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The Influence of Anxiety Sensitivity on a Wish to Die in Complicated Grief

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Abstract

Individuals with complicated grief (CG) are at elevated risk for suicidal thoughts. Anxiety sensitivity has recently emerged as a risk factor of suicide. This study aimed to investigate a possible association between anxiety sensitivity and a wish to die in individuals with CG. Participants were evaluated for participation in a treatment study and completed an ancillary questionnaire-based study. Participants were 51 bereaved adults evaluated (age: $M = 54$, $SD = 13.6$; 78% ($n=40$) women). Logistic regression was used to examine the relationship between anxiety sensitivity and a wish to die. Overall, anxiety sensitivity was associated with a wish to die at the level of a medium effect size, although it did not reach statistical significance. The anxiety sensitivity social concerns subscale was significantly associated with a wish to die. These findings add to a growing literature implicating anxiety sensitivity in reporting a wish to die.

Keywords

complicated grief; anxiety sensitivity; a wish to die

Complicated grief (CG) is a condition characterized by recurrent distressing emotions, avoidance of reminders, and intrusive thoughts about the loss of a loved one. Estimated to affect approximately 7% of bereaved adults and associated with significant distress and impairment (Kersting et al., 2011). Individuals with CG are at particularly elevated risk for suicidal behavior. In a small study, 56% of CG patients reported suicidal ideation and 22% reported a previous suicide attempt since the death of a loved (Dell'osso et al., 2011). In a longitudinal study of 309 retirees, having a CG diagnosis was associated with a 8-fold increased in suicidal ideation and behavior, even after controlling for comorbid posttraumatic stress disorder and depression (Latham and Prigerson, 2004). Despite recent clinical and experimental advances on suicide research and preventive policy efforts, the rate of suicide attempts has remained high over the last several decades (Kessler et al., 2005). In

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addition to symptom severity, recent research has highlighted the role of clinical, psychological and psychosocial risk factors (Rihmer et al., 2013; Skala et al., 2012). Taken together, continued research investigating CG, suicidality, and associated psychological phenomena is critical.

One cognitive vulnerability factor that has recently emerged as a potential risk factor of suicide is anxiety sensitivity (Capron et al., 2013). Anxiety sensitivity refers to the tendency to fear body sensations associated with anxiety because of their perceived *physical* (heart attack), *cognitive* (losing control of one's thinking), or *social* consequences (embarrassment; Reiss and McNally, 1985). More generally, suicidal ideation as well as number of previous suicide attempts have been connected with anxiety disorders. For example, in a recent incidence study more than 50% of those with suicidal ideation had at least one anxiety disorder and that percentage increases when looking at suicide attempts with over 64% having at least one anxiety disorder (Sareen et al., 2005). In a recent pilot study, anxiety sensitivity was elevated among help-seeking patients with CG (Robinaugh et al., 2014). Anxiety sensitivity has also recently been studied in connection to SI (Schmidt et al., 2001) and several studies have found that anxiety sensitivity, particularly the cognitive concerns subscale, operated as a moderator between anxiety-related risk factors and suicidal outcomes (Capron et al., 2012a; 2012b; Raines et al., 2014).

This study aimed to investigate a possible association between anxiety sensitivity and a wish to die in patients with CG. We hypothesized that anxiety sensitivity would be a significant predictor of a wish to die among a group of patients seeking treatment for CG and that the cognitive concerns subscale would be the strongest predictor. Confirming these associations could help inform suicide prevention and CG treatment intervention research.

Methods

Participants and Procedure

Participants were 51 bereaved adults evaluated for participation in an NIMH-funded treatment study for CG (age: $M = 54$, $SD = 13.6$; 78% ($n=40$) women) who completed an ancillary questionnaire-based study at the Center for Anxiety and Traumatic Stress Disorders and Complicated Grief Program at the Massachusetts General Hospital (MGH). Participation occurred prior to initiation of treatment. All participants were bereaved for at least 6 months, reported grief as their primary problem and were diagnosed with CG by a trained clinical rater. Individuals with a history of bipolar I disorder, psychotic disorder or meeting criteria for a substance or alcohol use disorder within the previous 6 months were excluded. Participants were reimbursed \$25 for completing study questionnaires. All procedures were approved by the institutional review board of the MGH.

