



“I could not give him the funeral he deserved”: The role of alternative mourning rituals during the pandemic

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Abstract

Amid the COVID-19 pandemic, measures were enforced that constrained people's ability to engage in conventional funeral and mourning rituals, which in general serve as vital mechanisms for coping with the experience of loss. This study aimed to investigate how these limitations affected early grief symptoms and the influence of alternative mourning rituals (paying tribute on social media, lighting candles in memory of the deceased, and using objects of the deceased) on moderating the relationship between individuals' perception of these limitations (such as being unable to perform the present body ceremony or fulfill the funeral wishes of the deceased) and the intensity of the grief symptoms. The study involved 227 participants, aged between 18 and 77 years, who had experienced the loss of a loved one during the pandemic. Results demonstrated that higher levels of perceived limitation in funeral ceremonies are associated with greater intensity of grief responses. Paying tribute on social media and lighting candles in memory of the deceased person moderated the relationship between the perception of limitation in fulfilling the deceased's wishes in relation to the funeral ceremonies and the intensity of the grief responses. Using objects moderates the relationship between the perception of limitation in performing a present body ceremony and the intensity of the grief responses. Results underline the relevance of psychological flexibility, in particular concerning alternative morning rituals, that can be used as a way of buffering the impact of the perception of limitation in funeral ceremonies on the intensity of grief responses. This study offers a distinctive insight into bereavement during the pandemic, highlighting the role of flexibility in morning rituals in mitigating the deleterious effect of ritual restrictions on bereavement outcomes.

Keywords Perception of limitation in funeral ceremonies · Intensity of grief responses · Alternative mourning rituals and SARS-CoV-2

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To combat the SARS-CoV-2 virus's transmission, global policies implemented restrictions that limited access to traditional funeral and mourning rituals. Families were unable to have contact with the deceased's body, coffins remained closed, and attendance at ceremonies was restricted (Aguiar et al., 2020). Therefore, several bereaved individuals were unable to participate in mourning rituals as desired, contributing to increased challenges in adjusting to their loss. Supporting this, a recent systematic review and meta-analysis indicated that throughout the COVID-19 pandemic, the overall prevalence of grief symptoms and disorders among the bereaved was 45.1% and 46.4%, respectively (Kustanti et al., 2023). Moreover, a study by Harrop et al. (2020) found that amidst the pandemic there were reports of higher levels of complicated grief symptoms compared to pre-pandemic levels.

Mourning rituals have important therapeutic roles within the grief process. These include facilitating acceptance of the

reality of loss, providing avenues for emotional expression and community support, maintaining a connection with the deceased, and deriving meaning from the loss (Albuquerque et al., 2021; Mitima-Verloop et al., 2021). Recent studies have shown that the inability to engage in these rituals due to pandemic restrictions has had a profound impact on bereavement experiences (Burrell & Selman, 2020; Chen, 2022).

Pre-pandemic data suggest that dissatisfaction with funeral rituals and ceremonies is associated with a high risk for consequent depression, post-traumatic stress, and/or prolonged grief disorder (PGD; Mayland et al., 2020; Mitima-Verloop, et al., 2021). However, Burrell and Selman (2020) emphasize that the benefits of post-mortem rituals depend on the bereaved person's ability to adapt themselves to these rituals and express their goodbyes in a meaningful way, suggesting that the restrictions of these practices do not necessarily imply maladjustment to loss.

In times of adversity such as the COVID-19 pandemic, flexibility in identifying alternative meaningful ways to honor the deceased becomes pivotal in the process of grief adjustment (Cardoso et al., 2020; Mergulhão, 2020). Recent research highlights the importance of coping and psychological flexibility, defined as the capacity to adjust emotional expression according to situational demands (Cohen & Katz, 2015), in adapting to the singular challenges posed by the COVID-19 pandemic in mental health (Hemi et al., 2023; Prudenzi et al., 2022). Also, psychological flexibility has been shown to contribute to reduced suffering, enhanced emotional regulation, and greater adaptability in dealing with the loss of a loved one (Bonanno & Burton, 2013; Cohen & Katz, 2015; Kashdan & Rottenberg, 2010). On the contrary, bereaved individuals with PGD display a less expressive and flexible repertoire than bereaved individuals experiencing adjusted grief (Bonanno & Burton, 2013). The psychological and behavioral flexibility to engage in alternative mourning rituals (AMR) and ceremonies has proven to be a protective factor against the severity of grief, anxiety, and loneliness and was associated with more post-traumatic growth (Cohen & Katz, 2015; Kashdan & Rottenberg, 2010; Knowles & O'Connor, 2015).

Mourning rituals can be individual or collective (Mitima-Verloop et al., 2021). Individual rituals encompass creating something in order to express feelings (e.g., poems, drawings, paintings, books), visiting the grave of the deceased or the location of ashes, listening to music or watching a movie that evokes memories of the loved one, visiting a special place for the deceased, setting up an altar or designated spot, possibly with a photograph of the deceased, wearing something of the deceased, producing tattoos in tribute, and using objects of the deceased (Gibson, 2004; Mitima-Verloop, et al., 2021). The use of meaningful objects (e.g., photographs, clothing, jewelry, books) act as transitional objects with the deceased (Gibson, 2004; Wakenshaw,

2020). Transactional objects are symbolic material that provide security and connection to the bereaved. These practices can serve to facilitate the journey through the grieving process, allowing emotional connection and intimacy with the deceased (Goldstein et al., 2020; Wakenshaw, 2020).

