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Gender differences in grief and growth: An international gender-matched controlled study from Belgium, Canada, and Spain

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Abstract

The grieving process exhibits significant variability influenced by cultural and gender factors. Inconsistencies in gender and cultural differences may be explained by the overrepresentation of bereaved women in the samples. This study explores gender differences in grief and post-traumatic growth (PTG) across Belgium, Canada, and Spain. Utilizing a gender-matched controlled design, the study analyzed data from 244 men and 244 women. Each man was matched with a woman based on kinship with the deceased, delay since loss, and country. Participants completed the Traumatic Grief Inventory-Self Report and Post-Traumatic Growth Inventory-Short Form. Results indicate that men reported significantly lower levels of grief symptoms and PTG compared to women, consistently across all three countries. These findings are discussed in relation to previous research suggesting that men exhibit more instrumental and avoidant grieving styles while women display more intuitive and expressive responses, and how results may be biased by self-report measures and recruitment.

Keywords: bereavement, gender, grief, culture, bias

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The grieving process, universally experienced yet highly individualized, has shown distinct manifestations across different cultures (Hordyk et al., 2023; Rosenblatt, 2008), with gender potentially playing a pivotal role in the expression and management of grief. Gender differences in adjustment to bereavement have long been studied (e.g., Stroebe & Stroebe, 1983; Stroebe et al., 2001). In the general population, it is well known that women present higher rates of internalizing symptoms such as depression and anxiety-related disorders than men, while men present higher rates of externalizing disorders such as alcohol or drug-use disorders (Boyd et al., 2015; Riecher-Rössler, 2017). Female gender is also a risk-factor for stress-related disorders such as post-traumatic stress disorder which is found to be twice more prevalent in women than in men (Pineles et al., 2017; Tolin & Foa, 2008). Whether the same holds for Prolonged Grief Disorder (PGD), which distinguishes from PTSD (Karatzias et al., 2022), but was recently included and classified as one of the trauma and stress-related disorders in both ICD-11 (World Health Organization, 2019) and DSM-5-TR (American Psychiatric Association, 2022) is less obvious: some studies confirmed the elevated risk for women, while other ones did not. This article explores gender differences in adjustment to bereavement, as indicated by either grief symptomatology or growth, and some reasons as to which they would or not reveal to be different across genders.

Regarding gender differences in grief reactions or symptoms and (probable) PGD diagnosis, although bereavement models such as the DPM (Stroebe & Schut, 1999), cultural norms, and gender stereotypes would suggest that women are reporting and

expressing their grief more than men, previous findings have rather been mixed or even confusing. For example, one systematic review on risk factors of common and complicated grief found that, in 8 out of 19 studies, women presented more grief symptoms than men, while female gender was not a risk factor in the remaining studies (Burke & Neimeyer, 2013), a study that did not report the repartition of men and women in the initial samples). This result was found for common grief reactions but not for complicated grief (a previous denomination of PGD). In Heeke et al.'s systematic review (2019) of 37 studies published between 2003-2017 on complicated or prolonged grief reactions rather than general extent of grief after violent deaths, gender showed a small association with PGD ($r = .20$ on 14 studies with varying proportions of women rates from 56 to 100% in the studies) which indicated that female gender was a risk factor of PGD after violent loss. However, several systematic reviews on PGD did not find that gender was a significant predictor of PGD prevalence rates after unnatural (Djelantik et al., 2020, included 17 studies with overall 68% of women), or various types of deaths (Lundorff et al., 2020, included 14 studies with 0 to 100% of women). This was also the case of a recent scoping review in which gender was, with one exception (van de Venne et al., 2020), not reported as a risk factor (Wilson et al., 2022).

It should be noted that when searching for gender differences in the bereavement literature, one can find numerous individual studies reporting each of these contradictory findings: female vs. male vs. no gender risk factor. Gender is one of the identity variables that is typically reported to describe the sample of participants. Using simple comparisons between the genders might forget to consider the various explanatory confounded factors to these contradicting results. The differences in findings regarding whether bereaved men

and women might or not experience grief reactions differently are numerous. One of these relates to the fundamental question as to “who participates in bereavement research?” (Stroebe & Stroebe, 1989). This question is particularly relevant when potential participants are identified through convenient sampling and recruited through reactive, also called passive, strategies such as when researchers advertise their study on the internet, social media, or through email lists, leading to a self-selected sample of bereaved individuals. In the context of widowhood, Stroebe and colleagues (Stroebe, 1998; Stroebe & Stroebe, 1983, 1989; Stroebe et al., 2001) have long argued that widowers are in fact at higher risk of adverse physical and mental health outcomes, including higher grief reactions in the acute grieving period, than are widows. They argued that there is a need to use control groups of non-bereaved people (i.e., married) and thus examine relative risks between those being exposed or not to the stressor of bereavement in health outcomes rather than comparing only bereaved men and women. Obviously, they have recognized that using a non-bereaved control group is not relevant if one specifically investigates grief reactions (Stroebe et al., 2003). Nevertheless, one could at least try to reduce potential gender biases that could be related to the selection procedure. Indeed, gender differences in the mental health (i.e., depression levels) could be found when comparing those bereaved who accepted or refused to participate to a longitudinal study in Germany (Stroebe & Stroebe, 1989): while more depressed widowers tended to refuse participation, this was the reverse for more depressed widows who accepted to participate more to the interview. Such findings indicated that bereavement studies investigating whether gender is a predictor of adjustment involve sampling as well as outcome biases that may not “really” be due to different experiences but are rather explained by the selection procedure.

