

Original Article



Parental Resilience after Child Loss: A Study in Kashan, Iran

Tayebeh Moradi¹ , Mohsen Adib-Hajbaghery² , Azade Safa^{2*}

¹Department of Nursing, Kas.C., Islamic Azad University, Kashan, Iran

²Trauma Nursing Research Center, Kashan University of Medical Sciences, Kashan, Iran

Article Info**Article History:**

Received: September 16, 2025

Revised: November 8, 2025

Accepted: December 1, 2025

ePublished: May 20, 2026

Keywords:

Resilience, Bereaved parents,
Child loss, Social support,
Coping strategies, Grief

***Corresponding Author:**

Azade Safa,
Email: azade.fazel@yahoo.com

Abstract

Introduction: Parental resilience is essential for coping with child loss. Nevertheless, empirical evidence on the resilience of Iranian parents following child bereavement is limited. This study aimed to evaluate the resilience level of parents who lost a child in Kashan, Iran.

Methods: This analytical cross-sectional study involved 200 parents who had lost their children in Kashan, Iran. Participants were recruited through convenience and snowball sampling methods. Data were collected using the Connor-Davidson Resilience Scale, the Coping Responses Inventory (CRI), the Multidimensional Scale of Perceived Social Support (MSPSS), and a demographic characteristics questionnaire. Data analysis was performed using SPSS version 16. The relationship between resilience and study variables was examined using t-test, ANOVA, Pearson correlation, and linear regression.

Results: The mean resilience score was 62.70 (11.81) (range:0 -100). Linear regression analysis indicated that age, marital status, education level, religiosity, coping responses, and perceived social support were significantly associated with resilience. These variables explained 55% of the variance in parental resilience ($R^2=0.55$).

Conclusion: The findings indicate that parental resilience demonstrated a relatively high level and was significantly associated with demographic, psychosocial, and coping-related factors. These results highlight the importance of considering these variables when designing supportive interventions for bereaved parents.

Introduction

The death of a child is profoundly distressing for parents, with significant consequences for their overall health and well-being.¹ The immediate effects of grief following the loss of a child are more intense and enduring compared to other types of mourning, potentially leading to post-traumatic stress disorder (PTSD) in some bereaved parents.² Parents may exhibit anxiety, depression, social difficulties, changes in marital dynamics, and altered health-related behaviors, all of which can negatively impact their quality of life and physical well-being.³ Various factors, such as the child's age and gender, and the cause of death, can influence the intensity of this grief.⁴ It is estimated that 10–20% of individuals experience prolonged grief disorder.⁵

Resilience is a crucial factor in the mental and psychological well-being of parents after the loss of a child.⁶ Resilience in bereaved parents is viewed as a dynamic process of adapting to profound adversity while maintaining psychological well-being.⁶ This adaptive capacity is not merely a stable trait but rather a complex interplay of personal strengths, coping mechanisms, and contextual factors that enable parents to navigate the challenges and potential disruptions associated with such a significant loss.⁷ According to Connor and Davidson, resilience is the ability to remain steady in the face of

challenges and involves positive ways of adapting to difficulties. Highly resilient individuals demonstrate a greater capacity to handle stressful situations effectively and a stronger ability to respond to life's stressors.⁸

Protective factors, including marriage, marital support, or a high-quality relationship, often counterbalance risk factors, whereas widowhood or limited spousal support may increase vulnerability.⁹ Resilience is closely linked to the use of proactive coping strategies.¹⁰ These strategies include problem-focused, emotion-focused, and avoidance-focused approaches, which help individuals manage stressors and mobilize internal and external resources.¹¹ Prior studies have reported that bereaved parents often use distraction, emotional support, and active coping rather than humor and religion.^{12,13} However, the relationship of coping responses with resilience among bereaved parents remains insufficiently explored.

Social support may facilitate resilience in bereaved parents by buffering distress and promoting adaptive coping.^{14,15} Bereaved parents who receive support from a spouse, family members, and close friends can regulate intense emotions and maintain perceived control.¹⁵ However, it is unclear how social support contributes to resilience of bereaved parents, particularly in non-Western countries.

Interpersonal relationships and perceived social

Research Highlights

What is the current knowledge?

- The loss of a child can profoundly affect parents' psychological well-being and functioning. Resilience is a crucial factor in the mental and psychological well-being of parents after the loss of a child.
- Multiple psychosocial factors may influence resilience among bereaved parents.

What is new here?

