

UC San Diego

UC San Diego Previously Published Works

Title

Grief-related panic symptoms in Complicated Grief

Permalink

<https://escholarship.org/uc/item/8tq14139>

Authors

Bui, Eric
Horenstein, Arielle
Shah, Riva
[et al.](#)

Publication Date

2015

DOI

10.1016/j.jad.2014.08.028

Peer reviewed

Published in final edited form as:

J Affect Disord. 2015 January ; 170: 213–216. doi:10.1016/j.jad.2014.08.028.

Grief-Related Panic Symptoms in Complicated Grief

Eric Bui, M.D., Ph.D.^{1,2}, Arielle Horenstein, B.A.¹, Riva Shah, B.S.¹, Natalia A. Skritskaya, Ph.D.³, Christine Mauro, M.S.³, Yuanjia Wang, Ph.D.³, Naihua Duan, Ph.D.³, Charles F. Reynolds III, M.D.⁴, Sidney Zisook, M.D.⁵, M. Katherine Shear, M.D.³, and Naomi M. Simon, M.D., M.Sc.^{1,2}

¹Massachusetts General Hospital, Boston, MA

²Harvard Medical School, Boston, MA

³Columbia University, New York, NY

⁴University of Pittsburgh Medical Center, Pittsburgh, PA

⁵University of California, San Diego, San Diego, CA

Abstract

Background—Although Complicated Grief (CG) has been associated with comorbid Panic Disorder (PD), little is known about panic attacks in CG, and whether panic symptoms may be grief-related. The present study examines the presence and impact of grief-related panic symptoms in CG.

Methods—Individuals with CG (n=146, 78% women, mean (SD) age =52.4(15.0)) were assessed for CG, DSM-IV diagnoses, work and social impairment, and with the Panic Disorder Severity Scale modified to assess symptoms “related to or triggered by reminders of your loss” and anticipatory worry.

Results—Overall, 39.7% reported at least one full or limited-symptom grief-related panic attack over the past week, and 32.2% reported some level of anticipatory worry about grief-related panic.

© 2014 Elsevier B.V. All rights reserved.

Corresponding Author: Dr. Eric Bui, Massachusetts General Hospital/Harvard Medical School, One Bowdoin square, suite 650, Boston, MA 02114, Phone: 617-724-1412; Fax: 617-643-0730; tebui@mgh.harvard.edu.

Contributors

Eric Bui wrote the first draft of the manuscript and conducted the primary analyses. Arielle Horenstein and Riva Shah helped in data collection, data analyses, and manuscript preparation. Natalia A. Skritskaya oversaw data collection and data management. Yuanjia Wang and Christine Mauro, oversaw and reviewed data analyses. Naihua Duan, Charles F. Reynolds III, Sidney Zisook, M. Katherine Shear, and Naomi M. Simon designed the study. All authors contributed to and have approved the final manuscript.

Conflict of Interest

M. Katherine Shear, MD reports a contract with Guilford Press to write a book on grief. The other authors have no conflicts of interest to report.

Role of funding source

This study was supported by grants P30 MH90333, R01 MH085288, R01 MH060783, R01 MH085308, and R01 MH085297, from the NIH. The funding source had no role in study design; data collection, analysis, or interpretation; or in writing of the manuscript and submission process.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Of interest, 17% met DSM criteria for PD. Among those without PD, 34.7% reported at least one full or limited-symptom grief-related panic attack over the past week, and this was associated with higher CG symptom severity ($t=-2.23$, $p<0.05$), and functional impairment ($t=-3.31$, $p<0.01$). Among the full sample, controlling for CG symptom severity and current PD, the presence of at least one full or limited-symptom grief-related panic attack was independently associated with increased functional impairment ($B(SE)=4.86(1.7)$, $p<0.01$).

Limitations—Limitations include a lack of assessment of non grief-related panic symptoms and examination of a sample of individuals seeking treatment for CG.