Recruitment procedures that involve convenient self-selected samples often lead to an overrepresentation of female bereaved samples (Stroebe et al., 2003). This is usually acknowledged as “a common phenomenon” (Grafiadeli et al., 2021, p. 187) and then — when this is the case — shortly mentioned as a limitation of the study results (e.g., Gonschor et al., 2020; Titlestad et al., 2022). Therefore, gender differences might be related to the size and gender parity of the corresponding recruited samples since the size of the variances will be influenced in small (men) or large (women) samples. Researchers could address the overrepresentation of bereaved women in self-selected samples by matching bereaved men with corresponding women.

In the present research, we start to explore several other confounding gender-related non-controlled factors that could explain the contradictory (non-)gender differences: the delay of measurement since bereavement, the type of relationship to the deceased, and the potential culture difference in genders’ reactions. First, studies that found gender differences in one or the other direction, or those that did not, might differ regarding the time elapsed since the death occurred. A recent prospective population-based Danish study investigating grief symptomatology trajectories at 2, 6, and 11 months post-loss found that similar proportions of men and women comprised the four grieving trajectories (Lundorff et al., 2020). However, among those belonging to the prolonged grief trajectory (high symptoms over the full period), gender influenced the parameter estimates: men displayed more baseline symptoms than women did and men evidenced a decrease in symptom level while women showed a symptom increase over time. This finding is consistent with Stroebe et al.’s (2001) suggestion that widowers might be impacted more in the first months after the loss of their spouse, while widows would suffer more in the long term. Second,

studies showing contradictory results might differ according to the type of bereaved people that were included in the studies. It was shown that the relationship or kinship to the deceased is a very strong predictor of grief symptoms, explaining most part of the variance in grief reactions (Fernández-Alcántara & Zech, 2017). The intensity of grief reactions could be reported differently between the genders when losing a spouse or a child — generally the most distressing experiences — due to gender roles related to emotional regulation and expression in widowhood or parental bereavement (e.g., Stroebe et al., 2001), while reactions after the death of a parent, sibling, or friend might rather be explained by the type of attachment to the person and thus yield no significant gender differences. Alternatively, one could expect that with the most intensely distressing situations, a ceiling effect occurs, and no gender difference would be found. Third, differing cultural norms, stimulated by the family and interpersonal contexts, might also explain the contrasting results in gender differences (or not) due to the differences between samples in which more patriarchal gender roles are endorsed than in other ones. In more traditional cultures such as in Spain (Rojo, 2006), bereaved people might then report grief reactions that confirm their stereotypical (grieving) style: men, as being strong, stoic, self-reliant or independent, sadness-suppressing (Bennett et al., 2023). Men's grief is typically characterized by a tendency towards instrumental grieving, where they engage in action-oriented processes to cope with loss and tend to exhibit avoidant behavior in response to loss (Carr, 2020; Stroebe et al., 2001). This style starkly contrasts with the intuitive grieving style, marked by emotional expressiveness, more commonly associated with women (e.g., Davies et al., 2023; Doka & Martin, 2024). Although the narrative complexities of men's and women's grief are not confined to these dichotomous styles, it remains possible that

women tend to report more intense grief reactions than men. This gender effect might be less present in less mediterranean cultures, such as those present in Quebec and Belgium (Baillargeon & Wilson, 2014; De L'Aulnoit; Femmes prévoyantes socialistes, 2010; Stanton, 2013) than in Spain (Falcón, 2014). A significant gap persists in our understanding of men's grief across various cultural contexts. There is a burgeoning call for research that considers the intersectionality within the grieving process, examining how culture interacts with gender to influence the bereavement experience (Granek et al., 2016). For example, a recent comparison between grieving men in Spain and Costa Rica showed that the degree of kinship influenced the levels of continuing bonds between countries, suggesting differences in cultural norms and practices regarding grief (Martínez-Esquivel et al., 2024).

