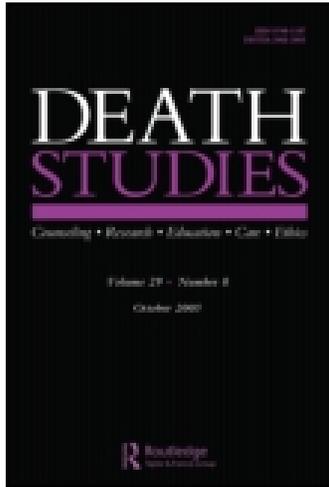


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Attachment, Continuing Bonds, and Complicated Grief Following Violent Loss: Testing a Moderated Model

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Attachment, Continuing Bonds, and Complicated Grief Following Violent Loss: Testing a Moderated Model

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There is increasing consensus that mourners' general attachment security and ongoing sense of connectedness to the deceased figure prominently in adjustment to bereavement. However, the interplay between these variables has not been investigated thoroughly. We therefore studied 195 young adults who were bereaved by violent causes (homicide, suicide, and fatal accidents) in the previous 2 years, measuring their attachment-related insecurities (anxiety and avoidance), their specific ongoing attachment or "continuing bond" (CB) to the deceased, and their complicated grief (CG) symptomatology over the loss of this relationship. Analyses indicated that CBs were concurrently linked with greater CG symptomatology. However, other results also suggested that attachment could moderate the adaptiveness of maintaining a sense of connection to the deceased loved one. Specifically, CBs were less predictive of CG symptomatology for individuals with high anxiety and low avoidance, and most predictive of intense grieving for bereaved people whose attachment styles were more highly avoidant and minimally anxious. These findings suggest the relevance of evaluating the appropriateness of clinical techniques that emphasize or deemphasize the CB for mourners who differ in their styles of attachment. Such studies could potentially promote a better match of interventions to clients whose styles of coping are congruent with these procedures.

Grieving the loss of a loved one frequently entails a complex life transition, as the bereaved often both negotiate a range of biopsychosocial symptomatology

(e.g., separation distress, depressed mood, disrupted family relationships, impaired concentration in work or other responsibilities) and need to reconstruct their ongoing sense of attachment to the deceased in their physical absence (Neimeyer & Thompson, 2014; Rubin, Malkinson, & Witztum, 2011). Although evidence indicates that the majority of the bereaved manage this transition with surprising resilience (Bonanno, 2004) or adaptability after some months of distress without professional intervention (Currier, Neimeyer, & Berman, 2008; Neimeyer & Currier, 2009), a significant minority goes on to struggle with complicated, intense

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grief across a period of many months or years (Prigerson et al., 2009). For those at the extreme end of the continuum of grief symptomatology, this prolonged disruption can include marked and preoccupying yearning for the deceased; a diminished sense of self, mood dysregulation, sensed disconnection from other people; and a perception of the future as bleak and without meaning (Holland, Neimeyer, Boelen, & Prigerson, 2009). For example, in a study of 150 conjugally bereaved individuals, Prigerson et al. (1997) found that the presence of complicated grief (CG) symptomatology was predictive of heart problems, cancer, suicidal ideation, high blood pressure, and changes in eating habits over a 25-month period.

Research has also indicated that losses occurring by violent means may particularly increase the risk for psychological suffering in the grieving process (e.g., Currier, Holland, & Neimeyer, 2006; Kaltman & Bonanno, 2003; Lehman, Wortman, & Williams, 1987; Lehman, Lang, Wortman, & Sorenson, 1989; Murphy et al., 1999). In an earlier study with 1,056 recently bereaved college students, Currier et al. (2006) found that those who lost family/friends via violent causes (i.e., homicide, suicide, and fatal accidents) had greater CG symptomatology compared to survivors of natural losses. When compared to natural losses, violent death bereavement can entail painful and grotesque circumstances for the deceased; result from human-initiated action (i.e., that of the perpetrator in cases of homicide, the deceased in suicidal deaths, and relevant others in the case of many accidents); occur out of synchrony with the natural life span; and violate fundamental assumptions about the perceived order of the universe. Notwithstanding contextual distinctions between bereavements after homicide, suicide, and accidents, research has largely failed to find differences in grief responses between survivors who lost loved ones to different types of violent causes (e.g., Currier et al., 2006; Kaltman & Bonanno, 2003). As such, we will focus on the sample as whole rather than dividing these violent loss survivors on the basis of a particular subset (e.g., suicide bereaved).

