and hamper the regulation of the emotions (23-25). Shame is connected with psychological distress, including raised levels of anxiety, despair, and grief feelings (26). Insecure attachment, which arises from disrupted parent–child relationships, prompts individuals to internalize feelings of shame originating from their childhood experiences (27). Emotions associated with shame often play a significant role in the grief process associated with suicide (28, 29).

Another self-reflective emotion stemming from childhood trauma is guilt. Guilt arises from the belief that one has unnecessarily harmed another individual or failed to act with kindness; it may serve as a motivator for corrective behavior and can also be a constructive emotion within relationships, indicating the necessity to make amends for a transgression (30). As noted by Tangney (31), shame inflicts greater emotional distress than guilt, as it endangers an individual's sense of identity and poses more complex challenges for resolution; while guilt permits the opportunity for an apology or reparation, shame necessitates a comprehensive reevaluation of one's entire self-concept. Individuals who experience shame report heightened feelings of inferiority and isolation in the aftermath of a traumatic incident. Norman (32) indicates that guilt related to trauma encompasses guilt-driven thoughts and emotional anguish, and it may also operate as a means of regulating behavior in alignment with personal values. The persistence of negative beliefs and emotions, including trauma-induced guilt, contributes to psychological harm (33). The experience of self-conscious emotions such as guilt and shame necessitates intersubjective understanding, referring to the recognition of being perceived by others and the limited control over that perception (34). Dysfunctional parent-child relationships hinder the formation of secure attachment, resulting in individuals encountering profound self-conscious emotions without awareness due to the absence of a stable bond during early development (35). Empirical data indicate that anxious

as well as avoidant attachment styles are correlated with negative psychological feelings like guilt, anger, and humiliation, and that only the avoidant attachment is predictive of guilt, whereas secure as well as avoidant attachments are predictive of shame (36-38). Studies have revealed that guilt is prone to prolong the time frame spent in mourning (29, 39), consistent with Li's definition of grief guilt as "a sense of remorse in grief, recognizing that the survivor has not measured up to his or her internal values and ideals of the deceased" (40).
Mentalization was selected as a mediator due to its transdiagnostic role, fully mediating attachment-to-PGD paths by impairing emotional reflection post-trauma (41-44). Shame and guilt, as self-conscious emotions, were chosen for their mediation in trauma-grief links, explaining 30-40% of the variance in symptoms via cultural amplification in collectivist societies like Iran, where relational failures heighten isolation (45, 46).



This study aimed to investigate a broader framework in the field of prolonged grief symptoms. Despite prior studies on PGD, few have simultaneously integrated attachment style and childhood trauma with emotional–cognitive mediators (shame, guilt, and mentalization), particularly in non-Western populations. Filling this gap is important because cultural differences in mourning and attachment in Iran may affect the development and expression of PGD. This study examines grief within Iranian society while considering Prolonged Grief Disorder (PGD) as a new diagnosis in the DSM-5-TR, acknowledging the cultural variations of grief (47). Consequently, the results of the findings of the present study provide strong support for scientific evidence based on emotions and mentalization to prevent or intervene in the occurrence of PGD among bereaved adults. The current study employed a path analysis model to explain the mediating variables in the relationship of childhood trauma and attachment style with prolonged grief symptoms (Figure 1).

Figure 1. Conceptual Model of the Proposed Relationships among Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms

Materials and Methods

Participants

The present study used a descriptive correlational design based on path analysis modeling. The sample included all Iranian bereaved adults recruited in 1403. From this population, 663 participants were selected using a convenience sampling method through online platforms and bereaved support centers. The study instruments were administered as self-report questionnaires delivered via Google Forms. The approximate time to complete the entire questionnaire was approximately 20 to 30 minutes. Inclusion criteria required a diagnosis of prolonged grief disorder based on the PG-13-R questionnaire with a score higher than 30 as the cut-off point. In addition, participants were asked to respond positively to questions 1 and 13 of the PG-13-R questionnaire. Since these two questions cover key diagnostic criteria, including functional impairment, for prolonged grief disorder, participants were required to have experienced the loss of a loved one in the past 12 months and to be between 18 and 80 years of age. Therefore, after calculating the cut-off score, 311 participants remained and were analyzed. Exclusion criteria were incomplete completion of the questionnaire and questionnaire template (Table 1).

Table 1. Demographic Characteristics of Bereaved Adult Participants in the Study (N = 311)

Variable	Category	n	%
Gender	Female	242	77.8
	Male	69	22.2
Marital Status	Single	162	52.1
	Married	149	47.9
Time Since Important Person's Death	12–18 months	92	29.6
	18–24 months	47	15.1
	More than 2 years	172	55.3
Education	Bachelor's	127	40.8
	Master's	79	25.4
	Doctorate	13	4.2
	Other	92	29.6
Age (years)	Mean (SD)	33.48	10.07
	Range	18–71	

Measures

Childhood Trauma Questionnaire (CTQ): The childhood trauma questionnaire was developed by Bernstein *et al.* in 2003. these 28 items in a questionnaire with five subscales, including sexual abuse, physical abuse, emotional abuse, emotional neglect, and physical neglect. Participants fill out the statements on a 5-point Likert scale from 1 to 5. In a study on a group of adolescents, Bernstein *et al.* reported the Cronbach's alpha coefficient of the questionnaire for the dimensions of emotional abuse, physical abuse, sexual abuse, and emotional and physical neglect as 0.87, 0.86, 0.95, 0.89, and 0.78, respectively. The concurrent validity of CTQ with therapists' ratings of the amount of childhood traumas has been reported in the range of 0.59 to 0.78 (48). Ebrahimi *et al.* reported that Cronbach's alpha of this questionnaire ranged from 0.81 to 0.98 for its five components (65). In the present study, Cronbach's alpha of the subscales was 0.74 to 0.85 (49).

Adult Attachment Style Questionnaire (RAAS): The adult attachment style questionnaire was developed by Collins and Reed in 1990 and includes 18 items. The questionnaire is measured by marking on a 5-point scale (Likert type). Collins and Reed prepared their questionnaire items based on three attachment styles. Cronbach's alpha for all three subscales was 0.75, 0.72, and 0.69, respectively (50). The attachment-style questionnaire was validated in Iran by Pakdaman in 2013, and the test-retest reliability for the subscales after two months was 0.57, 0.75, and 0.47, respectively (51).