Measures

CG symptom severity was assessed using the 19-item self-report Inventory of Complicated Grief (ICG; Prigerson et al., 1995). This scale assesses maladaptive grief symptoms, such as intrusive thoughts/avoidance about the person who died. Participants rated the frequency of each symptom on a 5-point Likert scale with total scores ranging from 0 to 76. Consistent

with previous research (Marques et al., 2013; Shear et al., 2005), threshold CG was defined as 30.

Anxiety sensitivity was assessed using the 16-item self-report Anxiety Sensitivity Index (ASI; Peterson and Reiss, 1992). The structure of the ASI is hierarchical, with a single, higher order general factor (anxiety sensitivity total score), and three first order factors (physical concerns, cognitive concerns, and social concerns). Item scores range from 0–4 and total scores range from 0–64.

SI since the loss of a loved one was assessed with the Columbia Suicide Scale (CSS; Posner et al., 2011) adapted to inquire about suicidality *since the loss of a loved one*. For the current study we were interested in outcomes which had base rates high enough to look at meaningful associations within the data, and base rates of suicidal behavior were very low (3.9% had made a suicide attempt since the loss of a loved one). For this reason, we examined *a wish to die since the death of a loved one*, which was dichotomized as present or absent.

Statistical Approach

Logistic regression was used to examine the relationship between AS and reporting a wish to die. We also explored the impact of gender and age as potential confounders of each association as demographic variables relevant to suicidality; they were added as covariates in the model. ASI subscale analyses mirrored those for ASI total score, with each subscale examined as a predictor of a wish to die in separate logistic regression models in order to address multicollinearity. All data were analyzed using STATA 12.1 and an alpha level of .05 was used for all statistical tests.

Results

Rates of a Wish to Die and Suicidal Behaviors

Sample demographics and clinical characteristics are presented in Table 1. The mean ICG score was 39 ($SD = 7.7$); 63% ($n=32$) of participants reported having had a wish to die since the death of a loved one.

Anxiety Sensitivity Associated with a Wish to Die

A logistic regression equation revealed that ASI total was not a significant predictor of a wish to die since the death of a loved one ($\chi^2=2.73$, $p>0.10$); however, the direction of the means and effect size indicated a medium effect ($B=0.04$, $SE=0.03$, $d=0.49$, $OR=1.04$) in the direction of higher anxiety sensitivity being associated with a wish to die. When covariates were added to the model ($\chi^2=5.65$, $p>0.10$, $OR=1.03$), neither age ($B=0.03$, $SE=0.03$, $p>0.25$, $OR=0.97$) nor gender ($B=0.97$, $SE=0.73$, $p>0.15$, $OR=2.64$) contributed significantly to the model. When anxiety sensitivity was examined by subscale, only the social concerns subscale, was a significant predictor of a wish to die ($\chi^2=6.39$, $\beta=0.27$, $SE=0.12$, $p=0.03$, $OR=1.31$). The social concerns subscale remained significant ($\chi^2=10.12$, $p=0.02$, $OR=1.34$), when controlling for age ($B=-0.02$, $SE=0.03$, $p>0.40$, $OR=0.98$) and gender ($B=1.36$, $SE=0.78$, $p<0.05$, $OR=3.90$). Overall, the social concerns subscale appears

have the strongest association with reporting a wish to die since the death of a loved one in this sample of CG participants even when controlling for demographic factors associated with suicidality.

