

Loss and Bereavement, a Study on Grief Among Kazakhstani Population

Student name: Alua Myrzabayeva

Primary Investigator: Lyazzat Toleubekova

Co-PI: Alessandra Clementi

Date of submission: 01.03.2026

Abstract

Prolonged grief disorder (PGD) is a recently recognized mental health condition characterized by persistent yearning, emotional pain, and other grief symptoms that affect daily life. Despite the global interest of researchers, the Kazakhstani population remains unstudied. This research aims to identify the prevalence and symptom patterns in Kazakhstani population and culture. In this study descriptive cross-sectional approach was applied. Data collection was between 2024 and 2025 using the PGD-13-R questionnaire in English, Kazakh, and Russian languages. Overall, 22 individuals were included in the study, predominantly females aged 18- 35. PGD-13-R score indicated moderate level of grief severity. 3 participants (13.6%) met criteria of a possible grief disorder. The most endorsed symptoms were disbelief about the death, emotional pain and avoidance of the fact of the death. These findings suggest that clinically significant symptoms are present, but does not necessarily mean that participants has a pathology. Culture is an important aspect to interpret the results, because it has an influence on how the grief is expressed and reported. The study is limited by small sample size, as well as cross sectional approach, which does not give a full picture of the disorder in Kazakhstan. Nevertheless, this research provides evidence on grief experience in Kazakhstan and shows the importance of longitudinal research with a larger sample.

Introduction

Grief is a complex psychological response to loss that most people experience at some point in their lives. When grief persists for more than 6–12 months and begins to interfere with daily functioning, it may become pathological (Szuhany et al., 2021). DSM-5-TR describes core symptoms of prolonged grief disorder (PGD) including intense yearning or longing, identity disruption, disbelief about death, intense emotional pain, avoidance of reminders about deceased, difficulty engaging with others or daily life, emotional numbness, loneliness and a sense that life is meaningless. These grief-related symptoms can affect everyday activities, social functioning, and work ability. Although symptoms typically decrease over time, 10% of grieving individuals might develop PGD (Szuhany et al., 2021). For a long time, PGD was not included in official diagnostic classifications. Only recently has it been formally recognized in DSM-5-TR and ICD-11 (American Psychiatric Association, 2022; World Health Organization, 2019). Although prolonged grief disorder is a distinct condition, its symptoms may co-occur with other psychological disorders, which can further complicate recognition and access to appropriate support (Komischke-Konnerup et al., 2021). This disorder should be differentiated from major depressive disorder, anxiety and posttraumatic stress disorder. According to Schoo et al. (2025), PGD has symptoms such as yearning, persistent preoccupation with the deceased, inability to accept the reality, which are specific in PGD and help to distinguish it from other psychological disorders. A meta-analysis examining the co-occurrence of PGD and other psychiatric disorders states that about 70% of PGD patients experience symptoms of anxiety, depression and post-traumatic stress disorder (PTSD) (Komischke-Konnerup et al., 2021). Buur et al. (2024) suggest that this co-occurrence may reflect the combined influence of preexisting vulnerabilities and distress emerging after bereavement..

According to Rosenblatt (2008), experiences of grief are influenced by cultural context and therefore vary across individuals and societies. Cross-cultural research shows that cultural norms may influence the duration and intensity, as well as acceptability of grief responses. For example, research among Chinese bereaved parents has shown that cultural norms expect from parents to grieve for a longer period as expression of love and moral commitment to the deceased (Shi et al., 2019). Stelzer et al. (2020) describes differences in collectivistic and individualistic societies. In collectivistic societies prolonged expressions of grief may be considered socially appropriate or even expected. While in more individualistic cultures extended grief may be interpreted as maladaptive. Such differences may indicate that cultural context can affect whether prolonged grief symptoms are recognized as a clinical condition or normalized as part of culturally sanctioned mourning practices (Stelzer et al., 2020). A similar pattern is reported by Zhou et al. (2023), in China bereaved individuals may display fewer emotions in social settings even if culturally stronger emotional expression is expected.

