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The Role of Abandonment Schema and Perception of Social Interactions (Positive and Negative Thoughts) on Complicated Bereavement: The Mediating Role of Existential Anxiety in People with Bereavement Experience

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Abstract

Background: When a loved one passes away, individuals typically go through a natural grieving process to cope with the loss, as grief is a universal human experience.

Objectives: This study aims to assess the role of abandonment schema and perception of social interactions (positive and negative thoughts) on existential anxiety and complicated bereavement in people with bereavement experiences.

Methods: This study was a combination of descriptive-correlational and cross-sectional research using the structural equation modeling approach. The research focused on individuals who were experiencing grief in Isfahan City from July to November 2021, with a sample size of 260 participants selected using a convenience sampling method. The research utilized various assessment tools, including the Grief Experience Questionnaire, Perception of Social Interactions Inventory, Young Schema Questionnaire, and Existential Anxiety Questionnaire. The data analysis involved conducting descriptive statistics in SPSS software (version 27), and examining path coefficients between variables in SmartPLS version 4.

Results: The study results demonstrated that having an abandonment schema significantly and positively impacted the experience of complicated bereavement (β=0.375, P<0.001). Conversely, the influence of existential anxiety on complicated bereavement was not significant (β=0.150, P=0.076). Negative thoughts had no significant impact on complicated bereavement (β=0.108, P=0.102).

Conclusion: The results of the present research suggest that maintaining optimistic thoughts can decrease the severity of complicated grief, whereas experiencing feelings of desertion, existential worry, and pessimistic thoughts can worsen complicated grief.

Keywords: Abandonment schema, Bereavement experience, Existential anxiety, Perception of social interactions

1. Background

Bereavement is a diverse process that varies among different cultures, age groups, and other demographic factors; even within a specific population, it shows itself in various ways among individuals (1). The emotional response to grief, also known as bereavement, is considered within the expected norms, with a focus on the conditions and consequences of

death. It is important to consider the duration and severity of symptoms. Bereavement can lead to various complications, such as disorganization, abnormality, health disorders, social functioning issues, and occupational withdrawal. Social isolation and withdrawal may result in some symptoms, such as anorexia, weight loss, and insomnia. The expression and duration of these symptoms may vary depending on cultural differences (2). Research has indicated that individuals who suppress their bereavement and lack social support may experience severe psychological consequences following the loss of a loved one (3). Another investigation also demonstrated that eliminating bereavement rituals results in bereaved individuals facing numerous unmet expectations, leading to a lingering desire for past compensation that remains unresolved in the minds of the bereaved and hinders the grieving process (4).

Since humans are unique individuals who often question the purpose of their existence, they may experience existential anxiety when faced with traumatic events, such as reminders of death, prolonged isolation, disruptions in their normal routines, and feelings of emptiness (5). This type of anxiety, commonly known as existential anxiety, involves an individual becoming acutely aware of fundamental issues, such as death, the lack of meaning in life, feelings of isolation, and the concept of freedom, affecting various aspects of their life, including their perception, behavior, overall well-being, academic performance, and decision-making (6). Oftentimes referred to as an existential crisis, existential anxiety is characterized by a sense of unease regarding the meaning, choices, and freedom in one's life, with the underlying belief that life is inherently devoid of purpose, our existence is meaningless, our time on this earth is limited and transient, and eventually we will depart from the realm of the living (7). Findings have also indicated that existential anxiety is a significant negative predictor of psychological well-being (8). Furthermore, a study suggested that emotional shocks and social support can indirectly influence the tendency to change through existential anxiety (9).

Additionally, the results of research by Salartash and Kianersi (2022) demonstrated a significant correlation between early maladaptive schemas and existential anxiety (10). When individuals face multiple challenging situations, such as the loss of a loved one, they may experience psychological trauma. Many of these individuals likely struggle to cope with these traumas, leading to the development of psychological pathologies and pathological pain, such as complicated bereavement (11). Complicated bereavement disorder, as outlined in the Diagnostic and Statistical Manual of Mental Disorders, includes 16 symptoms grouped into separation distress, death reaction distress, and social/identity disorder clusters (12). Additionally, the study indicated that individuals suffering from complicated bereavement disorder exhibit more interpersonal issues (13). The results of another study also highlighted the significant impact of differentiation, rumination of anger, and feelings of loneliness on persistent complicated bereavement (14). Another research revealed a correlation between the loss of an only child and deaths caused by violence with an increased likelihood of experiencing complicated bereavement (15).

