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Exploring posttraumatic growth in individuals bereaved by suicide: A secondary data analysis of a national survey

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ABSTRACT

This article explores the concept of posttraumatic growth (PTG) in individuals bereaved by suicide. The present study employs an exploratory approach to examine secondary data from a national survey. A sample of 2369 ($n=2369$) responses were examined. Various instruments were utilized to assess grief experiences, social support, and personal growth. Descriptive statistics, correlational analysis and a hierarchical regression model were used to examine the relationship between the variables in this study. Hierarchical regression analysis revealed six independent predictors of PTG: social and formal support, time since loss, grief experiences, gender and multiple losses. The study highlighted the potential for growth in the aftermath of suicide bereavement, emphasizing the critical role of social support and the importance of time in promoting PTG. Despite some limitations, the present findings provide novel insight into the underlying mechanisms of PTG in suicide-bereaved individuals.

According to the World Health Organization (2017), almost 800,000 people die by suicide annually. Globally, more than half of all violent deaths are caused by suicide and its prevention has been highlighted as a public health priority (Bachmann, 2018; World Health Organization, 2014). In the past, it was suggested that each death by suicide affected up to six individuals (Shneidman, 1969). However, more recent research by Cerel et al. (2019) estimates that each suicide may affect up to 135 individuals, with approximately 25 people significantly impacted, while recent meta-analytic findings estimate that 21.8% of the general population will be exposed to suicide at some point in their lifetime (Andriessen et al., 2017).

It is well recognized that suicide bereavement is associated with a host of negative outcomes. These include long-lasting negative psychological effects including depression, anxiety, suicidal ideation, and suicide attempts (Cerel et al., 2017; Pitman et al., 2014). Recent research also suggests that those who are bereaved by suicide are at an increased risk of developing complicated grief reactions and prolonged grief disorder (Guldin et al., 2017). Additionally, individuals bereaved by suicide are more likely to experience feelings of stigma and shame than those bereaved by other causes (Pitman et al., 2016). There

is also accumulating evidence that those bereaved by suicide are more prone to several adverse physical health outcomes, including an increased risk of physical illness, cardiovascular disease, hypertension, and diabetes (Spillane et al., 2017).

Given these negative outcomes and the number of people exposed to suicide, developing a clear understanding of the supports and dynamics that may help this group is of great importance. While much empirical research has focused on the adverse consequences associated with suicide bereavement, little has explored the potential for growth in the aftermath of such loss (Levi-Belz et al., 2021). Posttraumatic growth (PTG) refers to positive psychological changes that can occur in the aftermath of a highly challenging, stressful and traumatic life event (Tedeschi & Calhoun, 1996). It is not simply a return to baseline levels of functioning. Rather, it is an experience of personal growth resulting in a higher level of adaptive functioning than which was present prior to the event (Tedeschi & Calhoun, 2004). PTG has been studied in relation to various forms of trauma, including plane crashes, car accidents, and sexual assault (Linley & Joseph, 2004).

Researchers have only recently begun examining PTG in individuals bereaved by suicide. Much of this research has sought to develop an understanding of the

demographic factors, and the mechanisms that facilitate growth in this population. Early research exploring the possibility of PTG in a group of suicide bereaved parents highlighted a positive relationship between PTG and positive mental health outcomes (Feigelman et al., 2009). Additionally, a negative relationship was observed between PTG and difficulties associated with adverse grief reactions, a finding that has been supported by more recent research. In a comparison of grief and growth-related characteristics between three categories of bereaved individuals, Levi-Belz (2017) found a negative association between PTG and levels of active grief in those bereaved by suicide.

Another consistent finding highlighted in the literature is the positive relationship between PTG and help-seeking behaviors. In their examination of PTG in bereaved college students, 12% of whom were bereaved by suicide, Tureluren et al. (2023) found a significant positive association between PTG and social support. Similarly, Drapeau et al. (2018) found that social support and favorable help-seeking attitudes were associated with higher levels of PTG in a sample of adults bereaved by suicide. These findings align with previous longitudinal research, which found that social support and self-disclosure mediated the association between attachment style and PTG (Levi-Belz & Lev-Ari, 2018), as well as more recent meta-analytic findings confirming that self-disclosure and social support play a significant role in fostering PTG (Levi-Belz et al., 2021).