Prolonged Grief Questionnaire (PG-13_R): The prolonged grief questionnaire was developed by Pregerson and colleagues in 2021. Symptoms of prolonged grief disorder in this questionnaire are one-dimensional, and high degrees of internal consistency (Cronbach's alpha = 0.83, 0.90, and 0.93, respectively, for Yale, Utrecht, and Oxford) have been obtained (52). In Iran, in 2023, Yousefi *et al.* investigated the psychometric characteristics of the scale. The results of this study showed that this version of PG-13-R had internal consistency reliability (Omega coefficient 0.93) and test-retest reliability (with an interval of 6 weeks) of 0.89. Convergent and divergent validity was demonstrated with significant correlations between the PG-13-R and measures of depression, PTSD, functional impairment, and hope (53).

Mentalization Questionnaire (RFQ): The mentalization questionnaire was developed by Fonagy *et al.* in 2016. In the factor analysis, two factors of certainty and uncertainty about the mental state of oneself and others were discovered and reported. Fonagy *et al.* reported internal consistency for a non-clinical sample's certainty and uncertainty components as 0.63 and 0.67, respectively. Test-retest reliability with a three-week interval was 0.84 for the uncertainty component and 0.75 for the certainty component (54). In Iran, Droger and colleagues validated the Persian version of the mentalization questionnaire in 2018. Confirmatory factor analysis showed that the two-factor model of the questionnaire has an acceptable fit with the data. Cronbach's alpha was 0.88 for the certainty factor and 0.66 for the uncertainty factor (55).

Shame and Guilt Scale (SSGS): The shame and guilt scale was developed by Tangney and colleagues in 1994. Its 10-item version measures shame and guilt; Cronbach's alpha for shame and guilt was 0.88 and 0.93, respectively (56). In Iran, this scale was validated by Vermaghani and colleagues in 2022. The results of exploratory factor analysis showed that the 10-item version of this scale in Iranian society has a two-factor structure with high internal consistency and a Cronbach's alpha of 0.91 (57).

Procedure

The authors followed ethical guidelines based on the Declaration of Helsinki (1975), as revised in 2008. The study received ethical approval from the Research Ethics

Committee of Shahid Beheshti University of Medical Sciences (IR.SBMU.MSP.REC.1403.124). Ethical principles, such as confidentiality of information and non-collection of personally identifiable data, were verbally explained to participants. Written informed consent was obtained from all participants. Participants completed the PG-13-R, CTQ, RAAS, RFQ, and SSGS questionnaires. The whole instrument battery contained approximately 83 items. To investigate potential fatigue effects, we monitored item-level missing data, completion times (where provided), and response patterns. Respondents with incomplete responses or implausible response patterns were excluded. Finally, measurement model diagnostics showed no sign of systematic deterioration in response quality.

Statistical Analysis

Descriptive statistics and Pearson correlations were calculated using SPSS version 24. Normality checks, performed using the Kolmogorov–Smirnov test, indicated significant departures from normality in the research variables (Table 2 and 3). Path analysis, therefore, was conducted utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS version 3. PLS-SEM constitutes a variance-based approach that does not assume multivariate normality, making it appropriate for non-normal and complex models with many mediators, even with relatively small sample sizes. The PLS algorithm was run with a maximum number of iterations of 300 and a convergence value of 0.00001, and it successfully attained convergence in the 12th iteration. The significance of both direct and indirect effects was assessed using non-parametric bootstrapping with 5,000 resamples, producing robust standard errors as well as confidence intervals. All constructs were theoretically framed as reflective, and all the items had outer loadings higher than 0.70; hence, no indicators were deleted from the model. Testing of the fit and quality of the models was performed based on indices like SRMR, R^2, Q^2, and composite reliability.

Table 2. Descriptive Statistics of Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms in Bereaved Adults

variables	Average	Standard deviation	Minimum	Maximum
Prolonged grief symptoms	41.04	5.12	32	52
Emotional abuse	9.21	4.38	4	24
Physical abuse	7.46	3.43	4	23
Sexual Abuse	7.21	3.81	4	25
Emotional neglect	18.22	4.93	5	25
Physical neglect	13.28	1.82	6	21
Total Childhood Trauma Score	55.40	7.55	34	90
Secure attachment	18.18	3.22	9	49
Avoidant attachment	18.39	3.50	11	56
Ambivalent/Anxious Attachment	18.81	6.10	6	30
Total Attachment Score	55.38	6.42	36	95
Feelings of shame	13.61	5.20	5	25
Feelings of guilt	14.36	5.05	5	25
Certainty Mentalization	28.39	9.66	9	45
Uncertainty Mentalization	12.75	5.02	5	25
Total score of mentalization	41.14	11.34	14	64

Table 3. Results of the Kolmogorov–Smirnov Test Assessing the Normality of Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptom Variables in Bereaved Adults

Variable	Amara Kolmogorov-Smirnov	Significance level
prolonged grief syndrome	0.083	0.000
Childhood trauma	0.134	0.000
Attachment Style	0.090	0.000
Feelings of shame	0.079	0.000
Feelings of guilt	0.067	0.002
Mentalization	0.055	0.022

Results

A total of 663 people participated in the present study. According to the inclusion criteria, including the cutoff score of the prolonged grief disorder questionnaire, some participants were excluded, and finally, 311 individuals were included in the analysis. Of these, 242 were women (77.8%), and 69 were men (22.2%). The length of time since the death of the deceased is shown in Tables 3 and 4. The highest frequency (n = 172, 55.3%) is related to the mourning period of more than two years, while the lowest frequency (n = 47, 15.1%) was associated with a grief period of 18 to 24 months.

The Kolmogorov-Smirnov test was used to check the data's normality. Based on Table 3, the significance level of this test for all research variables is less than 0.05, so the data do not follow the normal distribution. The path analysis method and non-parametric modeling software were used to model the data. Because the variables did not follow a normal distribution, path coefficients and mediation effects were evaluated using bootstrapped estimates, which are distribution-free. Model quality was assessed with R^2, Q^2, and SRMR, indicating good predictive validity and model fit.

R2, Q2, redundancy, and GOF were examined for dependent constructs; higher values indicate greater predictive power and better model fit. Based on the tabulated values and a variety of criteria, the fit of the present model is strong. The SRMR (Standardized Root Mean Square Residual) criterion, which was less than 0.08, indicates a good fit of the model (Tables 4 & 5).

