

Prospective Risk Factors for Complicated Grief: A Review of the Empirical Literature

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Grieving is a natural response to the loss of a loved one, one that is repeatedly experienced by most individuals during their lifetimes. Although grief is ubiquitous, research shows that responses to loss vary among grievers. Some individuals respond resiliently, by experiencing little in the way of psychological distress (Bonanno & Kaltman, 2001), others experience acute grief for as long as 1-2 years (Bonanno & Mancini, 2006), and still others experience severe, debilitating, and sometimes life-threatening grief for a protracted length of time—a condition known as complicated grief (CG; Prigerson et al., 1995) or prolonged grief disorder (PGD; Prigerson et al., 2009). Therefore, because of the increased precision with which we can identify the distinct characteristics of CG (Holland, Neimeyer, Boelen, & Prigerson, 2009), better scales with which to measure it (Prigerson, Frank, et al., 1995), and improved therapies with which to treat it (Shear, Frank, Houch, & Reynolds, 2005), isolating prospective risk factors is crucial. Our primary goal in this chapter is to identify empirically supported factors that predict subsequent susceptibility to the full range of responses to loss, from common- to complicated grief, that merit further scientific and clinical attention.

CG as a Distinct Risk

Although depression and other forms of general psychopathology are important components of bereavement distress (Bonanno & Mancini, 2006), some researchers maintain that grief-specific distress can be expressed on a continuum of responses to loss. On one end is resilience, such that psychological equilibrium is regained fairly quickly after the loss (Bonanno & Kaltman, 2001). The middle range reflects a common response in which grievers suffer moderate distress (e.g., shock, anguish, sadness), but over time are able to adapt to the loss. The most serious expression—CG—appears at the far end of the spectrum, and is characterized by a state of protracted grieving, reflected in profound separation distress, emotionally disconcerting and invasive memories of the deceased, emptiness and meaninglessness, an inability to accept the loss, and considerable

difficulty continuing to live life in the absence of the loved one (Holland, et al., 2009a). Other researchers view CG as a distinct entity from normative grief, where measured symptom counts that exceed a normed cut-off score on a scale assessing CG (e.g., the *Inventory of Complicated Grief*, ICG; Prigerson, et al. 1995) are considered to be categorically different from lower ones and, thus, constitute the presence of a discrete disorder (i.e., CG, PGD; Prigerson, et al., 1995; 2009).

CG has demonstrated construct validity as a condition that predicts serious medical and psychological outcomes, beyond those predicted by depression, PTSD, or anxiety (Lichtenthal, Cruess, & Prigerson, 2004). Historically, most studies have investigated samples of older Caucasian widows, with middle-upper socioeconomic status, bereaved by natural deaths, who have a normative response to their loss. However, recent studies have assessed CG in a variety of samples (e.g., multiple races, Goldsmith, Morrison, Vanderwerker, & Prigerson, 2008; parents, Keesee, Currier, & Neimeyer, 2008; survivors of terrorism, Shear, Jackson, Essock, Donahue, & Felton, 2006); African Americans bereaved by homicide, McDevitt-Murphy, Neimeyer, Burke, & Williams, 2011), in which CG may be more prevalent than originally thought and predicted by specific risk factors.

The Present Review

Although earlier reviews have been informative (see Sanders, 1988; Stroebe, Schut, & Stroebe, 2007; Stroebe & Schut, 2001), they necessarily failed to include the burgeoning recent literature on intense and prolonged grief. Lobb and her colleagues (2010) reviewed studies on CG, and grouped risk factors into categories associated with: *childhood, issues of dependency, caregiving, cognitive and behavioral conceptualizations, traumatic death, and serious mental illness*. They found that insecure attachment, excessive dependency, negative interpretations of grief reactions, a lack of meaning making, a lack of preparedness for the death, perception that the loved one suffered while dying, low social support, caregiver burden, and a history of psychopathology exacerbate grief.

Though useful, Lobb et al.'s (2010) review and others combined contemporaneous predictors that may actually represent *correlates* or *consequences* of CG with genuinely *prospective predictors*, per se. Thus, there remains a need for an empirical review of risk factors associated with grief-specific distress in the recent literature, with fine-grained reporting of results from studies that explored the relation of risk factors to common grief and CG.