Examples of collective rituals are sharing stories with other people about the person who passed away, participating in a memorial service, paying tributes in public spaces, and using flowers, photos, and candles (Mergulhão, 2020). Often related to religious and cultural manifestations of mourning, the use of candles in the context of memorial ceremonies is a compensatory mechanism of caring for the loved one, facilitating reflection, serenity, expression of solidarity, grief, and compassion (Sedakova, 2015). Additionally, the internet and social media (e.g., Facebook, Instagram) provide new means of emotional expression and tribute to the deceased, thus constituting a collectively constructed mourning ritual (Christensen & Gotved, 2015). By creating specific online pages or platforms dedicated to the deceased with photos, videos, and other content, the grieving process is made public, favoring expressions of support and emotional connection, especially when physical contact is restricted (Brubaker et al., 2013; Meyer, 2016). Recent studies have emphasized the role of technology in facilitating collective mourning rituals during the pandemic, with virtual memorial services, online tributes, and social media platforms becoming important tools for grieving individuals to connect and share their grief experiences (Alexis-Martin, 2020; Costa et al., 2022; Sapalo, 2023). These activities enable the bereaved to overcome isolation and meet other bereaved people who have gone through a similar experience, with whom they can share memories and feelings, finding support and sometimes meaning in grief (Bailey et al., 2015).

Research has demonstrated that AMR can alleviate the impact of physical contact restrictions by providing channels for grief expression, maintaining bonds with the deceased, and paying tribute to them (Cardoso et al., 2020).

However, further investigation is required to fully understand the efficacy of these memorial practices in mitigating early symptoms of PGD, especially during the COVID-19 pandemic. Hence, the aim of the present study was to explore perceived limitations in funeral ceremonies and the moderating role of specific AMR (i.e., paying tribute on social media, lighting candles in memory of the deceased, using objects of the deceased) in the relationship between the perception of limitation in the funeral ceremonies (perceived limitations in performing the present body ceremony and in fulfilling the wishes expressed by the deceased concerning to funeral ceremonies) and the intensity of the early PGD symptoms. Based on the literature, the following hypotheses were established: a) higher levels of perceived limitation in the funeral ceremonies are associated with greater intensity

of grief symptoms; b) the performance of AMR may attenuate the impact of the perceived limitation in the funeral ceremonies on the intensity of grief responses.

Method

Participants

The sample was composed of 227 participants, aged between 18 and 77 years, of which females predominated. Regarding marital status, most participants were married or cohabiting. Regarding the characteristics associated with the death, the most prevalent degree of kinship for the deceased was that of the grandfather/grandmother. Most of the deceased had an oncological disease as a cause of death, and extreme proximity to the deceased is highlighted. The characteristics of the sample and the circumstances of bereavement are shown in Table 1.

Procedure

This study is an exploratory study with a cross-sectional quantitative design. Through the online link, participants completed the informed consent form, which presented the study objectives, who could participate, what would be asked for, the anonymity and confidentiality of data, the voluntary nature of participation, and fact that participating in the study may carry the risk of evoking painful memories and emotions. No financial rewards were provided to participants for their involvement in the study. After submitting the answers to the questionnaire, they were provided with the contact details of the psychological support line SNS 24 (Health Care Line) and of the grief unit in public hospitals across the country.

The sampling method was non-probability snowball sampling, i.e., participants were asked to identify or invite other bereaved individuals, but as the study was publicized on social media, anyone who met the inclusion criteria was eligible. Sample collection for this study was initiated in October 2020 and completed in March 2022.

The sample of the present study was composed of bereaved people who lost a close person throughout the pandemic period². Those who agreed to participate and met the following inclusion criteria were included: 1) Being aged 18 years or older; 2) Loss of a person considered close during the pandemic period; 3) Death occurred during the pandemic period by COVID-19, after March 16, 2020. This study is part of a larger national project focused on the impact of bereavement on the SARS-CoV-2 pandemic. This project was approved by the Ethics Committee of the Administração Regional de Saúde Centro (n° 55/2020) and Alentejo (5/CE/2021).

Instruments

Sociodemographic and situational questionnaire

This questionnaire was designed within the scope of this research to collect information about the socio-demographic characteristics of the participants (e.g., sex of the bereaved, age, nationality, professional situation) and the characteristics/circumstances of the death (e.g., cause of death, proximity to the deceased, degree of kinship).

Perception of limitation in funeral ceremonies

Two items constructed within the scope of the study were used to assess the individual's perception of the limitations imposed by the restrictions on funeral ceremonies. One perception referred to performing a specific funeral ceremony and the other to the fulfillment of the deceased's wishes, i.e., the perception of limitation in performing the present body ceremony and the perception of limitation in fulfilling the wishes expressed by the deceased about the funeral ceremonies. The items were answered on a scale with the following response categories: none, little, some, a lot, extreme limitation, and not applicable. The 'does not apply' option of these variables was recoded to 'no limitation'.

Alternative mourning rituals

Participants were asked how satisfied they were with their use of any of the following examples of AMR: paying tribute on social media, lighting candles in memory of the deceased person, and using objects of the deceased person. The items were answered on a scale with the following response categories: none, low, moderate, high, extreme satisfaction, and not applicable. The "not applicable" option of these variables was recoded to "no satisfaction", and then two groups were created in each of these variables, i.e., 'did' or 'did not do' certain AMR.

The content of the items pertaining to the perception of limitations in funeral ceremonies and alternative mourning rituals was developed based on a review of the relevant literature on mourning rituals and on the clinical expertise of the research team. The items were carefully crafted to encompass the diversity of these rituals, and feedback was retrieved from bereaved individuals regarding the clarity and relevance of the items.

