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Identity Confusion in Complicated Grief: A Closer Look

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Abstract

Complicated grief (CG) is characterized by a wide range of symptoms, including identity confusion or a sense that a part of oneself has died with the decedent. Although identity confusion is a commonly reported feature of CG, little is known about which specific aspects of self-concept are compromised. In the current study, we used qualitative coding methods to investigate which aspects of the sense of self differed between those with and without CG in a sample of 77 bereaved adults. Relative to individuals without CG, those with CG provided fewer descriptors of their self-concept overall (lower self-fluency), provided sets of descriptors that consisted of fewer categories (lower self-diversity), and had lower proportions of self-relevant preferences and activities. However, group differences were not observed for proportions of any other categories of self-concept descriptors, including references to the loss, the past, or distress-related self-statements. Directions for future research and clinical implications are discussed.

General Scientific Summary

Complicated grief (CG), a prolonged and debilitating grief reaction to the loss of a loved one, is often characterized by identity confusion, or the sense that a part of oneself has died with the deceased. This study explores the specific ways in which the sense of self differs between bereaved adults with and without CG. Although those with and without CG did not differ on most categories of self-concept, we found that the self-concepts of those with CG comprised fewer components (lower self-fluency), fewer domains (lower self-diversity), and lower proportions of self-relevant preferences and activities.

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Keywords

identity confusion; complicated grief; qualitative coding; sense of self

The death of a loved one is a ubiquitous human experience. After a period of initial distress, most bereaved adults will adjust to the loss and grief will subside (Bonanno, 2004). However, about 7% of bereaved adults experience grief that remains severe and persistent over time (Kersting, Brahler, Glaesmer, & Wagner, 2011). This syndrome of persistent grief symptoms has been known variously as persistent complex bereavement disorder (PCBD; American Psychiatric Association, 2013), prolonged grief disorder (PGD; Prigerson et al., 2009), and complicated grief (CG; Shear et al., 2011). We use the term *complicated grief* due to its predominance in the literature. CG is chiefly characterized by an intense yearning for the deceased, emotional pain, and preoccupation with thoughts of the deceased and the death (APA, 2013). Although CG is often comorbid with depression, anxiety disorders, and posttraumatic stress disorder (PTSD) (Stroebe, Schut, & Stroebe, 2007), it also comprises symptoms distinct from these disorders (Shear et al., 2011). Clinically, levels of CG incrementally predict functional impairment over and above PTSD and depression levels (Bonanno et al., 2007).

CG is typically conceptualized as a disorder of non-recovery (Shear et al., 2007). Though most bereaved individuals adjust naturally following a period of acute grief, recovery may stall for some due to a range of complicating factors such as persistent self-blame or avoidant behaviors (Shear et al., 2007). There is also evidence that grief recovery may be further complicated by the extent to which the loss challenges a bereaved person's self-concept and leads to identity confusion, or the sense that a part of oneself has died with the deceased (American Psychiatric Association, 2013; Jacobs, Mazure, & Prigerson, 2000; Prigerson et al., 2009; Shear et al., 2011). Identity confusion is central to several theoretical models of CG, including the Cognitive Attachment Model (Maccullum & Bryant, 2013), the Meaning Reconstruction Model (Gillies & Neimeyer, 2006), and the Cognitive Behavioral Model (Boelen, van den Hout, & van den Bout, 2006).

The Cognitive Attachment Model (Maccullum & Bryant, 2013) posits that the key difference between those who develop CG and those who do not is the degree to which the decedent remains central to the bereaved person's sense of self (Maccullum & Bryant, 2013). According to this model, individuals whose goals and plans were closely intertwined with their relationship to the deceased and for whom the deceased was a primary attachment figure are most at risk for CG. For individuals for whom this "merged identity" persists, life goals and daily activities are frequently inconsistent with the reality of the decedent's absence. Moreover, autobiographical memories of the deceased dominate their mental landscape, limiting the accessibility of other autobiographical memories unrelated to the decedent that could inform a sense of self without the deceased. From the perspective of this theory, the crucial task of bereavement is to update one's sense of self to (a) incorporate the reality of the loss and (b) enable the development or enrichment of new goals, activities, roles, and social attachments without the deceased.

In their Meaning Reconstruction Model of bereavement, Gillies and Neimeyer (2006) posit that the narrative of the loss event shatters pre-existing assumptions key to the bereaved individual's self-narrative. This discrepancy results in an unclear sense of self, generative of identity confusion, meaninglessness and dysphoria. These reactions persist until the bereaved constructs or reaffirms a sense of self that accommodates the reality of the loss. Finally, in their Cognitive Behavioral Model, Boelen and colleagues (2006) posit that grief recovery is dependent on the bereaved individual's ability to integrate knowledge about the reality of the loss into autobiographical memory. They also emphasize the role of negative global beliefs about the self in contributing to the persistence of CG.

Beyond these theoretical models, there is considerable empirical evidence to support the notion that the identities of those with CG remain closely intertwined with the deceased. For example, relative to bereaved adults without CG, bereaved adults with CG are more likely to report memories involving the deceased when asked to provide autobiographical memories related to their goals (Boelen, 2009), autobiographical memories related to their identities (Maccallum & Bryant, 2008), or any autobiographical memory (Maccallum & Bryant, 2010). Bereaved adults with CG also recall memories including the deceased with greater specificity than memories that do not include the deceased (Golden, Dalgleish, & Mackintosh, 2007, Robinaugh & McNally, 2013), and have difficulty imagining the future without the deceased (Robinaugh & McNally, 2013, Maccullum & Bryant, 2011). Moreover, those with CG report frequent counterfactual thoughts about life with the deceased (e.g. "I find myself wishing that things could be the way they were when I was with [the deceased]."; Robinaugh et al., 2016). Finally, the degree to which individuals see the loss of a loved one as central to their life and sense of self predicts CG severity over and above other personality variables (Boelen, 2009). Despite this indirect evidence of altered sense of self in those with CG, few studies have explored phenomenological differences in the sense of self of bereaved adults with and without the disorder.

