

## Bereavement, Religion, and Posttraumatic Growth: A Matched Control Group Investigation

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This study examined the intersection between bereavement, religion, and posttraumatic growth (PTG). A total of 369 young adults completed the Brief Multidimensional Measure of Religiousness/Spirituality (Fetzer Institute/NIA, 1999) and the Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996), divided equally into three groups: one bereaved by a violent loss (accident, suicide, or homicide) in the prior two years, one bereaved by a nonviolent death in the prior two years, and a third, nonbereaved group that experienced a general life stressor in the two years preceding the study. Individuals in the two bereaved groups generally endorsed greater religiousness when compared with persons in the nonbereaved group (as assessed by daily spiritual experiences, organizational religiousness, religious coping, forgiveness, and religious support). In addition, survivors who had lost loved ones to a violent death had higher scores across all domains of PTG and reported more distress symptomatology. When controlling for demographics and other study variables, bereavement status and religion factors significantly increased the explained variance in participants' perceptions of PTG and psychological distress. Although the study design restricts the ability to draw any causal conclusions, these findings highlight the possible spiritual impact of bereavement and how specific dimensions of religion can contribute to growth and healing in the adjustment process.

*Keywords:* bereavement, religion, spirituality, posttraumatic growth, meaning making

Religion has long provided a framework for coping with the possible challenges of bereavement (Park, 2005; Wortmann & Park, 2008, 2009). An important teaching of many religious and philosophical traditions is that while grieving might entail a painful state of psychological disequilibrium, such confrontations with suffering can also foster positive changes in one's life (Bemporad, 1987; Linley, 2003). Although people tend to respond to bereavement in a resilient manner or regain preloss levels of functioning after a protracted period of distress (Bonanno et al., 2002), research has also documented that the nature of an individual's grief response can increase the risk for serious decrements in mental and physical health (see Prigerson, Vanderwerker, & Maciejewski, 2008 for review). However, alongside evidence of the negative consequences of bereavement, recognition has also increased that a loved one's death can serve as a catalyst for posttraumatic growth (PTG; for review, see Calhoun, Tedeschi, Cann, & Hanks, 2010). In keeping with spiritual teachings on the possible redemptive power of suffering, the concept of PTG holds that even the most traumatic loss experiences can foster positive changes in the quality of one's relationships, view of the future, self-

perception of strength, appreciation of life, and depth of religious beliefs and commitment (Calhoun et al., 2010; Taku, Cann, Calhoun, & Tedeschi, 2008; Tedeschi & Calhoun, 2004). The goals of the present study were to (1) examine the contributions of violent and nonviolent losses on key dimensions of religiousness, PTG, and distress, and (2) explore the associations of these latter variables with one another after bereavement.

Several empirical investigations have demonstrated that death of another can indeed trigger life-altering, constructive changes (Armstrong & Shakespeare-Finch, 2011; Cadell, Regehr, & Hemsworth, 2003; Engelkemeyer & Marwit, 2008; Shakespeare-Finch & Armstrong, 2010). In a study of 174 bereaved HIV/AIDS caregivers, Cadell and colleagues (2003) found that a substantial portion indicated growing personally amid their loss experiences. Focusing on a group of 111 bereaved parents, Engelkemeyer and Marwit (2008) similarly reported a mean level of PTG reflecting transformative changes for many grievers in the sample. In addition, when compared with other types of life stressors (i.e., sexual abuse, motor vehicle accident), Shakespeare-Finch and Armstrong (2010) found that bereavement was associated with higher levels of PTG. Notwithstanding the important evidence that these studies provide, design limitations reduced the ability to test the possible impact of bereavement on PTG. Although the present investigation was also limited by the absence of prospective information, we attempted to expand the knowledge base by using a matched control group approach with individuals bereaved by both violent and nonviolent causes, as well as a group who had not experienced a significant bereavement in the previous two years.

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Importantly, for personal growth to occur after bereavement, Calhoun and colleagues (2010) propose that the loss needs to challenge or even shatter one's assumptive worldviews (Janoff-Bulman, 1992). Consistent with the concept of meaning making in general (see Neimeyer & Sands, 2011, and Park, 2010, for reviews), PTG can emerge from a griever's attempts to reorganize his or her global beliefs to better match the situational meaning of the bereavement experience. Hence, without some degree of discrepancy between his or her meaning systems and the appraised meaning of the loss, the griever will not be as likely to engage in the necessary self-reflection and cognitive processing of the loss for substantive intra- and interpersonal changes to occur (Calhoun et al., 2010; Joseph & Linley, 2005; Tedeschi & Calhoun, 2004). Given the centrality of religion for many people (Idler et al., 2003), meaning systems organized along religious/spiritual lines might similarly require reorganization and play a central role in coming to terms with the loss of a valued attachment relationship (Park, 2005; Wortmann & Park, 2008, 2009).