Prolonged grief disorder assessment instrument—reduced version (PG-4; Djelantik et al., 2017)

To assess the intensity of the grief responses in the grief process, we selected the Reduced version of the Prolonged Grief Disorder Assessment Instrument (PG-4). This instrument focuses on

Table 1 Sociodemographic characterization of the sample

		<i>n</i> (%)
Age <i>M</i> (DP)		39.50 (13.15)
Gender	Female	194 (85.5%)
	Male	33 (14.5%)
Nationality	Portuguese	225 (99.1%)
	Other	2 (0.9%)
Marital Status	Single	83 (36.6%)
	Married/Living together	112 (49.3%)
	Widower	15 (6.6%)
	Divorced	17 (7.5%)
Course	Primary education	16 (7.0%)
	Secondary Education/Technical	59 (26.0%)
	Bachelor's Degree	4 (1.8%)
	Degree	92 (40.5%)
	Master's Degree	52 (22.9%)
	PhD	4 (1.8%)
Professional Status	Active	168 (74%)
	Unemployed	11 (4.8%)
	Retired	10 (4.4%)
	Student	33 (14.6%)
	Inactive	5 (2.2%)
Cause of death deceased	Oncological disease	83 (36.6%)
	Neurodegenerative disease	14 (6.2%)
	Organ failure	52 (22.9%)
	Sudden illness	40 (17.6%)
	Accident	6 (2.6%)
	Homicide	1 (0.4%)
	Suicide	2 (0.9%)
Proximity to the deceased	Other	29 (12.8%)
	Little	21 (9.3%)
	Moderately	16 (7.0%)
	Extremely	190 (83.7%)
Degree of kinship	Spouse/partner	14 (6.2%)
	Father/mother	66 (29.1%)
	Son/daughter	2 (0.9%)
	Brother/sister	8 (3.5%)
	Grandfather/grandmother	71 (31.3%)
	Uncle/auntie	31 (13.7%)
	Father-in-law/mother-in-law	11 (4.8%)
	Friend	13 (5.7%)
	Other	11 (4.8%)
Gender of deceased	Female	110 (48.5%)
	Male	117 (51.5%)
Age of the deceased <i>M</i> (DP)		74.63 (16.43)
Alternative forms of tribute		
Paying tribute in social media	Did	82 (36.1%)
	Did not	145 (63.9%)
Lighting candles in memory of the deceased	Did	125 (55.1%)
	Did not	102 (44.9%)
Using objects of the deceased	Did	133 (58.6%)
	Did not	94 (41.4%)

the bereaved person's subjective perception of the frequency of symptoms associated with the mourning process (i.e., intense manifestations of longing and absence, persistent bitterness and resentment towards the loss and life in general, perception of life as empty or meaningless, numbness, or shock). Djelantik et al. (2017) statistically analysed the 13 items of the PG-13 (created by Prigerson et al., 2009) and highlighted 4 items that statistically identify risk indicators of prolonged grief (e.g., "I miss and miss the person I lost", "My life is empty or meaningless without the person I lost") answered on a scale of 1 (never) to 5 (always). The reduced version of this instrument (i.e., PG-4) was used due to the time post-mortem may include less than 6 months. The overall score (i.e., the sum of the items) was used. In the present sample, Cronbach's alpha was 0.86.

Statistical analysis

Firstly it was assessed the presence of missing values, followed by a descriptive analysis of the sample characteristics and of the responses using measures of central tendency (mean), dispersion (standard deviation) and distribution (skewness and kurtosis).

The analyses were conducted in SPSS. First, correlations were performed to the main variables of the study to explore the relationship between the variables (Table 2). The magnitude of the correlations was analyzed using Pearson's coefficient, using Cohen (1988) criteria: weak ($r < 0.30$), moderate (r between 0.30 and 0.49) and strong ($r > 0.50$). Second, to examine the moderating effect of the achievement of AMR (Fig. 2) six moderation models were tested using the macro for SPSS—PROCESS (Hayes, 2018). Perceptions of limiting restrictions (perceived limitation in performing present body ceremony; perceived limitation in fulfilling the wishes expressed by the deceased person regarding funeral ceremonies) were entered as independent variables, and the intensity of grief responses as dependent variable. The moderator variables corresponded to the AMR (paying tribute on social media, lighting candles in memory of the deceased person and using objects of the deceased person). Thus, for each independent variable, 3 moderations were tested. The effects were analyzed using the bootstrapping procedure. Confidence intervals (CI) are considered significant if they do not include zero. A significance level of 0.05 was considered.

Results

Table 2 shows the results of the correlations with the main variables of the study. The results indicated a positive and significantly strong correlation (Cohen, 1988) between the perceived limitation in performing the present body ceremony and the perceived limitation in implementing the wishes expressed by the deceased person in relation to the funeral ceremonies. The perception of limitations in performing the funeral ceremony was positively and significantly weakly correlated with the intensity of grief responses. The perception of limitation in implementing the wishes expressed by the deceased person regarding the funeral ceremonies proved to be positively and significantly weakly correlated with the intensity of grief responses.

As regards the moderation analyses, three moderation models were tested for the variable perceived limitation in performing the ceremony (Table 3). Model 1 considered as moderator whether or not to paying a tribute in social media in the association between the perception of limitation in performing the present body ceremony (VI) and the intensity of grief responses. Results suggested that the model proved to be non-significant, explaining 4.27% of the variance of the bereavement response intensity results ($F(3, 223) = 3.32, p = 0.02, R^2 = 0.04$). There was no significant interaction effect, pointing to the lack of a moderating role of the variable performing tribute in social media in the relationship between VI and intensity of grief responses (VD). However, VI was found to have a statistically significant effect on the SD.

Model 2 considered as moderator whether or not candles were lit in memory of the deceased person, in the association between the perceived limitation in performing a present body ceremony (VI) and the intensity of grief responses. The results suggested that the model proved to be non-significant, explaining 3.3% of the variance in the results of the intensity of grief responses ($F(3, 223) = 2.54, p = .06, R^2 = 0.03$). There was no significant interaction effect, pointing to the lack of a moderating role of the variable lighting candles in memory of the deceased person in the relationship between VI and the intensity of grief responses.

