The psychological burden of bereavement in the general population of UK and Ireland

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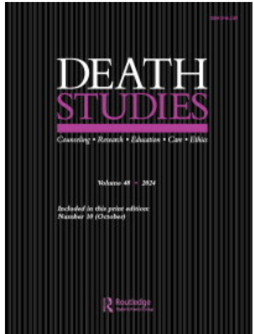

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The psychological burden of bereavement in the general population of UK and Ireland

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ABSTRACT
This study examined the experiences of loss among bereaved adults, and the association between loss-related factors and mental health outcomes. Participants were 2023 bereaved adults from the United Kingdom and Ireland who completed measures of their bereavement experiences and symptoms of depression, anxiety, and somatization. The highest proportion of participants and those at greatest risk of meeting criteria for all disorders were those with less time since loss, who were in contact with the deceased every day or not at all in the year prior to their death, experienced sudden unnatural death, and those who lost a partner/spouse or a child. Age of the deceased was negatively correlated with meeting criteria for depression, anxiety, and somatization. Overall, depression, anxiety, and somatization were common in the bereaved population. Identifying key loss-related variables—such as time since bereavement and nature of death—will help target those needing urgent psychological support.

Grief, an individual's psychological response to bereavement, can be a complex experience characterized by different emotional, cognitive, behavioral, and functional responses (Zisook & Shear, 2009). Although grieving trajectories are highly variable, most people have few or no mental health problems following a bereavement. A minority of people show acute symptoms, with most recovering and a small proportion (10-20%) remaining chronically distressed (Lenferink et al., 2020; Lundorff et al., 2020; Nielsen et al., 2019). This transition from acute grief to a more stable pattern of grieving (i.e., integrated grief) occurs gradually when the bereaved has accepted the permanency and meaning of the loss and is able to envision a future without the deceased person (Zisook & Shear, 2009). Nevertheless, for a small minority of bereaved individuals, this transition fails to occur, and they remain in a perpetual and disabling state of chronic (or complicated) grief (Prigerson et al., 2021). Such individuals are at increased risk of poor physical and mental health (Stroebe et al., 2007).

The loss of a loved one is a recognized risk factor for the onset or worsening of a range of mental health problems including depression (Zisook & Shear, 2009), anxiety (Shear & Skritskaya, 2012), and a range of distressing somatic symptoms such as headaches, chest pain, and dizziness (Joaquim et al., 2021; Konkolÿ Thege et al., 2012). A recent meta-analysis investigating the prevalence of common mental disorders in widowed people at any point in time since their loss reported a pooled prevalence rate of 46% for depression and 27% for anxiety (Kristiansen et al., 2019). A recent international study (Hennemann et al., 2023) found that 30.8% of individuals who lost loved ones at any point in time experienced 'high' or 'very high' levels of somatic symptom distress.

It is widely accepted that loss-related factors such as the time since loss, quality of relationship with the deceased, nature of the death, and relationship to the deceased influence the nature and intensity of grief reactions (e.g., Stroebe et al., 2007). For instance, time matters. The prevalence of depression in bereaved caregivers for palliative care patients decreased from 35% at 6 months post-loss to 25% at 13 months post-loss (Kim et al., 2019), and over half of widows had initially high levels of somatic symptoms that subsided after 1.5 years of losing their spouse (Utz et al., 2012). Relationship to the deceased also matters; for example, parents who lost a child experience the highest rates of complicated grief (Kersting et al., 2011). The quality

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of the relationship also has an important influence on mental health with one study finding that conflict with the deceased was associated with greater levels of depression among bereaved individuals (Sekowski & Prigerson, 2022). Further, nature of the death matters. Unexpected or unnatural deaths are linked to increased depression and anxiety (Keyes et al., 2014), as well as somatic distress (Sillis et al., 2022; Spillane et al., 2017).

An important limitation of most current research is its focus on specific groups of bereaved individuals and the absence of research exploring the potential differential associations these loss-related characteristics may have with depression, anxiety, and somatization. Furthermore, little research examines the risk of depression, anxiety, and somatization at different levels of loss-related variables (e.g., the proportion of individuals with clinically significant depression at 6 months to 1 year after loss versus those at 10 years).