Evidence for Calhoun and colleagues' (2010) emphasis on meaning making is indirectly supported in empirical findings that losses by violent causes frequently present more profound psychological and spiritual challenges than nonviolent deaths. For instance, in an earlier study of more than 1,000 bereaved young adults, individuals whose loved ones died by homicide, suicide, and accidents (e.g., motor vehicle crash, drowning) indicated much greater difficulty making sense of their losses and reported higher levels of grief complication compared with grievers who had lost loved ones to natural causes (e.g., cancer; Currier, Holland, & Neimeyer, 2006). From a meaning-making perspective, the violent deaths of loved ones will generally challenge people's assumptive worldviews more severely, and consequently precipitate greater reorganization of core beliefs. This notion aligns with Taylor and Brown's (1988) argument that growth will more likely follow experiences that call into question overly positive beliefs, leading the individual to view self, others, and/or the world in more adaptive terms. In the present context, it therefore might be anticipated that violent loss experiences will be associated with greater perceptions of growth and distress than nonviolent losses.

As the world's major religious traditions have emphasized for millennia, personal growth after bereavement can take existential forms (Wortmann & Park, 2009) and certain aspects of spirituality might also prime many individuals for PTG (see Shaw, Joseph, & Linley, 2005 for review). Previous work has demonstrated that religious coping (Pargament et al., 1998, 2000), private religious practices (Koenig, Pargament, & Nielsen, 1998), and organizational religious activity (Calhoun et al., 2000) have each factored prominently in PTG. In a qualitative study of parents of murdered children, Parappilly and colleagues (2002) similarly found that faith in God, belief in an afterlife, gratitude, prayer, and spiritual rituals were incorporated adaptively in many of the parents' attempts growth after their child's violent death. However, in keeping with concerns about the measurement of religion in general (for reviews, see Hill & Pargament, 2003; Kapuscinski & Masters, 2010), a review conducted by Shaw et al. (2005) highlighted a need for more fine-grained analyses of the impact of concrete dimensions on PTG. To this point, a heavy reliance on more global indicators of religion and the tendency for researchers to only assess one or two dimensions has hindered the examination of ways in which this multifaceted construct might relate to PTG.

Similar concerns are also present in the broader literature on the role of religion in coping with loss. In their review of quantitative studies, Wortmann and Park (2008) found that while religiousness generally correlated with better adjustment, various dimensions were differentially predictive of grievers' psychological functioning. For instance, whereas religious affiliation did not emerge as a salient protective factor in most studies that assessed this construct, research on religious coping consistently yielded clearer positive results. However, even this conclusion requires further attention, as recent research with survivors of a loved one's homicide found no association between positive religious coping on the one hand and bereavement-related distress on the other (Burke et al., 2011; Neimeyer & Burke, 2011). In general, it appears that specific aspects of religion might contribute more prominently to postbereavement adjustment than others, and there is likely no single dimension that solely assists people in the grieving process. For example, receiving social support from one's religious community, cultivating forgiveness, pursuing daily experiences of spirituality, spending time in prayer and meditation, and reading sacred religious/spiritual texts could all foster positive adaptation after loss. Examining these dimensions could illuminate beliefs and behaviors that factor most significantly in personal growth and distress during bereavement.

The development of the Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) provides an efficient and theoretically sound instrument to assess key dimensions of religion (Fetzer Institute/NIA Working Group, 1999; Idler et al., 2003). In an effort to gain a comprehensive picture of participants' religiousness, we focused on daily spiritual experiences, private religious practices, organizational religiousness, religious coping, forgiveness, and religious support. We first hypothesized that the groups of bereaved individuals would report higher religiousness, PTG, and distress than nonbereaved individuals and that persons who had experienced violent losses would report more PTG and distress symptomatology than people who had experienced a natural loss. Second, when accounting for demographic and religion variables, we hypothesized that participants' bereavement status (violent loss, natural loss, and no bereavement) would have a unique impact on PTG. However, we lastly hypothesized that the dimensions of religiousness assessed in this study would also be linked with PTG and distress, above and beyond effects of the demographic characteristics and the bereavement status of the participants.