Table 2 Pearson's correlations between the variables under study

Variables	1	2	3	M	DP
1. Perception of limitation of holding a memorial service	—	.51***	.15*	3.48	1.58
2. Perception of limitation to carrying out the wishes expressed by the deceased in relation to the funeral ceremonies	—	—	.24***	2.78	1.73
3. Intensity of grief responses	—	—	—	12.93	4.07

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 3 Moderation analyses of alternative forms of commemoration in the relationship between perceived limitation of performing a memorial service and intensity of grief responses

		<i>B</i>	<i>t</i>	<i>p</i>	IC [LL; UL]
Model 1	Constant	10.81	14.13	.00	[9.30;12.32]
	Perception of limitation of holding a memorial service (VI)	.52	2.52	.01	[.11; .93]
	Perform tribute on social media (Vmod)	2.69	1.79	.06	[-.13; 5.51]
	VIxVmod Interaction	-.50	-1.36	.18	[-1.21; .22]
Model 2	Constant	11.28	11.86	.00	[9.41; 13.16]
	Perception of limitation of holding a memorial service (VI)	.35	1.35	.18	[-.16; .85]
	Lighting Candles in memory of the deceased (Vmod)	.57	.44	.66	[-2.00; 3.14]
	VIxVmod Interaction	.06	.18	.86	[-.61; .74]
Model 3	Constant	9.12	9.53	.00	[7.24; 11.01]
	Perception of limitation of holding a memorial service (VI)	.81	3.18	.00	[.31; 1.31]
	Using objects of the deceased (Vmod)	4.31	3.39	.00	[1.80; 6.81]
	VIxVmod Interaction	-.74	-2.22	.03	[-1.40; -.08]

Model 3 considered as moderator the use or non-use of objects of the deceased person in the association between the perceived limitation in performing the present body ceremony (VI) and the intensity of grief responses. The results suggested that the model proved to be significant and explained 8.83% of the variance of the results ($F(3,223) = 7.20$, $p = 0.00$, $R^2 = .09$). The existence of a negative and significant interaction was observed between VI and using objects of the deceased person (Moderator variable). The existence of the moderating effect of using objects of the deceased person, suggests that the effect of VI on the intensity of grief responses is significantly different depending on whether or not the bereaved used objects of the deceased person. More specifically, for those who used the deceased's objects, the relation between the perceived limitation in performing the bodily ceremony was not significantly related with the intensity of the bereavement responses. On the other hand, for those who did not use this alternative form, higher levels of perceived limitation were associated with greater intensity of grief responses (Fig. 1).

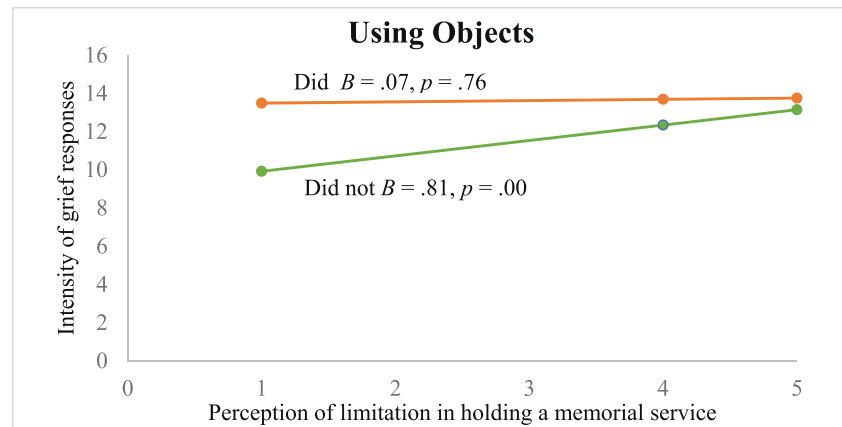
Model 4 considered as moderator whether or not paying a tribute in social media, in the association between the perception of limitation in fulfilling the wishes expressed by their deceased in relation to funeral ceremonies (VI) and the intensity of grief responses. The results suggested that the model proved to be significant and explains 9.61% of the variance of the results ($F(3,223) = 7.90$, $p = 0.00$, $R^2 = 0.10$). From the analysis of Table 4, it was observed the existence of a negative and significant interaction between (VI) and performing tribute on social media (moderator variable). The existence of the moderating effect of paying tribute in social media suggests that the effect of VI on the intensity of grief responses was significantly different depending on whether or not the bereaved performed tribute in social media, this relationship being graphically

presented through Fig. 2. More specifically, for those who performed the alternative form of tribute on social media, the relationship between the perceived limitation in fulfilling the wishes expressed by their deceased regarding funeral ceremonies was not significantly related with the intensity of grief responses. In turn, for those who did not perform the funeral ceremonies, higher levels of perceived limitation were associated with more intensity in the grief response (Fig. 2).

Model 5 considered as moderator whether or not lighting candles in memory of the deceased person in the association between the perceived limitation in fulfilling the wishes expressed by the deceased in relation to funeral ceremonies (VI) and the intensity of grief responses. The results suggested that the model proved to be significant and explained 8.82% of the variance of the results ($F(3,223) = 7.19$, $p = 0.00$, $R^2 = 0.09$). From the analysis of Table 4, the existence of a negative and significant interaction between VI and lighting candles in memory of the deceased person (moderator variable) was observed. The existence of the moderating effect of lighting candles in memory of the deceased person suggests that the effect of VI on the intensity of grief responses was significantly different depending on whether or not the bereaved lit candles in memory of the deceased person, and this relationship is presented graphically through Fig. 3. The results show that for those who lit candles in memory of the deceased, the relationship between the perceived limitation in fulfilling the wishes expressed by the deceased in relation to the funeral ceremonies was not significantly related to the intensity of grief responses. On the other hand, for those who did not perform the funeral ceremonies, higher levels of perceived limitation were associated with more intensity of grief responses (Fig. 3).

Model 6 considered as moderator the use or non-use of the deceased person's objects in the association between the perceived limitation in implementing the wishes expressed by the deceased in relation to funeral ceremonies (VI) and

Fig. 1 Effect of using objects of the deceased person on the relationship between perceived limitation in performing the bodily presence ceremony and intensity of grief responses



the intensity of grief responses. The results suggested that the model proved to be significant, explaining 10.48% of the variance in the results of the intensity of grief responses ($F(3, 223) = 8.71, p = 0.00, R^2 = 0.10$). However, there was no significant interaction effect, pointing to the lack of a moderating role of the variable using objects of the deceased person in the relationship between VI and the intensity of grief responses.