This study explored the relationships between several loss-related variables (time since loss, contact with the bereaved in the year prior to death, nature of the death, death most affected by, and age of the deceased) and depression, anxiety, and somatization. We sought to determine the proportion of participants who met criteria for depression, anxiety, or somatization across all levels of the loss-related variables including time since loss, contact with the bereaved in the year prior to death, nature of the death, death most affected by, and age of the deceased. Moreover, we sought to examine the association between these loss-related variables and depression, anxiety, and somatization. Given that prior research has shown how less time since loss, greater contact with the deceased in the year prior to death, the nature of death being sudden and unexpected, losing a child or partner (rather than friend or acquaintance), and younger age of the deceased are associated with pathological grief reactions (e.g., Burke & Neimeyer, 2013; Lobb et al., 2010; Shevlin et al., 2024), we anticipated that these factors would be positively associated with depression, anxiety, or somatization.

Method

Participants

This study uses data (N = 2,023) collected from bereaved adults from across the British Isles (England, Scotland, Wales, Northern Ireland) and Ireland.

Procedure

These data were collected between 19 April and 12 September 2022 by Qualtrics, which recruited participants in each nation from existing, actively managed, double– opt-in research panels via email, short message service (e.g., text message), or in-app notifications. Qualtrics paid participants and obtained informed electronic consent. Eligibility criteria were being at least aged 18 and having experienced at least one bereavement. Ethical approval for the collection of all data was provided by the research ethics committee at Ulster University (Reference number: FCPSY-22-026-A). See Table 1 for demographic, loss-related and mental health characteristics of the sample.

Measures

The International Anxiety Questionnaire (IAQ; Shevlin et al., 2023) is an 8-item self-report measure assessing generalized anxiety disorder as it is defined in the

Table 1. Demographic, loss-related and mental health characteristics of the sample.

	%	*n*
Sex of bereaved		
Female	51.9%	1050
Male	47.6%	963
Age of bereaved		
18–24	9.3%	189
25–34	20.0%	404
35–44	20.3%	411
45–54	18.8%	380
55+	31.6%	639
Time since bereavement		
Within the last 6 months	5.2%	106
6 months to a year ago	5.0%	101
1–2 years	12.2%	247
2–3 years	11.1%	224
3–5 years	14.9%	302
6–10 years	18.1%	366
More than 10 years	33.5%	677
Nature of death		
Anticipated natural death	48.8%	988
Unexpected natural death	34.2%	692
Sudden unnatural death	8.3%	168
Death from suicide	5.1%	104
Other	3.5%	71
Frequency of contact with deceased prior to death		
Every day	29.5%	577
Almost every day	19.0%	371
Several times a week	21.5%	420
Several times a month	17.7%	346
A few times in the year	9.7%	189
Not at all during the year	2.6%	51
Death most affected by		
Child	6.6%	134
Partner or spouse	5.9%	119
Parent	37.2%	753
Brother or sister	6.7%	135
Grandparent	24.2%	490
Uncle or aunt	6.4%	130
Close friend	7.9%	160
Other	5.0%	102
Mental health		
Depression	12.2%	246
Anxiety	17.4%	351
Somatization	37.1%	751

ICD-11. Participants indicate how often they had been bothered by each of the symptoms over the last several months on a 5-point Likert scale with responses ranging from 0 (*Never*) to 4 (*Every day*). Possible scores range from 0 to 32, with higher scores indicating greater symptom severity. To meet diagnostic requirements, respondent must score ≥ 3 on four or more symptoms with at least one, or both, core symptoms being endorsed (items 1 or 2). An additional yes/no item enquires about functional impairment associated with symptoms, and this must be answered "Yes" to qualify for diagnosis. Internal reliability in the current study was excellent (α = .95).

The International Depression Questionnaire (IDQ; Shevlin et al., 2023) is a 9-item measure assessing single-episode depression as it is defined by ICD-11. Participants indicate how often they had been bothered by each of the symptoms over the last two weeks on a 5-point Likert scale from 0 (*Never*) to 4 (*Every day*). Scoring is mostly the same as the IAQ except for diagnostic scoring where respondents must score ≥ 3 on five or more symptoms with at least one, or both, core symptoms being endorsed (items 1 or 2). The functional impairment item must also be answered 'Yes' to qualify for diagnosis. Internal reliability in the current study was excellent (α = .95).