Moreover, the deep-seated chemistry and negative associations of loss can impact the mental well-being of individuals who have experienced loss, leading to more symptoms of bereavement and challenges in coming to terms with the loss(16). Maladaptive cognitive schemas are described as enduring, absolute, and negative beliefs about oneself and others that construct individuals' perceptions and actions, forming the basic level of cognition (17). The concept of the "abandonment schema" refers to the fundamental cognitive framework that tends to interpret, alter, and assimilate perceived information from the real

world in a potentially detrimental manner, suggesting that significant individuals are neither dependable nor consistent and will ultimately abandon them (18).

Activation of abandonment schema, characterized by the expectation that others will leave them upon forming attachments, may lead to feelings of anger when perceived as unjust or betrayal (19). People who have schemas related to abandonment and rejection find it difficult to form stable relationships. They often grew up in families that were cold and harsh, and they have the belief that their basic needs for security, love, affection, and belonging will never be satisfied (20). A study found that the intensity of bereavement is connected to vulnerability schemas and emotional inhibition (16). Additionally, research suggests that aggressive behaviors may be rooted in vulnerability schemas, and treating aggression could involve addressing these underlying maladaptive schemas (19). Kaya-Demir and Çırakoğlu (2022) found that individuals with early maladaptive schemas may exhibit more complicated bereavement symptoms due to these schemas (21).

The experience of bereavement is connected to complicated psychological issues, with individuals who have faced negative life events and lacked social support and coping skills being particularly vulnerable to significant harm (١٩). When a loved one passes away, the absence of familiar coping mechanisms can lead to feelings of disorientation and uncertainty, impacting the grieving process. Relationships with others and the societal and cultural context play a crucial role in shaping an individual's emotions, thoughts, and behaviors during bereavement (22). Perception of social interactions includes feelings of closeness and relationship with others, providing a sense of belonging and attachment that is essential for overall well-being, while isolation from social connections imposes a significant health risk (23). Studies have revealed that feelings of shyness, avoidance, and isolation are connected to deeper existential concerns, whereas sociability is related to fewer existential worries (24). Additionally, research has suggested that oxytocinergic signals in the brain play a role in understanding the physiological mechanisms of grief in the general population and can help reduce bereavement disorders in the perception of social interactions (25). Another study has demonstrated that even a brief perception of social interactions with strangers can enhance mental well-being in daily life (26).

2. Objectives

People experiencing bereavement may face increased vulnerability to mental and physical health challenges, such as depression, thoughts of suicide, difficulties with sleep, heart problems, post-traumatic stress disorder, suicide, anxiety, hypertension, difficulties in relationships or at work, and substance misuse. According to Ramezani et al. (8), unresolved bereavement could become a significant public health concern in the mental health field, making it crucial to understand the contributing factors to prevent negative outcomes (3). Despite the importance of this topic, existing research has not directly explored the impact of abandonment schema and perception of social interactions (positive and negative thoughts) on existential anxiety and complicated bereavement in individuals who have experienced bereavement. This gap in research motivated the current study, which aims to investigate how abandonment schema and perception of social interactions influence existential anxiety and complicated bereavement in bereaved individuals. The main question guiding this research is the role of abandonment schema and perception of social interactions in developing existential anxiety and complicated bereavement among those with bereavement experiences. The researcher developed a conceptual model for the study, depicted in Figure 1.