- The resilience mean score of the parents after the loss of their child was above average.
- Age, marital status, educational level, religiosity, coping responses, and perceived social support were significantly associated with parental resilience after child loss.

support substantially influence psychological adaptation following child loss.¹⁶ Previous research highlights that child loss can disrupt family functioning and social connections among bereaved parents.¹⁶ While many studies underscore the positive role of social support in fostering parental resilience^{12,13}, contradictory findings exist regarding the association of social support with resilience among bereaved parents, with some indicating no significant effect of social support on grief reduction in this population.¹⁷ Therefore, future research must investigate the impact of social support on resilience in bereaved parents.

Identifying factors associated with resilience may help healthcare professionals develop targeted supportive interventions for bereaved parents. Beyond coping strategies and social support, other demographic, cultural, and psychosocial factors may also influence parental resilience. Since these factors can vary across cultural and geographical contexts, previous studies have yielded inconsistent findings regarding the predictors of resilience.¹⁸ Certain studies suggested the relationship of resilience with gender, age, and marital status,^{5,7,9} whereas others found no significant relationship¹⁸. In addition, some studies identified spirituality and religious beliefs as important protective factors,^{19,20} but others found no strong association with spirituality.¹⁸

Despite growing attention to parental bereavement, limited evidence is available regarding the factors associated with resilience among bereaved parents, particularly in Middle Eastern populations. In Iran, it is unclear how coping responses and perceived social support correlate with resilience following child loss. Therefore, this study assessed the resilience level of parents who lost their children in Kashan, Iran.

Materials and Methods

Study Design and Sampling

This analytical cross-sectional study evaluated resilience levels and associated factors among bereaved parents in Kashan, Iran, between 2022 and 2023. The target

population comprised bereaved parents whose children were between 6 months and 18 years at the time of death. Inclusion criteria were: (1) willingness to participate in the study, (2) Iranian nationality, (3) absence of existing cognitive issues or a history of severe anxiety and depression disorders prior to their child's passing, and (4) having encountered the death of a child between six months and three years before the research. To minimize the confounding effects of pre-existing psychopathology on resilience scores, parents with a history of severe anxiety or depressive disorders were not included to isolate the resilience specifically associated with the experience of child loss. Additionally, the inclusion period of six months to three years post-loss was established to target participants who had transitioned beyond the immediate acute phase of grief, allowing for an assessment of more established adaptation processes. The sample size was determined using the standard formula for estimating the mean of a quantitative trait in a population. Based on a similar study by Shabahang et al.²¹ on parental resilience,²² which reported a standard deviation of $\delta = 11$ and set the desired margin of error to $d = 0.05$, a target sample size of 184 individuals was calculated. Formula:

$$n = \frac{Z^2 S^2}{d^2}$$

To enhance the study's statistical power and reliability, a final sample size of 200 participants was recruited.

Study Setting

This study was conducted in Kashan, a city in central Iran. Information on counseling through hospitals, health centers, and non-governmental organizations (NGOs) was gathered to contextualize the study environment.

Data Collection

Following approval from the Ethics Committee of Kashan University of Medical Sciences, the researcher visited the Kashan Civil Registration Organization and reviewed registered death records to identify and recruit eligible bereaved parents for the study. Convenience and snowball sampling methods were used. The researcher identified the available samples from the list and contacted them to explain the purpose of the study and obtain their verbal consent to participate. The researcher then scheduled appointments and distributed questionnaires to the participants, or conducted interviews with them if they were illiterate. The questionnaire required around 30 minutes to finish. Furthermore, participants had the choice to recommend other qualified individuals to participate in the study. Written informed consent was obtained from all participants after they were thoroughly briefed on the study's goals, procedures, potential risks, and benefits. Participants were assured that their personal information would remain confidential.

Study Measurements

Four questionnaires were used for data collection in

this study. A self-report questionnaire captured the individual traits of the deceased child's parents, including age, gender, marital status, employment status, level of education (Illiterate, Upper/lower secondary, Associate degree, or Bachelor's degree and higher), and religious beliefs (Very high, high, moderate and low).

The Connor-Davidson Resilience Scale (CD-RISC), a scale with 25 items, assesses resilience using five subscales: personal competence, reliance on intuition, ability to handle negative emotions, positive outlook, and spiritual beliefs. Each question in the survey was evaluated using a 5-point Likert scale, from 0 (not true at all) to 4 (true nearly all the time). Total scores varied between 0 and 100, with higher scores showing greater resilience. The validity of the CD-RISC has been confirmed in previous studies through various approaches, including factor analysis, testing convergent and divergent validity, and assessing reliability with Cronbach's alpha. Connor and Davidson (2003) reported a reliability of 0.89 for the CD-RISC.⁸ In Iran, Al-Hosseini and Firouzkouhi psychometrically evaluated the scale and reported a Cronbach's alpha coefficient of 0.89 and a Pearson correlation coefficient of 0.87 for the whole scale.²³