Somatization: The Patient Health Questionnaire (PHQ-15; Kroenke et al., 2002) is a 15-item measure assessing somatic symptoms. Participants indicate how much over the past seven days that they have been bothered by each of the problems on a 3-point Likert scale ranging from 0 (*Not bothered at all*) to 2 (*Bothered a lot*). Examples of problems included are *stomach pain, headaches,* and *fainting spells.* We excluded the item pertaining to menstruation. Possible scores range from 0 to 28, with higher scores indicating greater symptom severity. A cutoff score of ≥10 indicates moderate-to-severe levels of somatization (Kocalevent et al., 2013). Internal reliability in the current study was excellent (α = .89).

Loss-related variables included time since loss (within the last six months, 6 months to a year ago, 1 – 2 years ago, 2 – 3 years ago, 3 – 5 years ago, 6 – 10 years ago, and more than 10 years ago), contact with the deceased in the year prior to their death (Every day, Almost every day, Several times a week, Several times a month, A few times in the year, Not at all during that year), nature of the death (anticipated natural deaths, unexpected natural death, sudden unnatural death, suicide, other), and relationship to the deceased (child, partner or spouse, sibling, grandparent, uncle or aunt, cousin, niece or nephew, close friend, colleague, acquaintance). Regarding relationship to the deceased, participants were allowed to indicate all that applied to them. If participants experienced more than one loss, they were asked to report death most affected by (Child, Partner or spouse, Parent, Brother or sister, Grandparent, Uncle or aunt, Close friend, Other). The final category 'Other' represents cousin, acquaintance, niece or nephew, and colleague due to low endorsement of these items individually (<5% of the sample). Additionally, age of the deceased was measured as a continuous variable.

Analytic approach

Descriptive statistics were first calculated to report characteristics of the sample on all loss-related variables and depression, anxiety, and somatization. The proportion of participants meeting criteria for depression, anxiety, and somatization was then reported across all levels of the categorical loss-related variables, and point biserial correlations between meeting criteria for depression, anxiety, and somatization and age of the deceased. To ascertain the unique associations between each loss-related factor and meeting criteria for depression, anxiety, and somatization, binary logistic regression analyses were conducted. Results are reported as odds ratios (ORs) with 95% confidence intervals (CI's).

Results

Descriptive statistics are in Table 1. Of the total sample, 12.2% (n = 246; 95% CI. 11.0%, 14.0%) met criteria for depression, 17.4% (n = 351; 95% CI. 16.0%, 19.0%) met criteria for anxiety, and 37.1% (n = 751; 95% CI. 35.0%, 39.2%) met criteria for somatization. The loved one died within the last six months (5.2%, n = 106), 6 months to 1 year ago (5.0%, n = 101), 1 to 2 years ago (12.2%, n = 247), 2 to 3 years ago (11.1%, *n* = 224), 3 to 5 years ago (14.9%, *n* = 302), 6 to 10 years ago (18.1%, n = 366), and more than 10 years ago (33.5%; n = 677). The average time since loss was 5.14 (i.e., 3-5 years ago) (SD = 1.84 (1-2 years ago or more than 10 years ago), Median = 6 – 10 years)). Contact with the deceased prior to death was every day (28.5%; n = 577), almost every day (18.3%; n = 371) several times a week (20.8%; n = 420), several times a month (17.1%; n = 346), a few times in the year (9.3%; n = 189), and not at all during the year (2.5%; n = 51). Average contact with the deceased prior to death was 2.67 (i.e., several times a week) (SD = 1.44 (i.e., almost every day or several times a month)).

The nature of the death was natural, whether anticipated (48.8%; n = 988) or unexpected (34.2%; n = 692), but a small proportion was sudden unnatural (8.3%;