Conclusions—Grief-related panic symptoms may be prevalent among individuals with CG and independently contribute to distress and functional impairment.

Keywords

grief; bereavement; grief-related panic; panic disorder; functional impairment

Background

Complicated grief (CG) is a syndrome of severe, impairing grief-related symptomatology affecting about 7% of bereaved individuals (Kersting et al., 2011). It has been included in the Trauma and Stress-Related Disorders section of the DSM5 as a subtype of “*Other Specified Trauma and Stressor-Related Disorders*,” under the name “Persistent Complex Bereavement Disorder,” with criteria under conditions requiring further study (APA, 2013). CG can be reliably identified in clinical and epidemiologic studies. Despite rates of comorbidity with mood and anxiety disorders in clinical samples (Simon et al., 2007), also occurs independently of these conditions, uniquely contributing to suicidality, morbidity, and reduced quality of life (Shear et al., 2011).

Several previous studies from our group documented an association between CG and PD. Simon et al. (2007) found that among 206 treatment-seeking individuals with CG, 63% met diagnostic criteria for a comorbid anxiety disorder, including 14% for PD. We also reported that individuals with CG exhibited higher levels of lifetime panic-spectrum symptoms, than otherwise healthy bereaved individuals, even after controlling for current PD diagnosis (Bui et al., 2013). Correspondingly, we found in a recent study that 18% of individuals with a primary diagnosis of PD, who lost a loved one at least six months prior, screened positive for CG compared to less than 1% in individuals without any current DSM-IV psychiatric disorders (Marques et al., 2013), and approximately 7% prevalence in the general population (Kersting et al., 2011).

A body of research indicating that panic attacks may occur across different psychiatric disorders, and may be independently associated with increased symptom severity and poorer outcomes (see Craske et al., 2010 for review), has supported the inclusion of panic attacks as a specifier across all psychiatric diagnoses in the DSM5 (APA, 2013). However, no examination of the presence and impact of panic attacks in CG have been conducted to date.

Further, it is unclear whether these panic attacks in CG may reflect the presence of a comorbid full-blown or sub-threshold PD, and/or if they may be triggered by grief-related

thoughts or feelings. Symptoms of CG include psychological and physiological reactivity to reminders of the loss (APA, 2013; Shear et al., 2011), and it is possible that panic attacks are related or triggered by exposures to such reminders.

In the present study, we defined grief-related panic (GRP) symptoms as related to or triggered by reminders of the loss and examined their frequency among treatment-seeking individuals with CG prior to treatment in a randomized controlled CG treatment study. We further investigated the association between GRP symptoms, with CG symptom severity, and functional impairment.

Methods

Participants and Procedures

Participants were 146 treatment-seeking adults with CG (78% (n=114) women, mean (SD) age = 52.4 (15.0)) evaluated before randomization in an ongoing, multi-site clinical trial at Columbia University, Massachusetts General Hospital, University of California - San Diego, and University of Pittsburgh Medical Center. Inclusion criteria for the parent study included: age of 18–95 with CG as the primary diagnosis (having lost a loved one at least 6 months prior, and a score > 30 on the Inventory of Complicated Grief (Prigerson et al., 1995)). Exclusion criteria included: lifetime bipolar I or psychotic disorders, cognitive impairment (Montreal Cognitive Assessment (Nasreddine et al., 2005) score <21), and current substance or alcohol use disorders. Table 1 reports participant characteristics. The study was approved by the IRB's of the participating sites, and participants provided informed consent.

Measures

DSM-IV panic disorder (current and lifetime) was assessed using the Structured Clinical Interview for the DSM-IV (SCID; First, 1994) administered by independent evaluators, trained and certified as reliable in assessing Axis I psychiatric disorders.

CG symptom severity was assessed with the 19-item Inventory of Complicated Grief (ICG; Prigerson et al., 1995). The ICG assesses a range of CG symptoms including preoccupation with the person who died, intrusive and distressing thoughts related to the death, avoidance of reminders of the person who died, feelings of yearning for the person who died, loneliness, and feelings of bitterness, anger and/or disbelief regarding the death. Each item is rated on a 5-point scale, with responses ranging from 0="not at all" to 4="severe". The Cronbach's alpha in our sample was 0.73.