Coping Responses Inventory (CRI), developed by Billings and Moos (1981), includes 32 items divided into five areas: cognitive assessment (5 items), critical thinking (3 items), emotional control (10 items), social backing (6 items), and physical restraint (8 items). Responses are scored on a 4-point Likert scale, ranging from 0 (never) to 3 (always). Total scores range from 0 to 96, with higher scores indicating more frequent use of coping strategies and, consequently, greater coping resources. Moos reported subscale reliability coefficients ranging from 0.44 to 0.80.¹¹ In a study conducted among Iranian students, Chinaveh²⁴ evaluated the psychometric properties of the CRI and reported a Cronbach's alpha coefficient of 0.75.

The Multidimensional Scale of Perceived Social Support (MSPSS), developed by Zimet et al.²⁵, assesses perceived social support received from three sources: family (items 3, 4, 8, and 11), friends (items 6, 7, 9, and 12), and significant others (items 1, 2, 5, and 10). Each item is rated on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). The minimum and maximum scores for each domain vary from 4 to 28, with total scores ranging from 12 to 84; higher scores reflect stronger perceived social support.²⁵ Alipour et al.²⁶ reported an overall Cronbach's alpha of 0.94, with subscale reliabilities of 0.89 for friends, 0.90 for family, and 0.90 for significant others.

Data Analysis

The data analysis was conducted through SPSS 16, employing both descriptive and analytical statistics. The normality of each variable was evaluated using the Kolmogorov-Smirnov test. The analysis was conducted in two stages. In the first stage, each factor was examined separately using univariate analysis. To examine the relationship between the resilience score and categorical variables, independent t-test and analysis of variance

(ANOVA) was used. To examine the relationship between the resilience score and quantitative variables, Pearson correlation coefficient was used. Linear regression analysis was performed to accurately examine the relationships and contributions of each factor to the resilience score. Before performing linear regression analysis, the assumptions of linearity, homoscedasticity, normality of residuals, independence of errors, and multicollinearity were assessed using residual plots, the Durbin-Watson statistic, and variance inflation factor (VIF) values. No significant violations of the assumptions were observed.

Results

Characteristics of Participants

The mean age of the participants was 51.29 (13.84) years, with ages ranging from 21 to 79 years. More than half of the participants were female (56.50%) and married (84.50%). Further demographic information about the participants can be found in Table 1.

Table 2 displays the mean scores of resilience and its subscales among parents. According to the findings, the mean resilience score among bereaved parents was above the average.

Statistical analyses revealed that gender, marital status, employment status, education level, and religiosity were all significantly associated with parental resilience ($P < 0.001$ for the first four variables; $P < 0.01$ for religiosity).

- **Gender and Marital Status:** T-tests indicated a notable difference in parental resilience scores based on gender ($P < 0.001$) and marital status ($P < 0.001$).

Table 1. The frequency of the parents based on the demographic characteristics (n=200)

Variable/ Measuring aspects	N (%)
Gender	
Female	113(56.50)
Male	87(43.50)
Marital status	
Married	169(84.50)
Widow/divorced	31(15.50)
Employment status	
Housewife	40(20)
Employed	70(35)
Retired	55(27.50)
Self-employed	35(17.50)
Education level	
Illiterate	15(7.50)
Upper/lower secondary	85(42.50)
Associate degree	23(11.50)
Bachelor's degree and higher	77(38.50)
Religiosity	
Very high	49(24.50)
High	81(40.50)
Moderate	56(28)
Low	14(7)

- **Employment Status:** Analysis of Variance (ANOVA) results showed a significant difference in resilience scores among parents based on their employment status ($P < 0.001$). Tukey's post hoc test further revealed that these differences in resilience scores were notable between employed parents, housewives, and retirees.
- **Educational Level:** ANOVA findings indicated a noteworthy variance in resilience scores among parents according to their educational attainment ($P < 0.001$). Tukey's post hoc analysis revealed a significant contrast in resilience scores between parents holding a bachelor's degree or higher and those who were either illiterate or had upper/lower secondary education.
- **Religiosity:** Finally, the results of the ANOVA test showed a notable disparity in resilience scores and the degree of religiosity among parents ($P < 0.01$). Tukey's post hoc analysis indicated that this significant difference in resilience scores was particularly evident between parents reporting low religiosity compared to the other groups (Table 3).