n = 168), suicide (5.1%; n = 104), or of a different nature (3.5%; n = 71). Relationship to the deceased was grandparent (88.7%; n = 1794), uncle or aunt (73.2%; n = 1481), parent (56.7%; n = 1147), acquaintance (65.5%; n = 1325), colleague (50.3%; n = 1018), cousin (34.5%; n = 879), brother or sister (21.4%; n = 433), child (13.1%; n = 266), niece or nephew (13.7%; n = 278), and partner or spouse (11.5%; n = 232). Proportion of the sample reporting more than one loss was 39.93% (n = 795), ranging from 0.6% (n = 13) for death of a partner or spouse to 29.0% (n = 586) for death of a grandparent. Death most affected by was death of a parent (37.2%; n = 753), grandparent (24.2%; n = 490), close personal friend (7.9%; n = 160), brother or sister (6.7%; n = 135), child (6.6%; n = 134), uncle or aunt (6.4%; n = 130), partner or spouse (5.9%; n = 119), and other (5.0%; n = 102). The average age of the deceased was 59.53 (Median = 66.00, SD = 26.19; Range = 1-101). As demonstrated in Supplementary Table 1, there were significant correlations ($p < .001$) between the continuous loss-related variables and total depression (age of the deceased: $r = -.11$; time since loss: $r = -.15$; frequency of contact: $r = -.12$), anxiety (age of the deceased: $r = -.20$; time since loss: $r = -.14$; frequency of contact: $r = -.09$), and somatization scores (age of the deceased: $r = -.07$; time since loss: $r = -.16$; frequency of contact: $r = -.09$).

The proportion of participants who met criteria for depression, anxiety, or somatization across all levels of the loss-related variables are shown in Table 2 and Supplemental Figures 1A–D. Regarding time since loss, the highest proportion of participants met criteria for depression, anxiety, or somatization for losses that occurred 6 months to a year ago and the lowest proportion for losses that occurred more than 10 years ago (see Table 2 for post-hoc comparisons).

Regarding contact with deceased in the year prior to death (also Supplementary Figure 1B), the highest proportion of participants met criteria for depression and anxiety if they reported being in contact with the deceased every day and the lowest proportion if they reported being in contact with the deceased several times a month. The highest proportion of participants met criteria for somatization if they reported no contact at all with the deceased in the year preceding their death and lowest for those in contact several times a month.

Regarding nature of the death (Supplementary Figure 1C), the highest proportion of participants met criteria for depression, anxiety, or somatization for a sudden, unnatural death and the lowest proportion met criteria for depression and somatization for an unexpected natural death and for anxiety for deaths of a different nature (see Table 2 for post-hoc comparisons). Finally, regarding death most affected by (see Table 2 and Supplementary Figure 1D), the highest proportion of participants meeting criteria for depression and anxiety were those most affected by the death of a partner or spouse and the highest proportion of participants meeting criteria for somatization were affected by the death of a child. The lowest proportion of participants meeting criteria for depression were those most affected by the death of a close personal friend, and for anxiety and somatization was those most affected by death of a brother or sister. Finally, there was a negative correlation between age of the deceased and meeting criteria for depression, r (2021) = −.085, $p < .001$, anxiety r (2021) = −.100, $p < .001$, and somatization r (2021) = −.140, $p < .001$.

Table 2 provides the unadjusted associations between the loss-related variables and meeting criteria depression. Significant positive predictors included time since loss being less than 6 months ago, 6 months to a year ago, 1-2 years ago, and 3-5 years ago (as compared to losses occurring more than 10 years ago), being in contact with the deceased every day, almost every day, and a few times during the year prior to their death (as compared to several times a month), a sudden unnatural death (as compared to anticipated natural death), and being most affected by the death of a child, partner or spouse, or a grandparent (compared to a parent). A significant negative predictor was age of the deceased.

Table 2 also provides the unadjusted associations between the loss-related variables and meeting criteria for anxiety. Significant positive predictors of meeting criteria for anxiety included time since loss being 6 months to a year ago, 1-2 years ago, and 2-3 years ago (compared to more than 10 years ago), being in contact with the deceased every day, almost every day, a few times in the year, and not at all during the year prior to their death (as compared to several times a month), a sudden unnatural death (as compared to anticipated natural death), and being most affected by the death of a child, partner or spouse, grandparent and uncle or aunt (compared to a parent). Moreover, a significant negative predictor was being in contact with the deceased several times a month in the year preceding their death (as compared to not at all) and age of the deceased.

Finally, Table 2 provides the unadjusted associations between the loss-related variables and meeting criteria for somatization. Significant positive predictors included time since loss, being in contact with the

Table 2. Loss-related predictors of meeting criteria for depression, anxiety, and somatization.