Despite growing international interest in prolonged grief disorder, most existing research has been conducted in Western populations. Data from Central Asian populations remain limited, and little is known about how prolonged grief symptoms experienced, are interpreted and managed in these cultural contexts. However, studies from culturally comparable regions suggest that prolonged grief disorder is also present outside Western populations. For example, a study of bereaved survivors of the 2011 Van earthquake in Türkiye reported that 8.9% met criteria for probable PGD (Ergün & Şenyüz, 2022). Factors such as social norms, religious traditions and attitudes toward mental health may influence the experience of grief and help-seeking behaviors. Since findings from Western samples can not be directly applied to Kazakhstan, it is important to study prolonged grief symptoms within the Kazakhstani population.

The aim of this study is to explore the prevalence of PGD in Kazakhstan, contributing valuable insights to the existing evidence on this topic. The PG-13-R scale was used to assess symptoms of prolonged grief disorder and is a widely used instrument for evaluating PGD. As a one of the first studies in Kazakhstani population, this study may serve as a reference for future researches.

Methods

This study was conducted between 2024 and 2025 using a descriptive, cross-sectional design. Data were collected through an anonymous online questionnaire. Prior to data collection, the study protocol was reviewed and approved by the Nazarbayev University School of Medicine Research Ethics Committee.

Participants were recruited using convenience sampling. The questionnaire link was distributed via email to students and staff of the Nazarbayev University School of Medicine. To reach a broader segment of the general population, the survey was also shared online through social media platforms and distributed in WhatsApp groups. In all recruitment channels, potential participants were provided with brief information about the aim and scope of the study, along with a link to the questionnaire.

Participants voluntarily clicked on the link, which gave them an access to questionnaire on Qualtrics platform. The survey was provided in Kazakh, Russian and English languages. Electronic consent was provided on the first page. Personal information was not collected to make research anonymous and confidential. Collected information was stored on password-protected computers available only to the research team.

The inclusion criteria for participation were voluntary consent, age of 18 years or older, and having experienced the loss of a close person at least six months prior to participation. There were no additional exclusion criteria.

To identify the probability of PGD in participants, criteria from Prigerson et al. (2021) were used. The questionnaire consisted of two main sections. The first section collected demographic information, including age, gender, ethnicity, nationality, marital status, religious affiliation, and employment status. The second section assessed symptoms of prolonged grief disorder using the Prolonged Grief Disorder-13 revised (PG-13-R) scale, a self-report measure consisting of 13 items designed to evaluate prolonged grief symptoms. According to Prigerson et al. (2021), 13 items are organized into diagnostic criteria A-E. Symptom items were rated on a five-point Likert scale ranging from “1 = not at all” to “5 = overwhelmingly” as well as gatekeeper items assessing bereavement status, duration of symptoms, and functional impairment. Separation distress was measured using items assessing longing or yearning for the deceased and emotional pain related to the loss. Additional items assess cognitive, emotional, and behavioral grief reactions such as identity disruption (confusion about a role in life), disbelief, avoidance, emotional pain and numbness, difficulty with reintegration in life, loneliness and meaninglessness. Participants were asked to respond to all items based on their experiences following the loss.

To interpret results of the questionnaire diagnostic algorithm by Prigerson et al. (2021), requiring at least one separation distress symptom, five additional grief symptoms, symptom duration of at least six months, and functional impairment was used. In addition, a total score ≥ 30 was considered indicative of elevated grief severity.

Results

Overall, there were 34 participants, however since there were missing answers to important questions, 12 of them were excluded. Therefore, 22 participants were included based on inclusion criteria. Demographic characteristics of participants were presented in table 1. Participants were predominantly aged 18–35 years ($n = 13$, 59%), followed by those aged 36–55 years ($n = 6$, 27%) and ≥ 56 years ($n = 3$, 14%). 76% of participants were female. The

median time since loss was 30,5 months [IQR 9–48]. As it is shown in table 1, all participants were nationality of kazakhs, with 91% ethnicity kazakh. Majority of participants were married (59%).