We limited our review to independent variables that (a) preceded the loss (e.g., kinship relationship to deceased), (b) were related to the death itself (e.g., cause of death), (c) were static at the time of the loss or during bereavement (e.g., demographic factors, such as race or gender), or (d) were measured at a minimum of two time points (e.g., Time 1 social support predicted Time 2 CG), excluding cognitive/behavioral factors (e.g., rumination, meaning making) that could be correlates or consequences of CG, except when their predictive power was explored in longitudinal studies. We further restricted dependent variables to assessments of common grief and CG, excluding other negative and positive outcomes (e.g., depression and posttraumatic growth, respectively). Our rationale for including common grief in our review was that: (a) prior to the creation of a reliable, standardized, and validated measurement of protracted and maladaptive grief responses (e.g., ICG; Prigerson, et al., 1995) researchers were reliant upon less specialized scales to assess grief in survivors, and (b) contemporary research suggests that grief can be evaluated on a continuum, ranging from low-level normative grief to a severe grief disorder (Holland, et al., 2009). As a result, assessment of severity of grief across its full range can draw upon measures of both normative and complicated grief symptomatology.

Procedure

We accessed articles via PsychINFO and PsychARTICLES online databases by using the search terms: *loss, death, grief, complicated grief, bereavement, mourning, risk factor, predict*. We

also used books chapters, our library of grief-related articles, and the reference lists of other germane studies that emerged in our search. Studies we included were: (a) empirical, (b) quantitative, and (c) published in English, in a peer-reviewed journal, between 1980 and 2010 (and earlier seminal work). Although the genesis of CG cannot be firmly established from non-experimental studies, in order to strengthen inferences related to causality, we limited our analysis of independent variables to stable factors (e.g., age, ethnicity) found in cross-sectional studies, or to longitudinal studies measuring independent variables at one time point that predict later grief. Because people's mood states could affect their report of psychological factors associated with the loss, variables assessing coping behaviors or other cognitive, emotional or social processes were included only when studies that examined them used a truly prospective design.

Data for risk factors were analyzed by recording a) the number of studies that examined each factor, b) the number that found it be a statistically significant predictor, c) its relation to grief, and, d) its grouping into one of six categories, as described below.

Results

Initial analyses. Using 43 studies to explore risk factors of grief, we found that 16 studies measured only CG using the ICG (Prigerson, et al., 1995), or its revised version, the ICG-R (Prigerson & Jacobs, 2001), 21 measured only grief more generally using a scale or items designed to measure more normative responses to loss such as the *Core Bereavement Items*; (Burnett, Middleton, Raphael, & Martinek, 1997), and 6 measured both using a version of the ICG *and* at least one other scale measuring normative responses to loss. A total of 60 distinct independent variables met our inclusion criteria for risk factors. Of these, 37 risk factors were statistically significant in predicting grief or CG in at least one study. Risk factors were collated into the following distinct categories: *survivor's background* (e.g., gender), *death- and bereavement-related* (e.g., cause of death),

relationship to the deceased (e.g., kinship), *intrapersonal* (e.g., attachment style), *religion/belief* (e.g., worldview), and *interpersonal* (e.g., social support).

When analyzed in groups, the *death- and bereavement-related, relation to deceased*, and *intrapersonal* categories had the most statistically significant risk factors ($n = 8$ in each), followed by *survivor's background* ($n = 5$), and *interpersonal*, and *religion/belief* ($n = 4$, in each). When analyzed individually, 14 factors emerged as strong indicators of CG (see Table 1). These were ranked in order of the ratio of number of studies finding a given variable significant relative to the number that explored the variable. In these terms, being female emerged as the most prominent risk factor for CG, followed by being a spouse or parent (especially a mother) of the deceased, violent death, low levels of social support, the deceased's age (both younger and older), younger age of the bereaved, suddenness/unexpectedness of the death, being non-Caucasian, anxious, avoidant or insecure attachment style, discovering or identifying the body (in cases of violent death), high pre-death marital dependence, high levels of neuroticism, less education, prior losses, lower income, problematic relationship with the deceased, recency of the death, and lack of family cohesion.