	% Depression	OR	CI	% Anxiety	OR	CI	% Somatic	OR	CI
Age of deceased	-	**0.99**	(0.99, 0.99)	-	**0.99**	(0.99, 0.99)	–	**0.99**	(0.99, 0.99)
Time since bereavement									
Within the last 6 months	16.0%	**2.08**	(1.16, 3.73)	12.3%	0.97	(0.52, 1.82)	44.3%	**2.12**	(1.39, 3.22)
6 months to a year ago	24.8%[1a]	**3.58**	(2.11, 6.06)	34.7%[2a]	**3.69**	(2.31, 5.90)	57.4%[3a]	**3.69**	(2.34, 5.51)
1–2 years	15.8%	**2.04**	(1.32, 3.16)	23.9%	**2.19**	(1.51, 3.17)	47.0%	**2.36**	(1.74, 3.18)
2–3 years	12.5%	1.55	(0.96, 2.51)	22.3%	**2.00**	(1.36, 2.95)	46.9%	**2.35**	(1.72, 3.21)
3–5 years	13.6%	**1.71**	(1.12, 2.62)	15.9%	1.32	(0.90, 1.93)	38.1%	**1.64**	(1.23, 2.18)
6–10 years	10.7%	1.30	(0.85, 1.99)	16.7%	1.39	(0.98, 1.99)	34.2%	**1.38**	(1.05, 1.82)
More than 10 years	8.4%	*	*	12.6%	*	*	27.3%	*	
Nature of death									
Anticipated natural death	11.5%	*	*	16.7%[2b]	*	*	35.5%[3b]	*	*
Unexpected natural death	11.1%	0.96	(0.71, 1.31)	16.9%	1.02	(0.78, 1.32)	35.8%	1.01	(0.83, 1.24)
Sudden unnatural death	19.0%[1b]	**1.80**	(1.17, 2.78)	23.8%	**1.56**	(1.05, 2.31)	46.4%	**1.57**	(1.13, 2.19)
Death from suicide	11.5%	2.00	(0.53, 1.88)	17.3%	1.04	(0.61, 1.78)	41.3%	1.28	(0.85, 1.93)
Other	15.5%	1.41	(0.72, 2.75)	15.5%	0.91	(0.47, 1.78)	43.7%	1.41	(0.86, 2.29)
Frequency of contact									
Every day	17.0%[1c]	**2.87**	(1.79, 4.62)	22.7%[2c]	**2.45**	(1.66, 3.63)	40.6%[3c]	**1.73**	(1.30, 2.30)
Almost every day	12.4%	**1.99**	(1.18, 3.36)	17.3%	**1.74**	(1.13, 2.69)	41.5%	**1.80**	(1.32, 2.45)
Several times a week	8.1%	1.24	(0.71, 2.14)	12.4%	1.18	(0.75, 1.85)	36.0%	**1.42**	(1.05, 1.93)
Several times a month	6.6%	*	*	10.7%	*	*	28.3%	*	*
A few times in the year	11.6%	**1.85**	(1.00, 3.42)	19.0%	**1.97**	(1.19, 3.23)	29.6%	1.07	(0.72, 1.57)
Not at all during the year	13.7%	2.23	(0.91, 5.51)	21.6%	2.30	(1.09, 4.86)	49.0%	**2.43**	(1.34, 4.42)
Death most affected by									
Child	21.6%[1d]	**2.78**	(1.72, 4.50)	23.9%[2d]	**2.05**	(1.31, 3.21)	45.5%[3d]	**1.75**	(1.21, 2.55)
Partner or spouse	21.8%[1e]	**2.82**	(1.71, 4.65)	24.4%	**2.10**	(1.32, 3.36)	41.2%	1.47	(0.99, 2.18)
Parent	9.0%	*	*	13.3%	*	*	32.3%	*	*
Brother or sister	8.9%	0.98	(0.52, 1.87)	12.6%	0.94	(0.54, 1.63)	31.9%	0.98	(0.66, 1.45)
Grandparent	14.7%	**1.74**	(1.22, 2.47)	19.6%	**1.59**	(1.17, 2.16)	42.4%	**1.55**	(1.22, 1.96)
Uncle or aunt	13.1%	1.52	(0.86, 2.67)	23.1%	**1.96**	(1.24, 3.10)	38.5%	1.31	(0.89, 1.93)
Close friend	8.1%	0.89	(0.48, 1.66)	18.1%	1.45	(0.92, 2.28)	35.6%	1.16	(0.81, 1.66)
Other	8.8%	0.98	(0.47, 2.02)	17.6%	1.40	(0.81, 2.43)	39.2%	1.35	(0.88, 2.07)