Table 6 presents both direct and indirect effects. As shown, shame significantly mediated the relationships between childhood trauma and prolonged grief symptoms ($\beta = 0.102$, $P = 0.042$) and between attachment styles and prolonged grief symptoms ($\beta = 0.100$, $P = 0.044$). In contrast, indirect effects through mentalization and guilt were not significant (all $P > 0.05$). Thus, only shame emerged as a robust mediator. To test the hypotheses of the current research, each path's direct path coefficient and t-values were examined. As a result, the significance value of each path was determined. The predictive power of the variables for the dependent variable was estimated at $R^2 = 0.609$. In contrast, the hypothesized paths involving mentalization—including its direct effect on prolonged grief symptoms and its mediating role between childhood trauma or attachment styles and prolonged grief symptoms—were not significant. Similarly, guilt did not significantly mediate the associations between childhood trauma or attachment styles and prolonged grief symptoms in bereaved adults (Figures 2 and 3).

Table 4. Goodness-of-Fit Indices for the Proposed Structural Model Examining Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms in Bereaved Adults

Variable	Quality R^2	Modified Criterion R^2	Red	Common values	Quality Q^2
Prolonged grief	0.609	0.602	0.264	0.434	0.362
Feelings of shame	0.436	0.430	0.176	0.405	0.349
Feelings of guilt	0.474	0.468	0.247	0.521	0.404
Mentalization	0.271	0.265	0.153	0.564	0.398

Table 5. Goodness-of-Fit (GOF) and Standardized Root Mean Square Residual (SRMR) Indices for the Proposed Structural Model Examining Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms in Bereaved Adults

Component	Average
R^2	0.447
Communalities	0.481
GOF	0.464
SRMR	0.0620

Table 6. Direct and Indirect Effects of the Hypothesized Structural Model Examining Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms in Bereaved Adults (Bootstrapping, 5000 Resamples)

Direct Relationship	Impact Factor	T-coefficient	Significance level
Childhood trauma → Prolonged grief symptoms	0.294	2.778	0.006
Attachment Styles → Prolonged grief symptoms	0.227	2.157	0.020
Mentalization → Prolonged grief symptoms	0.128	0.750	0.453

Direct Relationship	Impact Factor	T-coefficient	Significance level
Feelings of guilt → Prolonged grief symptoms	0.236	2.836	0.003
Feelings of shame → Prolonged grief symptoms	0.404	2.656	0.008
Childhood trauma → Mentalization	0.096	0.750	0.453
Mentalization → Attachment styles	0.236	2.979	0.236
Childhood trauma → Feelings of guilt	0.225	2.115	0.022
Attachment Styles → Feelings of guilt	0.305	2.020	0.024
Childhood trauma → feeling of shame	0.244	2.502	0.010
Attachment styles → Feeling of shame	0.241	2.947	0.000
Childhood Trauma → Mentalization → Prolonged grief symptoms	0.012	0.377	0.706
Attachment Styles → Mentalization → Prolonged grief symptoms	0.030	0.596	0.551
Childhood Trauma → Feelings of guilt → Prolonged grief symptoms	0.053	0.777	0.200
Attachment Styles → Feelings of guilt → Prolonged grief symptoms	0.072	0.591	0.558
Childhood trauma → Feelings of shame → Prolonged grief symptoms	0.102	2.04	0.042
Attachment Styles → Feelings of Shame → Prolonged Grief symptoms	0.100	2.01	0.044

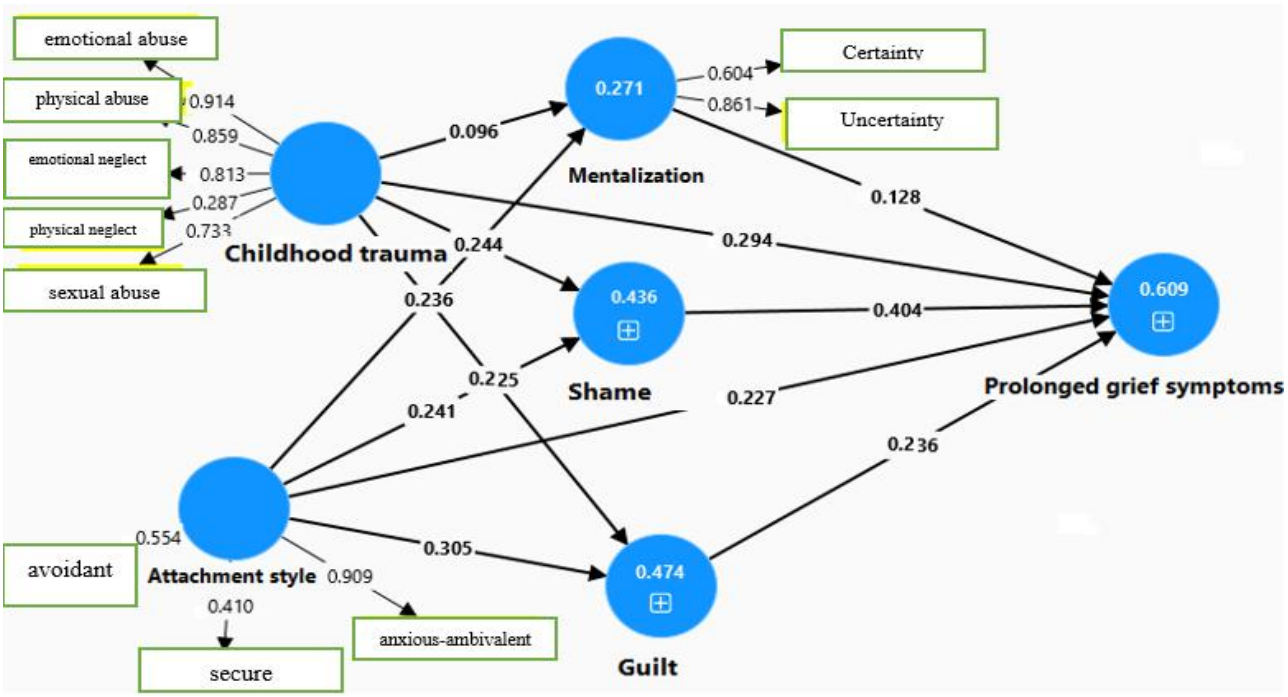


Figure 2. Structural Model Showing the Path Coefficients among Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms in Bereaved Adults