Subsequent analyses. To increase confidence in our results, we also considered the literature using even more stringent criteria: *confirmed risk factors* of CG were explored in at least 3 studies and were found statistically significant more than 50% of the time. Six such confirmed risk factors emerged: (1) low social support, (2) anxious/avoidant/insecure attachment style (3) discovering or identifying the body (in cases of violent death), (4) being the spouse or parent of deceased, (5) high pre-death marital dependence, and (6) high neuroticism. Thirty-two variables were identified as *potential risk factors* (explored in fewer than 3 studies or found to be statistically significant less than half of the time). These included: non-Caucasian, younger age of the bereaved, being female, less education, low income, violent death, sudden/unexpected death, perception of death as preventable,

prior losses, lack of anticipatory grieving, searching for meaning, less importance of religion, regular church attendance, lack of spiritual beliefs, prior mental health counseling, pre-existing psychological condition, lack of technological connectedness (no use of email, Internet, cell phone), little time spent talking about the loss, frequent pre-death contact with the deceased, belief in professional counseling, subjectively close relationship with the deceased, problematic relationship with the deceased, recency of the death, lack of family cohesion, deceased's age (both younger/older), deceased's gender opposite of bereaved's, good pre-death health of deceased, length of illness of deceased (too long or too short), and negative cognitions related to self, life, the future, and threatening interpretations of one's own grief. Although the scope of this chapter precludes reporting on every risk factor in every study, the following review describes a sampling of risk factors nested within categories.

Survivor's Background

*Gender*¹. Nineteen out of 43 (44%) studies explored the role of gender in grieving. Eight (42%) were significant. For example, Lang and Gottlieb's (1993) study of 57 parents bereaved of infants found that mothers suffered more than fathers in terms of grief. Spooren, Henderick, and Jannes (2000) found in their sample of 85 mothers and fathers bereaved by motor vehicle accidents that men and women did not differ in terms of their general psychological distress. Gender did, however, predict CG, with women suffering greater complications. Likewise, 151 female Pakistani psychiatric patients in Prigerson et al.'s (2002) study had higher rates of CG than did males. In Keese et al.'s (2008) study of 157 parents, mothers reported more common grief than fathers but not more CG. More complex interactions of gender with other variables also occasionally have been reported, as in Callahan's (2000) study of 210 suicide survivors in which women who found their

¹ Comparisons of mothers versus fathers were reported in the *gender* category rather than under *kinship*, which compared several relationship types (i.e., parents, siblings, spouses).

loved one's body had more grief. However, other studies have found gender to be unrelated to grief, as in Momartin, Silove, Manicavasagar, and Steel's (2004) evaluation of 126 Bosnian refugees in Australia. Nonetheless, when gender differences are observed, as they often are, evidence indicates that women are more susceptible to intense and complicated grief reactions than men.

Race. Half of the studies (4 out of 8) exploring race reported significant results. Goldsmith et al. (2008) investigated two samples—316 bereaved individuals and 222 cancer patients and their caregivers, while Neimeyer, Baldwin, and Gillies (2006) studied a sample of 506 young adults, both finding that African Americans experienced more grief than Caucasian Americans. Tarakeshwar, Hansen, Kochman, and Sikkema (2005) compared groups in a sample of 252 HIV-infected grievers and found that minorities (African Americans and Hispanics) reported more grief than Caucasians. Likewise, Laurie and Neimeyer's (2008) study of 1672 bereaved college students found that being African American predicted CG, even when controlling for other variables (e.g., length of bereavement and cause of death). Evaluating grieving parents ($n = 52$) and spouses ($n = 90$) in the U.S. and the People's Republic of China (P.R.C.) longitudinally at 4 and 18 months post loss, Bonanno, Papa, Lalande, Zhang, and Noll (2005) found that initially the P.R.C. sample had higher grief than the U.S. sample, but later Chinese participants had lower grief than their American counterparts. This suggests the need to evaluate ethnic variations in bereavement beyond the narrow spectrum of North American culture, and across a longer period to determine whether certain ethnic groups are at greater risk of prolonged grief disorder, and if so, what might account for this effect. Still, it is worth emphasizing that 50% of the studies found that race is not a risk factor of CG. For example, Carr (2004) compared African Americans ($n = 33$ widowed persons & 12 controls) and Caucasians ($n = 177$ widowed persons & 75 controls) in the Changing Lives of Older Couples (CLOC) study and found no difference in levels of yearning or grief, just as Cruz and colleagues

(2007) found no differences in African Americans ($n = 19$) and Caucasians ($n = 19$) presenting for CG therapy.