GRP symptoms were assessed using a modified version of the first three items of the self-report version of the Panic Disorder Severity Scale (PDSS; Houck et al., 2002). The heading was modified to define GRP attack as a panic attack related to or triggered by reminders of the loss (*i.e.*, "For this questionnaire, we define a grief related panic attack as a sudden rush of fear or discomfort that is related to or triggered by reminders of your loss and accompanied by at least 4 of the symptoms listed below."). Item 1 assessed frequency of grief-related full or sub-threshold panic attacks ("How many grief related panic and limited symptoms attacks did you have during the past week?"); item 2 assessed distress during the grief related panic attacks ("If you had any grief related panic attacks during the past week,

how distressing (uncomfortable, frightening) were they while they were happening?”); and item 3 measured anticipatory anxiety over having a GRP attack (i.e., “During the past week, how much have you worried or felt anxious about when your next grief related panic attack would occur, or about fears related to the attacks (for example, that they could mean you have physical or mental health problems or could cause you social embarrassment)?”).

Each item is rated on a scale of 0 to 4, with higher scores indicating greater symptom severity. The Cronbach’s alpha for these three items was 0.91 in our sample.

Functional impairment was assessed using a modified form of the 5-item Work and Social Adjustment Scale (WSAS; Mundt et al., 2002), which evaluated grief-related impairment in work, home management, social leisure, private leisure, and in maintaining close relationships. Each item is rated on a 9-point scale with responses ranging from 0 to 8, with higher scores indicating greater impairment. The Cronbach’s alpha in our sample was 0.85.

Data Analyses

Descriptive statistics examined rates of PD diagnosis, and endorsement (any response except 0) of each items of the modified PDSS. Chi² tests were used to examine differences in endorsement of PDSS items between participants with and without PD.

The bivariate associations between GRP symptoms and CG symptom severity, as well as work and social impairment were examined with Student’s t-tests (PDSS Item 1), and Pearson’s correlations (PDSS total score). In addition, multiple regression analyses were conducted to examine whether GRP symptoms were independently associated with functional impairment after controlling for CG symptom severity, and current PD. The level of statistical significance was set to 0.05 (two-tailed), and all analyses were conducted using Stata version 12.1.

Results

Overall, 17% (n=25) of participants met SCID criteria for current, and 22.6% (n=33) for lifetime PD; 39.7% (n=58) reported at least one full or limited symptom GRP attack over the past week. GRP symptoms were not significantly associated with any socio-demographic variables.

Participants with current PD were more likely to report at least one limited-symptom, or full GRP attack over the past week, than those without (64% vs. 34.7%, Chi²=7.42, p=0.006). This was also true for participants with lifetime PD compared to those without (66.7% vs. 31.9% for lifetime PD, Chi²=12.92, p<0.001). However, the majority (62.1%) of those who reported at least one full or limited symptom GRP attack over the past week did not meet criteria for current or lifetime PD. Table 2 details endorsement rates of GRP in participants with and without current PD.

Further, among participants who reported at least one full or limited-symptom GRP attack over the past week, 93.1% reported at least some level of distress in relation to these panic attacks (with 20.7% reporting severe to extremely severe distress), and 75.9% reported some level of anticipatory worry about having GRP attacks.

Having at least one full or limited-symptom GRP attack over the past week was associated with higher CG symptom severity (Mean (SD) = 44.3 (9.2) vs. 41.1 (7.9), $t=-2.23$, $p=.027$) and functional impairment (Mean (SD) = 25.0 (8.5) vs. 19.5 (10.6), $t=-3.31$, $p=0.001$) than not having such an experience. Next, in order to examine the independent contribution of GRP symptoms to functional impairment, a multiple regression was conducted using the full sample, with CG symptom severity and current PD as covariates. The model was significant ($R^2 = 0.09$, $F(3, 142)=4.92$, $p<0.01$), and only the presence of at least one full or limited-symptom GRP attack was significantly associated with increased functional impairment ($B(SE)=4.9(1.7)$, $p < 0.01$).