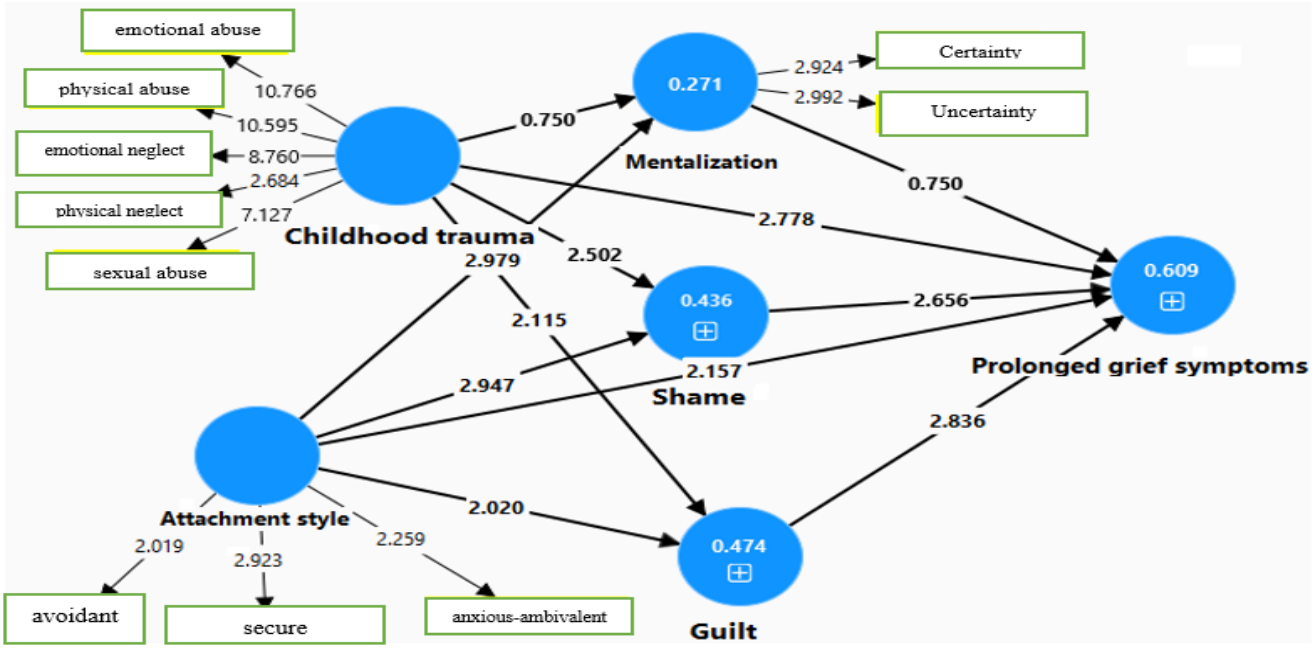


Figure 3. Significance of the Relationships (t-values) among Childhood Trauma, Attachment Styles, Mentalization, Shame, Guilt, and Prolonged Grief Symptoms in Bereaved Adults

Discussion

The present study aimed to investigate the relationship of childhood trauma and attachment style with prolonged grief symptoms. It also examined the mediating role of mentalization, as well as feelings of shame and guilt. The findings showed that shame significantly mediated the relationship between childhood trauma and attachment style with prolonged grief symptoms in bereaved adults. However, neither mentalization nor guilt mediated the relationship between childhood trauma and attachment style with prolonged grief symptoms. The model's predictive power was evaluated at 0.609 for prolonged grief symptoms, showing a moderately strong association. Compared to previous studies, one of the main strengths of this study is the simultaneous examination of childhood trauma and attachment style in an integrated model with multiple mediators (such as shame and mentalization), while previous research has mainly focused on isolated relationships. This study also conceptually differs from our previous work (58), which focused on social and contextual predictors of prolonged grief using a machine learning approach, whereas the present study investigates developmental and emotional mechanisms within a theoretical path model. Furthermore, the use of a valid sample of Iranian bereaved adults with a valid DSM-5-TR cutoff score allows the findings to be generalized to non-Western cultural contexts, which have been less addressed in Western studies. The predictive power of the model (R^2 = 0.609) is also higher than many previous models, highlighting the explanatory validity of our model (59). Finally, the focus on emotional mediators such as shame, which are often overlooked, positions this study as a bridge between attachment theory and clinical interventions.

The findings of this study, consistent with other studies, demonstrated the enduring impact of childhood trauma on grief responses (5). Childhood traumas, such as abuse, neglect, and the loss of loved ones, have profound and enduring effects on mental health. For instance, McKay *et al.* (2021) showed that childhood trauma makes people susceptible to depression, anxiety, and post-traumatic stress disorder (60). Some adults who have experienced childhood trauma exhibit emotional dysregulation (61). Our findings indicate that childhood trauma influences the duration of grief in adults; survivors show elevated emotional sensitivity, which makes it harder to process emotional reactions to grief (62). This emotional sensitivity not only disrupts grief processing, but in the Iranian cultural context–where expressing grief is often associated with social taboos–it can lead to a cycle of emotional repression, which distinguishes the findings of the present study from Western studies.

Furthermore, adults with unresolved childhood trauma experience problems trusting interpersonal relationships (63), and when experiencing grief, they may tend to use less social support and feel a stronger sense of isolation. In addition, individuals with childhood trauma exhibit low self-esteem and feelings of worthlessness (64). These traits may lead to self-blame during the grief process, contributing to a more extended grief response (65, 66). Therefore, the experience of grieving can be challenging for someone who has experienced childhood trauma due to a damaged developmental history.

Another finding of the current study, which was consistent with other studies, was that attachment style was related to prolonged grief in bereaved adults. This finding is consistent with the other studies. According to Bowlby's theory, individuals with secure attachment develop an adaptive coping style, enabling them to process grief. In contrast, individuals with insecure attachment experience greater difficulty managing their grief (67). For instance, individuals with anxious attachment exhibit more intense emotional reactions and increased rumination about the deceased (68), which, as a result, prolongs grief.

On the other hand, individuals with avoidant attachment suppress their emotions, leading to delayed grief responses that manifest as shame and guilt over time. Additionally, they often employ maladaptive coping strategies and may avoid seeking social support. As a result, they may show more severe symptoms of grief (69). From the present author's perspective, this avoidant pattern not only prolongs grief, but in our sample–which consisted mainly of urban adults–it interacts with modern social pressures (such as digital isolation), and this interaction can further weaken coping mechanisms.