While studies examining the gender effect on negative outcomes during bereavement are relatively numerous, few studies have examined gender differences in positive adaptation (Wolfe & Ray, 2015). Posttraumatic growth (PTG) after the death of a loved one, which refers to the positive transformation resulting from facing traumatic life events, has gained prominence in the study of grief (Calhoun et al., 2010). Although there is a growing body of research indicating a strong association between grief and PTG, significant gaps remain, particularly in understanding men's experiences of PTG following the loss of a loved one (Michael & Cooper, 2013). Gender differences in positive outcomes are an important area of study that have not been sufficiently explored. Some studies have uncovered subtle differentials between genders, with women demonstrating a slightly higher propensity for growth compared to men (Albuquerque et al., 2018; Vishnevsky et al., 2010). The causes of these variations are mostly unclear. Some researchers have proposed that differences in coping mechanisms might account for them (Swickert &

Hittner, 2009). In the context of pandemics, studies have also reported higher post-traumatic growth in women than in men (Cohen-Louck, 2022). Within the bereaved community, investigations have also found higher scores in PTG in female participants (Waugh et al., 2018). Some studies have also elucidated variances pertaining to specific dimensions of PTG, notably growth concerning interpersonal connections and spiritual enlightenment, wherein females exhibit elevated scores relative to males (Patrick & Henrie, 2016).

This study aimed to compare how men and women adjusted to the death of a relative during the COVID-19 pandemic in Belgium, Canada, and Spain, focusing on gender differences in the level of grief symptoms and post-traumatic growth. In an innovative way, participants were gender-matched to control for the overrepresentation of women (often seen in many bereaved samples) and some major risk factors, and PTG was used as a positive health outcome, enhancing the robustness and comprehensiveness of the findings.

Method

Participants and Procedure

This study incorporates data from male participants who were part of the broader longitudinal study COVIDEUIL conducted in Belgium, Canada, and Spain between 2021 and 2022. The data utilized in the present study are derived from the data collection for all three cohorts. Participants were invited to complete an online survey on the secure platforms Qualtrics, LimeSurvey, and Encuesta.com using several strategies varying between countries. Inclusion criteria were to be aged 18 years and over and have

experienced the death of someone since the beginning of the pandemic in March 2020. Participation was voluntary, and informed consent was obtained from all participants.

Belgium cohort – Two recruitment strategies were employed to reach Belgian participants. First, the research team directly contacted some mourners via letter and phone calls after screening and obtaining their contact details from electronic obituaries. Secondly, an invitation was disseminated through various channels, including media, social networks, information relayed by the associations or the university, and word-of-mouth. The Hospital-Faculty Research Ethics Committee of the *Cliniques Universitaires Saint-Luc* – *UCLouvain* approved the Belgian study on 23/12/2021 (project 2021/16NOV/483).

Canada cohort – An invitation to participate in the survey was propagated via a web page, publications on social media (Facebook, Instagram), and television and radio interviews with the principal investigator (JC). The Quebec Funeral Cooperative Federation (*Fédération des coopératives funéraires du Québec*) also sent a direct invitation by letters or emails to clients who lost someone during the pandemic. All survey participants were entered in a draw to win one of ten \$20 gift cards. The Research Ethics Committee of the *Université du Québec à Chicoutimi* granted the ethics approval for the project (project #2021-697).

Spain cohort – In the case of the Spanish cohort, multiple approaches were employed to gather data, including utilization of the project's website, reaching out via telephone and email to various grief associations, leveraging social media platforms such as Instagram and Twitter, and promoting the study through the Universities involved in data collection. These methods were further augmented with snowball sampling. Approval for the study

was obtained from the University of Granada's Human Research Ethics Committee (2328/CEIH/2021).

A total of 244 men (96 from Belgium, 80 from Canada, and 68 from Spain), along with an equal number of women, were included in the present study. As explained below, each male participant was matched with a female participant with the same basic characteristics: country, relationship to the deceased, and time since death. Men across all three cohorts were older than women, although gender differences in other characteristics varied among the cohorts (Table 1). Characteristics for the three cohorts separately are presented in Supplementary Tables S1 and S2. Significant gender differences were observed in several demographic and contextual factors: age of the bereaved (men were older), marital status (more widowed men and more single women), household profile (more men lived alone), income (more women had no income), age of the deceased (the deceased was older for men), and cause of death (more deaths from accident/suicide in deceased men).

Measures

The survey included sociodemographic questions about age, gender, matrimonial status (1- with partner, 2- single, 3- divorced/separated, 4- widowed), household profile (alone or not), and income (1- no income, 2- low [below the national average], 3- national average, 4- high [above the national average]) of the bereaved. Participants were also asked about the age and gender of the deceased, the relationship they had with him/her (1- spouse/child, 2- father/mother, 3- other), the cause of death (Disease, COVID-19, Accident/Suicide, Other), and the date of death. The time since death was computed by subtracting the survey submission date and the death date.

The *Traumatic Grief Inventory-Self Report* (TGI-SR) (Boelen & Smid, 2017) was used to assess the level of grief symptoms. The scale includes 18 items, each scored on a five-point Likert scale (1-never, 5-always) for a total score of 90. A higher score indicates a higher level of grief symptoms, and a score of ≥ 59 was used as an indicator of the presence of a possible PGD (Boelen et al., 2019). In Belgium and Canada, the French-Canadian version was used (Cherblanc et al., 2023). In the Spanish protocol, the corresponding 18 items from the Spanish adaptation of the TGI-SR+ were used (Fernández-Alcántara et al., 2024).