To our knowledge, Boelen, Keijsers, and van den Hout (2012) conducted the only study to directly explore the structure of self-concept in individuals with CG. Specifically, they examined differences in self-concept clarity (SCC), or "the extent to which the contents of an individual's self-concept (e.g., perceived personal attributes) are clearly and confidently defined, internally consistent, and temporally stable" among bereaved adults with and without CG (Campbell, Trapnell, Heine, Katz, Lavallee, & Lehmann, 1996, p. 141). SCC in this study was assessed via a questionnaire assessing respondents' level of agreement with statements such as "In general, I have a clear sense of who I am and what I am." (Campbell et al., 1996). The authors found that lower SCC in the wake of loss concurrently and prospectively predicted greater CG symptom severity (Boelen et al., 2012) – providing direct evidence that identity confusion may contribute to the etiology and maintenance of CG.

Although the empirical work on SCC provides some proof of concept for the importance of identity in CG, many questions with theoretical and clinical import remain. How should a lack of clarity about who one is best be conceptualized? It is possible that clarity diminishes because the loss of a loved one necessitates the undertaking of additional roles unfamiliar to the bereaved, (e.g., a widow who must take over her spouse's former role in the family), resulting in greater complexity, and therefore less clarity. Alternatively, it is possible that

clarity diminishes because the bereaved individuals finds him or herself without a role formerly necessitated or facilitated by the decedent (e.g., a widower who considered being a spouse an important part of his identity), resulting in less complexity. In short, is identity confusion a result of a self-concept that has become overly complex, or less diverse? Other questions about the specific nature of identity confusion also remain. Are the aspects of self-concept purported to be operative in current theories of bereavement (e.g., fixation on the past or the deceased) borne out in individuals' descriptions of themselves?

The Current Study

The current study is an inquiry into the substantive nature of self-concept differences between bereaved individuals with and without CG. In this study, we assessed the self-concepts of bereaved adults by using an assessment method that quantified and categorized statements that participants made about themselves. We used this information to address two major aims. Aim 1 was to examine whether identity confusion is better conceptualized as an increase or decrease in self-concept complexity. Therefore, we examined differences between those with and without CG on two global characteristics of self-concept that tapped into self-concept complexity: self-fluency and self-diversity. Self-fluency was defined as the total number of self-descriptive statements (self-statements) made by participants. Participants with higher self-fluency scores had more expansive self-descriptions. Then, after coding each self-statement into one of the nine categories of a previously validated self-statement coding scheme (i.e., the Verbal Self-Fluency Task; VSF, Nizzi, 2018; described later in this manuscript) we determined the number of unique categories comprising each participant's self-statements. This number was defined as self-diversity, with higher numbers indicating more varied self-descriptions. Because it is equally possible that the identity confusion characteristic of CG arises from an increase in the complexity of self-concept as from a decrease in the same, we did not make directional predictions regarding these self-complexity variables.

Aim 2 was to examine differences between those with and without CG in specific categories of self-concept (for a list of self-concept categories, see Table 1). We were especially interested in four comparisons. First, based on the notion that those with CG have identities based around the deceased (Maccullum & Bryant, 2013), or the loss of the deceased (Boelen, 2009), we examined whether those with CG would make a higher proportion of self-statements that referenced the loss or the deceased. Second, based on Maccullum and Bryant's (2013) suggestion that those with merged identities may have a harder time finding meaningful activities in life after loss, we also examined whether those with CG might describe themselves less in terms of self-relevant activities. We determined the proportion of participants' statements that referenced activities by using a previously validated category of the aforementioned VSF coding scheme. Third, considering theoretical work (Maccullum & Bryant, 2013) and empirical findings (Robinaugh & McNally, 2013) suggesting that those with CG are fixated on their life with the deceased, and thus have a harder time envisioning the future, we examined whether those with CG would describe themselves less in terms of a future self, and more in terms of a past self. Fourth, based on the notion that the self-concepts of those with CG are more likely to be fraught with negative appraisals (Boelen & Klugst, 2011; Maccullum & Bryant, 2013), we examined whether the self-profiles of those

with CG would be characterized by a higher proportion of self-statements indicating distress. In addition, given the exploratory nature of these analyses, we also compared the self-profiles of those with and without CG across the comprehensive range of self-concept categories used in the VSF to see whether differences arose.

We also added an analysis suggested by a reviewer of an earlier draft of this manuscript. In an exploratory vein, we determined which specific ways our identity categories might be associated with CG at the symptom level. We accomplished this aim by calculating correlations between all self-concept categories, continuous CG severity, and individual CG symptoms.

Method

Participants and Procedure

The present study is a secondary analysis of data collected as part of a larger study on cognitive impairments in bereaved adults. The Harvard University Committee on the Use of Human Subjects approved all procedures for the larger study. Participants in the study were recruited through online and print advertisements, word of mouth, flyers posted in local facilities, and referrals from treatment centers. To qualify for participation, individuals had to have experienced the death of a loved one at least one year prior to study entry, to speak English, and to be currently free of mania and psychosis. At the conclusion of the first study visit, participants completed baseline questionnaires assessing demographics, loss-related characteristics, and grief-related symptoms. At the end of the third study visit, participants completed the assessment of self-concept.