Note:.
Depression: 1[a]significantly higher for those bereaved 6 months to a year ago compared to 2–3 years ago, 6–10 years ago, and >10 years ago; 1[b]significantly higher for sudden unnatural death compared to anticipated natural death and unexpected natural death; 1[c]significantly higher for those in contact with the deceased everyday compared to several times a week or several times a month; 1[d]significantly higher for those most affected by death of a child than the death of a parent, sibling or close friend; [1e]significantly higher for death of a partner or spouse than death of a parent, sibling, or close friend.
Anxiety: [2a]significantly higher for those bereaved 6 months-1 year compared to those bereaved within last six months, 3–5 years ago, 6–10 years ago, and more than 10 years ago; [2b]no significant differences; [2c]significantly higher for those in contact with the deceased every day compared to those in contact several times a week or several times a month; [2d]no significant differences.
Somatization: [3a]significantly higher for those bereaved 6 months -1 year ago than those bereaved 3-5 years ago, 6-10 years ago, and more than 10 years ago; [3b]no significant differences; [3c]significantly higher for those in contact with deceased every day compared to several times a month; [3d]no significant difference.

deceased every day, almost every day, several times a week, and not at all during the year prior to their death (as compared to several times a month), sudden unnatural death (as compared to anticipated natural death) and being most affected by the death of a child or grandparent (as compared to a parent). A significant negative predictor was age of the deceased. All regression analyses were repeated using total depression, anxiety, and somatization scores (see Supplementary Materials Table 2). All findings were the same however, some additional significant associations were observed when using total scores as opposed to looking at the proportion meeting criteria.

Discussion

Findings showed that the highest proportion of participants and those who were at greatest risk of meeting criteria for depression, anxiety, and somatization were those with less time since loss, who were in

contact with the deceased every day in the year prior to death, those who experienced a sudden unnatural death, those most affected by the loss of a partner/spouse or a child, and those with younger age of the deceased. Moreover, regression analyses showed that loss-related factors common to all three disorders included time since loss being six months to a year ago and 1-2 years ago, being in daily contact with the deceased prior to their death, unexpected unnatural death, being most affected by death of a child or grandparent, and younger age of deceased. Shared predictors for both depression and anxiety included contact with the deceased a few times in the year and being most affected by the death of a partner or spouse. For both depression and somatization, a shared predictor was time since loss being 3 to 5 years ago, and for anxiety and somatization, a shared predictor was time since loss being 2 to 3 years ago. Finally, a unique predictor of anxiety included the death of an uncle or aunt and unique predictors of somatization included time since loss being 6 to 10 years ago and being in contact with the deceased several times a week in the year prior to their death.

The present study's findings presented a clear picture of grief experiences in the UK and Ireland. Findings indicate wide variation among bereaved persons in terms of the amount of time since loss, contact with the deceased in the year prior to their death, nature of the death, death most affected by, and age of the deceased. These findings support the idea that the manifestation of grief is influenced by a plethora of factors (Shear, 2012). Findings demonstrated that the prevalence of depression and anxiety was 12.2% and 17.4%, respectively. These prevalence rates are significantly lower than those from a recent meta-analysis on widowed individuals, where depression and anxiety prevalence rates were 46% and 27%, respectively (Kristiansen et al., 2019), as well as a study on bereaved family carers of patients with advanced cancer, where depression and anxiety prevalence rates were 35% and 27%, respectively (Oechsle et al., 2020). The lower rates in the present study are likely explained by the inclusion of bereaved adults with diverse sociodemographic and loss-related characteristics. Additionally, the present investigation employed newly developed depression and anxiety measures (i.e., IDQ & IAQ), which are in line with current descriptions and diagnostic criteria for depression and anxiety (Shevlin et al., 2023). Compared to other widely used measures that do not fully align with current diagnostic criteria, the measures we use produce much more conservative prevalence rates (Shevlin et al., 2023).

Results also showed that 37.1% of the sample demonstrated clinically significant somatization symptoms, which is somewhat higher (i.e., 6.3% higher) than the rate reported in a recent international study (Henneman et al., 2023). It is possible that the use of a different measure of somatization in the present study may explain the higher rates, as well as the different loss-related characteristics of our sample as compared to prior research. Taken together, these findings demonstrate how common depression, anxiety, and especially somatization are among those who have experienced loss.