An earlier article from the current data set also reported evidence that violent losses were generally associated with greater CG symptomatology and were sufficiently distressing to activate attachment-related concerns (Meier, Carr, Currier, & Neimeyer, 2013). Other findings also indicated that attachment anxiety was positively linked with CG symptom severity among bereaved persons in the study. When compared to a matched control group of persons who were not bereaved over this time period, a second analysis also found that attachment avoidance was linked with worse mental and physical health status to a greater magnitude in this subset of violent loss survivors

(Meier et al., 2013). These findings now raise questions about how attachment insecurities contribute to bereavement adaptation, such as assessing the role of attempts on the part of participants to maintain attachment ties to their deceased loved ones. The present study was conducted to expand on Meier et al.'s findings by examining the interplay between survivors' attempts to maintain a continuing bond (CB) to their deceased loved one and attachment insecurities (anxiety and avoidance) in their CG symptomatology at the time of the study.

CBS AND GRIEVING

CBs can be broadly defined as the ongoing memory and connection between a bereaved individual and the deceased loved one that can be maintained over time (Silverman & Nickman, 1996). In keeping with the numerous CB expressions in the bereavement literature, CBs can include an array of phenomena and take various forms over the grieving process. For example, CBs might entail holding on to the memory of the deceased via reminiscing, telling stories or looking at photographs, and engaging in acts of remembrance. Other grievers might perceive ways in which the deceased has positively shaped them as a person and influenced the trajectory of their lives (e.g., internalizing cherished values and/or beliefs, viewing the deceased as a role model to guide future behavior). In other cases, CBs might entail activities and/or pursuing life goals that honor the deceased and possibly continue his or her legacy in the world. In some instances, bereaved persons might also experience an interactive connection with their deceased loved ones in which they periodically experience the presence of the deceased, seek guidance from the deceased to manage life's stressors, and engage in conversations with the deceased to solve problems and seek comfort and solace. Drawing on Field and colleagues' (Field, Nichols, Holen, & Horowitz, 1999; Field, Gal-Oz, E., & Bonanno, 2003) Continuing Bonds Scale (CBS), we incorporated a global perspective in assessing common ways in which bereaved individuals might attempt to maintain an ongoing attachment relationship with their deceased loved ones.

The role of CBs in the grieving process has received increasing attention from behavioral scientists over recent decades (e.g., Boelen, Stroebe, Schut, & Zijerveld, 2006; Epstein, Klaus, & Berger, 2006; Field & Filanosky, 2010; Field & Friedrichs, 2004; Field et al., 2003; Neimeyer, Baldwin, & Gillies, 2006; Reisman, 2001; Root & Exline, 2014). However, the empirical literature suggests that CBs play a complex and multifaceted role in bereavement adaptation. For

example, Field, Gao, and Paderna (2005) posited that CBs can be adaptive or maladaptive for bereaved persons, depending on whether they accommodate the reality of the loved one's physical absence (e.g., retaining access to comforting memories of the deceased, cultivating an abstract identification with their values) or fail to do so (e.g., as reflected in hallucinations of the loved one's physical presence or sensing connection with them only in certain situations, as at the gravesite). According to Field and Filanosky (2010), internalized CBs would be evidenced in cases when bereaved individuals draw on their relational connection with the deceased as a secure base for promoting autonomy and coming to terms with the new post-loss reality. In contrast, externalized CB expressions would entail illusions and possible hallucinations with the deceased that could be indicative of complications in the grieving process and/or disruption to the attachment system (Field & Filanosky, 2010).

Several studies have supported this varying role of CBs in the grieving process (e.g., Boelen et al., 2006; Field and Filanosky 2010; Field, Nichols, Holen, & Horowitz, 1999). Focusing on three types of CBs—"presence" (i.e., sensing presence of deceased), "possessions" (i.e., using physical possessions of the deceased to feel connected), and "memories" (i.e., feeling a sense of calm via remembering the deceased)—Boelen et al. (2006) found that presence and possessions were concurrently linked with grief symptomatology and that the use of possessions was predictive of worse grief severity 21 months later as well. In another longitudinal study of 89 conjugally bereaved individuals, Field et al. (1999) similarly found that griever who had held on to their spouse's belongings displayed a greater persistence of grief symptomatology over time, whereas persons who sustained comfort through memories fared better in the adjustment process. In differentiating between externalized and internalized expressions of CBs, Field and Filanosky (2010) found that externalized CBs were positively associated with both the violence of the death and perceptions of being responsible for the death. In contrast, internalized CBs were negatively associated with these factors but positively related to personal growth at the time of the study (Field & Filanosky, 2010). Thus, evidence suggests that although CBs of a more abstract and security enhancing sort can be adaptive, the more sensory-based, concrete expressions of such bonds that appear to be more common in cases of violent loss tend to be associated with poorer adjustment.