Our sample consisted of 77 bereaved adults, the majority of whom were women (n = 44, 57.1%). Their mean age was 45.4 years old (SD = 12.6), and their self-identified racial proportions were 46.8% Caucasian (n = 36), 44.2% African-American (n = 34), 4.0% Hispanic (n = 3), 2.6% Asian (n = 2), 1.3% Native American (n = 1), and 1.3% “other” (n = 1). Most participants had lost a parent (n = 44, 57.1%), with others having lost a sibling (n = 16, 20.8%), a spouse (n = 9, 11.7%), or a child (n = 3, 3.9%). A small minority of participants categorized their relationship to the deceased as “other” or did not respond to this question (n = 5, 6.5%). Participants had experienced losses due to a wide range of causes, including long-term illness or natural causes (n = 34, 44.2%), sudden illness (n = 27, 35.1%), accident (n = 5, 6.5%), homicide (n = 4, 5.2%), suicide (n = 2, 2.6%), or overdose (n = 1, 1.3%), with some stating that they were unsure of the cause or leaving the question unanswered (n = 4, 5.2%). Based on their responses to the Inventory of Complicated Grief (ICG; Prigerson et al., 1995), we found that 49.4% (n = 38) qualified as having a probable CG diagnosis (i.e. ICG > 25), whereas the rest did not (i.e., ICG ≤25).

Measures

Inventory of Complicated Grief (ICG).—The ICG (Prigerson et al., 1995) is a 19-item self-report questionnaire that assesses the severity of CG symptoms. It has convergent validity in its positive association with other validated measures of CG (Prigerson et al.,

1995). We used a cut score (>25) on the ICG to identify participants with a probable diagnosis of CG. Internal consistency for the ICG in our sample was excellent (α = .94).

Quick Inventory of Depressive Symptomatology – Self-Report (QIDS-SR).—The QIDS-SR (Rush et al., 2003) is a 16-item self-report questionnaire that assesses the severity of depressive symptoms. The QIDS-SR has demonstrated convergent validity in its robust positive associations with other well-validated measures of depression (Rush et al., 2003). The QIDS-SR demonstrated good internal consistency in the present sample (α = .80).

Twenty Statements Test (TST).—The TST (Kuhn & McPartland, 1954) is an open-ended self-report questionnaire that assesses the self-concept of the respondent. Participants are asked to complete up to 20 statements beginning with the words "I am…". In the present study, participants were not given a time- or space-limit when completing the questionnaire. As a result, participants completed a variable number of items (range: 1 – 20 items), their responses for each item varied in length (range: 1 – 49 words per item), and overall response lengths varied (range: 4 – 561 total words).

Different coding schemes have been used to categorize and analyze TST responses, with the method of coding depending upon the specific aims of the researchers. For example, researchers have categorized responses as abstract versus specific statements (Rhee, Uleman, Lee, & Roman, 1995). In the present study, we used a modified version of the coding scheme described in the Verbal Self-Fluency Task (VSF; Nizzi, 2018), as it was designed to provide a comprehensive assessment of self-concept ideal for our exploratory aims.

Modified Verbal Self-Fluency Task.—The VSF (Nizzi, 2018) is a neuropsychological task assessing the sense of self of the respondent based on the number and categories of self-descriptive statements generated by the respondent in two minutes. Each self-descriptive statement is coded based on nine categories: demographic information, psychological qualities, physical descriptions, social aspects of the self, likes and dislikes, activities, possessions and competencies, historical descriptions (statements about the self in the past or future), and an "other" category. In this coding system, a person's identity can be characterized quantitatively in terms of the total number of unique self-descriptive statements identified (Self-Fluency score), and qualitatively in terms of the proportion of statements coded into each category (Self-Profile). The VSF categories were derived through consensus among seven coders in the original sample. The VSF has demonstrated validity in its associations with well-established verbal fluency tasks (Nizzi, 2018).

We made some modifications to the original VSF to address our study-specific aims. To address our first aim about self-diversity, we calculated the total number of identity categories used by each participant (Self-Diversity score). We also made modifications to the VSF coding scheme to address questions from our second aim. To determine whether those with CG will construe themselves more in terms of the past and less in terms of the future, we split self-statements coded in the History category of the VSF into statements about a past self (Past category) and a future self (Future category). Of note, this split of the History category was not applied to the calculation of Self-Diversity scores, i.e., statements were considered to be in the History category regardless of references to past or future when

calculating the total number of unique categories in each self-profile. We also created two supplemental coding schemes that were applied to all self-statements. To determine whether those with CG have more of their self-concepts invested in the loss or the deceased, the first of these schemes categorized all self-statements as related to the loss or the decedent (Decedent/Loss-Related category) or unrelated to such content. To determine whether those with CG appraise themselves negatively, resulting in greater distress during self-appraisal, the second scheme categorized all self-statements as indicating distress (Distress-Related category) or not indicating distress. A brief description of each category in our modified VSF coding scheme, as well as examples of each category from self-statements made by participants in the current study, are provided in Table 1.

Data analysis

We derived participants' self-profiles from their responses to the TST, using our modified VSF coding scheme and supplemental coding schemes. Then, we used these self-profiles to conduct analyses that addressed our study aims. This process required three separate phases: (1) a data cleaning phase, (2) a data coding phase, and (3) a data analysis phase.

Data Cleaning.—Although the TST provides 20 separate spaces for different responses, some participants gave responses that included multiple unique self-statements. For example, the response "I am a mom who likes to cook" comprises two unique self-statements: (1) I am a mom and (2) I am [someone] who likes to cook. Therefore, the first and second authors (BWB and NJL) reviewed the TST responses, and independently identified all responses that contained multiple statements. The interrater agreement on which responses contained multiple self-statements was acceptable (κ = .69). These raters then consensually disaggregated these responses into distinct self-statements for qualitative coding.

Data Coding.—Next, the third author and creator of the VSF (MCN) trained the fourth, fifth, and sixth authors (MLC, FHD, and JP) on a sample of the data, before each of the three raters independently coded all self-statements in accordance with our modified VSF and supplemental coding schemes. Interrater agreement for the modified VSF coding scheme (with the History category split into Past and Future categories) was high (Krippendorf's α = .82), as was the agreement for the Decedent/Loss-Related coding scheme (Krippendorf's α = .88). Interrater agreement on the Distress-Related coding scheme was substantial (Krippendorf's α = .74).