## Method

### Participants

After institutional review and approval of the project, 369 individuals were recruited from undergraduate psychology courses at a large southern research university. The three study groups were composed of 123 persons who had experienced a loss of a loved one via violent means (accident, suicide, and homicide) in the prior two years, 123 who had experienced a bereavement attributable to nonviolent causes in the previous two years, and 123 persons who had not experienced a bereavement in the two preceding years but reported another stressful experience. Data for this study were collected electronically between 2006 and 2009 via an online subject pool system sponsored by the insti-

tution's psychology department. Three-quarters of the participants in this study were Christian-Protestant, 7.4% were Roman Catholic, 5.5% reported affiliation with other religions (e.g., Muslim, Buddhist, Hindu), and 12.1% reported no religious affiliation (see Table 1 for additional demographic information).

All of the losses had occurred between 3 and 24 months from the time of the study, reflecting a period in which there was an opportunity for PTG to occur and for participants to experience the psychological impact of the loved one's death (Currier et al., 2006; Prigerson et al., 2008). After the identification of persons who had experienced a violent loss from the larger study, survivors of natural losses were selected if they had lost a similar relationship as a violent loss survivor (e.g., immediate vs. extended family member or close friend) and also shared important demographic features (gender, age, and ethnicity). Next, individuals who had not experienced a recent bereavement were matched according to a shared demographic profile with persons in the violent loss group.

The average number of months elapsed since bereavement was 13.53 ( $SD = 6.58$ ) and 12.07 ( $SD = 6.76$ ) for survivors of violent and natural losses, respectively. In the violent loss group, 20 individuals (16.3%) had lost a member of the nuclear family (parent, sibling, child, or spouse/partner), 35 (28.4%) had lost an extended family member (grandparent, aunt/uncle, cousin, or other family), and 68 (55.3%) had lost a friend or other significant nonfamily relation. More than half of these losses occurred via an accident ( $n = 70$ , 56.9%), and an even distribution of the deaths had occurred by suicide ( $n = 27$ , 22%) and homicide ( $n = 26$ , 21.1%). In the natural loss group, 20 individuals (16.3%) had lost a member of the nuclear family, 92 (74.8%) had lost an extended

family member, and 11 (8.9%) lost a friend or other significant nonfamily relation. The majority of these nonviolent deaths were attributable to natural anticipated causes (e.g., cancer;  $n = 79$ , 64.2%), and a third of the group had lost loved ones to natural sudden causes (e.g., heart attack;  $n = 44$ , 35.8%). Life stressors for persons in the nonbereaved group included academic problems ( $n = 36$ , 29.3%), financial problems ( $n = 33$ , 26.8%), physical illness/injury of a significant other ( $n = 10$ , 8.1%), physical illness/injury of self ( $n = 9$ , 7.3%), problems with work ( $n = 9$ , 7.3%), mental illness of significant other ( $n = 6$ , 4.9%), change in job status ( $n = 5$ , 4.1%), housing problems ( $n = 4$ , 3.3%), and legal problems ( $n = 2$ , 1.6%).

## Measures

The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Fetzer Institute/NIA, 1999; Idler et al., 2003) was used to assess daily spiritual experiences, private religious practices, organizational religiousness, religious coping, forgiveness, and religious support. Drawing on information from existing measures, the BMMRS was developed to provide brief assessments of important aspects of religion for psychological research. Given the need for understanding the *specific* ways in which religion might be linked with PTG (Shaw et al., 2005), this study did not include BMMRS subscales that assessed more global indicators of religiousness. Participants completed the six-item version of the Daily Spiritual Experiences Scale (DSES; Underwood & Teresi, 2002) to provide an estimate of the frequency of ordinary lived experiences of spirituality (e.g., uplifting joy, inner peace). Private religious practices were assessed with five items relating to prayer and other more personal religious practices (as

Table 1  
*Demographic Characteristics and Unadjusted Means for Religion Factors, Growth, and Psychological Distress by Bereavement Status*