ATTACHMENT AND GRIEF

Attachment has emerged as one of the primary paradigms for understanding grief (e.g., Fraley & Bonanno,

2004; Stroebe, Schut, & Stroebe, 2005; Wayment & Vierthaler, 2002). Much like child-parent bonds, Field et al. (2005) also suggested that adult attachment relationships can promote regulation of emotion and offer a range of intra- and interpersonal resources for coping with stressful situations. Thus, when an attachment figure dies, Field et al. argued that the ensuing permanent physical separation can cause a profound sense of disorganization or confusion for some griever. Some of the common signs of separation distress include possible expressions of CBs, such as visiting places that the deceased had frequented, mistaking the voices of others for the deceased, or "seeing" one's loved one in an hallucinatory experience. Shear and Shair (2005) proposed that the death of an attachment figure activates one's working models of the deceased in these cases, resulting in a preoccupying state of separation distress as the griever works to revise the internal representation of the attachment relationship in a manner that can incorporate the reality of the loss. In so doing, several theorists have proposed that securely attached individuals will typically possess greater resources for coping and be less vulnerable for these types of complications in the grieving process (e.g., Stroebe, 2002).

Research has generally supported the maladaptive role of attachment-related insecurities (anxiety and avoidance) in coping with bereavement (e.g., Field & Sundin, 2001; Fraley & Bonanno, 2004; Ho, Chan, Ma, & Field, 2013; Meier et al., 2013; van der Houwen et al., 2010; Wayment & Vierthaler, 2002). For example, focusing on a sample of 74 bereaved spouses, Field and Sundin (2001) documented that greater relational dependency, one of the core features of an anxious attachment style, was linked with worse complications in the grieving process. Similarly, in a longitudinal study (4 and 18 months after loss) with 59 adults who had lost a loved one in the recent past, Fraley and Bonanno (2004) found that attachment avoidance was also associated with poorer adjustment over time. Prior findings from the current data set also indicated that attachment anxiety was linked with worse CG symptomatology but avoidance failed to yield a reliable effect (Meier et al., 2013). However, in keeping with other research (e.g., Currier et al., 2006), further analyses found that the violent loss survivors who form the basis for this study also had significantly more symptomatology than survivors of natural losses and that avoidance figured prominently in predicting their health status at the time of the assessments (Meier et al., 2013). In general, these results further underscore the potential challenges of coping with violent losses and the manner in which attachment-related concerns may help and/or hinder bereavement adaptation in these cases.

ATTACHMENT, CONTINUING BONDS, AND GRIEF

CBs might in part explain the association between attachment and CG in cases of extreme loss and/or where bereavement occurred under potentially traumatic circumstances (Field et al., 2005; Field, 2006). However, whether focusing on violent or non-violent losses, empirical research on the potential interplay between these variables is quite limited and results have thus far not yielded a clear picture. This is partly attributable to a tendency for researchers to assess either attachment or CBs but not both in the same study. However, a notable exception to this trend occurred with Ho and colleagues' (2013) recent study with 71 bereaved spouses in Hong Kong in which they found a moderate correlation between externalized CBs and attachment anxiety ($r = .29$) and that these variables were each linked with more grief symptomatology. However, Ho et al. also found that CBs, whether in internalized or externalized forms, were not correlated with participants' attachment avoidance. In the only other study (to our knowledge) that examined these constructs simultaneously, Field and Filanosky (2010) found that attachment and CBs were predictive of grief but were not associated with one another. Hence, although these studies supported the relevance of attachment and CBs to grief independently, we still have too little empirical evidence regarding how these variables may interact in the process of adjusting to major loss events.

There are several possibilities regarding the interaction between attachment and CBs in the grieving process. For example, CBs could represent warning signs of an unresolved loss or manifestations of protracted distress in the attachment system for some grievers. In such cases, researchers would expect to find positive correlations between the strength of grievers' CBs and the severity of attachment insecurities (as Ho et al. [2013] found in their study). However, the interplay between attachment and CBs could be more complex for many individuals, such that testing simple correlations could obscure results when research focuses on diverse groups of bereaved persons (as with Field and Filanosky's [2010] sample). For example, in cases of avoidant attachment where individuals often attempt to minimize needs for intimacy and cope with stressful events in an autonomous manner, the use of CBs might reflect something different than when mourners intensify their pursuit of attachment security when feeling threatened or distressed in general. Hence, the cultivation of a sense of connectedness with the deceased loved one might be out of synchrony with avoidant persons' general interpersonal style, such that CBs could be quite distressing and reflective of being overwhelmed and at risk for

CG. In contrast, for anxiously attached persons who generally tend to seek proximity to attachment figures in times of distress, an ongoing sense of connectedness to the deceased could be more in keeping with their interpersonal style and CBs might in fact afford solace and comfort as they come to terms with their losses and adapting to a world without the physical presence of the deceased.