Data Analysis.—After the completion of the coding phase, we first determined whether the two groups (CG vs. no CG) differed with respect to demographic characteristics, mode of loss, and depression severity to contextualize any group differences observed in subsequent analyses. Next, we calculated a Self-Fluency score (the total number of unique self-descriptive statements in the self-profile) and a Self-Diversity score (the total number of VSF categories in the self-profile) for each participant. To answer our questions from Aim 1 concerning global differences in self-profiles (i.e., self-fluency and self-diversity) between those with and without CG, we conducted a set of Wilcoxon rank sum tests, with diagnostic group (CG or no CG) as the predictor of Self-Fluency scores in the first test, and as a

predictor of Self-Diversity scores in the second test. We also calculated Cliff's Delta for each comparison for an index of effect size. We adjusted for the false discovery rate (FDR; Benjamini & Hochberg, 1995) within this set of analyses.

To test our hypotheses from Aim 2 concerning specific (category-wise) differences in self-profiles, we first conducted a series of Wilcoxon rank sum tests with diagnostic group as the predictor variable for each test, and Cliff's Delta as an index of effect size. To determine whether those with CG describe themselves more in terms of their relationship to the deceased, we entered the proportion of self-statements in the Loss/Decedent-Related category for each participant as the dependent variable. To determine whether those with CG describe themselves less in terms of self-relevant activities, we entered the proportion of self-statements in the Activities category from the original VSF coding scheme as the dependent variable. To determine whether those with CG describe themselves more in terms of a past self, and less in terms of a future self, we conducted two tests. The first test entered the proportion of self-statements in the Past category as the dependent variable, and the second did the same with the proportion of self-statements in the Future category. To determine whether those with CG construe themselves in more distress-laden terms, we examined the proportion of self-statements in the Distress-Related category as the dependent variable. For our exploratory analysis of how those with and without CG might differ on a comprehensive range of identity categories, we conducted a series of Wilcoxon rank sum tests that used diagnostic group as the predictor variable. Each test used the proportion of participants' responses for a different VSF category as the dependent variable. We adjusted for the FDR within all analyses for Aim 2.

For our exploratory examination of the relationship of all identity metrics to individual CG symptoms, we calculated Spearman rank correlations between these variables, each ICG item, and the ICG sum score, and adjusted for the FDR within this set of analyses.

Results

All de-identified data, R code, and supplementary results can be found at the Open Science Framework web page for this study (https://osf.io/5xr2m/). The de-identified dataset used for all analyses can be found in supplementary materials S1, and R code used for all analyses can be found in supplementary materials S2. One participant ($n = 1$) was missing a response to one item on the ICG. This value was replaced via mean imputation. Our sample size ($N = 77$) provided sufficient power (1-β error probability = .80) to detect a medium effect (Cliff's Delta = .41) in our group comparisons.

Differences between Diagnostic Groups

See supplementary materials S3 for an in-depth depiction of all group comparisons of demographic characteristics, mode of loss, and depression severity. We found that the prevalence of sudden losses was higher in the CG group (63.2%, $n = 24$) than in the No CG group (38.5%, $n = 15$); $\chi^2(4.01)$ $p = .045$. We also found that the mean severity of depression symptoms was higher in the CG group ($M = 10.92$, $SD = 4.33$) than in the No CG group ($M = 4.44$, $SD = 3.09$); $t(66.8) = -7.54$, $p < .001$. No other characteristics showed significant differences between diagnostic groups.

Aim 1: Global Self-Profile Differences

The mean Self-Fluency score was 14.29 statements per participant (SD = 8.25), and the mean Self-Diversity score was 4.03 categories per participant (SD = 1.51). A Wilcoxon rank sum test indicated that Self-Fluency scores were significantly lower for those with CG (M = 12.11, SD = 6.62) than for those without CG (M = 16.41, SD = 9.18), and this difference constituted a small effect (Cliff's Delta = .30, 95% CI [.04, .52]). Self-Diversity scores were also significantly lower for those with CG (M = 3.37, SD = 1.17) than for those without CG (M = 4.67, SD = 1.54), and this difference constituted a large effect (Cliff's Delta = .50, 95% CI [.26, .68]). However, a follow-up test (Kendall's Tau Test of Independence) revealed that Self-Diversity and Self-Fluency scores were strongly correlated (r_τ = .55, p < .001). Therefore, we conducted a follow-up multiple linear regression to determine whether these aspects of the self-profile explained unique variance in CG severity. In this regression, we entered ICG scores as the dependent variable, and entered Self-Diversity scores and Self-Fluency scores as predictor variables. The overall model was significant, $F(2, 74) = 14.47$, $p < .001$, $R^2 = .28$. Self-Diversity emerged as a significant predictor of CG severity ($\beta = -.43$, $p = .002$), whereas Self-Fluency did not ($\beta = -.13$, $p = .34$).

Aim 2: Specific Self-Profile Differences

The Wilcoxon rank sum tests comparing diagnostic groups on proportions of self-statements in the Loss/Decedent-Related, Past, Future, and Distress categories were all nonsignificant. The proportion of self-statements in the Activities category was significantly lower for those with CG than for those without CG, and this difference constituted a large effect (Cliff's Delta = .49, 95% CI [.27, .67]). In the exploratory tests comparing proportions of self-statements under each category in the VSF coding scheme, only the proportion of self-statements in the Likes/Dislikes category was significantly lower for those with CG than for those without CG, and this difference constituted a medium effect (Cliff's Delta = .34, 95% CI [.12, .53]). All of these between-groups category comparison tests are reported in Table 2. Graphical depictions of diagnostic group comparisons on original VSF categories and supplemental identity categories are depicted in Figures 1 and 2, respectively.