Pearson's correlation coefficient showed that parental resilience was significantly and positively correlated with age ($r = 0.35$, $P < 0.001$), total coping response score ($r = 0.32$, $P < 0.001$), and perceived social support after the child's death ($r = 0.56$, $P < 0.001$).

Based on the results of the univariate analysis, the variables were subsequently entered into the regression model. The backward linear regression analysis revealed a strong correlation among different variables including parents' age, marital status, educational level (associate

degree or above), average religiosity, total score of parents' coping strategies, and total score of parental social support and resilience. These factors explained 55% of the variation in parental resilience ($R^2 = 0.55$) (Table 4).

Discussion

In the present study, bereaved parents demonstrated a moderate-to-high level of resilience, with a mean CD-RISC score of 62.70. While it is challenging to draw direct comparisons due to the heterogeneity of study populations and clinical contexts, this score appears consistent with findings in related literature. For instance, Mohammadi et al²⁷ reported a mean resilience score of 58.99 among parents of children at the end of life.

Table 3. Relationship between parents' resilience score and child's death based on demographic characteristics

Variable	Mean (SD)	P value	Statistical test
Gender			
Female	59.79(13.99)	P<0.001	- 3.75**
Male	66.48(10.22)		
Marital status			
Married	69.58(08.55)	P<0.001	- 3.30**
Widowed/divorced	61.44(13.18)		
Employment status			
Housewife	59.12(14.33)	P<0.001	7.76*
Employed	67.51(13.14)		
Retired	61.01(12.94)		
Self-employed	63.25(4.30)		
Education level			
Illiterate	58.26(9.64)	P<0.001	4.57*
Lower/upper secondary	59.67(13.60)		
Associate degree	65.62(12.96)		
Bachelor's degree and higher	67.04(7.76)		
Religiosity			
Very high	64.75(10.15)	P<0.01	2.87*
High	63.82(15.66)		
Moderate	65.64(5.25)		
Low	58.55(11.10)		

*One-Way ANOVA; **Independent-Sample T Test.

Table 2. The mean score of resilience and its subscales in bereaved parents

Variable	Mean (SD)	Range	CI 95%
Total resilience score	62.70 (11.81)	0-100	61.1-64.3
Personal competence	20.64 (4.15)	0-32	20.1-21.2
Trust in one's instinct	14.31 (3.85)	0-28	13.8-14.8
Tolerance of a negative affect	13.15 (3.26)	0-20	12.6-13.7
Control	7.90 (2.41)	0-12	7.6-8.2
Spiritual influences	6.86 (2.09)	0-8	6.5-7.2

Table 4. Linear regression analysis between bereaved parents' resilience scores and various variables

Variables (reference category)	Unstandardized Coefficients		Standardized Coefficients	CI 95%	t	P Value	Collinearity Statistics VIF*	Adjusted R ²
	B	Std. error	Beta					
(Constant)	12.77	5.23		2.5-23.0	2.43	0.01	-	0.55
Parents' total perceived social support score	0.20	0.05	0.25	0.10-0.30	3.46	0.001	1.85	
Parents' total score of coping responses	0.29	0.08	0.22	0.13-0.45	3.56	0.0001	2.34	
Age	0.47	0.06	0.50	0.35-0.59	6.83	0.0001	2.47	
Marital status (widow vs. divorced)	-4.90	1.74	-0.13	-8.31-1.49	-2.81	0.005	1.08	
Associate degree (versus uneducated)	5.858	2.087	0.145	1.77-9.94	2.807	0.006	1.21	
Bachelor's and higher degree (versus uneducated)	9.837	1.452	0.372	6.99-12.69	6.776	0.0001	1.36	
Moderate religiosity (versus low religiosity)	6.25	1.80	0.21	2.72-9.78	3.47	0.0001	1.54	

*Given that the VIF value is between 1 and 5, this level of multicollinearity is not concerning and does not negatively affect the validity of the regression results. Note: Only the statistically significant variables are presented in this final regression table.

Similarly, Shabahang et al²¹ found that parents of children with special needs exhibited an average resilience score of 71.47. Although these studies, including those involving parents of chronically ill children,²⁸ provide a broader context for understanding parental resilience, they differ substantially from our sample of bereaved parents in the emotional trajectory and the nature of their loss. Therefore, these comparisons should be interpreted with caution, as variations in stressors and temporal proximity to the child's loss likely influence resilience outcomes.