STUDY AIMS AND HYPOTHESES

The overarching purpose of this study was to explore these possibilities. Drawing on a sample of persons who had lost loved ones to violent causes in the previous 2 years, we examined (a) the main effects of attachment insecurities (anxiety and avoidance) and CBs on CG; and (b) possible interactions between attachment insecurities and CBs in explaining the severity of participants' grief reactions (i.e., a moderated model). Although research findings are limited on the possible interplay between attachment and CBs in the bereavement literature, the following hypotheses were tested:

1. When controlling for demographic factors (age, gender, and ethnicity), attachment insecurities (anxiety and avoidance) will be positively correlated with CG symptom severity.
2. Greater use of CBs will be associated with more severe CG symptomatology when accounting for the other study variables.
3. Attachment insecurities will moderate the association between CBs and CG, with CBs being more maladaptive in cases when seeking proximity to others might be out of synchrony with one's interpersonal style (i.e., low anxiety, high avoidance).

METHOD

Participants and Procedures

The 195 participants in the present sample were drawn from a larger investigation on adjustment to loss at a large research university in the Mid-South. Following institutional review board approval, these participants were recruited via email requests and were offered extra credit in their psychology courses. Inclusion criteria were that participants needed to be at least 18 years of age and had lost a family member or close friend to a violent death in the prior 2 years (i.e., suicide, homicide, or fatal accident). The sample comprised 80% women and the average age was 21 years ($SD = 4.95$, range = 18 to 49 years). Consistent with the ethnic composition of the study region, the sample predominantly included

African American (45.1%) and Caucasian (44.6%) persons. The majority of the sample had lost loved ones to accidental deaths (e.g., motor vehicle accidents; 58.9%), but survivors of homicide (18.8%) and suicide (22.3%) were represented as well in this group. Relationships to the deceased included losing an immediate family member (i.e., parent, sibling, spouse, child; 15.2%), extended family member (e.g., grandparent, aunt, cousin 73.1%), or a close friend (14.7%).

Measures

The Experiences in Close Relationships–Relationship Structures questionnaire (ECR-RS; Fraley, Waller, & Brennan, 2000) was used to assess attachment-related insecurities. The ECR-RS is a 10-item self-report measure for assessing both attachment anxiety (four items; e.g., “I worry that this person won’t care about me as much as I care about him or her”) and avoidance (six items; e.g., “I find it easy to depend on this person” [reverse scored]) across four relational figures that might be important in young adulthood (i.e., father, mother, sibling, and romantic partner). These relationships could refer to participants’ biological family members or persons who they identified as fulfilling these roles in their lives. Participants were asked to rate their answers on a 7-point scale with anchor points of 1 (*strongly disagree*) to 7 (*strongly agree*). Participants’ scores on items assessing anxiety and avoidance were each summed across the four relationships to yield overall scores for each dimension. These items have demonstrated good internal reliability in previous research (e.g., $\alpha = .86$ for avoidance, $\alpha = .91$ for anxiety; Powers, Pietromonaco, Gunlicks, & Sayer, 2006). Cronbach’s alphas ranged from .86 to .90 for avoidance and from .86 to .93 for anxiety across the four relationships in the current sample.

The CBS (Field et al., 2003) was incorporated to provide a global assessment of CBs. Field and colleagues (1999, 2003) developed the CBS to assess benign ways that bereaved persons might maintain a tie with their deceased loved ones (e.g., accessing memories, maintenance of possessions, sense of presence, identification with the deceased, internalization of the deceased, viewing the deceased as a standard for living, reminiscence of deceased). This instrument has demonstrated construct validity in predicting grief symptomatology in a sample of bereaved spouses over a 5-year period (Field et al., 2003). Questions are answered using on a 5-point scale, ranging from 1 (*not at all true*) to 5 (*very true*). Example items include “I like to reminisce with others about my [loved one]” and “I attempt to carry out my [loved one’s] wishes.” Participants’ scores on the 11 items were summed to provide an overall score for statistical analyses. The measure has also shown good internal reliability

in previous research ($\alpha = .87$; Field et al., 2003). Internal consistency was .89 in the current sample.