Similarly, the PDSS total score was associated with higher CG symptom severity ($r=0.25$, $p<0.01$), and functional impairment ($r=0.32$, $p<0.001$). A multiple regression conducted with CG symptom severity and current PD as covariates ($R^2 = 0.12$, $F(3, 142)=6.4$, $p<0.01$) also found that only total PDSS score was significantly associated with increased functional impairment ($B(SE)=1.07(0.31)$, $p<0.01$).

Finally, examination of the impact of GRP among participants with PD, revealed that again the PDSS total score was positively correlated with functional impairment among individuals with lifetime PD ($r=0.57$, $p<0.001$), and among those with current PD ($r=0.51$, $p<0.01$).

Discussion

We previously reported elevated rates of panic spectrum symptoms among individuals with CG (Bui et al., 2013), however that study did not specifically explore GRP symptoms. The current study reveals that more than a third of treatment-seeking individuals with CG reported at least one full or limited symptom GRP attack over the past week, with twice that rate among people with current PD. Episodes of GRP were associated with distress and about 20% reported severe or very severe distress. The majority also experienced at least some anticipatory worry. Further, our results suggest that these GRP attacks are independently associated with functional impairment above and beyond the effect of CG symptom severity, and comorbid PD. This is in line with recent data suggesting that panic attacks occur across different disorders, and are associated with poorer functional outcome in anxiety, mood, and psychotic disorders (Craske et al., 2010). Our results extend these data by suggesting that GRP attacks in CG may occur even in the absence of a lifetime history of PD, and may be tied to grief or reminders of the loss.

Catastrophic misinterpretations of grief symptoms, defined as fear of crying, losing control or general fear of grief reactions, have been described, and found associated with experiential avoidance as well as grief symptom severity a year later (Boelen et al., 2010). These or other grief-related fears may be associated with GRP.

Anxiety sensitivity has been consistently shown to predict panic attacks prospectively (Schmidt et al., 2006), and our report of frequent GRP among individuals with CG also aligns with previously reported elevated anxiety sensitivity in CG (Robinaugh et al., in press).

Panic attacks have been suggested to reflect difficulty with emotion regulation (Tull and Roemer, 2007), and our findings are also consistent with a potential underlying role of emotion dysregulation in response to loss in the pathophysiology of CG, as has been proposed by others (Boelen et al., 2006; Gupta and Bonanno, 2011).

Limitations of our study include the lack of a sample of bereaved adults with and without similar Axis I disorders but without CG, which would have help clarify the extent to which panic symptoms are specific to CG or might be bereavement-related in the general population. In addition, participants were all treatment-seeking individuals, and it is possible that those experiencing panic symptoms would be more likely to seek treatment; therefore, our sample may not be representative of adults with CG in the general population. We also did not include a measure of non-grief related panic attacks, and therefore cannot determine if they occurred concurrently.

In conclusion, grief-related panic symptoms are frequent among individuals with CG, and associated with increased functional impairment. Overall, our results suggest clinicians should screen for grief-triggered panic symptoms in individuals with CG. Future research should further clarify the nature of grief-related panic symptoms in CG and examine their impact on treatment response.

Acknowledgments

This study was supported by grants P30 MH90333, R01 MH085288, R01 MH060783, R01 MH085308, and R01 MH085297, from the NIH. We would also like to thank all participants to the study.