Death and Bereavement-related Factors

*Cause of death*². Many studies examined this risk factor ($n = 18$), over a third of which found cause of death to be related to subsequent grief ($n = 7, 39\%$). Most used cross-sectional designs, except where noted. Prigerson et al.'s investigation (2002) found that violent death (murder vs. illness, accident, and drowning) did not predict CG in 151 bereaved psychiatric patients. However, of those studies in which cause of death was a predictor, violent death was consistently found to produce more intense and complicated grief than deaths due to illness. Cleiren (1993) examined this factor over time and found that unnatural deaths (suicide/MVA vs. extended illness) led to greater grief in 309 parents and spouses, and that suicide survivors were the most preoccupied with their loss. At Time 1 (T1; 4 months post-loss), families bereaved by MVAs had more grief than those bereaved by suicide or illness, but at T2 (14 months) cause of death was no longer a risk factor. Gamino, Sewell, and Easterling (2000) compared 85 survivors of illness, homicide, suicide, and accident, and found that traumatic deaths produced more grief. Likewise, Currier, Holland, Coleman, and Neimeyer's (2007) cross-sectional investigation of 1723 bereaved college students indicated that violent death (accident, suicide, and homicide) survivors had more severe grief than those experiencing a loss through natural, anticipated death or natural, sudden death. Specifically, in terms of CG, they found no statistically significant difference between accident, suicide, and homicide, but scores were higher for violent deaths than for natural, anticipated deaths, and homicide and accident deaths produced more CG than did natural sudden deaths. In terms of common grief, they found that

² See Rynearson et al.'s chapter in this edition for commentary on the definition and categorization of violent versus non-violent death loss.

homicide produced substantially higher scores than all other types of deaths. Looking at both common grief and CG, Keese et al. (2008) found higher grief in 94 violently bereaved parents than in 63 parents bereaved by other means. Finally, Momartin et al.'s (2004) examination of 126 Bosnian refugees indicated that the traumatic loss of a family member was the strongest risk factor for CG.

Peri-event variables. One-hundred percent of the small number of cross-sectional studies ($n = 3$) examining peri-death variables found a relation with grief. To illustrate, Spooren et al. (2000) assessed the support that 85 parents bereaved by motor vehicle accidents received after the death, and found that dissatisfaction with material help and with information given about the event predicted CG. With 540 suicidally bereaved parents, Feigelman, Jordan, and Gorman (2009) found that survivors who saw or found the body had significantly greater grief than survivors who did not view the body prior to the funeral. In fact, discovering the body proved to be the strongest risk factor of grief. In another suicide study ($n = 210$), seeing the body at the scene of the death intensified grief, as did being the one to find it—especially for women (Callahan, 2000). However, stepwise analyses revealed that *finding* the body was not more grief producing than simply *seeing* the body, and viewing the deceased's body at the funeral did not increase grief. Nor was the specific weapon type or suicide method (e.g., hanging) associated with grief outcomes, even when comparing the use of guns (the most common method; 47%) to seven other methods.

Relationship to the Deceased

Kinship. Fully two-thirds of studies of kinship (e.g., spouse, parent, child) demonstrated a link to intensified grief (e.g., Boelen, van den Bout, & van den Hout, 2003). For example, Laurie and Neimeyer's (2008) cross-sectional sample of 1670 bereaved college students reported a main effect for kinship in predicting CG, such that students bereaved of immediate family had more grief than those bereaved of more distant relationships. In Cleiren's (1993) longitudinal study ($n = 309$),

kinship proved the strongest predictor of grief, explaining 15% of the variance in T2 (14 months post loss) scores, such that parents and spouses grieved more severely than did adult children or siblings. Even when the age of both the bereaved and the deceased child were controlled, grief was higher for mothers at 4 and 14 months post loss, and recovery was slower. Differences among kinship categories are sometimes observed as well. For example, Prigerson and colleagues' (2002) cross-sectional examination found that spouses and parents ($n = 151$) were far more likely (22 and 11 times, respectively) to have CG than other kinship types. Bonanno et al.'s (2005) longitudinal assessment found no differences in spouse ($n = 90$) and parent ($n = 52$) grieving at T1 (4 months); but, at T2 (14 months), parents' scores were higher than spouses'. Occasionally studies qualify this general trend linking kinship with higher risk of intense grief, as in the finding by van der Houwen and her colleagues (2010) in their longitudinal study of 195 bereaved individuals, which showed that partner loss predicted emotional loneliness, but kinship did not predict grief more generally.