The Inventory of Complicated Grief–Revised (ICG-R; Prigerson & Jacobs, 2001) was used to assess CG symptom severity at the time of the study. The ICG-R is a self-report scale with 31 declarative statements regarding the deceased. Sample items include “I feel that I have trouble accepting the death of [the deceased],” “Ever since [the deceased] died I feel like I have lost the ability to care about other people,” or “I feel distant from people I care about.” The participants responded using a 5-point scale describing the frequency of symptoms ranging from 1 (*never*) to 5 (*always*). So as to provide a comprehensive assessment of CG symptomatology, total scores were again created by summing the ICG-R items for the statistical analyses. The instrument generated a Cronbach’s alpha of .95 in this sample, which is consistent with other research with the previous version of the instrument (e.g., $\alpha = .94$; Prigerson et al., 1999).

RESULTS

Descriptive statistics and bivariate correlations between the study variables are displayed in Table 1. Attachment anxiety and avoidance were positively correlated in this sample, as were the use of CBs and CG symptom severity. Furthermore, attachment avoidance was inversely associated with CBs, and both types of attachment insecurities were associated with higher levels of CG in these initial analyses.

The main analysis tested whether attachment insecurities (anxiety and avoidance) moderate the link between use of CBs and severity of CG symptomatology. All three predictors (i.e., anxiety, avoidance, CBs) were mean centered prior to conducting this analysis. Given prior results for demographic factors in the larger study (e.g., Meier et al., 2013), we controlled for age, gender, and ethnicity in this analysis. Hence, we conducted a multivariate regression analysis in which CG was regressed onto the demographic factors, the three predictors (anxiety, avoidance, and CBs), and two interactive terms (i.e., Anxiety \times CBs, Avoidance \times CBs).

TABLE 1
Descriptive Statistics and Bivariate Correlations Between Study Variables

Variable	M	SD	1	2	3
1. Anxiety	38.08	16.40			
2. Avoidance	69.54	24.06	.66***		
3. Continuing bonds	30.06	9.94	-.02	-.20**	
4. Complicated grief	67.01	21.36	.24**	.16*	.57***

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

TABLE 2
Multivariate Analysis With Attachment, Continuing Bonds (CBs), and Interactive Associations Predicting Complicated Grief

	B	SE B	t	R ²
				.45***
Constant	83.58	8.45		
Age	-0.49*	0.24	-2.05	
Gender	-2.51	2.94	-0.85	
Ethnicity	-0.59	2.39	-0.25	
Anxiety	0.14	0.10	1.46	
Avoidance	0.19	0.07	2.72**	
CBs	1.29	0.12	10.61***	
Anxiety × CBs	-0.02	0.01	-2.04*	
Avoidance × CBs	0.02	0.01	3.24**	

Note: Gender was coded so that 1=Men and 2=Women. Ethnicity was coded so that 1=Caucasian persons and 2=Non-Caucasian persons.

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

As outlined in Table 2, multivariate results indicated several unique predictors of CG in this analysis. The overall regression equation generated a statistically significant model, $F(8, 186) = 19.17, p < .001$, accounting for 45% of the variance in participants CG scores. When controlling for demographic factors, participants with greater attachment avoidance and use of CBs were each shown to also endorse greater CG symptomatology. In addition, both of the interactive terms also emerged as being significant predictors of CG in the model, but in opposite directions.

Conditional effects were next computed to probe both of these statistically significant interactions. As depicted in Figure 1, the magnitude of the association between CBs and CG was greater when attachment anxiety was low (i.e., 1 SD below sample mean), $b = 1.62, SE = .21, t = 7.77, p < .001$, compared to high (i.e., 1 SD above sample mean), $b = .97, SE = .19,$

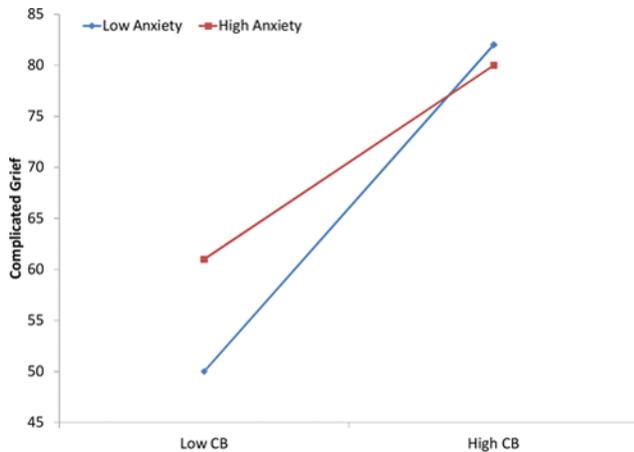


FIGURE 1 Plot showing interaction between attachment anxiety and continuing bonds (CB) predicting complicated grief.