Finally, another line of research has focused on the relationship between PTG and loss-related factors. Within this area, a positive association has been consistently found between PTG and the length of time which has passed since the loss. In their examination of stress-related growth in individuals bereaved by suicide, Levi-Belz (2015) reported a moderate positive association between time since loss and measures of growth. A similar association has been reported in various other populations, including bereaved college students (Tureluren et al., 2023), adults who have lost family members (Levi-Belz, 2017) and parents bereaved by suicide (Feigelman et al., 2009). Similarly, a positive correlation has been found between perceived closeness to the deceased and levels of PTG, whereby relationships perceived as close were associated with higher levels of PTG (Drapeau et al., 2018; Levi-Belz, 2017).

Taken together, the findings from previous research suggest that PTG is possible in the aftermath of suicide bereavement. However, to the best of the authors knowledge, these findings have not been explored via large-scale survey data. This study, therefore, aims to investigate these findings using a sample of data

obtained from a recent Irish survey, *AfterWords*, a large cross-sectional survey of adults bereaved by suicide in Ireland (O'Connell et al., 2021, 2022). The aim of the survey was to explore the experiences of those bereaved by suicide and the supports they received. In light of the aforementioned literature, and based on the data gathered by O'Connell et al., (2022) three exploratory goals guided the present research and analyses. First, sociodemographic information was explored to determine the social and demographic factors associated with PTG. Second, the relationship between PTG and loss-related factors including time since loss, the relationship with the deceased and grief experiences were examined. Finally, the relationship between PTG and interpersonal factors was examined, with a specific focus on social and formal support.

Materials and methods

Data

The present study was a secondary data analysis of responses to a national survey. The survey was conducted by the National Suicide Research Foundation (NSRF) in conjunction with the School of Public Health, University College Cork, and Healing Untold Grief Groups (HUGG), a suicide bereavement support charity (O'Connell et al., 2021, 2022). The original survey utilized a mixed-methods cross-sectional online survey design. The survey was distributed using Qualtrics software via a designated webpage. Participants were recruited through social media, radio adverts and press releases to media outlets. In addition, the survey was disseminated via bereavement services, community and professional groups and mental health charities. To increase the representativeness of the sample, the distribution of responses was monitored on a monthly basis with regard to key demographics and a targeted recruitment strategy was employed. The survey was open to participants between October 2021 and February 2022.

Research design

This study used a cross-sectional research design. The main outcome variable examined was PTG as measured using the Personal Growth Subscale of the Hogan Grief Reaction Checklist (HGRC) (Hogan et al., 2001). Additional standardized measures were used to assess grief experiences and social support. To determine the factors that contribute to PTG, a hierarchical multiple regression analysis was conducted. In line with previous research suggesting that

personal growth typically emerges later after bereavement, this subscale was not presented to those bereaved for less than 1 year.

Participants

The survey was open to adults (18 years and older) who had been bereaved or affected by suicide and were currently residing in Ireland (including Northern Ireland). Two thousand four hundred and thirteen participants took part in the survey ($N=2413$), of which 644 (26.7%) identified as male, 1752 (72.6%) as female and 17 (0.3%) as other or non-binary. The average age of participants was 43 ($SD=12$), ranging from 18 to 85. Of the participants who provided additional sociodemographic information, 96% identified as White Irish, 92% were heterosexual and 48% were married or in a civil partnership.

Instruments

In addition to demographic information, data were collected on the participant's relationship to the deceased, whether they had experienced single or multiple bereavements, the time elapsed since the bereavement, and whether they received formal support.