	Violent loss	Natural loss	No bereavement
<b>Demographics</b>			
Age, $M$ ( $SD$ )	20.80 (4.85)	21.64 (6.34)	20.75 (5.19)
Gender, $n$ (%)			
Male	22 (17.89%)	19 (15.45%)	22 (17.89%)
Female	101 (82.11%)	104 (84.55%)	101 (82.11%)
Ethnicity, $n$ (%)			
Caucasian	55 (44.72%)	56 (45.53%)	63 (51.22%)
African American	57 (46.34%)	56 (45.53%)	50 (40.65%)
Other minority	11 (8.94%)	11 (8.94%)	10 (8.13%)
Family education (in years)	14.28 (2.12)	14.02 (2.04)	14.34 (2.22)
<b>Religiousness/Spirituality factors, <math>M</math> (<math>SD</math>)</b>			
Daily spiritual experiences	25.78 (7.49)	27.09 (8.48)	24.24 (8.56)
Private religious practices	17.55 (6.52)	18.21 (6.59)	16.98 (7.20)
Organizational religiousness	6.22 (2.68)	6.86 (2.75)	5.58 (3.05)
Religious coping	22.11 (4.00)	21.74 (4.30)	20.86 (4.03)
Forgiveness	10.24 (2.12)	10.11 (2.11)	9.49 (2.40)
Religious support	12.49 (2.52)	13.16 (2.63)	12.23 (2.65)
<b>Posttraumatic growth, <math>M</math> (<math>SD</math>)</b>			
Relating to others	19.07 (8.46)	17.37 (8.62)	14.16 (8.44)
New possibilities	12.46 (7.15)	10.49 (7.04)	10.82 (6.91)
Personal strength	11.25 (5.57)	9.71 (5.75)	9.69 (5.12)
Spiritual change	5.37 (3.10)	4.85 (2.96)	3.81 (3.01)
Appreciation of life	8.82 (4.26)	7.20 (4.51)	7.19 (4.49)
Posttraumatic growth total	57.48 (26.18)	50.20 (26.60)	46.58 (24.54)
Psychological distress, $M$ ( $SD$ )	10.52 (7.49)	9.37 (7.90)	7.69 (6.71)

opposed to corporate/public practices; Chatters, Levin, & Taylor, 1992; Levin, Taylor, & Chatters, 1995). Organizational religiousness was measured with two items drawn from measures of involvement in a church or other formal religious group (Pargament, Tyler, & Steele, 1979; Strawbridge et al., 1997; Wingrove & Alston, 1974). Religious coping was examined using a seven-item short form from Pargament et al. (1990, 1998), with negative religious coping items reverse scored to contribute to a total score. Examples items for positive and negative religious coping on this condensed versions are "I look to God for strength, support, and guidance" (positive) and "I feel God is punishing me for my sins or lack of spirituality" (negative). Forgiveness was measured with three questions pertaining to self-forgiveness, forgiveness of others, and perceived forgiveness from God (adapted from Mauger et al., 1992). Religious support was assessed with four questions on the quality of interpersonal relationships within a religious context that might provide support in a time of crisis or in which the individual could provide meaningful support to others (Krause, 1995, 1997; Krause & Markides, 1990). Responses on these six scales were each based on a Likert-type, numeric scale, and internal consistencies ranged from .47 to .94.

Participants' perceptions of personal growth were assessed with the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996). The PTGI is a widely used 21-item instrument that assesses retrospective accounts of positive changes after a stressful life experience. Persons in the two bereaved groups completed the PTGI with respect to their recent loss experience and participants in the nonbereaved group completed the PTGI with respect to another life stressor that had also occurred over the prior two years. Consistent with Tedeschi and Calhoun's (2004) theoretical propositions, recent factor analytic work by Taku and colleagues (2008) supported five interrelated but distinct domains on the PTGI: Relating to Others (seven items), New Possibilities (five items), Personal Strength (four items), Spiritual Change (two items), and Appreciation of Life (three items). Hence, from a measurement standpoint, the PTGI can yield a total score and/or five subscale scores that reflect particular types of positive changes. All PTGI items were scored on a six-point scale according to the individual's perception of change pertaining to the life stressor (0 = *No change*, 5 = *Very great change*). Each of these subscales demonstrated strong internal consistency in the sample, ranging from .80 to .91. The internal consistency for the total PTGI was .95.

Psychological distress was assessed with the revised version of the Symptom Checklist-10 (SCL-10-R; Rosen et al., 2000), which represents a 10-item index of the Symptom Checklist-90 (SCL-90; Derogatis, Lipman, & Covi, 1973). Items on the SCL-10-R were rated on a five-point scale according to the severity of psychological distress associated with the symptom over the previous 30 days (0 = *Not at all*, 4 = *Extremely*). The SCL-10-R showed high internal consistency in this sample as well ( $\alpha = .88$ ).

## Results

### Differences in Religiousness, Growth, and Distress by Bereavement Status

Unadjusted means for all study variables are outlined in Table 1. To examine the impact of bereavement status on study variables, we first conducted a MANCOVA with age, gender, and ethnicity as covari-

ates. Results of this MANCOVA indicated a statistically significant effect for the bereavement status factor, Wilks'  $\lambda = 0.80$ ,  $F(24, 704) = 3.85$ ,  $p < .001$ . Therefore, we proceeded to examine the differences in religiousness, PTG, and distress across the three groups.