The present finding that those with the greatest risk of meeting criteria for depression, anxiety, and somatization were those whose time since loss was 6 months to a year ago are consistent with existing research indicating psychological and physiological symptoms to be most pervasive in the earlier stages of grief (e.g., Kim et al., 2019; Kristiansen et al., 2019b; Peinado et al., 2024; Shevlin et al., 2023; Utz et al., 2012). The likelihood of meeting criteria reduced over time for all disorders, in line with trajectory studies that have demonstrated that almost half of bereaved individuals have either a high/decreasing grieving trajectory or a moderate/decreasing grief trajectory (Nielsen et al., 2019). Present results show that the risk of experiencing somatization, though it lessens over time, can still be present up to 10 years after a loss. This finding contrasts with prior research indicating that somatic symptoms are more common in the early stages of bereavement but tend to resolve over a year (Hensley & Clayton, 2008). Overall, the saliency of somatization in our sample underscores the importance of recognizing somatization as an important complication of grief and the need to provide adequate support to those affected by these symptoms. This is particularly relevant given that research has shown somatization to be linked to disability, even after accounting for anxiety or depressive disorder (van der Leeuw et al., 2015).

Expanding upon prior research demonstrating a strong association between closeness to the deceased and adverse grief reactions (Smigelsky et al., 2020), findings from the current study show that being in contact with the deceased every day in the year prior to their death is linked to increase risk of meeting criteria for depression, anxiety, and somatization. Moreover, consistent with prior research highlighting a strong association between sudden unnatural losses and mental health difficulties (e.g., Kristensen et al., 2012; Thieleman et al., 2023), findings from the current study further emphasize the profound impact such losses have on mental health outcomes,

particularly depression, anxiety, and somatization. In particular, these findings underscore how unexpected deaths challenge preconceived notions about the world (such as "the world is a safe place") (Djelantik et al., 2020), and deny the bereaved the chance to bid farewell to their loved one (Kristensen et al., 2012). Furthermore, this study contributes to the literature by showing that those who experience the death of a younger deceased individual or are most affected by the death of a child, experience increased risk of mental health problems including depression, anxiety, and somatization. This is reasonable since the death of a young person can be difficult to make sense of (Keesee et al., 2008) and goes against the natural order of life (Malkinson, 2007). Lastly, the increased vulnerability among bereaved partners or spouses confirms that they are a particularly high-risk group for grief-related mental health problems (Kristiansen et al., 2019). Overall, findings from the present study reinforce that specific subgroups within the bereaved population are at greater risk of grief-related mental health problems such as depression, anxiety, and somatization and thus, the identification of these subgroups will be useful in the identification of those in greatest need of psychological support or preventative treatment.

Strengths of the current study include the investigation of two large nationally representative samples of bereaved adults. However, the current study has several limitations. First, the cross-sectional design meant that it was not possible to make inferences regarding causation. Second, we did not consider preexisting depression, anxiety, and somatization. Research has shown that the loss of a loved one can trigger a worsening of preexisting symptoms (Zisook et al., 2012), and thus, it is possible that those who met criteria for depression, anxiety and somatization had preexisting depression, anxiety, and somatization. Third, it was not possible to explore the role of potential mediating factors in explaining the association between loss-related variables and depression, anxiety, and somatization. For instance, research has shown that both depression and anxiety mediate the association between bereavement and somatization (Konkolÿ Thege et al., 2012), and hence this would be an interesting avenue for exploration in future studies.

Present findings indicate that even though there was significant variation among bereaved persons in terms of the amount of time since loss, contact with the deceased in the year prior to their death, nature of the death, death most affected by, and the age of the deceased, depression, anxiety, and somatization were common in these bereaved people. Therefore, a key question raised by this study is whether addressing specific mental health conditions that a bereaved person may experience—such as depression, anxiety, or somatic disorders—with a protocol tailored for that particular condition may be more beneficial than treating grief per se.

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Data availability statement

Neither the data nor the materials have been made available on a permanent third-party archive; requests for the data or materials should be sent via email to the second author (m.shevlin@ulster.ac.uk).

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