Discussion

In this study, we aimed to study the impact of perceived limitations in funeral ceremonies during the pandemic and the moderating effect of AMR. Concerning the first objective, results confirm the hypothesis that higher levels of perceived limitations in funeral ceremonies were associated with a higher intensity of early PGD symptoms.

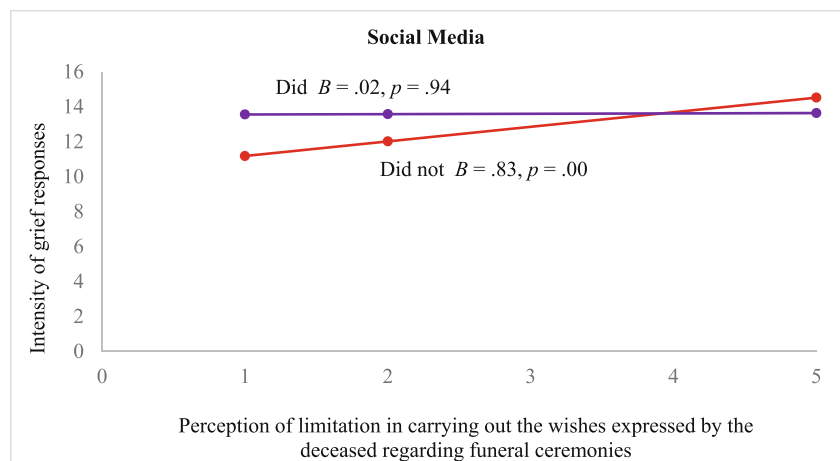
This aligns with existing research that underscores the pivotal role of funeral ceremonies as cultural and psychological anchors, as organizers of the farewell process and important for grief elaboration (Albuquerque et al., 2021; Mitima-Verloop et al., 2021). Also, this finding highlights the need for a more comprehensive understanding of how cultural and social factors affect the grieving process.

Moreover, our findings shed light on the connection between the inability to conduct present body ceremonies and the perception of limitations in fulfilling the deceased's wishes concerning funeral ceremonies. Present body ceremonies are often deeply emotionally charged events where mourners have the opportunity to physically see and be near the deceased's body. These ceremonies may provide a tangible connection between the living and the deceased, and when such ceremonies are not possible, individuals may feel that they are falling short of providing the level of respect and honor that they believe the

Table 4 Moderation analyses of alternative forms of tribute in the relationship between perceived limitation to fulfilling the wishes expressed by the deceased person regarding funeral ceremonies and intensity of grief responses

		<i>B</i>	<i>t</i>	<i>p</i>	IC [LL; UL]
Model 4	Constant	10.35	17.54	.00	[9.18; 11.51]
	Perception of limitation in carrying out the wishes expressed by their deceased in relation to funeral ceremonies (VI)	.83	4.46	.00	[.47; 1.20]
	Perform tribute on Social media (Vmod)	3.19	3.02	.00	[1.11; 5.27]
	VIxVmod Interaction	-.81	-2.59	.01	[-1.43; -.19]
Model 5	Constant	10.09	14.79	.00	[8.74; 11.43]
	Perception of limitation in carrying out the wishes expressed by their deceased in relation to funeral ceremonies (VI)	1.01	4.21	.00	[.54; 1.48]
	Lighting Candles in memory of the deceased (Vmod)	2.55	2.57	.01	[.60; 4.51]
	VIxVmod Interaction	-.79	-2.54	.01	[-1.41; -.18]
Model 6	Constant	9.88	13.53	.00	[8.44; 11.32]
	Perception of limitation in carrying out the wishes expressed by their deceased in relation to funeral ceremonies (VI)	.77	3.29	.00	[.31; 1.23]
	Using objects of the deceased (Vmod)	2.70	2.76	.01	[.77; 4.63]
	VIxVmod Interaction	-.39	-1.29	.20	[-.99; .21]

Fig. 2 Effect of the tribute in the social media on the relationship between the perception of limitation in fulfilling the wishes expressed by the deceased concerning the funeral ceremonies and the intensity of grief responses

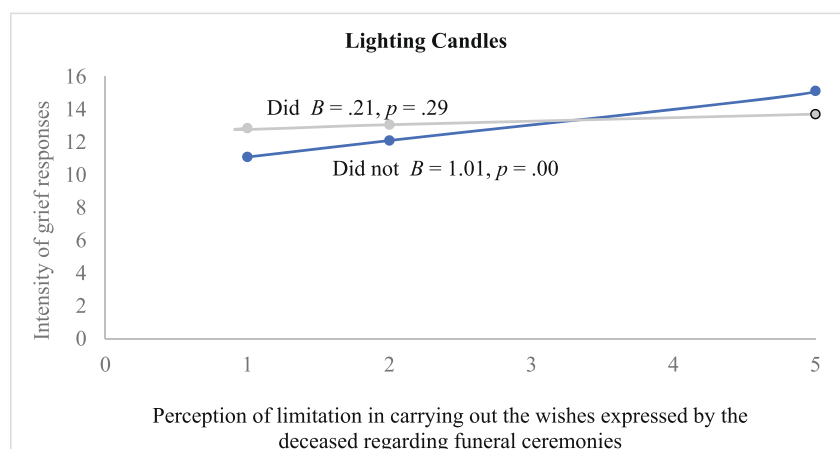


deceased desired. Also, many cultural and religious traditions emphasize the importance of specific funeral rituals (e.g., Arslan & Buldukoğlu, 2023; Burrell & Selman, 2020), including present body ceremonies, as a way to show respect for the deceased. When these rituals cannot be carried out, individuals may fear that they are failing to adhere to these cultural or religious expectations, thereby not fulfilling the deceased's wishes. The restriction of such rituals can prompt heightened distress, emphasizing the need to consider these emotional nuances in bereavement support.