References

- APA. Diagnostic and Statistical Manual of Mental Disorders DSM5 Fith Edition. American Psychiatric Publishing; Washington D.C: 2013.
- Boelen PA, van den Bout J, van den Hout MA. A prospective examination of catastrophic misinterpretations and experiential avoidance in emotional distress following loss. *J Nerv Ment Dis.* 2010; 198:252–257. [PubMed: 20386253]
- Boelen PA, Van Den Hout MA, Van Den Bout J. A Cognitive-Behavioral Conceptualization of Complicated Grief. *Clinical Psychology: Science and Practice.* 2006; 13:109–128.
- Bui E, Leblanc NJ, Morris LK, Marques L, Shear MK, Simon NM. Panic-agoraphobic spectrum symptoms in complicated grief. *Psychiatry Res.* 2013
- Craske MG, Kircanski K, Epstein A, Wittchen HU, Pine DS, Lewis-Fernandez R, Hinton D. Panic disorder: a review of DSM-IV panic disorder and proposals for DSM-V. *Depress Anxiety.* 2010; 27:93–112. [PubMed: 20099270]
- First, MS.; RL; Gibbon, M.; Williams, JBW. Structured Clinical Interview for Axis I DSM-IV Disorders - Patient version (SCID-1/P version 2.0). New York State Psychiatric Institute Biometrics Research Department; New York: 1994.
- Gupta S, Bonanno GA. Complicated grief and deficits in emotional expressive flexibility. *J Abnorm Psychol.* 2011; 120:635–643. [PubMed: 21766973]
- Houck PR, Spiegel DA, Shear MK, Rucci P. Reliability of the self-report version of the panic disorder severity scale. *Depress Anxiety.* 2002; 15:183–185. [PubMed: 12112724]
- Kersting A, Braehler E, Glaesmer H, Wagner B. Prevalence of complicated grief in a representative population-based sample. *J Affect Disord.* 2011
- Marques, L.; Bui, E.; LeBlanc, N.; Porter, E.; Robinaugh, D.; Dryman, MT.; Nadal-Vicens, M.; Worthington, JJ.; Simon, NM. Complicated Grief Symptoms in Anxiety Disorders: Prevalence and Associated Impairment *Depress Anxiety.* 2013.

- Mundt JC, Marks IM, Shear MK, Greist JH. The Work and Social Adjustment Scale: a simple measure of impairment in functioning. *Br J Psychiatry*. 2002; 180:461–464. [PubMed: 11983645]
- Nasreddine ZS, Phillips NA, Bedirian V, Charbonneau S, Whitehead V, Collin I, Cummings JL, Chertkow H. The Montreal Cognitive Assessment, MoCA: a brief screening tool for mild cognitive impairment. *Journal of the American Geriatrics Society*. 2005; 53:695–699. [PubMed: 15817019]
- Prigerson HG, Maciejewski PK, Reynolds CF 3rd, Bierhals AJ, Newsom JT, Fasiczka A, Frank E, Doman J, Miller M. Inventory of Complicated Grief: a scale to measure maladaptive symptoms of loss. *Psychiatry Res*. 1995; 59:65–79. [PubMed: 8771222]
- Robinaugh DJ, McNally RJ, LeBlanc NJ, Pentel KZ, Schwarz NR, Shah RM, Moore C, Nadal-Vicens MF, Marques L, Bui E, Simon NM. Anxiety sensitivity in bereaved adults with and without complicated grief. *J Nerv Ment Dis*. in press.
- Schmidt NB, Zvolensky MJ, Maner JK. Anxiety sensitivity: prospective prediction of panic attacks and Axis I pathology. *J Psychiatr Res*. 2006; 40:691–699. [PubMed: 16956622]
- Shear MK, Simon N, Wall M, Zisook S, Neimeyer R, Duan N, Reynolds C, Lebowitz B, Sung S, Ghesquiere A, Gorscak B, Clayton P, Ito M, Nakajima S, Konishi T, Melhem N, Meert K, Schiff M, O'Connor MF, First M, Sareen J, Bolton J, Skritskaya N, Mancini AD, Keshaviah A. Complicated grief and related bereavement issues for DSM-5. *Depress Anxiety*. 2011; 28:103–117. [PubMed: 21284063]
- Simon NM, Shear KM, Thompson EH, Zalta AK, Perlman C, Reynolds CF, Frank E, Melhem NM, Silowash R. The prevalence and correlates of psychiatric comorbidity in individuals with complicated grief. *Comprehensive Psychiatry*. 2007; 48:395–399. [PubMed: 17707245]
- Tull MT, Roemer L. Emotion regulation difficulties associated with the experience of uncued panic attacks: evidence of experiential avoidance, emotional nonacceptance, and decreased emotional clarity. *Behav Ther*. 2007; 38:378–391. [PubMed: 18021952]