The patterns of results for ANCOVAs revealed main effects for bereavement status for Daily Spiritual Experiences  $F(2, 363) = 2.79$ ,  $p = .062$ , Religious Coping,  $F(2, 363) = 2.63$ ,  $p = .074$ , Forgiveness,  $F(2, 363) = 3.56$ ,  $p = .029$ , Organizational Religiousness,  $F(2, 363) = 3.56$ ,  $p = .029$ , and Religious Support,  $F(2, 363) = 3.62$ ,  $p = .028$ . There was also similar pattern for domains of PTG and psychological distress: Relating to Others,  $F(2, 363) = 10.30$ ,  $p < .001$ , New Possibilities,  $F(2, 363) = 2.66$ ,  $p = .072$ , Appreciation of Life,  $F(2, 363) = 5.30$ ,  $p = .005$ , Personal Strength,  $F(2, 363) = 3.07$ ,  $p = .048$ , Spiritual Change,  $F(2, 363) = 7.99$ ,  $p < .001$ , and Psychological Distress,  $F(2, 363) = 5.03$ ,  $p = .007$ .

In terms of differences between the groups, Fisher's LSD test revealed that violent loss survivors engaged in greater religious coping than persons in the nonbereaved group,  $p = .023$ . Regardless of whether the loss was violent or nonviolent, bereaved individuals endorsed higher Forgiveness,  $ps = .011$  and  $.055$ , respectively. When considering other differences, persons who had lost loved ones to natural causes reported higher frequencies of Daily Spiritual Experiences,  $p = .019$ , and Organizational Religiousness,  $p = .001$ , than nonbereaved persons. In addition, when compared with persons in both the violent loss and nonbereaved group, the natural loss group had higher ratings of Religious Support,  $ps = .058$  and  $.010$ , respectively.

As presented by the group means in Table 1, survivors of violent loss reported higher PTG scores across the five domains, followed by the scores of natural loss survivors and nonbereaved persons. When accounting for effects of age, gender, and ethnicity, post hoc analyses revealed that survivors of violent and natural losses perceived greater growth in Relating to Others,  $p < .001$  and  $p = .004$ , and Spiritual Change,  $p < .001$  and  $p = .009$ , than individuals in the nonbereaved group. In addition, persons in the violent loss group had higher Appreciation of Life,  $p = .005$ , and Personal Strength,  $p = .032$ , compared with the nonbereaved group. When compared with the natural loss group, survivors of violent loss endorsed greater positive changes with respect to New Possibilities,  $p = .030$ , Appreciation of Life,  $p = .005$ , and Personal Strength,  $p = .033$ . Persons in the violent and natural loss groups also had higher scores on the SCL-10-R compared with their nonbereaved counterparts,  $ps = .002$  and  $.053$ , respectively.

### Examining the Effects of Bereavement and Religiousness in Growth

As reflected in the pattern in the intercorrelations between the study variables (see Table 2), higher scores on religion variables were positively correlated with PTG (with the exception of religious support). In addition, psychological distress was negatively associated with each of the religiousness dimensions. In light of these associations, we therefore conducted two hierarchical regressions to examine the contributions of bereavement status and religion factors in accounting for variability in total scores on the PTGI and SCL-10-R. On the first step in each analysis, age, gender, and ethnicity were again entered as control variables. On the second step, we included a dummy-coded variable for bereave-

Table 2  
Bivariate Correlations Between Religion Factors, Posttraumatic Growth, and Psychological Distress

	1	2	3	4	5	6	7	8	9	10	11	12	13
1) Daily spiritual experiences	—	.70**	.59**	.75**	.73**	.40**	.24**	.16**	.20**	.37**	.17**	.26**	-.27**
2) Private religious practices		—	.70**	.56**	.53**	.26**	.21**	.17**	.18**	.34**	.17**	.24**	-.14**
3) Organizational religiousness			—	.48**	.50**	.33**	.26**	.20**	.19**	.38**	.17**	.27**	-.11*
4) Religious/spiritual coping				—	.65**	.44**	.25**	.19**	.24**	.36**	.19**	.28**	-.25**
5) Forgiveness					—	.42**	.25**	.15**	.21**	.32**	.19**	.25**	-.24**
6) Religious support						—	.16**	.02	.08	.21**	.03	.11*	-.25**
7) Relating to others							—	.74**	.82**	.85**	.77**	.92**	.05
8) New possibilities								—	.82**	.69**	.71**	.90**	.11*
9) Personal strength									—	.73**	.73**	.92**	.06
10) Spiritual change										—	.71**	.86**	-.01
11) Appreciation of life											—	.86**	.08
12) PTGI total score												—	.07
13) SCL-10-R total score													—
<i>M</i>	25.70	17.58	6.22	21.57	9.94	12.63	16.87	11.26	10.22	4.68	7.73	51.42	9.20
<i>SD</i>	8.25	6.78	2.87	4.13	2.23	2.62	8.72	7.07	5.52	3.08	4.47	26.12	7.45

Note. PTGI = Postraumatic Growth Inventory, SCL-10-R = Symptom 10 Checklist – Revised.