Table 1.

Demographic results of the questionnaire.

	N=22
Age group (years)	n (%)
18-35	13 (59%)
36-55	6 (27%)
>56	3 (14%)
Time from loss, months (median [IQR])	30,5 [9-48 mo]
Gender	N(%)
male	3 (14%)
female	19 (76%)
Nationality	N(%)
Kazakh	22(100%)
Ethnicity	N(%)
Kazakh	20 (91%)
Russian	1 (4,5%)

Other	1 (4,5%)
Marital status	N(%)
single	7 (32%)
married	13 (59%)
divorced	2 (9%)
Religious affiliation	N(%)
muslim	17 (77,3%)
other	2 (9,1%)
atheism	2 (9,1%)
Orthodox Christianity	1 (4,5%)
Employment status	N(%)
have job	12 (55%)
do not have job	10 (45%)

In PG-13-R questionnaire, there are 10 questions on severity of Prolonged Grief Disorder. The median PG-13-R total score was 25 [IQR 16–29.25], indicating moderate grief severity. Scores ranged from 12 to 42 across participants.

Based on PG-13-R criteria, 3 participants (13,6%) met all three criteria for probable prolonged grief disorder, including a total symptom score ≥ 30 , time since loss ≥ 6 months, and functional impairment.

Descriptive analysis of this study is presented in table 2. At the item level, the highest mean scores were observed for difficulty believing that the deceased person is really gone ($M = 3.23$), emotional pain related to the loss ($M = 2.91$), and yearning for the deceased ($M = 2.77$). These symptoms were also among the most frequently endorsed at moderate to high severity levels.

Avoidance of reminders of the loss also showed relatively elevated scores ($M = 2.73$). In contrast, lower mean scores were observed for feelings that life is meaningless without the deceased ($M = 1.68$), trouble performing daily activities ($M = 1.86$), emotional numbness ($M = 2.00$), and difficulty re-engaging in life ($M = 1.95$).

Overall, separation-related distress and emotional pain appeared more prominent than functional or existential symptoms in this sample.

Table 2.

Descriptive statistics of PG-13 symptom items

PG-13 item	Mean	Median	SD	% ≥ 4
Yearning	2.77	2	1.19	31.8
Trouble functioning	1.86	2	0.99	9.1
Identity disruption	2.32	2	1.29	31.8
Disbelief	3.23	3	1.34	45.5
Avoidance	2.73	3	1.67	36.4
Emotional pain	2.91	2.5	1.54	40.9
Re-engaging difficulty	1.95	1	1.21	18.2
Emotional numbness	2.00	2	1.20	13.6
Life meaningless	1.68	2	0.78	4.6
Loneliness	2.23	2	1.31	18.2

Discussion

This study provides one of the first descriptive examinations of prolonged grief symptoms in a Kazakhstani sample. Overall, most participants reported moderate levels of grief symptoms, and a small proportion (13,6%) met criteria for probable prolonged grief disorder. These findings suggest that while severe grief reactions are not highly prevalent in this sample, clinically relevant symptoms, such as disbelief, emotional pain, yearning and avoidance of reminders about deceased are present and detectable using standardized assessment tools. According to meta-analysis by Hilberdink et al. (2023), a pooled global prevalence of approximately 9.8% among bereaved adults. In general population samples, rates are substantially lower, ranging from about 1.2% to 1.5% (Rosner et al., 2021). Reported prevalence rates across countries average around 13%, although estimates vary depending on methodology and sample composition (Comtesse et al., 2024). Recent large-scale studies have included participants from several Asian countries such as China, Iran, Pakistan, and Israel, yet comparable data from Kazakhstan are still unavailable (Nafarieh et al., 2025). At present, evidence on grief responses in Central Asian populations remains limited. Studies from culturally comparable settings still indicate that prolonged grief is not specific to Western samples. For instance, a prevalence of 23.8% was reported among Turkish earthquake survivors with chronic illness (Dönmez et al., 2025), suggesting that contextual stressors and traumatic loss may affect risk. The results indicate that PGD should be interpreted with attention to sociocultural context, as its presentation may vary across settings.