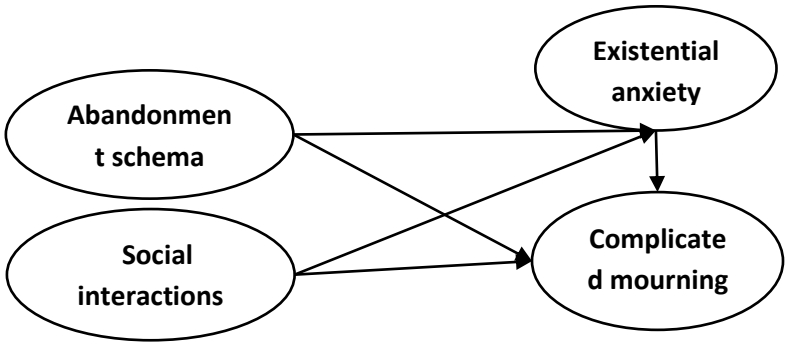

Figure. 1. Conceptual framework of the research

3. Methods

This study utilized a descriptive-correlational research design along with a cross-sectional research method, employing the structural equation modeling (SEM) method. The research focused on mourners in Isfahan City from July to November 2021, with a statistical population consisting of all individuals who had experienced the loss of a loved one. A sample size of 260 participants was selected using the convenience sampling technique. The adequacy of the sample size was determined using Cohen's formula (27), which considered factors such as the number of observed and latent variables in the SEM, the expected effect size, and the desired levels of probability and statistical power. The sample size was calculated based on these criteria: Anticipated effect size: 0.3 Desired statistical power level: 0.8 Number of latent variables: 5 Number of observed variables: 106 Probability level: 0.01

The researcher determined a sample size of 280 individuals based on the specified values. In anticipation of potential attrition within the sample group, the researcher decided to increase the number to 300 to mitigate any impact on the sample size. Criteria for inclusion in the study comprised residency in Isfahan, providing informed consent, possessing sufficient literacy and understanding to answer questions, experiencing the death of a close relative, and a year passing since the relative's demise. On the other hand, criteria for exclusion encompassed being under 20 years old, having physical or mental conditions hindering participation, failing to respond to more than eight questionnaire items, or voluntarily withdrawing from the study.

The research began with obtaining the required permissions from the university where the researcher is affiliated, then proceeded with a visit to Rezvan Garden in Isfahan, which is the biggest cemetery in the city. Following the visit, the researcher collaborated with the management of Rezvan Garden to carry out the study. Subsequently, the researcher visited the cemetery on Thursdays and Fridays, approaching individuals who had visited the graves of their loved ones in plots 50 and beyond to invite them to participate in the research (plots 50 and beyond were selected because it had been approximately a year since the death of their relatives). Before participating in the study, the researcher briefed the participants on the research objectives, secured the required research permits, and clarified the ethical principles to be adhered to. The participants were assured that their details would be kept confidential in the study records and that they had the freedom to withdraw from the study at any research stage.

The research process and questionnaire completion took five months due to limited cooperation from participants. Out of 300 questionnaires filled, 260 were ultimately used after excluding 40 due to incomplete or

intentionally erroneous responses. Participants self-reported variables related to abandonment schema, perception of social interactions (positive and negative thoughts), complicated bereavement, and existential anxiety. The research followed all ethical guidelines, and participants were free to withdraw at any point during the study.

Measures

Grief Experience Questionnaire: This 34-item questionnaire was developed by Barrett and Scott (1989) to assess the emotions individuals experience following the loss of a loved one across various dimensions, such as guilt, coping mechanisms, physical reactions, feelings of abandonment, judgment, embarrassment, and notoriety (28). The replies are scored on a 5-point Likert scale ranging from 1 (never) to 5 (always). It encompasses six main dimensions, namely guilt (items 13, 20, 23, 24, 26, 28, 30, 33), coping (items 8, 9, 10, 11, 12, 14), physical reactions (items 1, 2, 3, 4, 5), abandonment (items 16, 18, 19, 31), judgment (items 15, 22, 33, 34), embarrassment (items 21, 25, 27, 29), and notoriety (items 6, 7, 17). The total score is calculated by summing up the responses to all items, with a minimum score of 34 and a maximum of 170. A score of 34-68 indicates low bereavement experience, 68-102 suggests average bereavement experience, and above 102 represents high bereavement experience. A questionnaire in a research study in Iran reported a Cronbach's alpha coefficient of 0.88 (29). In our research, the researcher obtained Cronbach's alpha coefficient of 0.910 for this scale.