Regarding the second objective, data from the present study supported the hypothesis that the performance of Alternative Mourning Rituals (AMR) lessened the strength of the relationship between perceived limitations in funeral ceremonies and the intensity of early Prolonged Grief Disorder (PGD) symptoms. This finding can be explained by the therapeutic and coping mechanisms that such alternative rituals offer. These rituals allow mourners to express their feelings, share memories, and find validation, understanding, and companionship in a supportive environment

with friends and family, fostering a sense of community and shared experience and reducing isolation (Burrell & Selman, 2020; Cardoso et al., 2020; Gabriel et al., 2021). Also, AMR may entail personalized rituals that reflect the unique relationship the bereaved had with the deceased. This may foster the creation of new meanings and narratives surrounding the loss and reduce the sense of unfulfilled expectations derived from the restrictions in funeral ceremonies (Mergulhão, 2020; Meyer, 2016). Engaging in AMR demonstrates adaptability and resilience (Worden, 2018), as it implies the ability to navigate challenging circumstances and find creative solutions to honor the deceased (Cardoso et al., 2020). In consonance with contemporary research (Cardoso et al., 2020; Mergulhão, 2020; Meyer, 2016; Worden, 2018), our study underscores the remarkable capacity of individuals to adapt and find alternative, meaningful ways to accomplish their needs of tributing the deceased and sharing their grief during the restrictions imposed by the pandemic. Alternative rituals highlight the flexibility and creativity of the human capacity to mourn and remember loved ones, even when

Fig. 3 Effect of lighting candles in memory of the deceased person on the relationship between the perception of limitation in fulfilling the wish expressed by the deceased regarding funeral ceremonies and the intensity of grief responses



traditional avenues are restricted or unavailable (Cohen & Katz, 2015; Prudenzi et al., 2022).

However, results show that distinct mourning rituals (i.e., paying tribute on social media, lighting candles, and using the deceased's objects) have varying impacts on moderating the effect of restrictions on grief symptoms. This variation in impact can be explained by their unique characteristics and the emotional needs they fulfill. The symbolic and collective mourning rituals of using social media and lighting candles in memory of the deceased emerged as an influential moderator, buffering the relationship between perceived limitations in fulfilling the deceased's wishes and the intensity of grief responses. This means that these behaviors may play a restorative function in the face of the impossibility of fulfilling the deceased's wishes (Meyer, 2016). Social media and candle lighting rituals may serve as therapeutic outlets, allowing mourners to connect with others and reduce the emotional distress (e.g., Christensen & Gotved, 2015) possibly caused by unmet expectations and restrictions on traditional funeral ceremonies.

Social media platforms offer an expansive and accessible network of friends, family members, and acquaintances who can provide emotional support and understanding during the grieving process (e.g., Costa et al., 2022; Sapalo, 2023). When individuals perceive limitations in fulfilling the deceased's wishes, the support received from social media connections can mitigate feelings of isolation and emotional distress (Alexis-Martin, 2020; Costa et al., 2022; Sapalo, 2023). Furthermore, social media provides a platform for individuals to express their grief openly and publicly and to honor the deceased by carrying forward their legacy, sharing memories, life stories, and their impact on others (Silva & Silva, 2021). It can also facilitate the creation of virtual rituals and memorialization practices (Gilbert & Horsley, 2021). Moreover, the act of sharing tributes on social media platforms can be used to maintain the connection in the digital realm and to continue to care for the loved one (Johnson & Wijdicks, 2018). In short, when circumstances restraint fulfilling the deceased's wishes, social media provides an alternative channel for such expression, involving emotional sharing, continuing bonds, community building, and preserving the deceased's legacy.

Additionally, the act of lighting candles can contribute to lessen the distress linked to unfulfilled wishes in multiple ways. Lighting candles holds deep cultural and symbolic significance in many mourning traditions and is often accompanied by personal reflection, prayer, or meditation, which can provide comfort for the bereaved (Sedakova, 2015). Furthermore, the act of lighting a candle engages the senses, such as watching the flame, which can be soothing and grounding (Darbonne, 2023). It provides a tangible and sensory experience that allows individuals to connect with their emotions and memories of the deceased. It may also

offer a dedicated time and space for mourners to connect and remember their loved one and share their thoughts and emotions. Additionally, candle lighting can be a communal activity, bringing together friends and family members to participate in the ritual (Sedakova, 2015), fostering a sense of togetherness and support. This shared experience can provide a supportive community that helps individuals cope with the emotional distress arising from unmet expectations and restrictions on traditional funeral ceremonies.

On the other hand, the use of the deceased's objects surfaces as a distinct and important coping mechanism but with a different moderating effect. This individual mourning practice seems to be important in mitigating the limitation stemming from the absence of present body ceremonies. Deceased's objects hold personal significance and are tangible/concrete reminders of the person who has passed away (Wakenshaw, 2020). When individuals interact with these objects, they can physically touch and hold something that was part of their loved one's life. This concrete connection can help fill the void left by the absence present body ceremonies, establishing a tangible link to the loved one. Also, the use of objects that belonged to the deceased can instill a sense that the loved one continues to be an integral part of the daily life of the bereaved, offering a source of emotional and psychological comfort (Wakenshaw, 2020). Likewise, the deceased may have articulated specific preferences regarding the utilization or preservation of particular objects. Using these objects in accordance with the deceased's wishes, may provide the bereaved with a sense that they are honoring the person's choices, perpetuating their legacy, and paying tribute to their life. In summary, the use of the deceased's possessions can function as both a physical and emotional connection, aiding individuals in maintaining their bond with their loved one, fulfilling their wishes, and finding comfort in the absence of traditional ceremonies (e.g., Goldstein et al., 2020; Wakenshaw, 2020).