Another finding of this study was that mentalization did not mediate the relationship between childhood trauma, attachment style, and prolonged grief symptoms. This finding is inconsistent with findings from Luyten *et al.* (2019), Doba *et al.* (2022), Ensink *et al.* (2023), and Lombardo *et al.* (2024). These studies showed that childhood trauma is commonly associated with reduced capacity for mentalizing and, consequently, increased psychological symptoms, including symptoms of grief or posttraumatic stress (13, 14, 41). However, the findings of Ensink *et al.* (2023) showed that mentalizing is indirectly predicted by attachment style; that is, insecure attachment styles can limit the capacity for mentalizing—especially in individuals who have experienced childhood trauma (41). According to attachment theory (Bowlby, 1969), insecure attachment disrupts emotion regulation and mental representations of self and others. In addition, mentalization theory suggests that severe childhood trauma can impair the capacity for mentalization (44, 67). On the other hand, in the study by Lombardo *et al.* (2024), mentalization was significantly associated with grief symptoms, and its moderating role in the emotional processing of grief was confirmed (22); however, in the present sample, such a mediating role was not observed. Therefore, it seems that differences in sample type (bereaved parents of the Sewol disaster in Huh's study versus Iranian adults in the present study), as well as differences in the instruments used to measure mentalization and the severity of the trauma experience, could explain these discrepancies. The non-significance of this mediation could be due to a strong direct relationship, differences in instruments, and subject fatigue. From the researcher's perspective, the lack of significance of mentalization as a mediator is not only due to the overshadowing effect of the direct effects of childhood trauma but could also imply 'trauma primacy' in grief-that is, early trauma so disrupts the psychological structure that the capacity for mentalization (as a higher process) becomes marginal. This inference, based on clinical observations in our sample, suggests that in high-trauma populations (such as Iran with its socio-historical background), mentalization is activated only after initial trauma-focused interventions. Therefore, future models should consider mentalization as a moderator (rather than a mediator).

The findings of this study indicated that shame mediated the relationship between childhood trauma, attachment style, and prolonged grief symptoms. This finding was consistent with the studies by Levi-Belz *et al.* (2023) and Szőcs *et al.* (2022), which showed that shame predicts prolonged grief symptoms (28, 29). Furthermore, Christine *et al.* (2023) demonstrated that insecure attachment causes shame (70). Farahani *et al.* (2023) also indicated that childhood trauma leads to feelings of shame (24). Unlike previous studies, which primarily focused on isolated relationships, the present study emphasized the interaction between attachment styles and childhood trauma in predicting prolonged grief symptoms. The findings suggest that insecure attachment styles often result from insufficient care and neglect by the primary caregiver; individuals with anxious attachment experience intense internal shame due to a fear of rejection and a desire for approval.

In contrast, avoidant attachment may lead to externalized shame and distancing from emotional connections that could help regulate their feelings (71). As a result, attachment style and childhood trauma, through their effect on shame, alter one's perception of events, including grief. Individuals experiencing shame and grief may try to suppress emotions, often feeling responsible for the deceased's death and not considering themselves worthy of social support. As a result, they suffer prolonged grief symptoms due to social isolation (72). These findings underscore the importance of considering shame in therapeutic interventions for individuals coping with grief.

The results of the present study showed that guilt did not play a significant mediating role in the model. This finding is consistent with the research of LeBlanc *et al.* (2020) but differs from Levi-Belz (2023) (72, 73). LeBlanc *et al.* found that when shame and guilt were modeled together, only shame remained a significant predictor, and the effect of guilt was reduced. This result is similar to the findings of the present study, as shame was also a significant mediator in our integrated model, but guilt was not. In contrast, Levi-Belz (2023) reported that the "self-blame" component of guilt was associated with the initial severity of grief and its slower decline over time, which is more reflective of the short-term and situational role of guilt in the early stages of grief (73). From a psychological perspective, this finding may reflect a distinction between guilt and shame, as self-

conscious emotions theory suggests that guilt is a situational and short-term emotion, while shame is deeper, more chronic, and linked to personal identity (74). This lack of significance could be due to the strong direct effect of trauma, differences in measurement instruments, and the limited number of guilt-related items. From this researcher's perspective, the lack of mediation of guilt in the integrated model suggests a conceptual distinction between guilt (which is often situational and short-term) and shame (which is chronic and self-defining); while guilt is correlated with grief, its role is attenuated in the presence of stronger mediators such as shame. This inference, based on the diversity of our sample (with different levels of guilt based on the type of loss), emphasizes that guilt may be a mediator only in specific subgroups (such as sudden deaths) and that future models should prioritize subgroup analyses. Recent national studies have shown that healthcare workers' awareness of complicated grief during the pandemic is low and that social and clinical risk factors can influence the severity of grief (75). Previous Iranian studies have also shown a relationship between personality traits, defense mechanisms, and the severity of complex grief, which emphasizes the need to examine psychological mechanisms (e.g., attachment and emotional processing) (76). Culturally, in collectivist societies like Iran, shame—rooted in social judgment—plays a stronger and more enduring role than guilt, which, in Western individualistic contexts, relates more to personal responsibility.

These findings have important clinical implications for mental health professionals, particularly in crisis interventions for bereaved individuals at risk for prolonged grief. Shame should be considered as a key emotional factor in grief. Screening for childhood trauma and insecure attachment can help identify individuals at risk for prolonged grief. Iranian intervention studies have also shown that cognitive-behavioral interventions can affect the emotional and semantic components of grief, which underscores the importance of paying attention to targeted interventions in prolonged grief (77). Interventions that address shame processing and meaning-making can be emphasized, and emotion-focused approaches may also be beneficial.

Limitation

This study has several limitations that must be considered when interpreting the findings. First, the cross-sectional design does not allow for establishing a causal relationship between the variables. Therefore, causality cannot be determined. Although the cross-sectional design limits causal inference, the use of path analysis in this study aimed to test theoretical associations among variables rather than establish causality, which is consistent with the use of path modeling in non-experimental research. Second, the data were collected through retrospective self-report questionnaires. As a result, recall bias may have affected the data. Third, the sample was selected using a convenience sampling method, which may limit the generalizability of the findings to broader populations.