Symptom-Level Associations

Our exploratory Spearman rank correlations among all aspects of the self-profiles, CG sum scores, and individual CG symptoms revealed that self-fluency, self-diversity, proportions of likes/dislikes, and proportions of activities all displayed significant negative correlations with a wide range of individual symptoms of CG. No other aspects of self-profiles were significantly correlated with individual symptoms of CG, with one notable exception. The proportion of loss/decedent-related statements in participants' self-profiles showed significant positive relationships with the severity of CG symptoms related to interpersonal difficulties (i.e., feeling distant from others, difficulty trusting others, and feeling bitter towards others who had not suffered a loss). See supplementary materials S4 for a table depicting these symptom-level Spearman rank correlations.

Additional Analyses

A reviewer of an earlier draft of this article suggested that we ascertain which aspects of identity were uniquely associated with CG when considering all aspects of identity. Hence, we conducted a multiple logistic regression with all categories predicting CG diagnostic status, and a linear regression with all identity categories predicting CG severity as a continuous variable. Although the ratio of 13 predictors to 77 observations raised concerns of overfitting (Babyak, 2004), the results are potentially informative. In the logistic regression, self-diversity emerged as the only significant predictor of CG diagnostic status ($OR = .47$, $z = -2.37$, $p = .02$). However, in the linear regression, the loss/decedent-related category emerged as the most robust predictor of CG severity ($\beta = .45$, $t(63) = 3.70$, $p < .001$), with self-diversity displaying a significant but less robust effect ($\beta = -.31$, $t(63) = 1.60$, $p = .04$). See supplementary materials S5 for tables depicting these regressions.

Discussion

The present study is the first to combine qualitative coding and quantitative comparisons in the assessment of self-concept in CG. It provides a fine-grained picture of differences in the sense of self between bereaved adults with and without CG. Overall, participants' self-concepts varied in fluency and diversity, with some emphasizing only a few key aspects of themselves, and others elaborating extensive and complex self-concepts. Furthermore, participants' self-concepts comprised a broad range of categories, including simple demographic information and complex existential reflections. Overall, bereaved adults with CG had much in common in with those without CG, with both groups describing themselves predominantly in terms of social aspects and psychological qualities. This finding is in line with the predominant categories found in healthy samples, independently of gender, age, or nationality (Nizzi, 2018). However, several differences between the groups emerged that may provide valuable insights into the identities of those suffering from CG.

All of the group differences observed in the current study should be interpreted in light of the fact that the CG group had a higher proportion of participants who had experienced sudden or unexpected losses, and more severe depression symptoms. However, these group differences are not surprising, and are reflective of features of the CG syndrome; the perception of not having been prepared for loss, which would be likely in cases of sudden or unexpected deaths, increases risk for CG (Barry, Kasl, & Prigerson, 2002). Additionally, depression is commonly comorbid with CG when considered as a distinct syndrome (Stroebe et al., 2007), and comprises some symptoms similar to those of the CG syndrome itself (Shear et al., 2011).

Our findings suggest that identity confusion in CG may result from diminished self-complexity (i.e., lower self-fluency and self-diversity) rather than a self too complex to comprehend. Our results cannot reveal whether this diminished complexity is a product, correlate, or cause of CG. It is possible that those with less complex self-concepts are more prone to poor outcomes when they eventually experience loss. Alternatively, the loss of an attachment figure may independently heighten risk for CG as well as diminishing self-complexity. Finally, the distress and impairment of CG may reduce self-complexity as roles and activities are lost over time. Our clinical experience suggests that identity disturbance

likely both contributes to and is exacerbated by other components of the CG syndrome. However, these causal hypotheses remain speculative and should be explored in future studies.

Our findings also indicate that attenuated self-concept diversity may eclipse the role of self-concept fluency in explaining variance in CG severity. This finding may provide an important distinction in how identity confusion should be conceptualized in grief. A loss that diminishes one's total number of social opportunities, activities, and preferences may be less contributive to CG than a loss that substantively shuts off entire domains of one's life. For example, if a husband has relied on his wife as his sole link to the social world, her absence may signal the entire subtraction of a social self, leading to a more intense experience of isolation than that experienced by someone who has lost a parent who constituted only one part of that individual's social sphere. For some bereaved individuals, the primary task in recovery may be restoring missing domains of self-concept, rather than adding more aspects in domains that are still intact. Our additional analyses also suggest that self-concept diversity may be the most important predictor of CG diagnosis, but this possibility requires replication in larger samples.

Our comparison of self-profiles between those with and without CG provided mixed support for our hypotheses regarding qualitative differences in self-concept, with a majority of our hypotheses failing to find support. Contrary to our expectations and theoretical work positing that the self-concepts of those with CG are fixated around the deceased (Maccullum & Bryant, 2013) or loss of the deceased (Boelen, 2009), we did not find that the self-concepts of those with CG were characterized by a higher proportion of references to the loss to a statistically significant extent. However, it is worth noting that the CG group's prevalence of self-statements referencing the deceased was three times higher than the non-CG group. Perhaps the group comparison for this category was nonsignificant due to a low level of endorsement in the proportions of loss-related statements across respondents (the 25^{th} and 50^{th} quartiles of self-profiles were defined by 0% decedent-related statements, and the 75^{th} quartile was defined by only 5% decedent-related statements). Our exploratory symptom-level correlations point to another possibility: the extent to which self-concept is centered around the deceased may be relevant to CG only insofar as it is associated with higher levels of interpersonally-related symptoms. Specifically, those with merged identities may have particular difficulties with feeling distant, mistrustful, and angry toward others. Interpersonally-related symptoms could reflect the difficulty of forming new social connections for those whose social identities were once centered around the deceased. Alternatively, those with less pro-social tendencies may have a harder time leveraging social supports that could ease the transition away from relying upon the deceased for a stable sense of self.