Perception of Social Interactions Inventory: In 1994, Glass developed a self-report questionnaire to assess social interaction perception (30). The questionnaire consists of 30 items, with responses rated on a 5-point Likert scale ranging from 1 to 5 (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree). The questionnaire includes two main dimensions: positive thoughts (items 2, 4, 6, 9, 10, 12, 13, 14, 17, 18, 24, 25, 27, 28, 30) and negative thoughts (items 1, 3, 5, 7, 8, 11, 15, 16, 19, 20, 21, 22, 23, 26, 29). Each dimension has a minimum score of 15 and a maximum score of 75. In a study conducted in Iran, the Cronbach's alpha coefficient for this questionnaire was obtained at 0.78 (31). The researcher also calculated Cronbach's alpha coefficients for positive and negative thoughts, which were 0.701 and 0.881, respectively.

Young Schema Questionnaire: The 75-item questionnaire, developed by Young in 2005, assesses 15 primary maladaptive schemas (32). Each statement in the questionnaire is rated on a 6-point Likert scale (1=completely incorrect, 2=mostly incorrect, 3=more correct than incorrect, 4=slightly correct, 5=almost correct, and 6=completely correct). The scale measures various schemas, including the schema of abandonment. This subscale contains ten items, which include concerns about the fear of losing loved ones, tendencies to cling to others due to fear of abandonment, lack of a stable support system, attracting partners who are not committed to staying, experiencing disappointment and depression when people leave, worrying excessively about being left by loved ones, feeling that people close to them are unpredictable in their closeness, and excessive dependency on others leading to loneliness. The total score for this scale ranges from 10-60, with scores indicating the level of abandonment schema present in a person's life. A score between 10 and 19 is considered very low, between 20 and 29 is nearly low, between 30 and 39 is average, between 40 and 49 is high, and between 50 and 60 is extremely high, demonstrating the seriousness of the abandonment schema. Research conducted in Iran determined that Cronbach's alpha coefficient for this scale was measured to be 0.94 (33). In this study, the researcher calculated a Cronbach's alpha

coefficient of 0.862.

Existential Anxiety Scale: In 1974, a self-report questionnaire was developed to assess existential anxiety (34). The questionnaire consists of 32 items, with each item requiring a true or false response on a two-point Likert scale. The scoring system of the test involves assigning a value of zero for incorrect answers and one for correct answers. For certain items (1, 2, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 16, 17, 19, 20, 21, 22, 24, 25, 26, 27, 28, 29, 30, 31), a correct response earns one score, while an incorrect response earns zero, with the remaining items having the opposite scoring. Scores can range from 0 to 32, with a score below 12 indicating low existential anxiety, a score between 13 and 23 indicating moderate existential anxiety, and a score above 24 indicating high existential anxiety. A study in Iran found that the Cronbach's alpha coefficient for this questionnaire was 0.88 (35).

Statistical analysis

Descriptive statistics were conducted using SPSS version 27 software, while data trends and standard coefficients were analyzed using SmartPLS version 4 software. The Sobel test was employed to assess the importance of the mediating variable. The normal distribution of research variables was examined through the Shapiro-Wilk test, which showed significant results indicating a non-normal distribution, leading to the implementation of SmartPLS. The sample size for the study was sufficient for implementing an SEM method using the partial least squares method, with 260 participants included. The study set a significance level of 0.05.

4. Results

Initially, the researcher examined the descriptive statistics of the research variables. Table 1 presents the demographic information of the participants. The participants were categorized into four age groups: 25-35 years old (45.0%), 35-45 years old (38.5%), 45-55 years old (13.1%), and 41 years old and above (69.5%). Similarly, the participants were assigned into two groups based on the duration of illness: 1-2 years (80.9%) and 55-65 years (3.5%). The participants were also divided based on gender, with males accounting for 30.0% and females for 70.0%. Regarding education levels, the participants were separated into four groups: diploma, undergraduate, master's degree, and PhD.

Table 1 displays the mean and standard deviation of the variables studied. The mean and standard deviation of complicated bereavement were 83.11±21.44, positive thoughts were 44.6±9.12, negative thoughts were 33.28±11.46, abandonment schema was 25.15±9.35, and existential anxiety was 12.08±7.14.