Fourth, the model was tested based on theoretical assumptions derived from previous research; therefore, unmeasured variables may influence the observed relationships.

For future research, it is suggested that the current model be investigated in bereaved individuals who have experienced different types of losses. Additionally, longitudinal designs should be used to better understand the temporal relationship between variables better. Other potential mediating variables, such as social support, should be analyzed to determine their role in the relationship between childhood trauma, attachment style, and prolonged grief symptoms. Also, environmental factors such as the age of the deceased and the manner of the deceased's death should be investigated as predictors of prolonged grief symptoms.

Conclusion

In general, the findings of the present study showed that childhood trauma and attachment style are related to prolonged grief symptoms through the mediation of shame. However, guilt and mentalization were found to be related to the relationship between childhood trauma and attachment style with prolonged grief symptoms in bereaved adults but did not mediate this model. Therefore, the findings suggest that interventions targeting shame could be effective in reducing prolonged grief symptoms in individuals with a history of childhood trauma and insecure attachment styles. These findings highlight the key role of shame as an emotional link between early trauma and prolonged grief, particularly in collectivist contexts such as Iran. Future studies should further explore cultural influences and develop targeted, shame-focused interventions to improve grief outcomes.

Acknowledgment

The present article is financially supported by "Research Department of the School of Medicine Shahid Beheshti University of Medical Sciences" (Grant No 43010291).

Funding

The present article is financially supported by "Research Department of the School of Medicine Shahid Beheshti University of Medical Sciences" (Grant No 43010291).

Conflict of Interest

None.

Author’s Contributions

Conceptualization: Fatemeh Serjouie; Methodology: Fatemeh Serjouie; Formal analysis and investigation: Fatemeh Serjouie; Writing - original draft preparation:

Fatemeh Serjouie; Writing - review and editing: Amir Sam Kianimoghadam, Hoda Doosalivand; Funding acquisition:-; Resources: Zeinab Farjampanah; Supervision: Abbas Masjedi-Arani.

References

1. Djelantik A, Smid GE, Mroz A, Kleber RJ, Boelen PA. The prevalence of prolonged grief disorder in bereaved individuals following unnatural losses: Systematic review and meta regression analysis. J Affect Disord. 2020;265:146-56.
2. Lundorff M, Holmgren H, Zachariae R, Farver-Vestergaard I, O'Connor M. Prevalence of prolonged grief disorder in adult bereavement: A systematic review and meta-analysis. J Affect Disord. 2017;212:138-49.
3. Rheingold AA, Williams JL, Bottomley JS. Prevalence and Co-Occurrence of Psychiatric Conditions Among Bereaved Adults. JAMA Netw Open. 2024;7(6):e2415325.
4. Nikkhah P, Niusha B, Haghighat-Manesh E. Developing a Model of Prolonged Grief Based on Adverse Childhood Experiences with the Mediating Role of Perceived Social Support among Survivors of the COVID-19 Pandemic. Mental Health and Lifestyle Journal. 2025;3(4):1-13.
5. Ahn J, Lee SW, Kim K, Jin B, Chung US. The Relationship Between Childhood Trauma Experience and Complicated Grief: The Importance of Psychological Support for Individuals Coping With Pet Loss in Korea. J Korean Med Sci. 2023;38(37):e305.
6. Chen MA, Lewis MR, Chirinos DA, Murdock KW, Fagundes C. Differential psychological reactions to grief: The role of childhood adversity for depression symptoms among bereaved and non-bereaved adults. Death Stud. 2020;44(12):778-86.
7. Kokou-Kpolou CK, Moukouta CS, Masson J, Bernoussi A, Cénat JM, Bacqué M-F. Correlates of grief-related disorders and mental health outcomes among adult refugees exposed to trauma and bereavement: A systematic review and future research directions. J Affect Disord. 2020;267:171-84.
8. Janshen A, Boelen PA, Schut HAW, Eisma MC. Do insecure attachment styles predict prolonged grief symptoms? Significant null findings. Death Stud. 2024;48(10):1076-84.
9. Mikulincer M, Shaver PR. An attachment perspective on loss and grief. Curr Opin Psychol. 2022;45:101283.
10. Gegieckaite G, Kazlauskas E. Do emotion regulation difficulties mediate the association between neuroticism, insecure attachment, and prolonged grief? Death Stud. 2022;46(4):911-9.
11. Eisma MC, Bernemann K, Aehlig L, Janshen A, Doering BK. Adult attachment and prolonged grief: A systematic review and meta-analysis. Pers Individ Dif. 2023;214:112315.
12. Poznyak E, Morosan L, Perroud N, Speranza M, Badoud D, Debbané M. Roles of age, gender and psychological difficulties in adolescent mentalizing. J Adolesc. 2019;74:120-9.
13. Bateman AW, Fonagy P. Handbook of mentalizing in mental health practice: American Psychiatric Pub; 2019.
14. Doba K, Saloppé X, Choukri F, Nandrino JL. Childhood trauma and posttraumatic stress symptoms in adolescents and young adults: The mediating role of mentalizing and emotion regulation strategies. Child Abuse Negl. 2022;132:105815.
15. Berthelot N, Lemieux R, Garon-Bissonnette J, Lacharité C, Muzik M. The protective role of mentalizing: Reflective functioning as a mediator between child maltreatment, psychopathology and parental attitude in expecting parents. Child Abuse Negl. 2019;95:104065.
16. Ensink K, Bégin M, Normandin L, Godbout N, Fonagy P. Mentalization and dissociation in the context of trauma: Implications for child psychopathology. J Trauma Dissociation. 2017;18(1):11-30.
17. Condino V, Giovanardi G, Vagni M, Lingiardi V, Pajardi D, Colli A. Attachment, Trauma, and Mentalization in Intimate Partner Violence: A Preliminary Investigation. J Interpers Violence. 2022;37(11-12):Np9249-np76.
18. Riazi SS, Manouchehri M. The mediating role of mentalization and integrative self-knowledge in the relationship between childhood trauma and fear of intimacy. Front Psychol. 2024;15:1384573.
19. Parada-Fernández P, Herrero-Fernández D, Oliva-Macías M, Rohwer H. Analysis of the mediating effect of mentalization on the relationship between attachment styles and emotion dysregulation. Scand J Psychol. 2021;62(3):312-20.
20. Popov Ș. The relationship between attachment styles, psychological disorders, and mentalization capacity. Psihologie, Revistă ştiinţifico-practică. 2024;44(1):52-63.
21. Levi-Belz Y, Lev-Ari L. Thinking for healing: The role of mentalization deficits as moderator in the link between complicated grief and suicide ideation among suicide-loss survivors. Death Stud. 2023;47(3):360-9.
22. Lombardo L, Veneziani G, Giraldi E, Morelli E, Durante S, Aceto P, et al. How attachment style, mentalization and preparedness for death are associated with pre-loss grief symptoms' severity: A network analysis study in caregivers of terminally ill cancer patients. Death Stud. 2024;48(6):537-49.
23. Kim S, Thibodeau R, Jorgensen RS. Shame, guilt, and depressive symptoms: a meta-analytic review. Psychol Bull. 2011;137(1):68-96.
24. Farahani H, Azadfallah P, Watson P, Qaderi K, Pasha A, Dirmina F, et al. Predicting the Social-Emotional Competence Based on Childhood Trauma, Internalized Shame, Disability/Shame Scheme, Cognitive Flexibility, Distress Tolerance and Alexithymia in an Iranian Sample