\*  $p < .05$ . \*\*  $p < .01$ .

ment status (violent loss group vs. other groups, nonbereaved group vs. other groups). Finally, we entered the dimensions of religiousness along with the independent variables included in the first and second models. This analytic procedure allowed us to assess how violent loss and the religion factors each added to the explained variance in participants' perceptions of growth and distress at the time of the study.

In the first analysis, we used PTGI total score as the dependent variable. As presented in Table 3, the entry of bereavement status in the second step increased the explanatory power of the model,  $\Delta R^2 = .03$ ,  $F_{\text{change}} (2, 363) = 2.93$ ,  $p = .012$ . On the next step, religion factors further increased the explained variance,  $\Delta R^2 = .10$ ,  $F_{\text{change}} (6, 357) = 6.57$ ,  $p < .001$ . The experience of violent loss,  $p = .025$ , and participants' levels of engagement in both religious coping,  $p = .023$ , and organizational religiousness,  $p = .027$ , were each uniquely linked with growth in the final statistical model in positive directions.

The second regression analysis focused on SCL-10-R scores as the outcome. On the second step, bereavement status significantly increased the amount of explained variance beyond demographic factors,  $\Delta R^2 = .03$ ,  $F_{\text{change}} (2, 363) = 5.03$ ,  $p = .007$ . Religion factors also improved the explanatory power of the model,  $\Delta R^2 = .12$ ,  $F_{\text{change}} (6, 357) = 8.24$ ,  $p < .001$ . As presented in Table 3, several individual predictors again accounted for unique variance in the final model. Namely, the experience of bereavement in general was linked with greater distress,  $p = .004$ . In addition, there were patterns for individuals with lower levels of daily spiritual experiences,  $p = .034$ , and religious support,  $p = .002$ , to report more psychiatric symptoms.

## Discussion

Recent theoretical and empirical advances regarding the concept of PTG align with the emphasis among many ancient religious and

Table 3  
Demographics, Bereavement Status, and Religiousness Predicting Posttraumatic Growth and Psychological Distress

Predictor	Posttraumatic growth				Psychological distress			
	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$	<i>B</i>	<i>SE B</i>	$\beta$	$\Delta R^2$
Demographics								
Age	-.34	0.24	-.07	.01	0.00	0.07	.00	.01
Gender	-.255	3.55	-.04		1.77	1.00	.09	
Ethnicity (0 = non-Caucasian, 1 = Caucasian)	0.38	2.80	.01		-.94	0.79	-.06	
Bereavement Status								.03**
Violent loss (0 = no, 1 = yes)	7.27*	3.24	.13	.03**	0.88	0.91	.06	
Non-bereaved (0 = no, 1 = yes)	-.90	3.25	-.02		-2.64**	0.91	-.17	
Religiousness/Spirituality factors								.12***
Daily spiritual experiences	0.01	0.31	.01		-0.18*	0.09	-.20	
Private religious practices	0.11	0.32	.03		0.09	0.09	.09	
Organizational religiousness	1.49*	0.66	.16		0.17	0.19	.06	
Religious coping	1.12*	0.50	.18		-0.13	0.14	-.07	
Forgiveness	0.50	0.89	.04		-0.28	0.25	-.08	
Religious support	-.32	0.57	-.03		-0.50**	0.16	-.18	

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

philosophical traditions on the potential redemptive quality of grief and suffering (Bemporad, 1987; Linley, 2003). The goals of the current study were to investigate (1) differences in religiousness, PTG, and psychological distress according to bereavement status and (2) the association of key dimensions of religion on growth and postbereavement distress. Although the links between both bereavement and PTG (Armstrong & Shakespeare-Finch, 2011; Cadell et al., 2003; Engelkemeyer & Marwit, 2008; Shakespeare-Finch & Armstrong, 2010) and religion and PTG (Shaw et al., 2005) have been documented, this investigation builds on previous work by examining these associations simultaneously with a matched control group design and multidimensional assessment of religion.