The *Post-Traumatic Growth Inventory, short form* (PTGI-SF) (Cann et al., 2010) was used to assess the level of post-traumatic growth. This abbreviated version comprises ten items for a maximum score of 50, a higher score indicating a higher level of post-traumatic growth experienced by the participants. In Belgium and Canada, the French-Canadian version was used (Cadell et al., 2015). In Spain, the adaptation performed by Castro et al. (2015) was used.

Participant matching

All men who completed the TGI-SR and the PTGI-SF were included in the analyses. Each male participant was matched with a female counterpart possessing identical characteristics across key variables: the country of the data collection (Canada, Spain, or Belgium), the nature of their relationship with the deceased (spouse/child, father/mother, or other), and the duration since the loss (< 6 months, $6 \leq 12$ months, $12 \leq 18$ months, > 18 months). Multiple women could be paired with the same man in various instances based on these three criteria (there was a total of 1074 women in the initial sample). In such situations, the selection of pairs for further statistical analysis was conducted randomly from among the potential pairings. Throughout this process, utmost care was taken to ensure that no individual was utilized more than once in the pairings. Our team rigorously tested the statistical analysis results using several different sets of pairings and consistently obtained the same outcomes.

Statistical analysis

Descriptive statistics (mean and standard deviation for continuous variables and frequency and percentage for categorical variables) were used to present characteristics of the participants and deceased and death circumstances. Within each cohort, characteristics were compared between men and women using independent-sample t-tests (age of the bereaved and deceased, and time since loss) and chi-square tests for independence (matrimonial status, household profile, income, gender of the deceased, relationship with the deceased, and cause of death). The effect of gender on the level of grief symptoms and post-traumatic growth was assessed using univariate general linear models. Several models with each of the total score of the TGI-SR, total score of the PTGI-SF, and each of the

subscores of the PTGI-SF (Personal strength, New possibilities, Improved relationships, Spiritual growth, Appreciation of life) as the dependent variable were constructed. Gender and country of data source were added as the main factors. All other characteristics of the bereaved, deceased, or death circumstance significantly different between men and women were included as factors (cause of death, income, household profile, matrimonial status) or covariates (age of the bereaved and deceased). Although there was no significant difference between genders, the time since loss was added as a covariate due to the difference between countries, which could have induced a bias. An interaction Country*Gender was also included to detect a potential difference between the three cohorts. The partial eta squared was reported as an effect size statistic, which can be interpreted as follows: .01 = small effect; .06 = moderate effect; .14 = large effect (Cohen, 1988). Data were analyzed using IBM SPSS Statistics for Windows, version 28.0 (Armonk, NY: IBM Corp).

Results

Level of grief symptoms

A univariate general linear model was conducted to evaluate the disparity in grief symptom levels, as measured by the TGI-SR, between men and women (Table 2). This analysis controlled for income, household profile, cause of death, matrimonial status, time since loss, and age of the bereaved and the deceased. Results showed a moderate effect size of gender (partial $\eta^2 = 0.104$), a significant difference having been observed in the TGI-SR total score between men and women, $F(1, 343) = 54.122, p < 0.001$, men reported lower levels of grief symptoms than women, as indicated by the TGI-SR scores. A small effect of country was observed, $F(2, 343) = 3.167, p = 0.043$, partial $\eta^2 = 0.013$). However, no

significant interaction effect between country and gender was observed, $F(2, 343) = 2.734$, $p = 0.066$, partial $\eta^2 = 0.012$), suggesting that the gender effect on grief levels is consistent across the three countries (Table 2 and Figure 1).

Post-traumatic growth

The linear general model conducted with the total score of the PTGI-SF showed a small effect size (partial $\eta^2 = 0.027$) of gender on the level of post-traumatic growth, $F(1, 325) = 12.487$, $p < 0.001$, without any interaction between countries, $F(2, 325) = 0.149$, $p = 0.861$, as for the level of grief symptoms. A significant difference between 4.2 and 5.4 points was observed between men and women depending on the country of origin, with men having reported less posttraumatic growth than women (see Table 2). Figure 2 supports these findings by graphically representing the estimated marginal means, adjusted for covariates: time since death and the ages of the deceased and the bereaved. When looking at each of the five subscores independently, Spiritual growth, Appreciation of life, and Personal strength are the three that had the highest gender difference, with partial η^2 varying between 0.024 and 0.029 (small effect size). The New possibilities subscore also differed between men and women but at a lower extent with a partial η^2 of only 0.010. No gender difference was observed in the Improved relationship subscore.

Discussion

The objective of the present research was to compare the level of grief symptoms and post-traumatic growth experienced by men and women following the death of a relative during the pandemic in Belgium, Canada, and Spain. As far as we know, our study is one of the first in the world to compare the realities of men and women who have experienced the loss of a loved one using an innovative and robust methodological approach. Based on data collected in three countries, this study highlights that regardless of the country of origin and their respective recruitment strategies, the obtained results are comparable. In all countries, men obtained lower scores on scales measuring levels of grief and post-traumatic growth in comparison to women. Despite scientific literature showing contradictory results regarding differences in grief intensity between men and women, our study is in line with those that show both a difference in grief intensity (e.g., Burke & Neimeyer, 2013; Heeke et al., 2019) and PTG (e.g., Patrick & Henrie, 2016; Vishnevsky et al., 2010), while controlling for sociodemographic variables.