Discussion

Consistent with previous reports (Szanto et al., 2006), we found high rates of suicidality among individuals with CG; 63% reported having had a wish to die since the death of a loved one. Consistent with our hypothesis, high overall anxiety sensitivity was associated with reporting a wish to die at the level of a medium effect size, although it did not reach statistical significance in our regression models utilizing a sample size of 51, likely limiting power. The cognitive concerns subscale was not found to be the strongest predictor of suicidal thoughts in participants with CG; it was the social concerns subscale that was significantly associated with reporting a wish to die. Although the cognitive concerns subscale was not the strongest predictor, this may be due to the version of the ASI used in this study which has fewer items comprising the cognitive concerns subscale. Additional research is needed utilizing the ASI-3 to confirm these findings.

Traditionally, anxiety sensitivity social concerns (e.g., fear of others noticing symptoms of anxiety, fear of embarrassment) have been most strongly associated with social anxiety disorder (Allan et al., 2014; Olatunji and Wolitzky-Taylor, 2009). Individuals who lose a loved one often experience significant disruption in their social networks and reductions in perceived social support (Ott, 2003). Anecdotally, many individuals with CG describe feeling misunderstood by those around them and their symptoms of grief may intensify feelings of social isolation and lack of belonging, which are both associated with greater suicidality (Conner et al., 2007; Trout, 1980). The fear of others noticing their struggles and feeling embarrassed, relating to anxiety sensitivity social concerns, may serve to exacerbate these feelings of isolation and sense that life is not worth living.

This finding adds to a growing literature implicating anxiety sensitivity in suicidality across various conditions (Capron et al., 2012a; 2012b). Our results provide early support for screening for elevated anxiety sensitivity in CG populations. A successful one-session anxiety sensitivity intervention has been developed using interoceptive exposure exercises targeting each of the physical, social and cognitive domains (Keough & Schmidt, 2012; Schmidt et al., 2014) and although early in its development shows promise as a quick or supplemental intervention directly targeting anxiety sensitivity. However, sustained results of the one-session intervention appear to be more specific to the cognitive concerns subscale (Schmidt et al., 2014).

These results are qualified by a few limitations. The sample was primarily female and treatment-seeking, and it is thus not clear to what extent these findings may generalize to other populations of individuals with CG. Additionally, we relied on patient self-report and retrospective reporting of suicidality, although a well validated instrument, the CSS, was employed. Finally, we did not adjust for multiple testing with the AS subscales, though these were a priori analyses.

Future studies could extend this work by studying larger samples to examine the relationship between CG, anxiety sensitivity and suicidality, including controlling for anxiety and/or depression (symptom severity and comorbid diagnoses), as well as among groups underrepresented in this study (e.g., males), and bereaved controls to further elucidate the role of anxiety sensitivity and suicidality among bereaved individuals versus those with CG. As previously mentioned, replication using the ASI-3 (Taylor et al., 2007) would help clarify the anxiety sensitivity social concerns subscale finding as changes have been made to that subscale in the updated version.

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Table 1

Baseline Demographic and Clinical Characteristics of the Sample

Baseline Characteristic		N	%
Age	<i>Mean (SD)</i>	54	(13.6)
Sex	Female	407	78%
Ethnicity	Not Hispanic/Latino	503	98%
Race	White	46	90%
	Black or African American	2	4%
	Asian	1	2%
	Other	2	4%
Marital Status	Single	116	22%
	Living with partner / Married	13	26%
	Divorced	5	10%
	Widowed	22	43%
Employment Status	Full-time employment	23	45%
	Part-time employment	105	20%
	Unemployed/Retired	9	18%
Highest Educational Level	Graduate School	19	37%
	4 Year College Graduate	14	27%
	2 Year College Graduate	1	2%
	High School Graduate	2	4%
AS Total Score	<i>Mean (SD)</i>	21	(12.6)
AS Cognitive Subscale	<i>Mean (SD)</i>	3.7	(3.7)
AS Physical Subscale	<i>Mean (SD)</i>	10.4	(7.4)
AS Social Subscale	<i>Mean (SD)</i>	6.5	(3.1)
Inventory of Complicated Grief Score	<i>Mean (SD)</i>	39	(7.76)
Wish to die since the death		32	63%