The 16-item brief version of the Grief Experience Questionnaire (GEQ) (Bailey et al., 2000) was used to assess levels of grief. Respondents rate their agreement with each item based on their personal experience of grief on a scale from one (strongly disagree) to five (strongly agree). Examples of items from the Brief GEQ include "I feel like a social outcast" and "I have trouble accepting the loss." Higher scores on each item are indicative of higher levels of grief. The GEQ has been found to be a valid and reliable measure of grief experiences with Cronbach alpha reliability scores for subscales ranging from .69 to .89 (Barrett & Scott, 1989). The Cronbach's alpha coefficient in this study was 0.86.

The three-item Multidimensional Scale of Perceived Social Support (MSPSS-R-3) (Slavin et al., 2020; Zimet et al., 1988) was used to assess three distinct sources of social support (family, friends and significant other). Respondents rate each item from one (very strongly disagree) to seven (very strongly agree). Examples of items from the scale include "There is a special person with whom I can share joys and sorrows." and "I can count on my friends when things go wrong". The scale is comprised of positively phrased items with higher scores indicative of higher levels of social support. In line with previous research, scores on each item were combined to represent

perceptions of global support (Osman et al., 2014). The scale has been found to be a valid and reliable measure with Cronbach alpha reliability scores of .86 (Slavin et al., 2020). The Cronbach's alpha coefficient in this study was 0.78.

The 12-item personal growth subscale of the HGRC (Hogan et al., 2001) was used to assess PTG. The subscale assesses levels of personal growth and positive psychological change in the aftermath of bereavement. Respondents rate each item on a scale from one "does not describe me at all" to seven "describes me very well". Examples of items from the Personal Growth subscale include "I am more tolerant of myself" and "I care more deeply for others". The scale is comprised of positively phrased items with higher scores indicative of higher levels of personal growth. The scale has been found to be a valid and reliable measure of personal growth following bereavement with Cronbach alpha reliability scores of .89 (Hogan et al., 2001). The Cronbach's alpha coefficient in this study was .91.

Data analysis

Relevant data were identified, cleaned, extracted and then analyzed using IBM Statistics SPSS 27. Due to the low number of individuals identifying as other or non-binary, this category was excluded from the analysis. Thus, gender was categorized as male or female and 2,396 responses were examined. A series of *i*-tests and one-way analysis of variance (ANOVA's) were conducted to examine group differences. Reliability analyses were performed for each scale using Cronbach's alpha coefficients (see Appendix A). Correlation analysis was performed using Pearson product-moment correlational analysis (see Table 1). To meet the exploratory goals of the study, a hierarchical multiple regression analysis was conducted with demographic factors (age and gender), loss-related factors (time since loss, multiple losses, GEQ scores, and relationship to the deceased), and interpersonal factors (MSPSS-R-3 scores and a binary variable for formal support) being entered sequentially into the model across three blocks (see Table 2).

Ethical approval and data confidentiality

This study received ethical approval from the University College Dublin School of Psychology Research Ethics Committee. A data confidentiality agreement was agreed upon and signed by the main author (MC), thesis supervisor (MOC) and the principal investigator (EG) of the original study.

Table 1. Intercorrelation scores of primary continuous variables.

Variable	1	2	3	4	5
1. Age	–				
2. Time since loss (Years)	.22**	–			
3. Brief GEQ	–.19**	–.05*	–		
4. MSPSS-R-3	–0.01	0	–.25**	–	
5. PG Total	–0.02	.18**	–.17**	.29**	–

Brief GEQ: Brief version of the Grief Experience Questionnaire (Bailey et al., 2000); MSPSS-3-R: The 3-Item Multidimensional Scale of Perceived Social Support (Slavin et al., 2020); PG: Personal Growth Subscale (Hogan et al., 2001), * $p < .05$. ** $p < .01$.

Table 2. Hierarchical regression results for personal growth scores.