Collectivistic

Cultural norms likely contribute to the patterns observed in the present sample. A growing body of cross-cultural research demonstrates that expectations embedded within a society shape how grief is expressed, evaluated, and communicated to others. In collectivistic

settings, for instance, individuals may restrain visible emotional reactions in public despite experiencing profound internal distress, consistent with culturally prescribed display rules that can influence responses on self-report instruments (Zhou et al., 2023). Cultural frameworks also affect how grief symptoms are interpreted by both sufferers and clinicians; when such frameworks are overlooked, reactions that are culturally normative may be mistaken for indicators of psychopathology (Smid et al., 2018; Lewis-Fernández et al., 2017). Furthermore, higher prevalence estimates reported in some non- Western populations may partly reflect contextual pressures and unmet psychosocial needs rather than individual vulnerability alone. This is illustrated by research among Turkish earthquake survivors with chronic illness, in which almost one quarter of participants met criteria for PGD (Dönmez et al., 2025). Collectively, these findings highlight the importance of culturally informed assessment strategies and of interpreting standardized grief measures with attention to sociocultural context.

Consistent with these cross-cultural findings, the results of the present study should be interpreted within the specific sociocultural context of Kazakhstan. Strong family involvement and collective grieving traditions may provide emotional support that reduces the likelihood of severe or prolonged grief reactions. In this context, social expectations emphasizing emotional restraint and resilience may discourage open expression of distress. In the present study, PGD scores may not fully reflect internal distress, which highlights the importance of considering cultural context when interpreting results.

Individualistic

Most participants in this study were aged 18 and 35 years old. This age pattern reflects how the sample was recruited rather than the true age distribution of bereaved individuals in wider population, since younger adults are generally more likely participate in voluntary online surveys. Findings on age and PGD are not consistent across studies. Some

reviews suggest older age may be associated with increased risk (Szuhany et al., 2021), while meta-analytic results indicate that studies with older samples often report higher prevalence estimates (Boelen & Lenferink, 2022). This makes it possible that differences between studies are influenced by sample composition as much as by age itself. For example, the loss of a child or young adult has been linked to elevated PGD risk, possibly because such deaths tend to be more unexpected and disruptive (Shevlin et al., 2023). These considerations indicate that differences between studies may partly reflect variation in sample age structure and loss characteristics. Future research in Kazakhstan should therefore include broader age ranges to better understand how age relates to PGD in this population.

In this research women constituted 76% of participants. An overrepresentation of women is common in voluntary mental-health and bereavement surveys and may reflect recruitment and response dynamics rather than the true gender distribution of bereaved individuals in the population. This is important, because sample composition alone cannot be interpreted as evidence of higher disorder risk. At the same time, existing evidence does suggest that female gender is often associated with a modestly elevated likelihood of prolonged grief symptoms. For example, a large systematic review and meta-analysis of risk factors identified female gender as one of several predictors showing small but statistically significant associations with prolonged grief symptoms, alongside factors such as low income, unexpected or violent loss, and loss of a child or partner (Buur et al., 2024). Correlate-focused syntheses similarly list female gender among commonly observed correlates, although effect sizes tend to be smaller than those for clinical factors (e.g., pre-loss distress, depression, attachment-related variables) (Heeke et al., 2017). In our study, it is crucial to interpret the gender pattern taking into account sociocultural context. Since here women participants are prevalent, it is possible that expectation of society on expression of emotions may have influenced how individuals reported their experiences (Stroebe et al.,

2007). In some cultural settings, as well as in Kazakhstan, women are often more involved in caregiving and mourning practices. Thus it could increase both exposure to loss-related stressors and openness in reporting distress (Rosenblatt, 2008). Meanwhile, men may be encouraged to emphasize emotional restraint and self-reliance (Addis & Mahalik, 2003). These expectations and differences in gender may show a result of overreporting in one gender, but it may not reflect which gender is more susceptible to PGD.