Table 1

Socio-Demographic and Clinical Characteristics of n=146 Treatment Seeking Individuals with Complicated Grief

Gender (Female), % (n)	78% (114)
Age, years, Mean (SD)	52.4 (15.0)
Race (White), % (n)	75.3% (110)
Ethnicity (Hispanic), % (n)	11.0% (16)
Employed, % (n)	
Full-Time	40.4% (59)
Part-Time	15.8% (23)
Retired	21.9% (32)
Full-Time Homemaker	2.7% (4)
Unemployed	19.2% (28)
Marital Status, % (n)	
Never Married	26.7% (39)
Married	21.9% (32)
Divorced/Separated	15.8% (23)
Widowed	35.6% (52)
ICG Score, range 0–76, Mean (SD)	42.4 (8.6)
Current Panic Disorder	17.2% (25)
Endorsement PDSS Item 1 (Grief-related panic and limited symptoms), % (n)	39.7% (58)
Endorsement PDSS Item 2 (Distress), % (n)	38.4% (56)
Endorsement PDSS Item 3 (Anticipatory worry), % (n)	32.2% (47)
Grief Related PDSS Score, range 0–12, Mean (SD)	1.99 (2.75)
WSAS Score, range 0–40, Mean (SD)	21.7 (10.1)

Notes: ICG: Inventory of Complicated Grief; PDSS: Panic Disorder Severity Scale; WSAS: Work and Social Adjustment Scale

Table 2**Endorsement of Grief-Related Panic Symptoms Among Treatment Seeking Individuals with Complicated Grief**

	No Current Panic Disorder (n=121)	Current Panic Disorder (n=25)
PDSS Item 1 (Grief-related panic and limited symptoms), % (n)		
<i>No grief related panic or limited symptom episodes</i>	65.3% (79)	36% (9)
<i>Mild no full grief related panic attacks and no more than 1 limited symptom attack/day</i>	18.2% (22)	28% (7)
<i>Moderate: 1 or 2 full grief related panic attacks and/or multiple limited symptom attacks/day</i>	12.4% (15)	24% (6)
<i>Severe: more than 2 full grief related attacks but not more than 1/day on average</i>	1.7% (2)	12% (3)
<i>Extreme: full grief related panic attacks occurred more than once a day, more days than not</i>	2.5% (3)	0% (0)
PDSS Item 2 (Distress), % (n)		
<i>Not at all distressing, or no grief related panic or limited symptom attacks</i>	66.9% (81)	36% (9)
<i>Mildly distressing (not too intense)</i>	9.9% (12)	12% (3)
<i>Moderately distressing (intense, but still manageable)</i>	15.7% (19)	40% (10)
<i>Severely distressing (very intense)</i>	5% (6)	8% (2)
<i>Extremely distressing (extreme distress during all attacks)</i>	2.5% (3)	4% (1)
PDSS Item 3 (Anticipatory worry), % (n)		
<i>Not at all</i>	73.6% (89)	40% (10)
<i>Occasionally or only mildly</i>	12.4% (15)	28% (7)
<i>Frequently or moderately</i>	8.3% (10)	32% (8)
<i>Very often or to a very disturbing degree</i>	5.8% (7)	0% (0)
<i>Nearly constantly and to a disabling extent</i>	0% (0)	0% (0)

Note: PDSS: Panic Disorder Severity Scale