Clinical implications

The clinical implications of our findings are multifaceted, resonating with contemporary perspectives on grief and resilience (Kashdan & Rottenberg, 2010; Walsh, 2020). It underscores the need for clinicians to acknowledge the diverse ways in which individuals grieve and recognize the therapeutic potential inherent in mourning rituals (Kashdan & Rottenberg, 2010; Walsh, 2020). Specifically, findings from this study contribute to identifying the role of Alternative Mourning Rituals (AMR) in order to promote the bereaved's flexibility and mitigate the deleterious effect of ceremonies and rituals restrictions on bereavement outcomes.

Considering that people were affected differently by restrictive measures amid the COVID-19 pandemic,

clinicians should take into consideration the specific therapeutic functions of mourning rituals that better meet the bereaved's particular needs. For example, for those grappling with guilt tied to unfulfilled wishes of the deceased, interventions that encourage and facilitate public and symbolic forms of tribute, such as participation in social media memorials, offer solace and a sense of connection. These strategies provide a space for individuals to express their love and devotion to the departed while finding comfort in shared grief experiences. When confronted with the passing of a loved one, people may find it hard to accept the finality of the event. Promoting rituals that incorporate concrete representations of the deceased (e.g., such as present body ceremonies, visiting the grave) can provide a bridge between the abstract concept of death and the tangible world and help individuals understand the finality of death.

Limitations and suggestions for future studies

Despite the strengths of this study, it also has some limitations. One of them is the fact that the sample is not representative of the Portuguese sample (given that snowball sampling was used), namely, in terms of distribution between urban and rural areas. The sample was collected by convenience, and most of the participants were relatives of patients followed in palliative care at a central hospital, in an urban area. In addition, as is common in samples of bereaved people, the female gender is overrepresented in our sample, reflecting differences in coping styles with grief (Walsh, 2020). Thus, we questioned whether, in a rural and male sample, the function of mourning practices would be identical. Another limitation concerns the fact that we have not addressed the influence of religiosity on mourning practices. Taking into account the importance of this variable, it would be relevant to verify to what extent aspects such as faith professed by the bereaved or whether the person is practicing or not interfere with the moderating effect of AMR. Likewise, relational aspects such as previous relationships with the deceased and the quality of social support are also expected to interfere in this relationship between perceived restrictions and AMR. Also, it would be interesting to verify, through a qualitative study, the meanings attributed by the bereaved themselves to these tribute practices. Finally, future studies should focus on characterizing mourning rituals, namely in terms of frequencies and associated factors (e.g., time post-loss).

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Data availability The dataset generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Competing interests The authors report there are no competing interests to declare.

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References

- Alexis-Martin, B. (2020). Sensing the deathscape: Digital media and death during COVID-19. *Journal of Environmental Media*, 1(Supplement 1), 11.1–11.8. https://doi.org/10.1386/jem_00032_1
- Aguiar, A., Pinto, M., & Duarte, R. (2020). Grief and Mourning during the COVID-19 Pandemic in Portugal. *Acta Médica Portuguesa*, 33(9), 543–545. <https://doi.org/10.20344/amp.14345>
- Albuquerque, S., Teixeira, A. M., & Rocha, J. C. (2021). COVID-19 and Disenfranchised Grief. *Frontiers in Psychiatry*, 12. <https://doi.org/10.3389/fpsy.2021.638874>
- Arslan, B. S., & Buldukoğlu, K. (2023). Grief Rituals and Grief Reactions of Bereaved Individuals During the COVID-19 Pandemic. *Omega*, 87(4), 1293–1307. <https://doi.org/10.1177/00302228211037591>
- Bailey, L., Bell, J., & Kennedy, D. (2015). Continuing social presence of the dead: Exploring suicide bereavement through online memorialisation. *New Review of Hypermedia and Multimedia*, 21(1–2), 72–86. <https://doi.org/10.1080/13614568.2014.983554>
- Bonanno, G. A., & Burton, C. L. (2013). Regulatory Flexibility. *Perspectives on Psychological Science*, 8(6), 591–612. <https://doi.org/10.1177/1745691613504116>
- Brubaker, J. R., Hayes, G. R., & Dourish, P. (2013). Beyond the grave: Facebook as a site for the expansion of death and mourning. *The Information Society*, 29(3), 152–163. <https://doi.org/10.1080/01972243.2013.777300>
- Burrell, A., & Selman, L. E. (2020). How do Funeral Practices impact Bereaved Relatives' Mental Health, Grief and Bereavement? A Mixed Methods Review with Implications for COVID-19. *Omega (United States)*. <https://doi.org/10.1177/0030222820941296>
- Cardoso, É. A. de O., da Silva, B. C. de A., dos Santos, J. H., Lotério, L. D. S., Accoroni, A. G., & dos Santos, M. A. (2020). The effect of suppressing funeral rituals during the covid-19 pandemic on bereaved families. *Revista Latino-Americana de Enfermagem*, 28, 1–9. <https://doi.org/10.1590/1518-8345.4519.3361>
- Chen, C. Y.-C. (2022). Grieving During the COVID-19 Pandemic: In-Person and Virtual “Goodbye.” *OMEGA - Journal of Death and Dying*, 003022282210907. <https://doi.org/10.1177/00302228221090754>
- Christensen, D., & Gotved, S. (2015). Online memorial culture: An introduction. *New Review of Hypermedia and Multimedia*, 21(1–2), 1–9. <https://doi.org/10.1080/13614568.2015.988455>