In Table 2, normality was evaluated through the Shapiro-Wilk test, indicating that the primary variables did not have a normal distribution. To overcome this issue, the researchers utilized the PLS method, which does not necessitate normality in the variables.

Table 1. Description of the demographic variables

Variables	Groups	Frequency	Percent	Sample size	Median
Gender	Woman	182	70.0	260	1
	Man	78	30.0		
Age	25-35	117	45.0	260	2
	35-45	100	38.5		
	45-55	34	13.1		
	55-65	9	3.5		
Education	Diploma	85	32.7	260	2
	Undergraduate	112	43.1		
	Master's degree	45	17.3		
	PhD	18	6.9		

Table 2. Description of the main research variables

Variables	n	Mean	SD	Max	Min	Skewness	Skewness	Shapiro-Wilk	
								W	P
Positive thoughts	260	44.6	9.12	61.0	23.00	-0.589	-0.142	0.950	P<0.001
Negative thoughts	260	33.3	11.46	65.0	15.00	0.654	-0.166	0.956	P<0.001
Abandonment schema	260	25.2	9.35	45.0	10.00	0.516	-0.688	0.947	P<0.001
Existential anxiety	260	12.1	7.14	27.0	2.00	0.494	-0.986	0.926	P<0.001
Complicated bereavement	260	83.1	21.44	134.0	43.00	0.291	-0.408	0.979	P<0.001

Table 3 provides information about the association between research factors using Pearson's correlation coefficient.

Based on the results in Table 4, there is a significant and negative association between positive thoughts and complicated bereavement (P<0.001). Conversely, abandonment schema, existential anxiety, and negative thoughts show a positive and significant correlation with complicated bereavement (P<0.001). Before proceeding with the SEM method, the researchers verified the assumptions. The sample size of 260 individuals was deemed sufficient for implementing the SEM method. By using the Mahalanobis distance index, the researchers determined that there were no outliers in the data. The existence of collinearity among independent variables was examined using the variance inflation factor (VIF) and tolerance. The results further confirmed this hypothesis.

The researcher examined the path coefficients and significance levels between the research variables after applying the model in Table 5. In this study, the researcher specified a bootstrap value of 5000.

Table 3. Pearson's correlation coefficient

Variables	1		2		3		4		5	
Positive thoughts	—									
Negative thoughts	-0.321	***	—							
Abandonment schema	-0.533	***	0.671	***	—					
Existential anxiety	-0.568	***	0.563	***	0.726	***	—			
Complicated bereavement	-0.539	***	0.514	***	0.674	***	0.608	***	—	

*P<0.05, **P<0.01, ***P<0.001

Table 4. Examining the assumption of non-collinearity between predictor variables

Variable	Collinearity Statistics	
	Tolerance	VIF
Negative thoughts	0.532	1.881
Positive thoughts	0.638	1.566
Abandonment schema	0.351	1.850
Existential anxiety	0.413	2.419

Table 5. Standard research coefficients

Path between variables	Path coefficient	STDEV	P	T-value	Result
Abandonment schema -> Complicated bereavement	0.375	0.088	P<0.001	4.284	Confirmation
Abandonment schema -> Existential anxiety	0.484	0.057	P<0.001	8.450	Confirmation
Existential anxiety -> Complicated bereavement	0.150	0.084	0.076	1.777	Rejection
Negative thoughts -> Complicated bereavement	0.108	0.066	0.102	1.634	Rejection
Negative thoughts -> Existential anxiety	0.154	0.048	0.001	3.234	Confirmation
Positive thoughts -> Complicated bereavement	-0.219	0.062	P<0.001	3.539	Confirmation
Positive thoughts -> Existential anxiety	-0.261	0.052	P<0.001	5.029	Confirmation

Based on the findings displayed in Table 5 and Figure 2, the abandonment schema showed a significant and positive impact on complicated bereavement (β=0.375, P<0.001). Similarly, the

abandonment schema also had a beneficial and significant effect on existential anxiety (β=0.484, P<0.001). There was no significant effect of existential anxiety on complicated bereavement (β=0.150, P=0.076). Furthermore, negative thoughts had no significant impact on complicated bereavement (β=0.108, P=0.102); however, they showed a positive and significant effect on existential anxiety (β=0.154, P=0.001). Conversely, positive thoughts had a detrimental and significant impact on complicated bereavement (β=-0.219, P<0.001) and existential anxiety (β=-0.261, P<0.001). Afterward, the researcher utilized the bootstrap method to analyze the indirect effect of the study variables.