Using Bayesian Regression. J Child Adolesc Trauma. 2023;16(2):351-63.
25. Farahani H, Watson P, Movasagh L, Blagojević M, Bagheri-Sheykhangafshe F, Allahyari A, et al. Explainable multilayer perceptron classification model for detecting the internalized shame-based on childhood trauma, social-emotional competence, cognitive flexibility, distress tolerance, alexithymia, and age. Shame and Ageing in a Transforming World: Springer; 2024. p. 21-50.
26. Cândea DM, Szentagotai-Tătar A. Shame-proneness, guilt-proneness and anxiety symptoms: A meta-analysis. J Anxiety Disord. 2018;58:78-106.
27. Calderon C. The relationship between attachment style and narcissism: mediating effects of shame: Alliant International University; 2021.
28. Levi-Belz Y, Hamdan S. Shame, depression, and complicated grief among suicide loss-survivors: the moderating role of self-disclosure. Eur J Psychotraumatol. 2023;14(1):2182820.
29. Szőcs H, Sandheden L, Horváth Z, Vizin G. The mediating role of state shame, guilt, and pride in the relationship between self-compassion and prolonged grief. Eur Psychiatry. 2022;65(S1):S179-S80.
30. Hansen J, Khvorost A, Zimonjic M, Schoosleitner C. How (why) could this have happened? The influence of construal level on shame versus guilt and related action tendencies. Cogn Emot. 2025:1-17.
31. Tangney JP, Stuewig J, Mashek DJ. Moral emotions and moral behavior. Annu Rev Psychol. 2007;58:345-72.
32. Norman S. Trauma-Informed Guilt Reduction Therapy: Overview of the Treatment and Research. Curr Treat Options Psychiatry. 2022;9(3):115-25.
33. Kip A, Diele J, Holling H, Morina N. The relationship of trauma-related guilt with PTSD symptoms in adult trauma survivors: a meta-analysis. Psychol Med. 2022;52(12):2201-11.
34. Bateman AW, Fonagy P. Handbook of mentalizing in mental health practice: American Psychiatric Pub; 2019.
35. Almasi M, Dinarvand N. The role of Attachment Styles, Mentalization and shame and guilt in predicting the quality of patient care among nurses. Quarterly Journal of Nursing Management. 2023;11(4):14-25.
36. Hashemi S, Dortaj F, Sadipour E, Asadzadeh H. Structural model of shame and guilt feelings based on parenting styles: The mediating role of attachment styles. 2018.
37. Remondi C, Casu G, Pozzi C, Greco F, Gremigni P, Brugnera A. A Serial Mediation Model of Insecure Attachment and Psychological Distress: The Role of Dispositional Shame and Shame-Coping Styles. Int J Environ Res Public Health. 2023;20(4).
38. NECULAU-COJOCARU A, KARNER-HUȚULEAC A, COBZEANU A. THE LINK BETWEEN ATTACHMENT STYLES AND SHAME PRONENESS: THE ROLE OF CULTURAL FACTORS. A SYSTEMATIC REVIEW. STUDII ŞI CERCETĂRI. 2025;71(2).
39. Bottomley JS, Campbell KW, Feigelman W, Schamber EL, Rheingold AA. Prospective relations between stigma, guilt, shame, posttraumatic stress and prolonged grief symptoms among overdose and suicide loss survivors. J Affect Disord. 2025;379:223-31.
40. Li J, Stroebe M, Chan CL, Chow AY. Guilt in bereavement: a review and conceptual framework. Death Stud. 2014;38(1-5):165-71.
41. Ensink K, Bégin M, Martin-Gagnon G, Biberdzic M, Berthelot N, Normandin L, et al. Post-traumatic-stress in the context of childhood maltreatment: pathways from attachment through mentalizing during the transition to parenthood. Front Psychol. 2023;14:919736.
42. Arabadzhiev Z, Paunova R. Complexity of mentalization. Front Psychol. 2024;15:1353804.
43. Santoro G, Costanzo A, Franceschini C, Lenzo V, Musetti A, Schimmenti A. Insecure Minds through the Looking Glass: The Mediating Role of Mentalization in the Relationships between Adult Attachment Styles and Problematic Social Media Use. Int J Environ Res Public Health. 2024;21(3):255.
44. Smits ML, de Vos J, Rüfenacht E, Nijssens L, Shaverin L, Nolte T, et al. Breaking the cycle with trauma-focused mentalization-based treatment: theory and practice of a trauma-focused group intervention. Front Psychol. 2024;15:1426092.
45. Levi-Belz Y. Interpersonal facilitators of complicated grief and depression in the aftermath of suicide loss: The mediated roles of suicide-related shame and guilt. Suicide Life Threat Behav. 2023;53(4):680-91.
46. Saboori F, Pishghadam R, Hosseini Fatemi A, Ghonsooli B. Culture and identity: Linking Iranian identity components and cultural dimensions. Issues in Language Teaching. 2015;4(1):49-78.
47. Gouveia A. On the concept, taxonomy, and transculturality of disordered grief. Front Psychol. 2023;14:1165421.
48. Bernstein DP, Stein JA, Newcomb MD, Walker E, Pogge D, Ahluvalia T, et al. Development and validation of a brief screening version of the Childhood Trauma Questionnaire. Child Abuse Negl. 2003;27(2):169-90.
49. Ebrahimi H, Dejkam M, Seghatoleslam T. Childhood traumas and suicide attempt in adulthood. Iranian journal of psychiatry and clinical psychology. 2014.
50. Collins NL, Read SJ. Adult attachment, working models, and relationship quality in dating couples. J Pers Soc Psychol. 1990;58(4):644-63.
51. Hajializadeh K, Ahadi H, Jomehri F, Rahgozar M. Psychosocial predictors of barriers to cervical cancer screening among Iranian women: the role of attachment style and social demographic factors. J Prev Med Hyg. 2013;54(4):218-22.