Perceived social support emerged as one of the strongest predictors of parental resilience in this study. From a theoretical perspective, social support functions as a crucial buffering mechanism, alleviating the psychological burden of bereavement by providing emotional validation and practical assistance, which in turn fosters a sense of security and continuity during the adaptive process.²⁹ This mechanism in Iran is deeply rooted in collectivist values where family and community bonds serve as the primary source of identity and stability. Therefore, the grieving process is not merely an individual experience but a collective one. Family and social support causes parents to reframe the tragedy of losing a child as a challenge rather than an insurmountable trauma.^{30,31} Evidence suggests that communal engagement and the maintenance of relationships are essential for psychological recovery of bereaved parents.^{32,33}

Parental coping response was another significant predictor of resilience. Studies indicate that effective coping strategies may serve as a mechanism through which resilient individuals navigate stressful demands.^{34,35} Individuals employing effective coping strategies tend to report lower levels of distress and exhibit enhanced resilience when facing adversity.

Parental age emerged as another predictive factor of resilience. While certain studies indicated no significant relationship between age and resilience,^{36,37} the study conducted by Taghadosi et al³⁸ demonstrated a positive correlation between younger age and greater physical resilience. The accumulated life experiences and coping resources of older adults might contribute to their resilience in the face of adversity.³⁹ Older bereaved parents may possess a greater repertoire of coping mechanisms and resilience to manage such a traumatic event.

This study reported significantly higher resilience scores for married parents, aligning with the studies of Khalili et al³⁶ and Safa et al³¹ who highlighted the pivotal role of spouses in providing primary support to bereaved parents. The family structure is recognized as a significant factor affecting the resilience of Iranian families.³²

The current study found that higher education level was significantly associated with greater resilience scores among bereaved parents. Individuals with a bachelor's degree or higher demonstrated significantly higher levels of resilience. Similarly, Drzewiecki et al.⁴⁰ reported that adults with professional education displayed significantly higher levels of resilience when facing natural disasters compared to those with lower levels of education.

In contrast, Taghadosi et al³⁸ found no relationship between education and resilience. Individuals with higher education may possess greater perceived social connectedness, engagement, and support. They might also be more proactive in taking preventive measures, leading to a greater perception of resilience in the face of disasters compared to those with only a secondary school degree.⁴¹

Interestingly, moderate religiosity was associated with significantly higher resilience scores among bereaved parents, suggesting that a balanced level of religiosity provides meaning and support while still allowing flexibility in coping. In contrast, Bhattarai et al¹⁸ did not find a significant association between spirituality, resilience, and adaptation following severe psychological trauma. Nevertheless, Shoqirat et al¹⁹ and Amirimoghadam et al²⁰ indicated that spiritual and religious factors may buffer the impact of adverse life events. Given the strong religiosity and adherence to religious customs in Kashan, this contextual factor may have contributed to resilience among bereaved parents.

Limitations and Recommendation

One important limitation of this study was its cross-sectional design, which precludes any causal inference regarding the observed associations. In addition, some parents who were experiencing unfavorable mental conditions were unwilling to complete the questionnaires; however, the researchers attempted to mitigate this issue by providing necessary explanations to reduce concerns and emphasizing the potential value of participation. This study also excluded parents with a history of severe anxiety and depressive disorders, as these conditions could confound the assessment of resilience. Additionally, the relatively wide time interval since child loss (6 months to 3 years) may have introduced heterogeneity in resilience levels, as the trajectory of bereavement-related adaptation is dynamic. Other limitations of the study included non-random sampling, the use of self-report measures, and the possibility of social desirability bias in responses. Future longitudinal studies should aim to include a more diverse range of participants to provide a comprehensive understanding of resilience across various stages of bereavement.

Conclusion

Initial observations from this investigation suggest that a majority of bereaved parents in this sample reported above-average resilience. The analysis revealed that age, marital status, educational level, religiosity, coping responses, and perceived social support were significant predictors of parents' overall resilience levels following child loss. To the best of the authors' knowledge, this is among the first studies to comprehensively examine resilience-related factors among bereaved Iranian parents, and these findings hold significant practical and clinical utility. Specifically, the strong association identified with perceived social support underscores the critical need for early and robust intervention strategies. Healthcare

providers and policymakers can leverage these insights to design targeted care plans and support programs. Such comprehensive measures should prioritize the enhancement of social support networks, the instruction of emotion management techniques, and the provision of formalized training in adaptive coping skills to bolster parental resilience during the challenging period subsequent to a child's death. The findings also indicate a need for the design of culturally-grounded interventions aimed at improving the adjustment and social support for bereaved parents in Iran.

Acknowledgements

The researchers would like to thank all the parents who participated in this study, the Vice-Chancellor for Research and Technology of Kashan University of Medical Sciences, and the Development and Clinical Research Unit of Shahid Beheshti Hospital, Kashan.