Table 6 indicates that the existential anxiety variable showed no significance as a mediating variable in the connection between abandonment schema, negative thoughts, and positive thoughts (P>0.05). The researcher employed the Sobel test to analyze the significance of the mediating variables in the study. The formula used for this test calculation is as follows:

$$\text{Z value} = \frac{|a \times b|}{\sqrt{(b^2 \times S_a^2) + (a^2 \times S_b^2) + (S_a^2 \times S_b^2)}}$$

a: the value of the path coefficient between the independent variable and the mediator

b: Path coefficient value between mediating and dependent variables

Sa: the standard error of the path between the independent variable and the mediator

Sb: standard error of the path between the mediator and dependent variable

In the Sobel test, a Z value exceeding 1.96 indicates that the mediating effect of a variable is statistically significant at the 95% confidence level. The Z values for existential anxiety as a mediator between abandonment schema, negative thoughts, and positive thoughts variables were 1.7474, 1.5603, and -1.6824, respectively. Based on the results from the Sobel test, it can be inferred that the mediating variable in the study was not statistically significant. The researcher also examined the determination coefficient of endogenous variables in the study (Table 7).

The researcher checked the reliability and validity of the research model in Table 8.

Table 8 demonstrates that the model's reliability and validity have been verified. The variables exhibit a Cronbach's alpha reliability higher than 0.7. The combined reliability of these variables also exceeds 0.7. Additionally, the model's validity was assessed using the average variance extracted index, which showed values above 0.5 for the research variables, thereby confirming the model's validity. Furthermore, the model's fit was analyzed, with all fit indices confirming its accuracy. The standardized root mean square residual index, which measures the difference between observed correlations and the correlation matrix of the structural model, had a value of 0.033 for this model.

Table 6. Total indirect effects between research variables

Path between variables	Path coefficient	STDEV	P	T-value	Result
Abandonment schema -> Existential anxiety -> Complicated bereavement	**0.072**	**0.041**	**0.079**	**1.759**	**Rejection**
Negative thoughts -> Existential anxiety -> Complicated bereavement	**0.023**	**0.015**	**0.129**	**1.520**	**Rejection**
Positive thoughts -> Existential anxiety -> Complicated bereavement	**-0.039**	**0.022**	**0.080**	**1.753**	**Rejection**