As a result of this research, descriptive analysis showed moderate grief severity in this sample. However, moderate level of grief alone does not necessarily indicate pathological grief. According to Rosner et al. (2021), in 14-25% of bereaved individuals might experience grief specific symptoms, without diagnostic thresholds. In longitudinal studies presented by Wen et al. (2023), people with moderate symptom levels often show gradual improvement over time as adjustment unfolds. Symptom intensity, persistence, functional impairment, and contextual factors are more important to consider in clinical picture of a patient. In this study, moderate score of PG-13-R scale assumed to be more normal variation, but not as a presentation of PGD itself. It is important, to correctly interpret results of questionnaire, because features of pathological grief may overlap with normal expected bereavement reaction.

At the item level of PGD-13-R scale disbelief, emotional pain, and yearning were frequently reported symptoms. This results were also observed in studies of Prigerson et al. (2009) and Boelen & Lenferink (2020). Yearning is considered specific symptom of PGD and helps to distinguish grief-related disorder from other conditions such as depression, anxiety, or posttraumatic stress disorder (PTSD) (American Psychiatric Association, 2022). Longing for a specific deceased person is usually not central in depression, anxiety, and PTSD. Therefore, reported symptoms, such as yearning and emotional pain in the present study is most likely consistent with grief-specific emotional processes. However, these

response to loss does not specifically pathological. According to Lundorff et al. (2017), similar experiences are commonly reported during normative bereavement, especially during periods of ongoing adjustment to loss.

Limitations

The findings of this study should be interpreted with several limitations in mind. The sample was relatively small. And number of participants, as well as composition of the sample can not fully reflect the broader population of bereaved individuals in Kazakhstan. Since the study was conducted through self-report questionnaire, it may be influenced by recall bias, response styles, or differences in emotional disclosure. The design of research was cross-sectional. Therefore, in order to analyze the changes in grief symptoms over time and causal relationships longitudinal qualitative analysis, mixed methods designs should be done. Next, information about participants' relationship to the deceased was also not collected. Since grief reactions may vary depending on the relationship between bereaved and deceased people, it may affect the interpretation of risks of the PGD. As it was discussed in the discussion part, female were more predominant in this study. In future research, recruitment strategy should target more balanced gender representation, to make more generalizable conclusions. Another point is that the self-reported questionnaire used in this study have not yet been formally validated in Kazakhstani populations. Responses may be affected by cultural differences in emotional expression, therefore in order to apply questionnaire for general population and get correct results, validation of questionnaire should be done. Finally, larger and more diverse samples, longitudinal approaches, and locally validated assessment tools would be beneficial for future research to clarify how prolonged grief symptoms develop and vary across contexts.

Conclusions

This study is one of the first studies on grief disorder in Kazakhstani population, that was not previously studied. As a result, it was found that the sample experiences moderate level of grief symptoms. Only small proportion, 13.6%, of participants met criteria for probable grief disorder. The findings highlight the importance of cultural factors in interpreting the symptoms, because cultural norms may influence how individuals experience grief. Therefore, it is important to assess patients with pathological grief disease within cultural context and validate the standardized grief measures in Kazakhstani population. Further research using longitudinal approach with more diverse and larger population is necessary to analyse the risks and protective factors associated with PGD in Kazakhstan.