Consistency of gender effects across countries

An important aspect of our findings is the absence of a significant interaction effect between gender and country for both grief symptoms and post-traumatic growth. While a small main effect of the country was observed, indicating slight variations in grief levels across nations, the effect of gender remained consistent. This suggests that men and women experience grief and post-traumatic growth differently in a comparable manner across different cultural contexts. The lack of a significant interaction effect indicates that gender differences in grief responses are not significantly influenced by the country in which the loss occurred. This stability across countries strengthens the generalizability of our results

and suggests that gender-related differences in grief and PTG may be driven more by intrinsic psychological and social mechanisms rather than by cultural or national factors. Future research could benefit from a more in-depth examination of cultural variables and their potential moderating effects on gender differences in grief responses.

Potential explanations for gender differences

One hypothesis to explain gender differences would be that men and women adjust differently to the loss of a loved one. It has been shown that to adapt to the loss of a loved one, men and women preferentially use different coping strategies (Carr, 2020), which are mediators influencing grief reactions, in terms of symptom intensity (Schnider et al., 2007) and PTG (Prati & Pietrantonio, 2009). Previous studies indicated that men seem to be more avoidant than women in their adjustment to grief (Carr, 2020; Stroebe et al., 2001). Although avoidance is considered by some literature to be maladaptive and associated with more intense grief reactions (Eisma et al., 2013), it has been shown that these results apply more to women's experiences and do not to grieving men (Lawrence et al., 2006), suggesting that avoidance may constitute an effective strategy for men. Men's grief has been characterized by a propensity for instrumental grieving, engaging in action-oriented processes of coping with loss, while women present a more intuitive grieving style, commonly marked by emotional expressiveness (Davies et al., 2023).

Regarding PTG, a preferential avoidant coping may also explain the differences between men and women. Indeed, PTG can notably develop by trying to make sense of death by attempting to readjust one's worldviews (Calhoun et al., 2010), which involves a form of confrontation with thoughts related to death and grief. Furthermore, men seem to use less specific coping strategies related to post-traumatic growth development (Akbar &

Witruk, 2016). More specifically, after the death of a significant person, men tend (1) to use fewer therapeutic resources (e.g., mental health services) (Thompson et al., 2016), which are related to higher PTG (Ryan & Ripley, 2023), (2) to turn less to religion (Carr, 2020; Meléndez et al., 2012; Patrick & Henrie, 2016), whereas spirituality and religious coping has been associated with greater psychological resilience and higher posttraumatic growth (PTG) in bereavement (Henson et al., 2021), and (3) to seek less social support than women (Meléndez et al., 2012; Patrick & Henrie, 2016), which is also related to higher post-traumatic growth (Cadell et al., 2003).

Another explanation for lower PTG scores in men compared to women is that, in general, individuals who process their loss more deeply (indicated by higher scores of PGD) are more likely to develop higher PTG. This aligns with recent studies that support a positive correlation between grief symptoms and posttraumatic growth (Pereira et al., 2024; Zhou et al., 2018), despite some earlier research indicating a negative association (Hogan & Schmidt, 2002) or an independent relationship (Currier et al., 2013; Engelkemeyer & Marwit, 2008). As in the case of grief intensity, these differences between men and women may be due to varying coping strategies; however, we did not measure coping strategies in all three countries. Future studies are needed to explore the role of coping strategies in explaining the differences in the two variables assessed in the present study.

Alternative explanations

Beyond coping strategies, gender differences in grief may also arise from distinct grief trajectories. Research suggests that bereaved men tend to experience intense distress shortly after the loss, followed by a gradual decline in symptoms, while women show a slower increase in grief intensity over time (Lundorff et al., 2020; Stroebe et al., 2001). In

our study, the time since the death was one year on average, so it is possible that this more acute period experienced by grieving men is not sufficiently represented in the sample and included in our analyses. In a similar vein, Maccallum et al. (2023) also found differences in the relative importance of shock between men and women at different points of the grief trajectory. The higher involvement of shock in men during the evaluation could also be related to less emotional identification and expression.

Another potential explanation is that the observed statistical difference between men and women with comparable sociodemographic characteristics is real but may be "amplified" by the items included in the assessment scales. Indeed, self-administered questionnaires assessing psychological reactions might be more appropriate to assess women's experiences, who are more socialized about introspecting and expressing their feelings and, therefore, could report them more easily (Cabello et al., 2016; Fischer et al., 2018). In this vein, Deng et al. (2016) compared the physical reactions and subjective evaluation of men and women to emotional stimuli, concluding that it is not that women are more emotional or more easily affected by emotions than men, but rather that women often report more intense feelings under equal conditions. According to this hypothesis, men do not suffer less, but women are better at identifying and naming their emotions. Another possible explanation is that men may experience grief in different ways: by exhibiting more behavior disturbances (Lawrence et al., 2006) or by experiencing more physical pain (Spaten et al., 2011; Zylla, 2017), symptoms that are less captured in grief-related scales which have been developed mainly using samples of women (Heeke et al., 2019; Stelzer et al., 2019). This different experience may be associated with overdiagnosis of emotional problems in women and underdiagnosis in men, as happens in the case of

major depressive disorder (Granek, 2021). According to this hypothesis, men do not suffer less but differently.