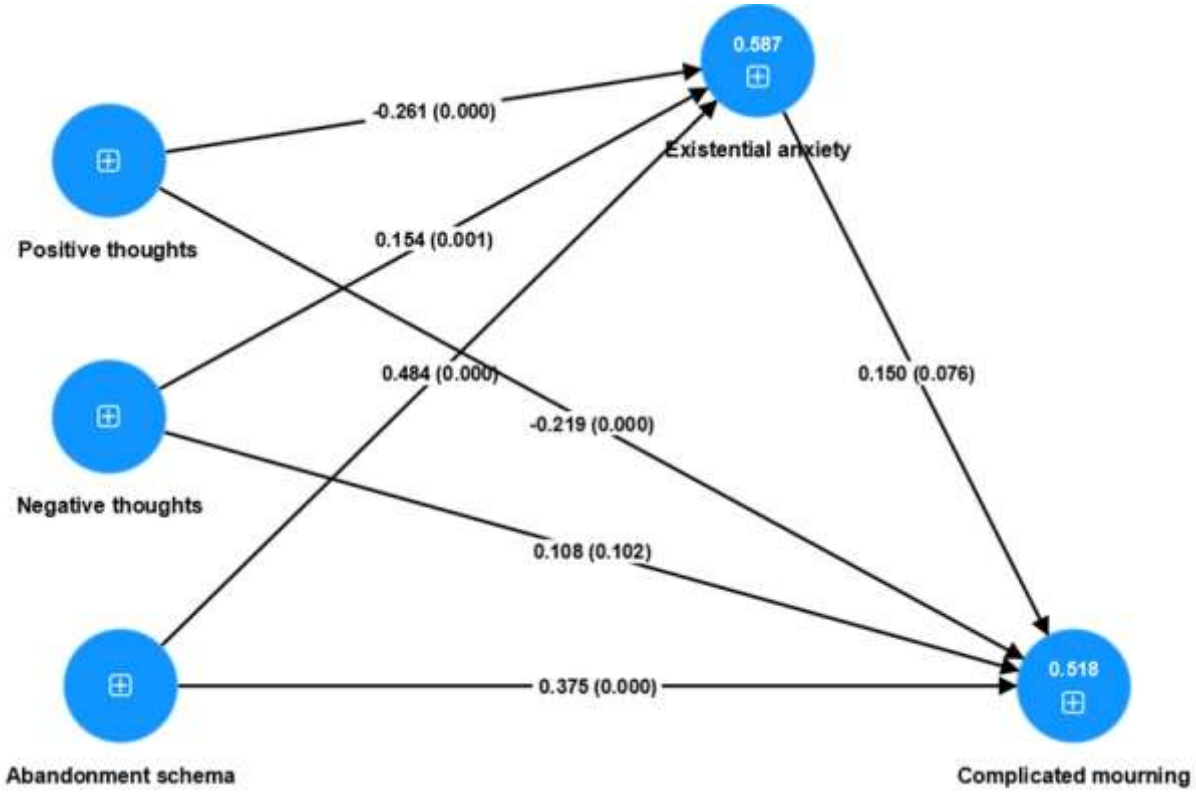

Figure.2. Path coefficients between variables and significance level

Table 7. Coefficient of determination of the model

Variables	R-square	R-square adjusted
Complicated bereavement	0.518	0.510
Existential anxiety	0.587	0.582

Table 8. Reliability and validity of the model

Variables	Cronbach's alpha	Composite reliability	Average variance extracted
Complicated bereavement	0.910	0.92	0.54
Positive thoughts	0.701	0.73	0.51
Negative thoughts	0.881	0.901	0.55
Abandonment schema	0.862	0.88	0.65
Existential anxiety	0.852	0.87	0.57

5. Discussion

The main goal of the present research was to investigate the effects of abandonment schemas and various perceptions of social interactions, including both positive and negative thoughts, on existential anxiety and complicated bereavement in individuals who have experienced the loss of a loved one. Abandonment schema, existential anxiety, and negative thoughts showed a strong and significant correlation with complicated bereavement.

The results of the current study indicated a significant inverse relationship between positive thoughts and complicated bereavement. Despite limited research in this area, this finding is consistent with prior studies (36). The research findings suggested that positivity played a crucial role in the development of strength-based strategies to prevent psychological distress following a loss and enhance overall happiness (36). Furthermore, a study demonstrated that even a brief perception of social interactions with strangers could contribute to mental well-

being and that maintaining positive thoughts and communication with others could bring happiness (26).

The death of a loved one is a common and stressful event in life, and while most people can cope with bereavement without professional help, some individuals may experience severe physical and psychological issues, leading to health consequences, such as maladaptive immune responses, sleep disturbances, and increased mortality (37). Complicated bereavement can be connected to other psychiatric disorders and can also be a primary condition that significantly impacts physical and mental well-being (20). However, maintaining a positive outlook can aid in recovery, as a positive attitude provides strength in facing life's challenges. Our perspective on issues shapes our behavior, so cultivating a positive mindset can enhance the mood and outlook of those affected by grief, ultimately transforming their appearance and emotions (38). Positive thinkers can rewire their minds, shape their futures, and diminish negativity. Through positive thinking, individuals can elevate themselves to a higher phase of existence, expand their minds, and consider ways to create a brighter future. Indeed, positivity has the power to rejuvenate one's perspective, mental faculties, relationships, and potential, providing a means for individuals to alleviate complex feelings of sadness (39).

Recent studies have shown that abandonment schema has a significant correlation with negative thoughts and complicated bereavement. This finding is consistent with previous research on the topic (14, 16, 21, 37, 40). One study found that repetitive negative thoughts, such as rumination, worry, and negative feelings, are associated with complicated bereavement symptoms (37). Additionally, the research indicated that negative thoughts related to differentiation, anger rumination, and feelings of isolation significantly impacted persistent complicated bereavement (14). Another study highlighted the role of repetitive negative thoughts in perpetuating mental health issues following a loss (40). Furthermore, a study concluded that the intensity of bereavement was positively connected to emotional inhibition and vulnerability schemas (16).