Moreover, when we adjusted for the influence of all aspects of self-concept, we found that the most robust predictor of CG severity is the extent to which the decedent dominates the mourner's self-concept. Consistent with this finding, our exploratory analyses revealed that the decedent-related category was a significant, moderate positive predictor of CG severity although the *p*-value was no longer significant after FDR adjustment. However, the regression model including all self-concept categories was overfitted, and the heavily right-

skewed distribution of the decedent-related category may have exaggerated its association with CG severity in a parametric regression analysis. Further research with larger samples is needed to substantiate this possibility.

Our findings did suggest that the self-concepts of those with CG are characterized by lower proportions of self-relevant activities. Without activities once rendered meaningful by the presence of the decedent, the bereaved might understandably experience life as meaningless, and consequently engage in fewer meaningful activities, leading to a behavioral "deactivation" that likely further exacerbates CG symptoms. Indeed, increasing bereaved individuals' repertoire of rewarding activities through behavioral activation has shown efficacy in the treatment of CG (Papa, Sewell, Garrison-Diehn, & Rummel, 2013) – although behavioral activation may achieve its effects by reducing depression-related aspects of CG, another path by which this treatment may have its effects is by promoting a more robust sense of self.

Contrary to our predictions, the self-concepts of those with CG were not more invested in the past, or less invested in the future. These findings illustrate that much about how bereaved adults with CG think about the future remains poorly understood. Future research is needed that examines both future-oriented thinking in bereaved adults and its relationship to one's sense of self. Similarly, the notion that the self-concepts of those with CG are fraught with higher proportions of distress-laden appraisals was not supported by our findings. This result is surprising, as it stands in contrast to several studies showing that more severe CG symptoms are associated with more negative appraisals of the self (e.g., Boelen & Spuij, 2008; Boelen, Van Denderen, & De Keijser, 2016). However, all such studies to date have asked direct self-report questions about negative self-perceptions. It is possible that our open-ended format had less of a demand characteristic. Conversely, our qualitative coding procedure may have been too stringent, only identifying statements that evidenced distress rather than negatively-toned statements more generally.

In general, none of the new categories devised for the purposes of the current study showed significant differences between groups. This finding is surprising, given the previous literature that has highlighted the importance of the deceased, fixation on the past, and negative appraisals in the identities of those with CG (Boelen, 2009; Boelen & Klugst, 2011; Maccullum & Bryant, 2013; Robinaugh & McNally, 2013). It is possible that these constructs do not show effects when they are assessed in the non-directive manner characteristic of our study. Alternatively, the way in which we coded for these categories may have failed to capture the constructs we were attempting to measure. Future research with diverse assessment methods other than direct self-report is needed to establish convergent support (or disconfirmation) for the importance of these aspects of self-concept to the CG syndrome.

Our exploratory analysis of VSF self-profiles revealed an additional way in which self-concept might relate to CG. The elf-profiles of those with CG had smaller proportions of references to likes and dislikes (i.e., personal preferences for experiences, people, or activities), similarly to what was found in a clinical sample presenting with neurodegenerative cognitive impairments in the absence of CG (Nizzi, 2018). Uncertainty

about preferences may reflect the anhedonia characteristic of depressive symptoms in the wake of loss. Alternatively, those with CG might experience identity confusion because their preferences were so intertwined with those of the deceased that following the loss, they are uncertain of what their preferences are.

Limitations and Future Directions

One limitation of our study is its cross-sectional design; causal relations between aspects of self-concept and post-bereavement symptoms can only be suggested. However, the novel application of a fine-grained qualitative method to assess the sense of self in CG allowed us to point to specific domains of identity confusion implicated in the pathogenesis of CG. These domains may provide potential targets for further research. Future research should employ longitudinal designs to determine whether low self-diversity and low levels of self-relevant activities prospectively predict CG symptoms (or vice versa) to clarify the direction of causality. Additionally, replication of the associations between CG, the VSF categories, and our supplementary categories is warranted in other bereaved samples to establish the generalizability of our effects. For example, most of the participants in our sample lost a parent; it is possible that different relationships to the decedent (e.g., spouse or child) may result in compromises to different aspects of self-concept or compromise more aspects of self-concept overall. Future research should investigate this possibility in samples large enough to examine the moderating effects of relationship to the deceased. More broadly speaking, bereavement is by no means the only form of loss common to the human experience. The differences in self-concept observed in our study may not generalize to all forms of interpersonal loss (e.g., divorce, family separation); future research may determine whether the effects observed are specific to bereavement or common to many different forms of loss.

Our study did not include an item specifically measuring grief-related identity confusion, precluding us from examining whether specific self-concept categories are associated with this symptom. It will be important to assess this association in future research. However, the fact that our measure of CG did not include such an item increases our confidence that its associations with our self-concept categories signifies a genuine association rather than an overlap in content. Finally, although our sample size allowed enough power to detect a medium effect, the critical effect size of Cliff's Delta = .41 derived from the power analysis was in the middle of the range for a medium effect size; a larger sample size may have allowed more nuanced differences between groups to emerge.

Clinical Implications

Our study points to several potentially valuable clinical implications. Instead of simply asking whether a patient is experiencing identity confusion, clinicians should consider assessing which domains of the patient's sense of self are missing. For example, clinicians may conduct a fine-grained assessment of self-concept across personally meaningful identity categories. One such method is a "self-worth pie," which allows the patient to visually depict the relative importance of different aspects of their identity to their overall sense of self-worth (Fairburn, Cooper, & Shafran, 2008). When conducting such an assessment, the clinician may also want to pay attention to a lack of self-relevant activities, given their

relationship to CG symptoms. Indeed, therapies effective in the treatment of CG help patients to engage in new activities following bereavement. Behavioral activation, in which patients schedule and conduct new rewarding activities to boost positive affect and reduce avoidance behaviors, produces large reductions in CG, PTSD, and depression symptoms relative to no treatment (Papa, et al., 2013).