Variable	<i>B</i>	95% CI for <i>B</i>		SE <i>B</i>	β	R^2	ΔR^2
		LL	UL				
Step 1							
Constant	38.98	36.88	41.08	1.07		.02	.02***
Gender	2.84	1.74	3.94	.56	.13***		
Age	–.02	–0.07	0.02	.02	–.03		
Step 2							
Constant	45.62	40.29	50.97	2.72		.10	.08***
Gender	3.48	2.40	4.56	0.55	0.16***		
Age	–.10	–0.14	–0.05	0.02	–0.11		
Time since loss (Years)	.211	0.16	0.27	0.03	0.19***		
Multiple losses	1.58	0.62	2.54	0.49	0.08***		
GEQ	–.19	–0.24	–0.14	0.02	–0.20***		
Family or (Ex)spouse ^a	.42	–3.99	4.82	2.25	0.02		
Friend or classmate ^a	.25	–4.25	4.74	2.29	0.01		
Professional or acquaintance ^a	.03	–4.69	4.75	2.41	0.00		
Step 3							
Constant	35.85	30.39	41.33	2.79		.16	.06***
Gender	2.83	1.78	3.88	0.54	0.13***		
Age	–.09	–0.13	–0.05	0.02	–0.10		
Time since loss (years)	.23	0.18	0.29	0.03	0.21***		
Multiple losses	1.53	0.61	2.46	0.47	0.08***		
GEQ	–.14	–0.19	–0.09	0.03	–0.15***		
Family or (Ex)spouse ^a	–.67	–4.93	3.58	2.17	–0.03		
Friend or classmate ^a	–.61	–4.94	3.73	2.21	–0.03		
Professional or acquaintance ^a	–.43	–4.99	4.13	2.32	–0.01		
MSPSS-3-R	.51	0.41	0.61	0.05	0.25***		
Formal support	1.59	0.50	2.67	0.56	0.07*		

Note. Brief GEQ: Brief version of the Grief Experience Questionnaire (Bailey et al., 2000); MSPSS-3-R: The 3-item Multidimensional Scale of Perceived Social Support (Slavin et al., 2020); CI: confidence interval; β : standardized regression coefficient; ^adummy coded variables.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Results

Demographics

Approximately, 73% of the sample were female. The age of participants ranged from 18 to 85 with a mean age of 43 ($SD=11.85$). The average number of years since bereavement was 8.50 ($SD=8.98$). Sixty-seven percent of participants lost either a family member, spouse or ex-spouse to suicide. Fifty-eight percent of participants were aged between 35 and 52 when completing the study. Thirty-one percent of participants were bereaved more than 10 years and 54% of participants had experienced multiple losses. Table 3 presents a detailed breakdown of demographic variables.

Personal growth scores

With regard to the relationship between PTG and demographic factors, females scored significantly higher on personal growth scores ($M=40.71$, $SD=9.50$) than males

($M=38.17$, $SD=10.35$), $t(1615) = -4.687$, $p < .001$. In contrast, no significant differences were observed in personal growth scores based on age categories, $F(3, 1574) = 1.219$, $p > .05$. With regard to loss-related factors, those who experienced multiple bereavements scored significantly higher on personal growth scores ($M=40.73$, $SD=9.81$) than those who did not ($M=39.09$, $SD=9.76$), $t(1627) = -3.375$, $p < .001$, while participants who were bereaved 10 or more years scored highest on personal growth scores ($M=41.91$, $SD=9.82$). No significant differences were observed based on the relationship to the deceased, $F(2,1561) = 0.103$, $p > .05$. With respect to interpersonal factors, no significant differences were observed between those who received formal support and those who didn't, $t(1627) = -1.485$, $p > .05$.

Correlations

All assumptions for Pearson's correlation were met prior to conducting the analysis. With regard to the

Table 3. Socio-demographic characteristics, personal growth scores and *p*-values.