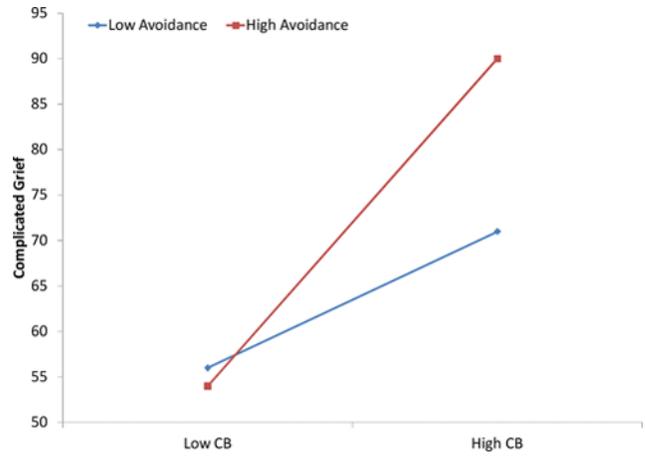


FIGURE 2 Plot showing interaction between attachment avoidance and continuing bonds (CB) predicting complicated grief.

$t = 4.99, p < .001$. In contrast, CBs predicted CG more strongly when attachment avoidance was high, $b = 1.81, SE = .21, t = 8.78, p < .001$, compared to low, $b = .78, SE = .19, t = 4.03, p < .001$ (see Figure 2). In summary, these results suggest that use of CBs was associated with a greater risk for CG symptomatology for individuals with low levels of attachment anxiety and high levels of attachment avoidance (i.e., possibly discrepant from interpersonal styles).

We also explored whether the use of CBs might moderate the association between attachment avoidance and CG symptomatology (rather than vice versa). Results from the exploratory analysis for attachment anxiety failed to reveal a statistically significant association between anxiety and CG for participants with both low (i.e., 1 SD below sample mean) and high (i.e., 1 SD above sample mean) levels of CBs. Analyses with avoidance similarly revealed that the slope of the link between attachment avoidance and CG was not different from zero among participants with low levels of CBs. However, avoidance was significantly linked with CG symptom severity for participants with high levels of CBs, $b = .52, SE = .16, t = 3.19, p = .003$. Overall, these results suggest that avoidance emerged as a possible risk factor for complications in the grieving process principally among individuals who engaged in greater use of CBs following the violent death of their loved ones.

DISCUSSION

This study examined the interplay between attachment and CBs in CG symptomatology among young adults who had lost a loved one to a violent type of death over the prior 2 years. Bivariate results indicated that attachment anxiety and avoidance were each positively

correlated with CG. In addition, we found a significant main effect for avoidance on CG in the multivariate analysis. These results align with earlier reports from the present data set (Meier et al., 2013) and other samples of bereaved individuals (e.g., Fraley & Bonanno, 2004; McChrystal, 2008; Stroebe et al., 2005; Wayment & Vierthaler, 2002), further highlighting that a lack of attachment security is frequently associated with complications in the grieving process. The primary goal of this study was to examine whether these attachment insecurities might moderate the association between the use of CBs and CG, which has similarly been found in prior research (e.g., Boelen et al., 2006; Field et al., 1999; Field & Filanosky, 2010).

There was again a salient pattern for griever in this study who endorsed a higher use of CBs to report worse grief. Whether tested in a bivariate manner or in the presence of other study variables, CBs were significantly linked with greater CG symptom severity. Theoretically, this suggests that people who maintain an ongoing relationship with the deceased may be at risk for CG in some cases. However, it should be noted that, due to the cross-sectional nature of this study, no causal associations should be assumed. For example, it could be that complicated grievers in the sample were more preoccupied with their deceased loved ones in general, which would have been reflected in higher scores on the Continuing Bonds Scale. Nonetheless, it is notable that, despite the benign content of items assessing an ongoing sense of connection or ties with the deceased loved one (e.g., Even though no longer physically present, _____ continues to be a loving presence in my life; I have many fond memories of _____ that bring joy to me), such bonds were linked with more, rather than less loss-related distress. The main effect for CBs replicates Neimeyer et al.'s (2006) work with a similar sample of bereaved persons suffering a broader range of losses via natural as well as violent causes of death.