Although Papa and colleagues (2013) emphasize the importance of tailoring activities to the individual patient's goals, our study indicates that an additional hurdle for those with CG may be their lack of certainty about what goals they prefer in the first place, due to their relative lack of self-statements concerning personal preferences. One therapy that especially addresses this feature of problematic grief is Complicated Grief Therapy (CGT; Shear et al., 2014), which assists patients in brainstorming value-consistent goals following loss. Additionally, our study indicates that one potential inroad to untangling the patient's sense of self from the deceased is by helping the patient to form stronger social connections in the wake of loss. Indeed, other research indicates that higher levels of social support are associated with less severe CG symptoms (Stroebe, Zech, Stroebe, & Abakoumkin, 2005). Finally, even though ambivalence about one's identity clearly presents challenges to recovery from loss, meaning-oriented approaches suggest that such ambivalence offers a therapeutic opportunity to revise personal meaning systems and build a new life (Neimeyer, 2016).

Conclusion

The current study provides a first step toward the substantive assessment of the sense of self in problematic grief. Our results provide specific insight into the nature of identity confusion in CG, suggesting that it should be conceptualized as a diminishment in self-concept complexity, especially endorsement of fewer domains of self-concept. We failed to find evidence that individuals with CG have a sense of self especially characterized by references to the past, or by distress-laden self-evaluations. We found that self-concepts centered around the deceased may not be tied to CG symptoms overall, but rather may be especially associated with interpersonal aspects of the syndrome. Consistent with our hypotheses, we did find that the self-concepts of those with CG comprise fewer activities. Although the majority of our hypotheses were met with null findings, this study points to specific aspects of the sense of self (i.e., self-diversity, fixation on the deceased, and activities and interests) that may prove to be high-yield clinical targets and avenues for further research. An emphasis on the functional significance of specific aspects of CG, rather than the syndrome per se, comports well with network analytic studies on bereavement (Bellet et al., 2018; Robinaugh et al., 2014). Future research with larger samples and greater representation of loss types commonly reported by those with CG will be critical to clarify the role of these factors in those with CG, including longitudinal research that can investigate the temporal association between these aspects of the sense of self and the remainder of the CG syndrome.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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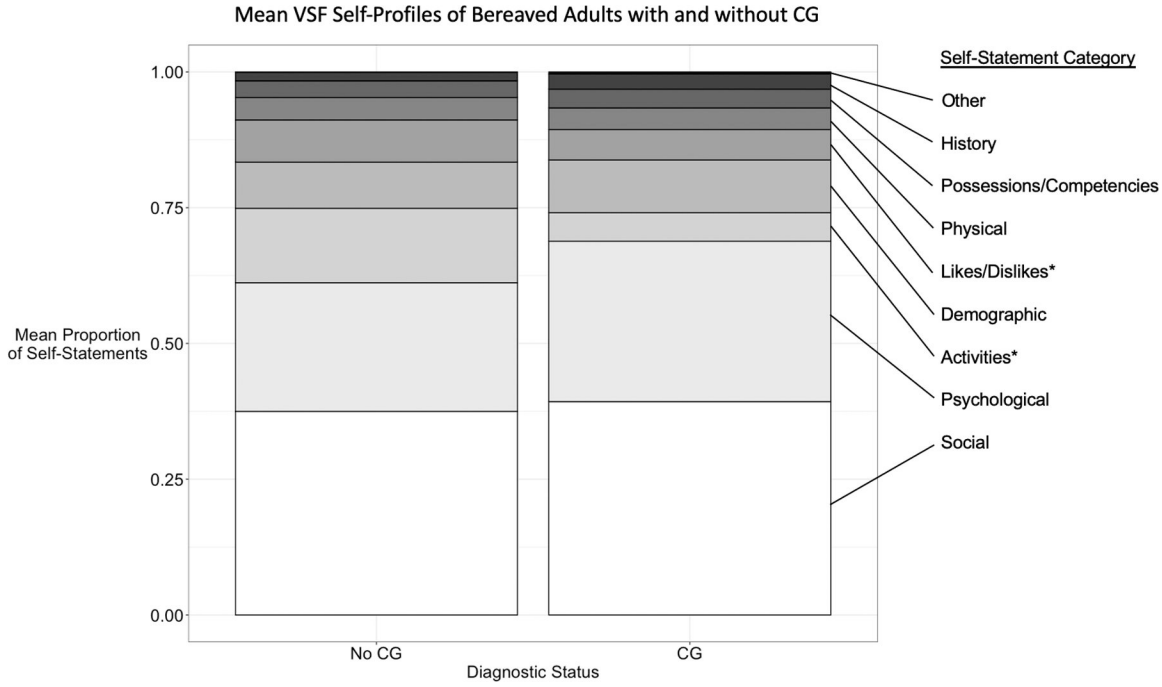

Figure 1.

Mean VSF self-profiles of bereaved adults with and without Complicated Grief (CG). VSF = Verbal Self-Fluency Task. Self-statement categories marked by an asterisk in the legend are those for which significant difference were found between diagnostic groups.