Sociodemographic and cross-country considerations

Beyond gender itself, our findings must also be interpreted in consideration of key sociodemographic characteristics and sociocultural contexts. The relationship to the deceased is known to be one of the strongest predictors of grief intensity (Fernández-Alcántara & Zech, 2017). In our sample, about half of participants lost a parent, while fewer experienced the loss of a spouse or child, which are typically associated with the most severe grief responses. This distribution may partly explain the moderate average scores observed, and future studies should stratify analyses by kinship category to better capture potential gender–relationship interactions. Educational and economic status also deserve further attention. Although we adjusted for income, education was not systematically measured across countries, and prior research suggests that lower socioeconomic status may exacerbate grief severity by limiting access to support resources and coping strategies (Wilson et al., 2022). Regarding cross-country comparisons, we did not find significant *gender* $\times$ *country* interactions. This stability may reflect underlying ‘universal’ mechanisms of gendered grieving, but it may also obscure important contextual nuances. For example, cultural norms surrounding masculinity, emotional expression, and social support vary between countries with more egalitarian gender regimes, such as Canada, and those often perceived as maintaining stronger traditional norms, such as Spain. Yet, recent analyses highlight that the Spanish context is evolving rapidly, with education, women’s social participation, and policy changes fostering greater gender equality (Mínguez, 2010; Bennett et al., 2023). Recent comparative work shows that kinship bonds

and continuing bonds practices can be shaped by cultural expectations, leading to country-specific grief trajectories (Martínez-Esquivel et al., 2024). We also noticed some differences in the personal and sociodemographic characteristics of the sample across countries, which can potentially be explained by different recruitment strategies, as well as cultural aspects that may have influenced this recruitment. Future research should therefore combine quantitative and qualitative designs to better capture how sociocultural frameworks interact with sociodemographic variables in shaping men's and women's bereavement experiences.

Impact of the COVID-19 pandemic

The unique circumstances of the pandemic period may also have accentuated differences in grief reactions between men and women. As Stroebe and Schut (2021) have pointed out, people bereaved in the context of a pandemic may have been particularly confronted with an accumulation or intensification of stressors, putting them at risk of bereavement overload. Several studies have shown that this accumulation of burdens during the pandemic particularly impacted women (for a review, see Cénat et al., 2022), who had to take on more domestic and caregiving responsibilities and had to cope more with job losses. This accumulation of stressors to cope with could increase the gender differences in terms of grief intensity. Regarding post-traumatic growth, the socio-health restrictions of the pandemic may have made strategies to which men prefer to rely less accessible (e.g., immersing themselves in work, Zylla, 2017), potentially limiting the possibility of developing growth. As Cohen-Louck (2022) has shown, it seemed more difficult for men to derive positive meanings and thus grow from having to stay at home.

Clinical implications

The present results have important clinical implications. Clinicians should address not only the intensity of grief reactions but also how the loss of a loved one has impacted different aspects of one's life, especially in the case of men, who may present lower scores in the self-report measures designed to assess grief. An in-depth identification and symbolism of their emotional reactions, as well as recognition of their useful coping mechanisms, may help men to elaborate on their loss. Recently, Stroebe et al. (2024) have outlined the importance of using clinical interviews to diagnose PGD and how psychometrical instruments may give a partial view of the state of the patient. Also, as researchers, it is important to collect substantial data on men in grief-related studies to guarantee that we identify possible gender differences, not only in grief reactions but also in variables that mediate the experience of loss.

Limitations

The present study has some strengths and limitations that should be acknowledged. This is one of the first studies to compare the grief experience of men and women in the pandemic context, controlling for many variables and using a matched-method approach. Given the lack of participation of men in grief-related studies, this methodology may be useful for establishing adequate comparisons in future studies. Regarding the limitations, only two dependent variables were examined, and future studies should include coping strategies and grief mediators to fully understand the differences between men and women (Cherblanc et al., 2025). A second limitation is that controlling for certain predictor variables does not allow for controlling the profile of individuals who participated in our studies since most of them were self-selected. The gender self-selection bias (Stroebe et al., 2001) could then lead to an overestimation of the intensity of grief in women. Future

research should examine if studies involving self-selected participation such as those through the social networks might be more likely to find gender differences than population-based studies. A third limitation is that the data were collected in the context of restricted funeral rites and social gatherings. Therefore, the results and associated hypotheses must be interpreted in this context. Indeed, restrictions during the COVID-19 pandemic may have had a different impact on men and women, as studies have shown regarding the psychological impact (Ausín et al., 2021) or the PTG they may have developed (Cohen-Louck, 2022). It would be interesting to carry out similar analyses with people who have experienced the death of a significant person in the context of non-restrictive funeral rituals. Finally, this study should have included a control measure of culture or gender role endorsement since family and gender roles may evolve over time and contextual policies or decrees (Mínguez, 2010). This could account for the gender differences found in self-reported and potentially socially desirable reporting. This would allow to test if the three countries included in this study were really different with regard to feminism vs. patriarchy or gender stereotypes, thereby potentially explaining why no country significant main effect, nor its interaction with gender were found.