Additional tests for moderation also indicated that the maladaptiveness of CBs varied depending on participants' levels of attachment anxiety and/or avoidance. Although the strength of CBs maintained a positive association with CG symptomatology regardless of participants' levels of attachment insecurities, CBs were less predictive for individuals with high anxiety and/or low avoidance. These results suggest that when pursuing proximity to the deceased is congruent with a griever's general interpersonal style, CBs were less predictive of complications in the adjustment process. When considering the risk associated with violent loss in particular (e.g., Currier et al., 2006; Kaltman & Bonanno, 2003; Lehman et al., 1987; Lehman et al., 1989; Murphy et al., 1999), CBs could therefore present less of an obstacle to healthy adjustment for persons who are

unaccustomed to seeking relational closeness (high anxiety) and/or distancing from others (low avoidance) in times of distress.

Given the fact that study variables were assessed simultaneously, an alternate explanation is that CBs moderated the association between attachment avoidance and CG symptomatology in the multivariate analysis. Namely, depending on the strength of the attachment bond with the deceased, one's attachment orientation might have varying consequences for grief. Attachment anxiety was not uniquely related with CG in the presence of CBs, suggesting that CBs might overshadow the contribution of this specific dimension on grief. However, in exploring whether avoidance contributed to CG as a function of the degree to which participants engaged in CBs at the time of the study, results indicated that this second dimension was indeed more strongly associated with CG among those participants with high levels of CBs. The cross-sectional nature of this study of course limits our ability to draw temporal inferences about the interplay between CBs and attachment avoidance. However, in keeping with the first set of conditional effects, these results further suggest the importance of CBs among grieving individuals and that CBs might be reflective of greater complications in grieving when such an ongoing connection is not coherent with the mourner's general attachment style.

Just what mechanisms account for these outcomes remain to be investigated, however. For example, attachment anxiety and avoidance are each theorized to be broad, developmentally acquired "working models" of relationships that are presumed to generalize to a wide range of relationships (Parkes & Prigerson, 2009). From this standpoint, a disposition toward attachment insecurity, whether in the form of anxiety or avoidance, could well generalize to the relationship to the deceased, whether in life, or in the post-mortem bond (Rubin et al., 2011). If this is the case, it would hardly be surprising that a strong tendency to seek connection to the deceased, while also avoiding such connection in view of the loved one's violent death, could produce a preoccupying and conflicted form of engagement with the loss that could complicate one's grieving process (Ryneerson & Salloum, 2011). Such a psychological interpretation might be tested empirically in future studies by evaluating the actual level of attachment anxiety and/or avoidance in relation to the deceased loved one, both in life and in terms of the ongoing sense of relationship to the deceased, in light of contemporary grief theory (Neimeyer & Sands, 2011; Rubin, Malkinson, & Witztum, 2003; Worden, 2009), and directly study its association with CBs and bereavement-related distress.

Alternatively, some of the current findings, in conjunction with those from Field et al. (2005), are

compatible the idea that the death of an attachment figure can leave one in a state of confusion and disorganization, and thus prompt a need for soothing interactions with intimate others in the family and beyond (Hooghe & Neimeyer, 2012), especially in the aftermath of a violent loss. In this context, attachment avoidance might contribute to isolation and bereavement complications for those persons who are hesitant to turn to others for support or lack crucial interpersonal resources. Because of the inconsistent findings reported in prior literature (e.g., Fraley & Bonanno, 2004; Uren & Wastell, 2002; Wayment & Vierthaler, 2002), future research should examine more closely the association between attachment insecurity, social support, and CG in the aftermath of violent loss (Burke, Neimeyer, & McDevitt-Murphy, 2010) to evaluate the viability of this more systemic interpretation.

Clinically, these findings carry several possible implications. At the most basic level, they reinforce contemporary models of grief therapy that entail working with clients' ongoing sense of attachment to the deceased, with a particular emphasis on addressing sources of conflict and insecurity in the CB (e.g., Neimeyer & Thompson, 2014; Rubin et al., 2011; Worden, 2009). However, in light of the general association between higher levels of CBs to the deceased and bereavement-related distress, clinicians should be careful to guard against the unwarranted assumption that promoting even a benign ongoing sense of relationship to the deceased is sufficient to modulate the intense and prolonged emotional distress associated with CG. A wiser course might well be to consider the impact of intervening in CBs as well as the congruence of specific grief therapy procedures with the coping style of the bereaved person. For example, contemporary techniques of grief therapy frequently emphasize enhancement of the CB through legacy projects, life imprints, imaginal conversations, and many other methods (Neimeyer, 2012). Although some germinal research suggests the efficacy of such procedures in mitigating CG (Shear, Frank, Houch, & Reynolds, 2005), just how these methods ultimately increase or decrease engagement with the deceased remains to be investigated.