Marital dependency. Two out of three longitudinal studies found a relation between the mourner's pre-loss dependency upon his or her spouse and subsequent grief. However, both studies with significant results used the CLOC data ($n = 205$ & 210 widowed persons, respectively), so that this finding stands in need of replication. Bonanno et al. (2002) found that pre-loss spousal dependency was associated with subsequent chronic grieving as opposed to resilience, and Carr (2004) found that spousal dependency was a risk factor for despair, a specific dimension of grief. Cleiren's (1993) study of 309 survivors of MVA loss, on the other hand, yielded null findings.

Intrapersonal Factors

Attachment style (avoidant, anxious, insecure). Although too infrequently studied, attachment styles were associated with grief in three out of four of the longitudinal studies we reviewed. For example, van der Houwen et al.'s (2010) final statistical model in their study of 195 bereaved

individuals indicated that avoidant but not anxious attachment predicted higher levels of CG. Using the CLOC data ($n=103$), Brown, Nesse, House and Utz (2009) found that pre-loss insecure attachment style and grief were related at 6, 24, and 48 months. In two studies of 219 bereaved parents, Wijngaards-de Meij and her colleagues (2007a; 2007b) showed that avoidant/anxious attachment styles explained 13% of the variance in CG scores. On the other hand, results are not fully consistent. Bonanno et al. (2002) examined avoidant/dismissive attachment in a study of 205 conjugally bereaved people and found that both were unrelated to grief.

Neuroticism. Similarly, two out of three studies linked neuroticism with grief. For instance, in their final regression analysis of their longitudinal study of 195 griever, van der Houwen et al. (2010) found a statistically significant relation between neuroticism and CG. In Wijngaards-de Meij et al.'s (2007b) study with 219 bereaved parents, attachment coupled with neuroticism explained 22% of the variance in CG scores, with neuroticism alone accounting for 18% of the total variance. Yet, Bonanno and his colleagues (2002) found no association between neuroticism and grief in their longitudinal study of 205 elderly spouses.

Searching for meaning and sense making. Coleman and Neimeyer (2010) used the CLOC study's prospective design to show that engaging in a search for meaning predicted both concurrent and prospective grief in a sample of bereaved spouses ($n = 250$). Specifically, those who struggled to make sense of the loss 6 and 18 months post-loss had higher subsequent grief scores fully four years after the death. Interestingly, however, sense making, when it did occur, emerged as a strong positive predictor of subsequent well-being (e.g., interest, excitement, accomplishment), rather than an inverse predictor of grief symptomatology, per se.

Negative cognitions. Including a sample of 97 mourners in their longitudinal study, Boelen, van den Bout, and van den Hout (2006) found that bereavement-associated negative cognitions at T1

(1- 4 months post loss) related to the griever's *self, life, future, or threatening interpretations of grief* (e.g., "If I would fully realize what the death of ____ means, I would go crazy") each individually predicted CG at T2 (7-10 months post loss), even after controlling for background variables and CG symptomatology at T1. Additionally, the *future* subscale (e.g., "In the future, I will never become really happy anymore") was the only subset of negative cognitions at T1 that enduringly predicted CG at T3 (16-19 months post loss), with an interaction of *threatening interpretations X avoidance of the reality of the loss* likewise prospectively predicting CG at T3 in hierarchical multiple regressions.

Religion/Belief Factors

Importance of religion. The few prospective studies conducted on the importance of religion yielded inconsistent evidence for its relation to grief. For example, Brown et al. (2009) used the CLOC data to monitor grief in 103 spouses. They found that assigning greater importance to religious/spiritual beliefs pre-loss predicted less grief at 6 and 18 months post-loss, although high church attendance was unrelated. Conversely, when Kersting et al. (2007) compared grief in 62 women who had terminated their pregnancy to 65 women who birthed a full-term baby, they found that those who placed higher import on faith grieved the hardest, possibly reflecting guilt or regret about their decision to abort the fetus.