Study findings supported the notion that bereavement can provide a context for possible deepening of religiousness and personal growth. When accounting for effects of demographic factors, persons in the two bereaved groups indicated greater forgiveness on the BMMRS than study participants who had not experienced a recent loss. In addition, when compared with nonbereaved persons, survivors of natural losses reported higher levels of daily spiritual experiences, organizational religiousness, and religious support. Persons in the violent loss group similarly reported more religious coping than the nonbereaved persons, suggesting that these individuals were likely grappling with religious-oriented thoughts and perspectives at the time of the study.

Consistent with the hypothesis that violent losses would be associated with greater PTG (Calhoun et al., 2010; Tedeschi & Calhoun, 2004), persons who lost loved ones to an accident, suicide, or homicide were shown to perceive more positive life changes, despite the greater distress associated with these tragic experiences. When compared with survivors who had lost similar relationships to nonviolent causes, persons in the violent loss group viewed the future with a greater sense of possibility and had more appreciation for life. In addition, these survivors reported higher levels of growth in the quality of relationships, personal strength, and spirituality compared with persons in the nonbereaved group. Persons in the natural loss group also reported more positive changes in relationships and spirituality than nonbereaved persons. However, when accounting for demographics and religion factors, results of the multivariate analysis found that the experience of violent loss had a particularly salient impact on PTG. These results accord with past research on the impact of violent loss (Currier et al., 2006) and support the argument that it is frequently the experience of psychological turmoil that instigates review and revision of core meaning systems (Neimeyer & Sands, 2011) and personal growth through experiences of adversity (Calhoun et al., 2010; Tedeschi & Calhoun, 2004).

With the exception of the religious support variable, bivariate analyses revealed positive associations between all religion factors and PTG domains. In addition, persons with higher scores on BMMRS assessments reported fewer psychiatric distress symptoms at the time of the study. Results of the second multivariate regression also supported the significant impact of the religion factors on PTG as well. When controlling for demographics and bereavement status, dimensions of religiousness increased the likelihood that participants perceived positive life changes. In keeping with others' suggestions (Park, 2005; Shaw et al., 2005; Wortmann & Park, 2008, 2009), as a whole these results support the potentially adaptive role of religion in coping with the challenges of

bereavement, in ways that can both promote the remediation of distress symptomatology and personal transformation of the griever.

Given the multifaceted nature of religion, it might also be anticipated that certain aspects of this construct would differentially correlate with PTG and distress. Multivariate results in fact suggested that the extent to which participants engaged in religious coping had a unique bearing on their probability of perceiving positive changes as a result of the loss experience. In addition, involvement with a church or other formal religious group was also associated with PTG in the presence of other study variables. These findings align with previous research on the impact of religious coping (Pargament et al., 1998) and organizational religiousness (Tedeschi & Calhoun, 1996) on personal growth after other types of life stressors.

It was also notable that the religion factors that generated significant associations in the second multivariate analysis differed from those that were linked with PTG. When controlling for effects of the other study variables, daily spiritual experiences and religious support were inversely correlated with distress, which corresponds with other work on the relations between emotional health and daily spiritual experiences (Holland & Neimeyer, 2005; Underwood & Teresi, 2002) and religious support (Lazar & Bjorck, 2008). Viewed in the context of this study, this pattern of results raises the possibility that whereas certain dimensions of religion (e.g., religious coping, organizational religiousness) might be more linked with PTG, other aspects could figure more prominently in accounting for postbereavement distress symptomatology over the adjustment process (e.g., daily spiritual experiences, religious support). Future research will do well to tease apart these possible differences.

From a clinical standpoint, the present results highlight the complex interplay between religion, adjustment to bereavement, and possible growth. In view of the association of religious coping and PTG demonstrated in this study, therapists might do well to explore how clients draw on their religious and spiritual convictions and practices to cope with their losses, and how their loss in turn can challenge these very same convictions and practices. For example, Burke and her colleagues (2011), in a longitudinal study of religious coping in the aftermath of violent death bereavement, found that those mourners with more intense and complicated grief reactions earlier in loss struggled more with negative religious coping six months later, as reflected in a sense of being abandoned or punished by God and estranged from their religious communities. Such outcomes should sensitize clinicians—even those working in secular contexts—to explore and reinforce beliefs and practices that can serve as a source of strength in bereavement, but also to consider the profound spiritual crises that accompany loss for some grievers. The finding that violent loss was associated with both greater distress and greater growth also holds open the possibility that the two processes are synergistic rather than antagonistic, and that validation of the reality of potential spiritual struggle might ultimately give rise to growth for many grievers. Fortunately, a broad range of religious/spiritual traditions offers wisdom and guidance in finding significance in suffering and reinforcing hope and compassion in the wake of loss (Park, 2005; Park & Halifax, 2011).