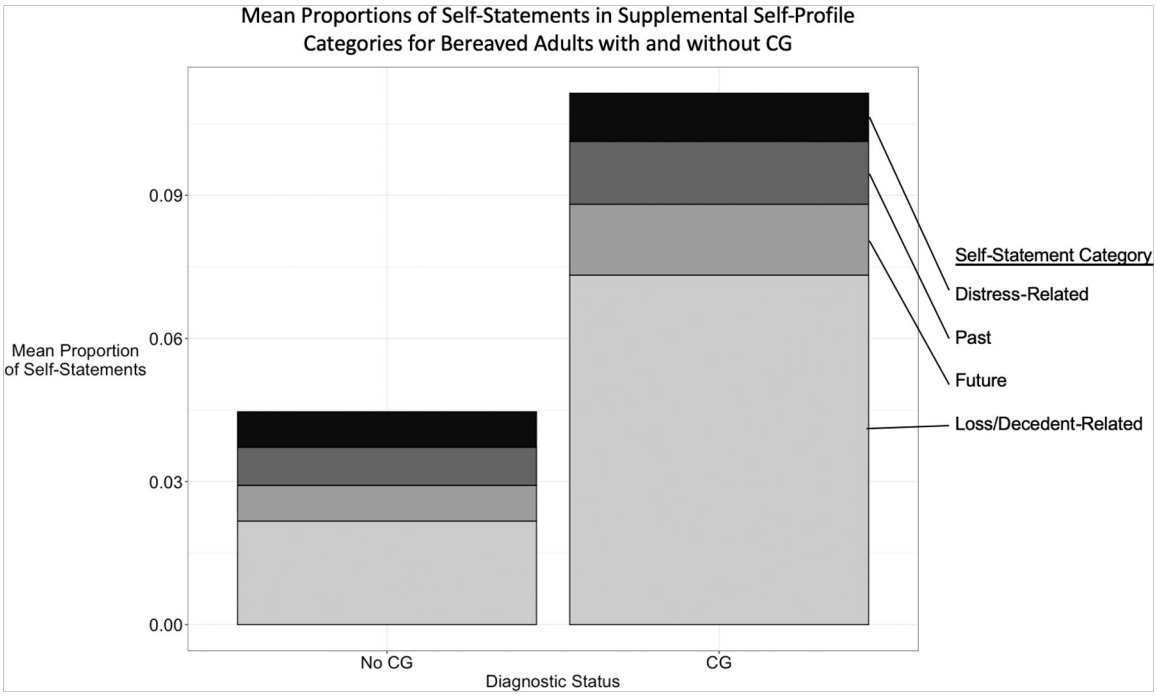

Figure 2.

Mean proportions of self-statements in supplemental categories for bereaved adults with and without Complicated Grief (CG).

Table 1

. Self-Concept Categories Assessed by the Self-Profile Coding System.

Global Metrics	Description	
Self-Fluency	The total number of self-statements in the self-profile.	
Self-Diversity	The total number of unique VSF categories (see below) into which a self-profile's statements can be organized.	
Specific Categories	Description	Example
VSF Categories		
Demographic	*Information commonly requested in demographics questionnaires*	"A Mexican-American"
Psychological	*Descriptions of the self in terms of one's mind, such as personality traits, mental states, cognitive capacities, or beliefs*	"Worried about elements in my life which I cannot change and I have no control over"
Physical	*Descriptions of the self in terms of one's body, such as fitness, height, physical health, or commonly worn accessories*	"An athletic person"
Social	*Descriptions of the self as it relates to other people or with reference to group affiliations*	"A loving daughter"
Likes/Dislikes	*Descriptions of the self in terms of one's personal preferences*	"A person who loves to shop"
Activities	*Descriptions of the self in terms of activities that one engages in*	"A swimmer"
Possessions/ Competencies	*Descriptions of the self in terms of one's assets or deficits, whether material or non-material*	"A new condo owner", "A good cook"
History	*Descriptions of the self in terms of a past or future self*	"Someone who studied art history in college and graduate school"
Other	*Statements that do not have anything to do with a description of the self, or reflections on the task itself*	"Hoping somebody actually reads these"
Added Categories		
Past	*Descriptions of the self in the "History" category that refer to a past self*	"Had some tragedy in my life that I need to cope with"
Future	*Descriptions of the self in the "History" category that refer to a future self*	"A person who looks forward to a better future"
Loss/Decedent Related	*Descriptions of the self from any of the above categories that mention the decedent or the loss of the decedent*	"Desperate to find out what happened to my son"
Distress-Related	*Descriptions of the self from any of the above categories that indicate distress*	"Somehow misunderstood"

Note. VSF = Verbal Self-Fluency Task.

Table 2.

Comparisons of Self-Profiles for Bereaved Adults with and without Complicated Grief (CG) (N = 77).

Categories	Groups					
	CG (*n* = 38)		No CG (*n* = 39)		Group Comparison Statistic	Effect Size
	Mean Proportion	*SD*	Mean Proportion	*SD*	*W*	Cliff's Delta [95% CI]
VSF Categories						
Demographic	.10	.15	.09	.14	702.5	−.05 [−.29, .19]
Psychological	.30	.26	.24	.16	690.5	−.07 [−.31, .18]
Physical	.04	.06	.04	.08	832.5	.12 [−.08, .32]
Social	.39	.26	.37	.16	678.0	−.09 [−.34, .18]
Likes/Dislikes	.06	.18	.08	.10	995.0 *	.34 [.12, .53]
Activities	**.05**	**.11**	**.14**	**.12**	**1107.0** **	**.49 [.27, .67]**
Possessions/Competencies	.03	.09	.03	.05	810.0	.09 [−.11, .29]
History	.03	.09	.02	.04	750.0	.01 [−.14, .16]
Other	.00	.02	.00	.01	740.0	−.00 [−.05, .04]
Supplemental Categories						
Past	**.01**	**.08**	**.01**	**.04**	**777.0**	**.05 [−.03, .13]**
Future	**.01**	**.05**	**.01**	**.03**	**716.5**	**−.03 [−.17, .10]**
Loss/Decedent Related	**.07**	**.13**	**.02**	**.04**	**614.0**	**−.17 [−.36, .03]**
Distress-Related	**.01**	**.05**	**.01**	**.03**	**775.5**	**.05 [−.06, .15]**

Note. VSF = Verbal Self-Fluency Task. Text in bold font corresponds to comparisons that were made in order to test directional hypotheses. All other category comparisons were exploratory in nature.

** $p < .01$,

* $p < .05$ after controlling for the false discovery rate (FDR).