Spiritual belief or worldview. These risk factors produced equivocal results across two studies. In Bonanno et al's (2002) prospective study ($n = 205$) bereaved spouses who were the most resilient also had greater acceptance and believed in a just world. However, no connection between chronic grief and a dysfunctional worldview was discovered. Yet, Easterling and colleagues (2000) found in their cross-sectional study of 85 bereaved individuals that spiritual beliefs about one's relationship with God or events that increase belief in God's existence were related to less grief.

Interpersonal Factors

Social support. Six out of seven (86%) longitudinal studies found that low levels of social support predicted intensified grief (e.g., Bonanno, et al., 2002). Vanderwerker and Prigerson (2004) prospectively examined 293 elders and found that higher social support at 6 months post-loss forecast less CG near the end of the first year. However, Gamino, Sewell, and Easterling's cross-sectional study (1998) found that grief and social support were unrelated in a sample of 74 mourners.

Discussion

The multidimensional nature of adaptation to loss poses challenges to the identification of risk factors predicting prolonged and intense grieving. One specific challenge concerns the basic understanding of CG as a construct. Adherents to the conceptualization of CG as existing on a continuum assert that differences between griever's whose response to loss warrants treatment and those whose do not are reflected in the duration and intensity of symptoms and levels of impairment, not in distinctive symptoms. Nevertheless, lacking an empirically established cut-point where grief responses are considered in need of treatment, researchers and clinicians must make personal or consensual judgments about a given griever's level of impairment and distress. On the other hand, finer discrimination of distress that spans the range of grief responses provides sensitivity that may be lost in models that insist on bifurcation of high/low distress respondents.

In contrast, the view held by some researchers that common grief and CG are symptomatically different, likewise carries implications for understanding of the grieving process. On the one hand, assessing grief in this way may blur variability in responses that represent different points on the same continuum. This view also carries the potential for social and personal stigma in suggesting that some individuals are grieving in a diagnosably disordered manner. Conversely, this model's clear identification of cases of CG could simplify communication among mental health professionals and more readily specify who is or is not in need of treatment.

Viewing grief in dimensional terms, we systematically searched out studies that explored antecedents and predictors of CG, and were limited only by the types of factors explored in the primary studies. We identified more consistent prospective predictors of intense grieving, as well as those that were potential factors in forecasting grief outcomes. Risk factors that emerged as most salient included low levels of social support, avoidant/anxious/insecure attachment style, discovering the body (in cases of violent death) or dissatisfaction with death notification, being a spouse or a parent of the deceased, high levels of pre-death marital dependency, and high levels of neuroticism. Inasmuch as CG is conceptualized as an attachment-based disorder, with symptomatology indicative of separation distress and preoccupation with the deceased, it is understandable that mourners who are vulnerable to feeling abandoned and alone, who suffer from excessive anxiety or obsession, and who lose a security-enhancing- or care-providing relationship, under conditions of minimal support, and perhaps in circumstances that leave them struggling with post-traumatic imagery, would be especially prone to the development of CG.

In addition to these primary conclusions, studies further suggest that being young, being non-Caucasian, having less education, little income, prior losses, or losing a child of any age to a violent, sudden death tends to predict prolonged and intense grief. Unfortunately, few of those potential risk factors are modifiable in the context of therapy. This highlights the importance of studying those predictors of poor outcome that in principle are modifiable, as intervention could focus usefully on strengthening social integration of the bereaved (Burke, Neimeyer, & McDevitt-Murphy, 2010), facilitating the use of their spiritual or secular philosophies as a psychological resource (Park & Halifax, 2011), challenging their dysfunctional interpretations or predictions about themselves and the future (Boelen, et al., 2006), joining them in their quest for meaning in a senseless loss (Neimeyer, Burke, Mackay, & van Dyke-Stringer, 2010), and

strengthening their continuing bond with the deceased so as to enhance their attachment security (Field & Wogrin, 2011). Fortunately, empirically informed therapies that pursue such goals are currently being developed (Neimeyer, Harris, Winokuer, & Thornton, 2011).