In conclusion, our findings offer a deeper understanding of the intersection between gender, culture, and grief during the unprecedented global crisis that was the COVID-19 pandemic. After controlling for other variables and applying a matched-methods approach, our study shows that men seemed to have experienced less grief intensity and less post-traumatic growth than women did during the pandemic. The consistent patterns observed across three countries support the generalizability of our findings and imply that the gender differences in grief and posttraumatic growth are likely rooted in intrinsic psychological

and social processes, rather than by cultural or national contexts. The results of this research highlight the need for differentiated analyses based on gender in grief studies and to adapt knowledge transfer tools to reflect these differences. Supplemental efforts should also be made by researchers on recruitment strategies to ensure a higher representativeness of men in such studies. Additional studies would be necessary to better understand these differences, focusing on coping strategies used by men and women and addressing methodological questions and potential sampling and recruitment biases.

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Table 1*Bereaved, Deceased and Death Characteristics*

	Men (<i>n</i> = 244)	Women (<i>n</i> = 244)	<i>t</i> or χ^2 (df)	<i>p</i>
Age of the bereaved (y)				
Mean (<i>SD</i>)	52.0 (16.9)	34.9 (13.3)	12.46 (486)	<.001
[min – max]	[18 – 90]	[18 – 73]		
Matrimonial status, <i>n</i> (%)				
With partner	141 (57.8) ^a	138 (56.6) ^a	10.13 (3)	.017
Single	63 (25.8) ^a	85 (34.8) ^b		
Divorced/separated	12 (4.9) ^a	9 (3.7) ^a		
Widowed	28 (11.5) ^a	12 (4.9) ^b		
Live alone, <i>n</i> (%)				
Yes	59 (24.2)	33 (13.6)	8.93 (1)	.003
No	185 (75.8)	210 (86.4)		
Missing		1		
Income, <i>n</i> (%)				
None	13 (5.3) ^a	45 (18.4) ^b	20.27 (3)	<.001
Low	115 (47.3) ^a	104 (42.6) ^a		
Average	72 (29.6) ^a	62 (25.4) ^a		
High	43 (17.7) ^a	33 (13.5) ^a		
Missing	1			
Gender of the deceased, <i>n</i> (%)				
Men	115 (47.1)	131 (53.9)	2.24 (1)	.135
Women	129 (52.9)	112 (46.1)		
Missing		1		
Age of the deceased (y)				
Mean (<i>SD</i>)	75.8 (18.0)	68.5 (18.4)	4.41 (485)	<.001
[min – max]	[0 – 101]	[0 – 100]		
Missing		1		
Relationship, <i>n</i> (%)				
Spouse / Child	41 (16.8)	41 (16.8)	N/A	N/A
Father/Mother	122 (50.0)	122 (50.0)		
Other	81 (33.2)	81 (33.2)		
Cause of death, <i>n</i> (%)				
Disease	154 (63.1) ^a	166 (68.0) ^a	15.69 (3)	.001
COVID-19	57 (23.4) ^a	69 (28.3) ^a		
Accident/Suicide	31 (12.7) ^a	9 (3.7) ^b		
Other	2 (0.8) ^a	0 ^a		
Time since loss (days)				
Mean (<i>SD</i>)	367 (241)	364 (236)	0.10 (486)	.919
[min – max]	[1 – 1034]	[0 – 979]		

Note. Differences between men and women were determined using Independent sample *t*-test for continuous variables and Chi-square test for categorical variables. Lowercase letters in superscripts indicate the difference between men and women for nominal

variables with more than two categories. df: degree of freedom; min: minimum; max: maximum; SD: standard deviation.

Table 2

Differences in the TGI-SR and PTGI-SF Scores Between Men and Women Based on Estimated Marginal Means from the Univariate General Linear Models by Gender and Country of Origin