Demographics variable	<i>N</i>	%	PG		<i>P</i> -value
			<i>M</i>	<i>SD</i>	
Gender					< .001
Male	644	26.9	38.17	10.35	
Female	1752	73.1	40.71	9.50	
Age category					.301
18–24	150	6.3	39.10	9.45	
25–34	421	17.7	40.80	9.79	
35–52	1370	57.7	40.08	9.65	
54+	435	18.3	39.36	10.45	
Number of years bereaved					< .001
Between 1 and 2 years	461	19.2	36.82	8.81	
Between 3 and 5 years	475	19.8	38.32	9.47	
Between 6 and 10 years	417	17.4	39.77	9.88	
More than 10 years	752	31.4	41.91	9.82	
Multiple losses					< .001
Yes	1293	40.7	40.73	9.76	
No	1103	39.1	39.09	9.81	
Relationship to the deceased					.274
Family, spouse or ex-spouse	1587	67.3	39.95	9.79	
Friend or classmate	530	22.5	39.98	9.81	
Professional relationship or acquaintance	241	10.2	40.39	9.69	
Formal support received					.138
Yes	1597	66.7	40.21	9.70	
No	799	33.3	39.40	10.11	

Note. *N* = 2396, *n* and % for each row refer to the sample of participants who responded to these questions, PG: personal growth; *M*: mean; *SD*: standard deviation. PG scores are based on the sample of participants who completed the personal growth subscale and does not represent the full sample.

relationship between PTG and interpersonal factors, the correlation analysis found a significant weak to moderate positive correlation between total personal growth and perceived social support (MSPSS-3-R; $r = .29, p < .01$). With regard to loss related factors, a significant weak correlation was observed between total personal growth and time since loss (Time since loss [years]; $r = .18, p < .01$), and a significant small to moderate negative correlation was observed between total personal growth and grief experiences (GEQ; $r = -.17, p < .01$). Correlations are presented in Table 2.

Hierarchical multiple regression

A hierarchical multiple regression model (see Table 3) with demographic, loss-related and interpersonal factors explained 16% of the variance in personal growth scores, $F(10, 1514) = 29.15, p < .001, R^2 = .161$. The Step 1 equation, focusing on demographic factors, was significant, explaining 2% of the variance, $F(2, 1522) = 13.59, p < .001$, with gender ($\beta = .13, p < .001$) emerging as significant positive predictors of personal growth. The Step 2 equation focusing on loss-related factors, was significant, explaining an additional 8% of the variance, $F(8, 1516) = 20.53, p < .001$. The addition of loss-related variables to the model resulted in a significant increase in $R^2, R^2 = .10$ (adjusted $R^2 = .09, \Delta R^2 = .08$). Specifically, time since loss ($\beta = 0.19, p < .001$) and multiple bereavements ($\beta = 0.08, p < .001$), emerged as contributing positively and uniquely to the variance in personal growth scores. GEQ scores ($\beta = -.20, p < .001$), emerged as

contributing negatively. The Step 3 equation, focusing on interpersonal factors, was significant, explaining a further 6% of the variance, $F(10, 154) = 29.15, p < .001$. The addition of interpersonal variables to the model resulted in a significant increase in $R^2, R^2 = .16$ (adjusted $R^2 = .16, \Delta R^2 = .06$). Specifically, MSPSS-3-R scores ($\beta = .25, p < .001$) and formal support ($\beta = .07, p < .05$), emerged as contributing positively and uniquely to the variance in personal growth scores.

Discussion

The aim of this study was to explore the relationship between PTG and sociodemographic, loss-related, and interpersonal factors in a sample of individuals bereaved by suicide. The results indicate that PTG is possible in the aftermath of suicide bereavement. Moreover, the present findings align with previous research showing that interpersonal factors, including social support, and loss-related factors, such as time since loss, are associated with PTG.

The results of this study indicate that increased social support is associated with higher levels of PTG. Similar findings have been consistently highlighted in the literature (Drapeau et al., 2018; Levi-Belz, 2019; Tureluren et al., 2023). Several explanations have been proposed to explain this relationship. Schaefer and Moos (1998) suggest that social support can provide individuals with the resources required to engage in adaptive coping strategies and cognitive reappraisal of the traumatic event. Similarly, Tedeschi and Calhoun

(2004) have suggested that social interaction and discussion allow room for the revision of core beliefs, a process which is essential to PTG. Building on this, Levi-Belz (2019) posits that social support can reduce social stigma and promote feelings of connection and belongingness.