Reference list

- Abdullayev, A., Alimzhanova, G., Deme, A., Sarkytbayev, M., Karibayeva, A., & Zhakupova, R. (2025). Mortality trends in Kazakhstan: Insights from a million deaths from 2014 to 2022. *BMC Public Health*, 25(1), 2312. <https://doi.org/10.1186/s12889-025-23346-3>
- Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist*, 58(1), 5–14. <https://doi.org/10.1037/0003-066X.58.1.5>
- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). <https://doi.org/10.1176/appi.books.9780890425787>
- Boelen, P. A., & Lenferink, L. I. M. (2022). Prolonged grief disorder in DSM-5-TR: Early predictors and longitudinal measurement invariance. *Australian & New Zealand Journal of Psychiatry*, 56(6), 667–674. <https://doi.org/10.1177/00048674211025728>
- Buur, C., Zachariae, R., Komischke-Konnerup, K. B., Mareello, M. M., Schierff, L. H., & O'Connor, M. (2024). Risk factors for prolonged grief symptoms: A systematic review and meta-analysis. *Clinical Psychology Review*, 107, 102375. <https://doi.org/10.1016/j.cpr.2023.102375>
- Comtesse, H., Smid, G. E., Rummel, A. M., Spreeuwenberg, P., Lundorff, M., & Dückers, M. L. A. (2024). Cross-national analysis of the prevalence of prolonged grief disorder. *Journal of Affective Disorders*, 350, 359–365. <https://doi.org/10.1016/j.jad.2024.01.094>
- Dönmez, Ç. F., Toygar, I., & Mum, S. (2025). Exploring the bereavement experiences and prevalence of prolonged grief disorder among 2023 Turkish earthquake survivors with advanced chronic disease: A mixed methods study. *BMJ Open*, 15(3), e088551. <https://doi.org/10.1136/bmjopen-2024-088551>

- Heeke, C., Kampisiou, C., Niemeyer, H., & Knaevelsrud, C. (2017). A systematic review and meta-analysis of correlates of prolonged grief disorder in adults exposed to violent loss. *European Journal of Psychotraumatology*, 8(sup6), 1583524.
<https://doi.org/10.1080/20008198.2019.1583524>
- Hilberdink, C. E., Ghainder, K., Dubanchet, A., Hinton, D., Djelantik, A. A. A. M. J., Hall, B. J., & Bui, E. (2023). Bereavement issues and prolonged grief disorder: A global perspective. *Cambridge Prisms: Global Mental Health*, 10, e32.
<https://doi.org/10.1017/gmh.2023.28>
- Komischke-Konnerup, K. B., Zachariae, R., Johannsen, M., Nielsen, L. D., & O'Connor, M. (2021). Co-occurrence of prolonged grief symptoms and symptoms of depression, anxiety, and posttraumatic stress in bereaved adults: A systematic review and meta-analysis. *Journal of Affective Disorders Reports*, 4, 100140.
<https://doi.org/10.1016/j.jadr.2021.100140>
- Lewis-Fernández, R., Aggarwal, N. K., Hinton, L., Hinton, D., & Kirmayer, L. J. (2017). Feasibility, acceptability and clinical utility of the Cultural Formulation Interview: Mixed-methods results from the DSM-5 international field trial. *The British Journal of Psychiatry*, 210(4), 290–297. <https://doi.org/10.1192/bjp.bp.116.193862>
- Nafarieh, K., Krüger, S., Deutscher, K., et al. (2025). The prevalence of prolonged grief disorder according to the International Classification of Diseases 11: A scoping review. *European Archives of Psychiatry and Clinical Neuroscience*.
<https://doi.org/10.1007/s00406-025-02046-4>
- Prigerson, H. G., Boelen, P. A., Xu, J., Smith, K. V., & Maciejewski, P. K. (2021). Validation of the new DSM-5-TR criteria for prolonged grief disorder and the PG-13-Revised (PG-13-R) scale. *World Psychiatry*, 20(1), 96–106.
<https://doi.org/10.1002/wps.20823>