Furthermore, the current results raise the possibility that use of bond-enhancing interventions might have different effects depending on the client's attachment orientation, and should be used with caution for those who incline toward high avoidance or who display minimal anxiety. Instead, the latter groups might prove more responsive to clinical interventions that downregulate attachment strivings in relation to the deceased, such as behavioral activation procedures to reengage social relationships, or focusing on the pursuit of personally valued objectives that do not require the presence of the deceased (Neimeyer, 2012). In terms of the dual process model of coping with bereavement (Stroebe &

Schut, 2010), this suggests that facilitation of "loss-oriented coping" as through reconstructing the CB, may be more appropriate with some clients, whereas attention to "restoration-oriented coping," entailing review and reinforcement of other life roles and goals, could be of greater relevance for others. Fortunately, controlled trials of specific procedures for addressing these tandem aims are encouraging (Boelen, de Keijser, van den Hout, & van den Bout, 2007; Papa, Sewell, Garrison-Diehn, & Rummel, 2013; Shear et al., 2005), suggesting the feasibility of researching such "aptitude by treatment interactions" (Beutler, Harwood, Kimpara, Verdirame, & Blau, 2011) in the context of grief therapy. However, such possibilities can only be evaluated through the use of experimental designs in which bond-enhancing procedures (e.g., legacy projects, review of photographs, writing letters to the deceased) or bond-deemphasizing interventions (e.g., saying goodbye, behavioral activation, revising life goals) are distinguished, and evaluated for their impact on both the CB and grief symptomatology for mourners with different attachment orientations. Although the current results are clearly far too preliminary to be used as the basis of clinical recommendations, the interaction of attachment style and CB in association with CG symptomatology suggests that such controlled research should be a future priority.

Finally, it is important to note several limitations of the present study. First, although the sample included an equal representation of Caucasian and African American mourners, it was composed entirely of college students, raising questions of generalizability to both less-educated persons and older adults. Most of these participants also had not lost close family relationships (i.e., the deceased were more often extended family and close friends), such that separation distress and other attachment-related concerns were possibly not a prominent concern for many of these individuals. Consistent with general trends in the bereavement literature, there was also an overrepresentation of women and the study also only examined individuals who had experienced a violent loss. As such, it is also not possible to deduce whether these findings apply as well to men and generalize to natural or more normative types of loss. Future research will do well to attempt to replicate these findings with more diverse samples in terms of demographic factors and types of loss.

In addition, all of the measures were based on self-report, opening the possibility of biased or inaccurate reporting in some cases. For example, participants could have felt a certain level of guilt to answer questions about the impact of the loss or their security in relationships, and hence responded in a more positive way than was warranted. We also relied on a global strategy for assessing CBs that likely lacks the sophistication of newer

measures. For example, Field and Filanosky (2010) expanded the 11-item CBS into a 47-item questionnaire to cover a more comprehensive range of possible variants of CBs after we had begun data collection for the present study. Factor analysis generated a newer 16-item measure with subscales that could differentiate between internalized and externalized expressions of CBs. We also failed to assess for instances in which one of the attachment figures from the ECR-RS could have represented the deceased loved one on which the CBS was based, although the infrequency with which the losses in the present sample represented immediate nuclear family mitigates this possible confound. Finally, as noted above, it is impossible to make causal statements regarding these findings due to the cross-sectional nature of this study. We hope that future research will build on the findings of this study by incorporating contemporary strategies for assessing CBs and longitudinal designs that can further tease apart the temporal associations between attachment and CBs in adaptation to bereavement. Ultimately, as we have suggested, experimental research enabling causal inferences may also be possible, as through designs that investigate the efficacy of interventions that emphasize or deemphasize CBs for bereaved clients who vary in their level of attachment anxiety and avoidance.

Nonetheless, this study provides a starting point for better understanding the way attachment might shape the function of CBs in the grieving process (and possibly vice versa). In particular, major findings of this study suggest that: (a) CBs were concurrently linked with greater CG symptomatology; and (b) attachment-related insecurities could moderate the adaptiveness of an ongoing connection to the deceased in adjusting to the post-loss reality of the loved one's death. In particular, CBs appeared to be less harmful for persons with high anxiety and low avoidance, and potentially more complicating for those with lower anxiety and greater attachment avoidance. In sum, these results extend a growing literature on the role of attachment in adaptation to bereavement, and begin to suggest that the adaptiveness of a strong CB with the deceased and the appropriateness of promoting this in grief therapy could vary as a function of the client's attachment style. We hope these findings encourage greater attention to the varied attachment patterns of bereaved people, and how these might interact with their own personal attempts at coping and the professional interventions that are offered them when their grief is complicated.

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