Authors' Contribution

Conceptualization: Azade Safa, Mohsen Adib-Hajbaghery
Data Curation: Azade Safa, Tayebah Moradi
Formal Analysis: Azade Safa, Mohsen Adib-Hajbaghery, Tayebah Moradi
Funding Acquisition: Azade Safa
Investigation: Azade Safa, Mohsen Adib-Hajbaghery, Tayebah Moradi
Methodology: Azade Safa, Mohsen Adib-Hajbaghery, Tayebah Moradi
Project Administration: Azade Safa
Resources: Azade Safa
Software: Tayebah Moradi
Supervision: Azade Safa
Validation: Mohsen Adib-Hajbaghery
Visualization: Mohsen Adib-Hajbaghery
Writing—Original Draft: Azade Safa
Writing—Review & Editing: Azade Safa, Mohsen Adib-Hajbaghery, Tayebah Moradi

Competing Interests

The authors declare that there is no conflict of interest regarding this study.

Data Availability

The findings of this study are available from the corresponding author on reasonable request.

Ethical Approval

The code of ethics was received from the Ethics Committee of Kashan University of Medical Sciences, with the ethics code IR.KAUMS.NUHEPM.REC.1401.009. Before collecting the data, the study objectives were explained to the participants, and written informed consent was obtained from each participant in the research. They were assured that their information would be kept confidential.

Funding

This study was funded and approved by Kashan University of Medical Sciences (Project No. 400181).

References

- Safa A, Adib-Hajbaghery M, Rezaei M. An unbreakable bond between older adults and their dead children: a qualitative study. *Nurs Midwifery Stud* 2022;11(2):146-52. doi:[10.4103/nms.nms_111_21](https://doi.org/10.4103/nms.nms_111_21)
- Suttle M, Hall MW, Pollack MM, Berg RA, McQuillen PS, Mourani PM, et al. Complicated grief, depression and post-traumatic stress symptoms among bereaved parents following their child's death in the pediatric intensive care unit: a follow-up study. *Am J Hosp Palliat Care* 2022;39(2):228-36. doi:[10.1177/10499091211015913](https://doi.org/10.1177/10499091211015913)
- Sugimura A, Sato K, Kawashima A, Nakazawa Y, Miyashita M, Morita T, et al. Grief and depression among bereaved parents who have lost an adult child to cancer: a national death follow-up study. *J Palliat Med* 2025;28(11):1473-80. doi:[10.1177/10966218251368494](https://doi.org/10.1177/10966218251368494)
- Peng Z, Luo Y, Qi R, Cao Z, Ge J, Wu L, et al. Influencing factors of posttraumatic stress disorder in Shidu parents who have lost their only child: a cross-sectional survey. *BMC Psychiatry* 2024;24(1):612. doi:[10.1186/s12888-024-06059-6](https://doi.org/10.1186/s12888-024-06059-6)
- Yaffe Y, Levkovich I. Prolonged grief disorder in bereaved parents: exploring impacts and treatment pathways. *World J Psychiatry* 2025;15(5):104711. doi:[10.5498/wjp.v15.i5.104711](https://doi.org/10.5498/wjp.v15.i5.104711)
- VanMeter F, Cicchetti D. Resilience. *Handb Clin Neurol* 2020;173:67-73. doi:[10.1016/b978-0-444-64150-2.00008-3](https://doi.org/10.1016/b978-0-444-64150-2.00008-3)