According to a study, individuals with early maladaptive schemas may experience more complicated bereavement symptoms due to the influence of these schemas (21). Previous research has found a positive and significant relationship between existential anxiety and complicated bereavement, which aligns with similar studies on existential anxiety (8, 9). The study also revealed that existential anxiety was a significant negative predictor of psychological well-being (8). Additionally, another study indicated that emotional shocks and social support indirectly influenced the inclination to change through existential anxiety (9).

Schemas are intricate cognitive patterns that develop from childhood memories, emotions, thoughts, and physical sensations. As a result, these schemas play a significant role in how individuals respond to loss, with those harboring maladaptive schemas experiencing more bereavement and struggling to cope with their bereavement (16). Moreover, dwelling on thoughts of death and nonexistence can heighten existential anxiety in individuals. This anxiety pertains to concerns about death and nothingness, the loss of meaning in life, and feelings of guilt and blame, ultimately leading to feelings of alienation and isolation and a heightened awareness of the void (7). Existential anxiety arises when individuals are confronted with the uncertainties of existence and the inevitability of death, causing significant distress. Instances of global crises and encounters with death further exacerbate existential fears as individuals grapple with the fleeting nature of life and their mortality. Such anxiety can have a profound impact on human behavior, influencing political dynamics in times of crisis and contributing to health issues.

Naturally, considering mortality and experiencing existential anxiety can impact the

bereavement process (6). Constantly dwelling on thoughts of death and negativity may hinder psychological recovery following a loss. Negative thoughts, such as rumination, could be seen as an effort to comprehend the death and associated negative emotions, while worry might be an attempt to manage additional stressors that often arise after a loss. Although not explicitly demonstrated, negativity can have harmful effects on one's mental state. Intensely bereavement individuals who focus on pessimistic thoughts about the deceased may experience heightened emotional distress, increased feelings of isolation, and a perception that these negative thoughts could intensify the bereavement process and impede progress through the stages of bereavement (40).

Limitations

The limitations found in the current study included differences in demographics among the subjects, close relationships with the deceased, lack of preparedness for death, varying lengths of time since the death, and differences in the manner of death. As a result, the study suggests that future research should delve into these factors at specific intervals to understand how bereavement effects change over time. Another limitation of the study was that all participants did not have the same living conditions and life challenges before the loss, including physical and mental health, family or marital issues, and economic or occupational problems. Due to limitations in examining all aspects of participants' lives and the number of participants, future research should aim to address these disparities through more comprehensive evaluations.

Furthermore, the varying living environments of the participants (urban and rural settings), differences in cultural backgrounds, and the influence of religious beliefs on society could all contribute to existential anxiety, which were not fully controlled for in this study. To enhance the accuracy of the results, participants could be categorized based on their education level, social and economic status, and any history of psychological disorders related to bereavement. It is important to note that the findings of this study, which focused on Iranian participants, may not be directly applicable to other societies due to profound cultural disparities in bereavement practices between Eastern and Western cultures. Future research should consider exploring other variables, such as death anxiety and health anxiety. Future research could further explore each theme identified in this study, especially among individuals who are going through abnormal bereavement. It is recommended that this research be replicated in a different cultural context with varied examples and forms of bereavement.

6. Conclusion

The findings of the current study demonstrated that having positive thoughts could help reduce complicated bereavement, while feelings of abandonment, existential anxiety, and negative thoughts could exacerbate complicated bereavement. Therefore, it is recommended that counselors and psychologists utilize these insights in working with individuals experiencing different forms of bereavement and in other communities where bereavement is prevalent. Additionally, given the presence of depressive symptoms and physical issues in individuals with complicated bereavement, further research should explore these aspects. It is also suggested to apply the results of this study in specialized centers that support bereaved individuals. Moreover, considering the detrimental impact of bereavement on individuals' well-being, it is advisable to develop educational programs, workshops, and informational materials for therapists in this area.

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