- Prigerson, H. G., Horowitz, M. J., Jacobs, S. C., Parkes, C. M., Aslan, M., Goodkin, K., Raphael, B., Marwit, S. J., Wortman, C., Neimeyer, R. A., Bonanno, G. A., Block, S. D., Kissane, D., Boelen, P., Maercker, A., Litz, B. T., Johnson, J. G., First, M. B., & Maciejewski, P. K. (2009). Prolonged grief disorder: Psychometric validation of criteria proposed for DSM-V and ICD-11. *PLoS Medicine*, 6(8), e1000121.
<https://doi.org/10.1371/journal.pmed.1000121>
- Rosner, R., Comtesse, H., Vogel, A., & Doering, B. K. (2021). Prevalence of prolonged grief disorder. *Journal of Affective Disorders*, 287, 301–307.
<https://doi.org/10.1016/j.jad.2021.03.058>
- Rosenblatt, P. C. (2008). Grief across cultures: A review and research agenda. *Handbook of Bereavement Research and Practice: Advances in Theory and Intervention*, 207–222. American Psychological Association.
- Sari, E., Işık, A., Keser, E., Prigerson, H. G., & Maciejewski, P. K. (2022). Validation of the Prolonged Grief Scale (PG-13) and investigation of prevalence and risk factors of prolonged grief disorder in Turkish bereaved samples. <https://tr-scales.arabpsychology.com/wp-content/uploads/pdf/uzamis-yas-olcegi-toad.pdf>
- Schoo, C., Azhar, Y., Mughal, S., et al. (2025). Grief and prolonged grief disorder. In *StatPearls*. StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK507832/>
- Shevlin, M., Redican, E., Hyland, P., Murphy, J., Karatzias, T., McBride, O., Bennett, K., Butter, S., Hartman, T. K., Vallières, F., & Bentall, R. P. (2023). Symptoms and levels of ICD-11 prolonged grief disorder in a representative community sample of UK adults. *Social Psychiatry and Psychiatric Epidemiology*, 58, 1535–1547.
<https://doi.org/10.1007/s00127-023-02469-1>
- Shi, G., Wen, J., Xu, X., Zhou, N., Wang, J., Shi, Y., Liu, H., Wang, J., & Stelzer, E. M. (2019). Culture-related grief beliefs of Chinese Shidu parents: Development and

- psychometric properties of a new scale. *European Journal of Psychotraumatology*, 10(1), 1626075. <https://doi.org/10.1080/20008198.2019.1626075>
- Smid, G. E., Groen, S., de la Rie, S. M., Kooper, S., & Boelen, P. A. (2018). Toward cultural assessment of grief and grief-related psychopathology. *Psychiatric Services*, 69(10), 1050–1052. <https://doi.org/10.1176/appi.ps.201700422>
- Stelzer, E. M., Zhou, N., Maercker, A., O'Connor, M. F., & Killikelly, C. (2020). Prolonged grief disorder and the cultural crisis. *Frontiers in Psychology*, 10, 2982. <https://doi.org/10.3389/fpsyg.2019.02982>
- Stroebe, M., Schut, H., & Stroebe, W. (2007). Health outcomes of bereavement. *The Lancet*, 370(9603), 1960–1973. [https://doi.org/10.1016/S0140-6736\(07\)61816-9](https://doi.org/10.1016/S0140-6736(07)61816-9)
- Szuhany, K. L., Malgaroli, M., Miron, C. D., & Simon, N. M. (2021). Prolonged grief disorder: Course, diagnosis, assessment, and treatment. *Focus*, 19(2), 161–172. <https://doi.org/10.1176/appi.focus.20200052>
- Wen, F., Prigerson, H. G., Chou, W., et al. (2023). Comorbid prolonged grief, PTSD, and depression trajectories for bereaved family surrogates. *JAMA Network Open*, 6(11), e2342675. <https://doi.org/10.1001/jamanetworkopen.2023.42675>
- World Health Organization. (2019). *International classification of diseases for mortality and morbidity statistics* (11th ed.). <https://icd.who.int/>
- World Health Organization. (2021). *Kazakhstan: Mental health atlas 2020 country profile*. <https://cdn.who.int/media/docs/default-source/mental-health/mental-health-atlas-2020-country-profiles/kaz.pdf>
- Zhou, N., Smith, K. V., Stelzer, E. M., Maercker, A., Xi, J., & Killikelly, C. (2023). How the bereaved behave: A cross-cultural study of emotional display behaviours and rules. *Cognition & Emotion*, 37(5), 1023–1039. <https://doi.org/10.1080/02699931.2023.2219046>