- Cheng L, Cai S, Zhou X, Zhai X. Enhancing the resilience of bereaved parents: practical experiences and needs perceived by healthcare professionals. *J Adv Nurs* 2026;82(4):3550-62. doi:[10.1111/jan.16670](https://doi.org/10.1111/jan.16670)
- Connor KM, Davidson JR. Development of a new resilience scale: the Connor-Davidson Resilience Scale (CD-RISC). *Depress Anxiety* 2003;18(2):76-82. doi:[10.1002/da.10113](https://doi.org/10.1002/da.10113)
- Egan LA, Park HR, Lam J, Gatt JM. Resilience to stress and adversity: a narrative review of the role of positive affect. *Psychol Res Behav Manag* 2024;17:2011-38. doi:[10.2147/prbm.S391403](https://doi.org/10.2147/prbm.S391403)
- Abate BB, Sendekie AK, Tadesse AW, Engdaw T, Mengesha A, Zemariam AB, et al. Resilience after adversity: an umbrella review of adversity protective factors and resilience-promoting interventions. *Front Psychiatry* 2024;15:1391312. doi:[10.3389/fpsy.2024.1391312](https://doi.org/10.3389/fpsy.2024.1391312)
- Moos RH. Coping Responses Inventory: An Update on Research Applications and Validity: Manual Supplement. Odessa, Florida: Psychological Assessment Resources; 2004.
- Ogińska-Bulik N, Kobylarczyk M. The experience of trauma resulting from the loss of a child and posttraumatic growth: the mediating role of coping strategies (loss of a child, PTG, and coping). *Omega (Westport)* 2019;80(1):104-19. doi:[10.1177/0030222817724699](https://doi.org/10.1177/0030222817724699)
- Darlington AE, Korones DN, Norton SA. Parental coping in the context of having a child who is facing death: a theoretical framework. *Palliat Support Care* 2018;16(4):432-41. doi:[10.1017/s1478951517000463](https://doi.org/10.1017/s1478951517000463)
- Sippel LM, Pietrzak RH, Charney DS, Mayes LC, Southwick SM. How does social support enhance resilience in the trauma-exposed individual? *Ecol Soc* 2015;20(4):10. doi:[10.5751/es-07832-200410](https://doi.org/10.5751/es-07832-200410)
- Acoba EF. Social support and mental health: the mediating role of perceived stress. *Front Psychol* 2024;15:1330720. doi:[10.3389/fpsyg.2024.1330720](https://doi.org/10.3389/fpsyg.2024.1330720)
- Dutta O, Tan-Ho G, Choo PY, Ho AH. Lived experience of a child's chronic illness and death: a qualitative systematic review of the parental bereavement trajectory. *Death Stud* 2019;43(9):547-61. doi:[10.1080/07481187.2018.1503621](https://doi.org/10.1080/07481187.2018.1503621)
- Abdi MR, Zabihzadeh A, Rahmani MA. Parental grief after child homicide in Iran: challenges and integrated intervention development. *Pract Clin Psychol* 2025;13(2):143-58. doi:[10.32598/jpcp.13.2.1000.1](https://doi.org/10.32598/jpcp.13.2.1000.1)
- Bhattarai M, Maneewat K, Sae-Sia W. Psychosocial factors affecting resilience in Nepalese individuals with earthquake-related spinal cord injury: a cross-sectional study. *BMC Psychiatry* 2018;18(1):60. doi:[10.1186/s12888-018-1640-z](https://doi.org/10.1186/s12888-018-1640-z)
- Shoqeirat MD, Almatameh A, Alkhawaldeh M, Al-Zaben M, Al Majali S, Algaralleh A. Married & wise - a correlational study of wisdom, well-being, and resilience in relation to gender, age and marital status. *J Soc Stud Educ Res* 2023;14(3):145-66.