In contrast to these findings, no significant differences were observed between those who accessed formal support and those who did not. However, examination of the hierarchical regression revealed that formal support was a significant predictor of PTG, albeit with a small effect size. Together, the findings on interpersonal factors suggest that social support has a greater positive impact than formal support on PTG. However, the measure of formal support used in this study was broad, encompassing supports that may be short-lived or have a limited impact on PTG. Thus, this comparison should be interpreted with some caution.

The present findings indicate a positive relationship between time since loss and PTG, suggesting that as time passes the opportunity for PTG increases. In addition, a negative relationship between grief experiences and PTG was observed, with both time since loss and grief experiences significantly predicting variance in PTG. These results are consistent with prior studies that have demonstrated similar trajectories in various suicide-bereaved populations (Drapeau et al., 2018; Feigelman et al., 2009). In line with recent meta-analytic research, the current findings suggest that as time passes, grief may subside and PTG may rise (Levi-Belz et al., 2021). These findings support Calhoun et al. (2010), assertion that PTG can co-occur with grief and may emerge from an individual's efforts to deal with their grief and make meaning from their loss.

This study provides important insight into the experiences of those who have been impacted by multiple suicide bereavements, with this group making up approximately half of all respondents. The present results suggest that experiencing multiple losses is positively associated with higher levels of PTG. However, it is important to note that the strength of this relationship is small. Nonetheless, a potential explanation for these findings is that individuals who have experienced multiple losses may have developed coping strategies or support networks that help them deal with subsequent bereavements. Previous research suggests that coping mechanisms such as seeking social support, acceptance and reappraisal all positively contribute to PTG (Prati & Pietrantonio, 2009). Thus, it is possible that having these mechanisms in place prior to subsequent bereavements may facilitate

additional growth. Given the lack of studies focusing on this population, future research is necessary to determine the prevalence and factors that potentially influence PTG in those impacted by multiple suicide bereavements.

In contrast to previous research (Drapeau et al., 2018; Levi-Belz, 2017), the present findings suggest that PTG does not differ based on the relationship with the deceased. ANOVA results indicated no significant differences in PTG scores across different relationship categories. Furthermore, the hierarchical regression analysis did not find the relationship with the deceased to be a significant predictor of PTG. However, it is important to note that the present study did not consider personal characteristics, perceived closeness or subjective perception of the event. Thus, the present findings are limited and should be interpreted with some caution.

With respect to demographic factors, females reported significantly higher levels of PTG than males with gender emerging as a significant positive predictor of personal growth. These results are in contrast to other research examining PTG in those bereaved by suicide (Levi-Belz, 2015; Moore et al., 2015). However, they are in line with broader PTG research, which has consistently found that females report higher levels of PTG than males (Jin et al., 2014; Vishnevsky et al., 2010). Tedeschi and Calhoun (1995) have suggested that this disparity may be due to differences in coping strategies used by women and an increased likelihood among women to share their experiences with others. However, it's worth noting that the observed beta coefficient for gender was relatively small, suggesting that while statistically significant, the practical significance of the gender difference in PTG levels may be limited. Further investigation into the possibility of gender disparity in PTG levels is warranted to better contextualize its implications in the context of suicide bereavement.

Finally, the present findings revealed no differences in PTG based on age. These findings were supported by examination of the correlation matrix, and the hierarchical regression model, which found that age did not significantly predict personal growth. These results are in contrast to previous research, which has found PTG to increase with age (Feigelman et al., 2009). However, broader research on the topic has yielded mixed results with some studies finding higher levels of PTG in younger individuals (Henson et al., 2021; Tureluren et al., 2023). These mixed findings may be due to differences in measurement tools, sample characteristics or other compounding factors. Taken together, the present findings and previous

literature indicate that further research is needed to determine the nature of this relationship.