52. Prigerson HG, Boelen PA, Xu J, Smith KV, Maciejewski PK. Validation of the new DSM-5-TR criteria for prolonged grief disorder and the PG-13-Revised (PG-13-R) scale. World Psychiatry. 2021;20(1):96-106.
53. Ashouri A, Yousefi S, Prigerson HG. Psychometric properties of the PG-13-R scale to assess prolonged grief disorder among bereaved Iranian adults. Palliat Support Care. 2024;22(1):174-81.
54. Fonagy P, Luyten P, Moulton-Perkins A, Lee YW, Warren F, Howard S, et al. Development and Validation of a Self-Report Measure of Mentalizing: The Reflective Functioning Questionnaire. PLoS One. 2016;11(7):e0158678.
55. Drogar E, Fathi-Ashtiani A, Ashrafi E. Validation and Reliability of the Persian Version of the MentalizationQuestionnaire. J Clin Psychol. 2020;12(1):1-12.
56. Marschall D, Sanftner J, Tangney J. The state shame and guilt scale (SSGS) George Mason University. Fairfax, VA. 1994.
57. Varmaghani H, POURSHARIFI H, SOLEIMANI A, FATHI AA. Psychometric properties of the persian version of the State Shame and Guilt Scale (SSGS) among students. 2022.
58. Nikbakht M, Serjouie F, Kianimoghadam AS, Farjampanah Z. The Impact of Social-Related Factors on the Severity of Prolonged Grief Symptoms: A Machine Learning Approach. Applied Psychology for Health Promotion. 2025;2(2).
59. Buur C, Zachariae R, Komischke-Konnerup KB, Marello MM, Schierff LH, O'Connor M. Risk factors for prolonged grief symptoms: A systematic review and meta-analysis. Clin Psychol Rev. 2024;107:102375.
60. McKay MT, Cannon M, Chambers D, Conroy RM, Coughlan H, Dodd P, et al. Childhood trauma and adult mental disorder: A systematic review and meta-analysis of longitudinal cohort studies. Acta Psychiatr Scand. 2021;143(3):189-205.
61. Dvir Y, Ford JD, Hill M, Frazier JA. Childhood maltreatment, emotional dysregulation, and psychiatric comorbidities. Harv Rev Psychiatry. 2014;22(3):149-61.
62. Peña-Vargas C, Armaiz-Peña G, Castro-Figueroa E. A Biopsychosocial Approach to Grief, Depression, and the Role of Emotional Regulation. Behav Sci (Basel). 2021;11(8):110.
63. Huh HJ, Kim SY, Yu JJ, Chae JH. Childhood trauma and adult interpersonal relationship problems in patients with depression and anxiety disorders. Ann Gen Psychiatry. 2014;13:26.
64. Pereira A, Santos JP, Sardinha P, Cardoso J, Ramos C, Almeida T. The impact of childhood abuse on adult self-esteem and emotional regulation. Annals of Medicine. 2021;53(sup1):S164-S.
65. Feigelman W, Cerel J. Feelings of Blameworthiness and Their Associations With the Grieving Process in Suicide Mourning. Front Psychol. 2020;11:610.
66. Dyregrov K, Kristensen P, Dyregrov A. A Relational Perspective on Social Support Between Bereaved and Their Networks After Terror: A Qualitative Study. Glob Qual Nurs Res. 2018;5:2333393618792076.
67. Bowlby J. Attachment and loss: Random House; 1969.
68. Huh HJ, Kim KH, Lee HK, Chae JH. Attachment Style, Complicated Grief and Post-Traumatic Growth in Traumatic Loss: The Role of Intrusive and Deliberate Rumination. Psychiatry Investig. 2020;17(7):636-44.
69. Huh HJ, Kim KH, Lee HK, Chae JH. Attachment styles, grief responses, and the moderating role of coping strategies in parents bereaved by the Sewol ferry accident. Eur J Psychotraumatol. 2017;8(sup6):1424446.
70. Park CJ, Shields J. Childhood attachment insecurity and shame-proneness in adulthood: Implications for clinical social work practice. J Hum Behav Soc Environ. 2024;34(7):1089-105.
71. Matos M, Pinto-Gouveia J. Shamed by a parent or by others: The role of attachment in shame memories relation to depression. International Journal of Psychology and Psychological Therapy. 2014;14:217-44.
72. LeBlanc NJ, Toner ER, O'Day EB, Moore CW, Marques L, Robinaugh DJ, et al. Shame, guilt, and pride after loss: Exploring the relationship between moral emotions and psychopathology in bereaved adults. J Affect Disord. 2020;263:405-12.
73. Levi-Belz Y, Blank C. The longitudinal contribution of prolonged grief to depression and suicide risk in the aftermath of suicide loss: The moderating role of self-criticism. J Affect Disord. 2023;340:658-66.
74. Choi H. Integrating guilt and shame into the self-concept: The influence of future opportunities. Behavioral Sciences. 2024;14(6):472.
75. Dashti S, Fathi Najafi T, Mohammadzadeh F, Rezaei Kalat A, Bahri N. Knowledge Level of Health Care Providers about Complicated Grief during the COVID-19 Pandemic. Iran J Psychiatry. 2022;17(2):154-61.
76. Rahimian Boogar I, Talepasand S. The Role of Defense Mechanisms, Personality and Demographical Factors on Complicated Grief following Death of a loved one by Cancer. Iran J Psychiatry. 2015;10(2):79-85.
77. Solaimani Khashab A, Ghamari Kivi H, Fathi D. Effectiveness of Cognitive Behavioral Therapy on Spiritual Well-Being and Emotional Intelligence of the Elderly Mourners. Iran J Psychiatry. 2017;12(2):93-9.