Limitations to this Review

Generally speaking, research on risk factors is rife with complexity. For instance, because we sought to include only truly prospective factors in our review, potentially modifiable variables included only in correlational studies were excluded (although static variables in the same studies might be included). Other challenges included collating the variety of measures and items used for assessing grief, interpreting poorly defined variables, and deciphering vague reporting of results, all of which required some level of subjective judgment.

Moreover, some variables represented in this review likely have equal relevance in predicting grief and more general symptomatology (e.g., depression, suicidality), whereas other factors may differentially predict grief and non-grief outcomes in ways that could not be addressed in this review. For instance, some studies have shown that men suffer more depression than women following spousal loss (Stroebe & Stroebe, 1983), in contrast to findings reviewed above implicated female gender with greater grieving. Furthermore, the search for universal risk factors also can be complicated by the different cultural, economic, and political contexts in which studies are conducted. For example, concern for healthcare disparities experienced by different ethnicities could make investigation of racial differences in CG a high priority in the U.S., whereas in some European countries such practices could be considered inappropriate.

To strengthen causal inferences, we excluded risk factors that were likely to change as a result of the loss, or that simply correlated with grief, focusing instead on longitudinal designs and stable independent variables (e.g., gender of the mourner). These exclusions meant that most

studies on coping strategies, cognitions, or meaning making in bereavement—factors that are perhaps the most malleable and amenable to therapeutic intervention—were given little attention, simply because the majority of research to date on these factors utilized cross-sectional designs. We were similarly limited by the paucity of studies exploring mediators or moderators of grief³, and by the equivocal findings across studies, which is likely a result of variations in methodological standards and measurement tools. Use of state-of-the-science measures and consideration of moderator variables could yield more precise findings in future research. Finally, we were further restricted by our exclusion of qualitative studies that may have suggested a richer understanding of the CG experience.

Although we have made a concerted attempt to isolate and categorize prospective risk factors that predict an intense grieving process in order to make definitive statements about who is susceptible to CG, a meta-analytical review of risk factor effect sizes would be desirable. Perhaps most informative of all would be one that includes other relevant bereavement outcomes (e.g., depression, post-traumatic stress), both longitudinal and cross-sectional, including samples diverse in age, ethnicity, and nationality. A more comprehensive analysis along these lines would provide a broader picture of why some people are more likely than others to develop intense and sustained difficulties in bereavement, as opposed to grief symptoms alone.

Clinical Implications and Future Directions for Research

A systematic empirical review of this sort is valuable for many reasons. First, although CG is concerning in itself, it is often not the final outcome in mourning gone awry; rather, CG can function as a risk factor for even more dire psychological and physical health problems. For

³ An exception to this was Boelen and his colleagues' (2006) study that examined negative thoughts/beliefs, cognitive-behavioral avoidance strategies, and interactions between the two.

example, CG subsequently predicts cardiovascular illness (Prigerson, et al., 1997), suicidality (Latham & Prigerson, 2004), substance abuse, depression, anxiety, and overall life disruption (Ott, 2003; Shear et al., 2011).

Moreover, identification of CG predictors enables clinicians to provide proactive assistance, especially to individuals facing expected deaths (e.g., of a loved one with cancer), or with those at special risk in the wake of a widespread trauma or disaster. For example, Rando (1983) found in her study of 54 parents bereaved by their child's cancer that when anticipatory grieving was done prior to the death, less disordered grieving occurred afterward. Additionally, identification of modifiable risk factors can guide the development of relevant secondary or tertiary interventions. For instance, armed with the knowledge that poor social support poses risks to bereavement adaptation (Burke et al., 2010), healthcare professionals in end-of-life contexts could assess families' social support before bereavement begins, with an eye toward preventive intervention.

Finally, the argument for a continuing focus on risk factors of CG in bereavement research is, perhaps, made more evident in terms of the tremendous need for more widespread understanding of this life-vitiating condition. As a whole, medical and mental health professionals, clergy, and society alike are woefully uninformed about CG, its predictors, or its treatment. Disseminating knowledge to frontline workers and to the griever themselves could be a first step toward prevention and treatment of a life-limiting response to loss.

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