The present findings build on previous research and add insight into the factors that contribute to PTG in those bereaved by suicide. Theoretically, the results of this study highlight the complex interplay of demographic, personal and interpersonal factors that contribute to the emergence of PTG. The findings suggest that, for some, the loss of a loved one through suicide may not result solely in negative outcomes, but can also foster opportunities for growth. They also point to the importance of social support and corroborate recent meta-analytic evidence, suggesting that as time passes, grief may subside and the possibility of PTG may increase (Levi-Belz et al., 2021). In addition, the findings of this study highlighted the possibility of gender differences in PTG and the potential for increases in PTG following multiple bereavements. From a practical perspective, the present findings suggest that those working in postvention should recognize the possibility of PTG as well as the negative outcomes associated with suicide bereavement. By recognizing the dual nature of these experiences, a more balanced approach to postvention may be developed. In addition, professionals working in this field should recognize the relationship between PTG and grief aiming to promote PTG through therapy and grief work. Given the observed relationship between social support and PTG, specific interventions may benefit by placing an emphasis on promoting social engagement, interaction and discussion. Possible avenues for this may be through peer support groups which have been shown to positively affect levels of well-being, depressive symptoms and stigma (Bartone et al., 2019; Griffin et al., 2022).

This study has a number of limitations. While the survey captured the experiences of a wide range of people bereaved by suicide, including people outside of the immediate family circle, the findings cannot be generalized to represent the experiences of all adults bereaved by suicide. The design likely resulted in some bias in terms of the profile of individuals who participated. A number of strategies were employed to reduce this bias, including a diverse range of recruitment methods (dissemination via bereavement services, community and professional groups and social media, as well as advertisement through print and digital media). In addition, the cross-sectional nature of this study limits the ability to establish any causal relationships. This is particularly relevant when examining differences in PTG over time. Future research could benefit from employing a longitudinal approach, which would provide a more

comprehensive understanding of this timeline. Finally, the reliance on self-report measures introduced the potential for responses that may not accurately reflect participants' actual experiences. Future research may benefit from the inclusion of objective measures of growth.

This study sheds valuable light on the relationship between PTG and socio-demographic, interpersonal and loss-related factors. The present findings highlight the potential for growth to co-occur with grief in the aftermath of suicide bereavement. The findings reinforce the important role of time in the grieving process and underscore the importance of support for the bereaved, particularly the beneficial effects of social support. Any bereavement, especially one as sudden and traumatic as suicide, can be devastating. However, these findings indicate that with time, adequate care and support, individuals bereaved by suicide can process their grief find meaning in their loss and experience personal growth through the trauma they have endured.

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Ethics approval statement

This study received ethical approval from the University College Dublin School of Psychology Research Ethics Committee (approved protocol number: UREC-SPsy-LR-22-Creegan)

Author contributions

Mark Creegan, Conceptualization, Methodology, Data curation, Data analysis, Writing - original draft.

Michael O'Connell: Conceptualization, Methodology, Data analysis, Supervision, Writing review & editing.

Eve Griffin: Methodology, Data curation, Data analysis, Reviewing and Editing

Dr Selena O'Connell: Methodology, Data curation, Data analysis, Reviewing and Editing

All authors have approved this final article.

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Appendix A. Reliability analysis and descriptive statistics for scale variables

Table A1. Descriptive statistics for scale variables.

Scale variable	M	SD	Range	Cronbach's α
MSPSS-3-R	14.61	4.70	3–21	0.79
GEQ	39.67	10.68	16–76	0.86
Personal Growth (HGRC)	40.02	9.81	12–60	0.91

Note. Brief GEQ: Brief version of the Grief Experience Questionnaire (Bailey et al., 2000); MSPSS-3-R: The 3-item Multidimensional Scale of Perceived Social Support (Slavin et al., 2020); HGRC: Hogan Grief Reactions Checklist (Hogan et al., 2001).