- Cohen, J. (1988). *Statistical power analysis for the behavioral science* (2nd ed.). Lawrence Erlbaum Associates.
- Cohen, O., & Katz, M. (2015). Grief and Growth of Bereaved Siblings as Related to Attachment Style and Flexibility. *Death Studies*, 39(3), 158–164. <https://doi.org/10.1080/07481187.2014.923069>
- Costa, D. N., Rillera, R. E., Loricca, C. J., Sorima, A. G., & Nacionales, J. P. (2022). What's On Your Mind? Deathscape of Filipino Postmortem Remembrance and Mourning Practices on Facebook. *European Journal of Language and Culture Studies*, 1(6), 65–76. <https://doi.org/10.24018/ejlang.2022.1.6.38>
- Darbonne, A. (2023). *Navigating Grief Workbook: Evidence-Based Exercises to Move Through Grief and Heal*. Simon and Schuster.
- Djelantik, A. M. J., Smid, G. E., Kleber, R. J., & Boelen, P. A. (2017). Early indicators of problematic grief trajectories following bereavement. *European Journal of Psychotraumatology*, 8(sup6), 1423825. <https://doi.org/10.1080/20008198.2018.1423825>
- Gabriel, S., Paulino, M., & Mourinho Baptista, T. (2021). *Luto - Manual de Intervenção Psicológica* (1st ed.). Pactor.
- Gibson, M. (2004). Melancholy objects. *Mortality*, 9(4), 285–299. <https://doi.org/10.1080/13576270412331329812>
- Gilbert, K. R., & Horsley, G. C. (2021). Technology and Grief Support in the Twenty-First Century. In R. A. Neimeyer, D. L. Harris, H. R. Winokuer, & G. Thornton (Eds.), *Grief and Bereavement in Contemporary Society* (pp. 365–373). Routledge.
- Goldstein, R. D., Petty, C. R., Morris, S. E., Human, M., Odendaal, H., Elliott, A. J., ... & Prigerson, H. G. (2020). Transitional objects of grief. *Comprehensive Psychiatry*, 98, 152161. <https://doi.org/10.1016/j.comppsy.2020.152161>
- Harrop, E., Mann, M., Semedo, L., Chao, D., Selman, L. E., & Byrne, A. (2020). What elements of a systems' approach to bereavement are most effective in times of mass bereavement? A narrative systematic review with lessons for COVID-19. *Palliative Medicine*, 34(9), 1165–1181. <https://doi.org/10.1177/0269216320946273>
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: a regression-based approach (methodology in the social sciences)* (2nd ed.). New York, NY: The Guilford Press.
- Hemi, A., Sopp, M. R., Bonanno, G., Michael, T., McGiffin, J., & Levy-Gigi, E. (2023). Flexibility predicts chronic anxiety and depression during the first year of the COVID-19 pandemic—A longitudinal investigation of mental health trajectories. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. <https://doi.org/10.1037/tra0001517>
- Johnson, E. K. N., & Wijdicks, E. F. M. (2018). Dying in the Intensive Care Unit: A Candle Vigil Using Illustrations. *Mayo Clinic Proceedings: Innovations, Quality & Outcomes*, 2(4), 378–381. <https://doi.org/10.1016/j.mayocpiqo.2018.09.002>
- Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical Psychology Review*, 30(7), 865–878. <https://doi.org/10.1016/j.cpr.2010.03.001>
- Knowles, L. M., & O'Connor, M. F. (2015). Coping flexibility, forward focus and trauma focus in older widows and widowers. *Bereavement Care*, 34(1), 17–23. <https://doi.org/10.1080/02682621.2015.1028200>
- Kustanti, C. Y., Jen, H. J., Chu, H., Liu, D., Chen, R., Lin, H. C., ... & Chou, K. R. (2023). Prevalence of grief symptoms and disorders in the time of COVID-19 pandemic: A meta-analysis. *International Journal of Mental Health Nursing*, 32(3), 904–916. <https://doi.org/10.1111/inm.13136>
- Mayland, C. R., Harding, A. J. E., Preston, N., & Payne, S. (2020). Supporting Adults Bereaved Through COVID-19: A Rapid Review of the Impact of Previous Pandemics on Grief and Bereavement. *Journal of Pain and Symptom Management*, 60(2), e33–e39. <https://doi.org/10.1016/j.jpainsymman.2020.05.012>
- Mergulhão, B. R. D. V. (2020). O silêncio que fala: os ritos fúnebres como performance e o cemitério como lugar de memória (Doctoral dissertation). <http://hdl.handle.net/10071/21719>
- Meyer, E. P. (2016). Death in the age of eternity: how Facebook users cope with personal loss (Doctoral dissertation, Iowa State University). <https://doi.org/10.31274/etd-180810-5400>
- Mitima-Verloop, H. B., Mooren, T. T. M., & Boelen, P. A. (2021). Facilitating grief: An exploration of the function of funerals and rituals in relation to grief reactions. *Death Studies*, 45(9), 735–745. <https://doi.org/10.1080/07481187.2019.1686090>
- Prudenzi, A., Graham, C. D., Rogerson, O., & O'Connor, D. B. (2022). Mental health during the COVID-19 pandemic: Exploring the role of psychological flexibility and stress-related variables. *Psychology & Health*, 38(10), 1378–1401. <https://doi.org/10.1080/08870446.2021.2020272>
- Sapalo, N. (2023). *Encountering death on Facebook: A digital ethnography of pandemic deaths and online mourning*. Plaridel. <https://doi.org/10.52518/2023-01sapalo>
- Sedakova, I. (2015). Magico-religious symbolism of a candle in the Slavic calendar rituals. In T. Minniyakhmetova & K. Velkoborská (Eds.), *The ritual year 10: Magic rituals and rituals in magic* (pp. 141–151). ELM Scholarly Press.
- Silva, B., L., M., & Silva, S. (2021). Como Vivenciar o Luto Online? Uma Comparação de Memoriais Web Para Apoiar o Designer (How to Experience Grief Online? A Comparison of Web Memorials to Support Designer). *Journal of Digital Media & Interaction*, 4(10), 60–80. <https://doi.org/10.34624/jdmi.v4i10.23632>
- Wakenshaw, C. (2020). The use of Winnicott's concept of transitional objects in bereavement practice. *Bereavement Care*, 39(3), 119–123. <https://doi.org/10.1080/02682621.2020.1828770>
- Walsh, F. (2020). Loss and resilience in the time of COVID-19: Meaning making, hope, and transcendence. *Family Process*, 59, 898–911. <https://doi.org/10.1111/famp.12588>
- Worden, J. W. (2018). *Grief counselling and grief therapy: A handbook for the mental health practitioner*. Springer Publishing Company.

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