20. Amirimoghadam A, Sodani M, Khojasteh Mehr R, Mehrabi Zadeh Honarmand M. Identifying the factors of resilience in mothers having children with attention-deficit hyperactivity disorder (ADHD): a qualitative research. *Jundishapur Sci Med J* 2020;19(2):227-42. doi:[10.22118/jsmj.2020.203856.1863](https://doi.org/10.22118/jsmj.2020.203856.1863)
21. Shabahang R, Khosrojauid M, Ahmadi A. The role of attitude and resiliency in predicting the quality of life of parents of children with special needs. *Q J Child Ment Health* 2018;5(3):11-21.
22. Afzali H. *Research in the Health System*. Tehran: New Valve Press; 2016.
23. Alhosseini Almodarresi M, Firouzkouhi Berenjabadi M. Analysis of relationship between resilience with dimensions of work engagement. *Management Studies in Development and Evolution* 2017;25(83):1-24. doi:[10.22054/jmsd.2017.7476](https://doi.org/10.22054/jmsd.2017.7476)
24. Chinaveh M. The examination of reliability and validity of coping responses inventory among Iranian students. *Procedia Soc Behav Sci* 2013;84:607-14. doi:[10.1016/j.sbspro.2013.06.612](https://doi.org/10.1016/j.sbspro.2013.06.612)
25. Zimet GD, Powell SS, Farley GK, Werkman S, Berkoff KA. Psychometric characteristics of the multidimensional scale of perceived social support. *J Pers Assess* 1990;55(3-4):610-7. doi:[10.1080/00223891.1990.9674095](https://doi.org/10.1080/00223891.1990.9674095)
26. Alipour A, Aliakbari Dehkordi M, Amini F, Hashemi Jashni A. Relationship between perceived social support and adherence of treatment in diabetes mellitus type 2: mediating role of resiliency and hope. *Res Psychol Health* 2016;10(2):53-67. doi:[10.18869/acadpub.rph.10.2.53](https://doi.org/10.18869/acadpub.rph.10.2.53)
27. Mohammadi F, Masoumi SZ, Oshvandi K, Bijani M, Nikrouz L. Death anxiety, resilience, and family cohesion in parents of children and adolescents in the end stages of life. *Front Psychol* 2023;14:1057003. doi:[10.3389/fpsyg.2023.1057003](https://doi.org/10.3389/fpsyg.2023.1057003)
28. Broll J, Schäfer SK, Lüdecke D, Nickel S, Lieb K, Helmreich I. Resilience factors in parents of children in need of care. *J Child Fam Stud* 2025;34(2):353-65. doi:[10.1007/s10826-025-03012-3](https://doi.org/10.1007/s10826-025-03012-3)
29. Heuser C, Schneider JN, Heier L, Ernstmann N, Nakata H, Petermann-Meyer A, et al. Family resilience of families with parental cancer and minor children: a qualitative analysis. *Front Psychol* 2023;14:1251049. doi:[10.3389/fpsyg.2023.1251049](https://doi.org/10.3389/fpsyg.2023.1251049)
30. Safa A, Adib-Hajbaghery M, Rezaei M. Support received and provided by older adults who lost a child: a qualitative content analysis. *Iran J Nurs Midwifery Res* 2022;27(5):432-8. doi:[10.4103/ijnmr.ijnmr_274_21](https://doi.org/10.4103/ijnmr.ijnmr_274_21)
31. Safa A, Adib-Hajbaghery M, Rezaei M, Araban M. The meaning of losing a child in older adults: a qualitative study. *BMC Geriatr* 2021;21(1):652. doi:[10.1186/s12877-021-02609-9](https://doi.org/10.1186/s12877-021-02609-9)
32. Mooziri A, Shafiabady A, Esmaily M, Younesi J. Modeling the effective factors on Iranian family's resilience. *J Psychol Sci* 2020;19(95):1401-10.
33. Aho AL, Tarkka MT, Astedt-Kurki P, Kaunonen M. Fathers' experience of social support after the death of a child. *Am J Mens Health* 2009;3(2):93-103. doi:[10.1177/1557988307302094](https://doi.org/10.1177/1557988307302094)
34. Alonso Tapia J, Rodríguez Rey R, Garrido-Hernansaiz H, Ruiz M, Nieto C. Coping, personality, and resilience: prediction of subjective resilience from coping strategies and protective personality factors. *Behav Psychol* 2019;27(3):375-89.
35. Sobhani S, Jamilian H, Paknejad I. Prediction of resilience based on parenting and coping strategies in patients with psychosomatic disorders. *BMC Psychol* 2024;12(1):280. doi:[10.1186/s40359-024-01784-9](https://doi.org/10.1186/s40359-024-01784-9)
36. Khalili Z, Gholipour F, Habibi Soola A. Evaluation of resilience and its related factors in the elderly of Ardabil city. *J Health Care* 2021;22(4):286-94. doi:[10.52547/jhc.22.4.286](https://doi.org/10.52547/jhc.22.4.286)
37. Pulido-Martos M, Fernández-Sánchez MD, Lopez-Zafra E. Measurement invariance across gender and age in the Connor-Davidson Resilience Scale (CD-RISC) in a Spanish general population. *Qual Life Res* 2020;29(5):1373-84. doi:[10.1007/s11136-019-02389-1](https://doi.org/10.1007/s11136-019-02389-1)
38. Taghadosi M, Sadat Z, Ranjbar-Kashi H. Physical resilience and its related factors in Iranian older adults with ischemic heart disease: a cross-sectional study. *Nurs Midwifery Stud* 2023;12(1):28-34. doi:[10.4103/nms.nms_81_22](https://doi.org/10.4103/nms.nms_81_22)
39. Ardelt M, Jeste DV. Wisdom as a resiliency factor for subjective well-being in later life. *Prax Klin Verhaltensmed Rehabil* 2022;118:13-28.
40. Drzewiecki DM, Wavering HM, Milbrath GR, Freeman VL, Lin JY. The association between educational attainment and resilience to natural hazard-induced disasters in the West Indies: St. Kitts & Nevis. *Int J Disaster Risk Reduct* 2020;47:101637. doi:[10.1016/j.ijdr.2020.101637](https://doi.org/10.1016/j.ijdr.2020.101637)
41. Fazeli S, Haghani M, Mojtahedi M, Rashidi TH. The role of individual preparedness and behavioural training in natural hazards: a scoping review. *Int J Disaster Risk Reduct* 2024;105:104379. doi:[10.1016/j.ijdr.2024.104379](https://doi.org/10.1016/j.ijdr.2024.104379)