## Limitations of the Present Study

Although the BMMRS allowed for a comprehensive examination of the impact of key factors associated with religion, assessments included in the study were based on short forms of existing measures and lacked sophistication available in other instruments. For instance, in contrast to the usefulness of distinguishing between positive versus negative coping demonstrated in other work (e.g., Burke et al., 2011; Pargament et al., 1998, 2000), we combined items to form a total scale of the overall construct. While the religious coping variable was significantly linked with PTG and distress in this study, future research would do well to focus in more depth on this and other dimensions. In addition, reliance on a cross-sectional design prohibits us from drawing any causal/temporal inferences based on study results. As a way of examining the possible impact of bereavement, we included groups of violent and nonviolent loss survivors matched in gender, age, and ethnicity and at a similar point in their bereavement following the loss of a similar relationship, as well as a group of demographically matched nonbereaved persons reporting a nondeath stressor. However, because we lacked prospective information on preloss levels of religiousness and distress, we cannot conclude that bereavement directly led to alterations of these constructs. Similarly, given the current cross-sectional design, we cannot rule out the possibility that PTG facilitated certain types of positive changes, which in turn allowed for a deepening of religiousness/spirituality (rather than vice versa). It is hoped that researchers will address these finer questions using more sophisticated designs and measurement strategies.

On a related note, assessment of PTG was based on participants' perceptions of positive changes related to bereavement or general stressors. In keeping with Zoellner and Maercker's (2006) argument that PTG can entail both constructive and illusory elements, recent research has distinguished between *actual* and *perceived* growth, and demonstrated that retrospective assessments of PTG do not always align with corresponding changes in individuals' beliefs and behaviors (Frazier et al., 2009). Thus, it is possible that the more severely distressed persons in this sample were more biased in their capacity to accurately discern the extent to which they had experienced and engaged in the positive changes assessed by the PTGI. In particular, when compared with nonbereaved persons, it was notable that violent loss survivors had higher scores on the Spiritual Change domain of the PTGI but did not indicate corresponding differences on the more behaviorally oriented assessments on the BMMRS. Although we cannot conclude on the basis of this study's methodology that violent loss survivors were more vulnerable to illusory bias, these findings raise important measurement concerns and theoretical questions on the constructive versus illusory nature of personal growth after violent death bereavement and other potentially traumatic events.

The sample was also largely composed of female, Judeo-Christian young adults with equivalent levels of education (i.e., college students). As a result, these findings may not capture the experiences of men and persons of other religious backgrounds and ages who tend to experience other types of loss. For instance, although a subset had experienced the death of a child, the majority had lost other relationships, such that these findings might not apply to one of the populations for whom spiritual meaning making has been found to be especially relevant in the adjustment

process (Lichtenthal, Currier, Neimeyer, & Keesee, 2010). Given inevitable overlap between demographics and circumstances surrounding bereavement, this issue affected the matching procedure as well. Although we controlled for demographic factors and included relatively equal proportions of persons who had lost immediate family members versus those who had lost extended family, close friends, and other significant nonfamily relationships, in many cases we lacked a sufficient pool of participants to match natural and violent loss survivors on the exact relationship to the deceased. Compared with survivors of natural losses who tended to lose parents and older extended family members (e.g., grandparent, aunt/uncle), violent loss survivors had a greater likelihood of losing a sibling or close personal friend. Consistent with trends in bereavement research (Laurie & Neimeyer, 2008), there was also a higher probability in this sample for African-American grievers to lose loved ones to a violent death compared with their Caucasian counterparts, which led to a slight overrepresentation of African Americans in the violent loss group as well.

Notwithstanding these limitations, the present study provides further evidence on the critical but multifaceted intersection between bereavement, religion, and PTG. Using a matched control group strategy, persons who had lost a loved one to natural causes in the prior two years indicated greater religiousness and the experience of violent loss figured prominently in perceptions of PTG. Relying on a multidimensional measurement approach, this investigation also demonstrated that different aspects of religion were uniquely linked with both PTG and distress symptomatology. Specifically, when controlling for other study variables, religious coping and organizational religiousness were each uniquely predictive of PTG, and daily spiritual experiences and religious support each correlated negatively with psychological distress. In conclusion, these findings underscore the need for researchers and clinicians working with bereaved persons to appreciate the central role of religion in many people's lives and consider the importance of specific dimensions that might aid grievers in their attempts to cope and grow amid the possible pain of loss.

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