	Mean score (SE)		Mean difference	F (df1, df2)	p-value	Partial η^2
	Men	Women	(95% CI)			
<i>Traumatic Grief Inventory-Self Report (/90)</i>						
Belgium	42.4 (3.3) n=96	53.0 (3.3) n=96	-10.6 (-15.0 – -6.2)	22.65 (1, 466)	<.001	0.046
Canada	45.8 (3.1) n=80	54.3 (3.4) n=80	-8.5 (-13.6 – -3.4)	10.71 (1, 466)	.001	0.022
Spain	36.6 (3.3) n=68	53.0 (3.5) n=68	-16.4 (-21.5 – -11.2)	38.75 (1, 466)	<.001	0.077
Total	41.6 (2.9) (n = 244)	53.4 (3.1) (n = 244)	-11.8 (-15.0 – -8.7)	54.12 (1, 466)	<.001	0.104
<i>Post-Traumatic Growth Inventory, total score (/50)</i>						
Belgium	18.1 (2.6) n=95	23.5 (2.6) n=94	-5.4 (-8.9 – -1.9)	9.31 (1, 442)	.002	0.021
Canada	16.6 (2.5) n=71	20.8 (2.7) n=73	-4.3 (-8.5 – -0.02)	3.90 (1, 442)	.049	0.009
Spain	20.9 (2.6) n=65	25.1 (2.8) n=66	-4.2 (-8.4 – -0.1)	4.02 (1, 442)	.046	0.009
Total	18.5 (2.3) (n = 231)	23.1 (2.4) (n = 233)	-4.6 (-7.2 – -2.1)	12.48 (1, 442)	<.001	0.027
<i>Post-Traumatic Growth Inventory, subscores (each /10)</i>						
	n = 231	n = 233				
Personal strength	4.0 (0.6)	5.1 (0.6)	-1.2 (-1.9 – -0.5)	11.07 (1, 442)	<.001	0.024

New possibilities	3.5 (0.6)	4.2 (0.6)	-0.7 (-1.4 – -0.04)	4.40 (1, 443)	.037	0.010
Improved relationships	3.6 (0.6)	4.0 (0.6)	-0.36 (-1.0 – 0.3)	1.15 (1, 442)	.285	0.003
Spiritual growth	2.6 (0.6)	3.8 (0.6)	-1.2 (-1.9 – -0.6)	13.13 (1, 442)	<.001	0.029
Appreciation of life	4.7 (0.6)	5.9 (0.6)	-1.1 (-1.8 – -0.50)	12.44 (1, 443)	<.001	0.027

Note. The mean scores represent the estimated marginal means adjusted for the cause of death, income, household profile, matrimonial status, time since death, age of the deceased, and age of the bereaved. Bonferroni adjustment for multiple comparisons was applied to the p-value. CI: Confidence interval; df: degree of freedom; SE: Standard error.

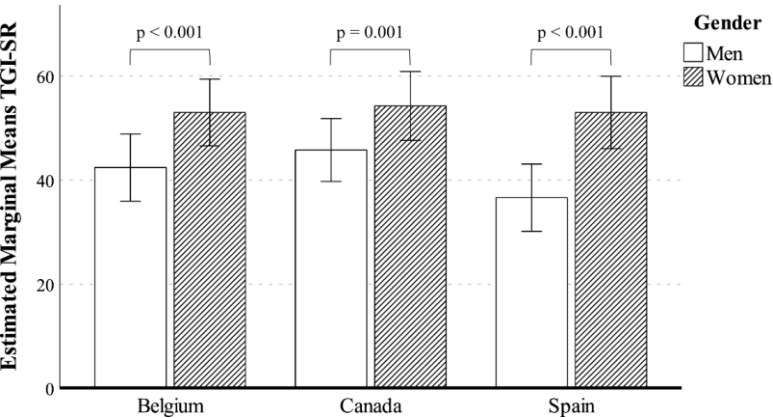


Figure 1. Estimated marginal means of men and women based on their country of origin.

Error bars represent the 95% confidence interval. Covariates included in the model were evaluated at specific values: Time since death = 365.67 days, Age of the deceased = 72.08 years, Age of the bereaved = 43.45 years. Other factors included in the model were cause of death, income, household profile, and matrimonial status.

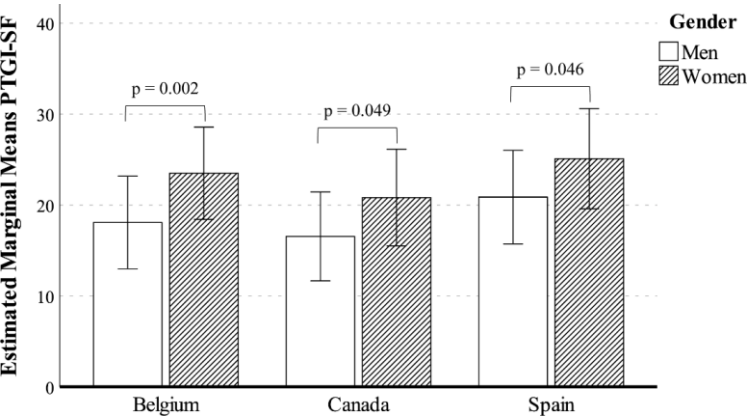


Figure 2. Estimated marginal means of the PTGI-SF for men and women according to their country of origin. Error bars represent the 95% confidence interval. Covariates appearing in the model are evaluated at the following values: Time since death = 369.28 days, Age of the deceased = 72.07 years, Age of the bereaved = 43.56 years. Other factors included in the model were cause of death, income, household profile, and matrimonial status.