Screening for Complicated Grief in a Military Mental Health Clinic

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ABSTRACT Introduction: Bereavement is one of the most common and stressful life experiences one can endure. Typical grief reactions follow a course of recovery in which individuals come to terms with the loss and resume functioning within weeks to months. However, for some, grief remains indefinitely distressing. Complicated Grief (CG) refers to significant chronic impairment that stems from bereavement. Military service members experience myriad factors that likely increase their risk for developing CG. Such factors include unique bonds between service members, exposure to constant and extreme levels of stress, multiple losses, separation from family and loved ones, witnessing/learning about sudden violent and traumatic deaths, and handling human remains. The aim of this project was to explore the practicality and efficiency of screening for CG within a busy military mental health clinic, and also explore relationships between contextual variables related to a death that might be associated with screening positive for CG.

Materials and Methods: As part of a clinical needs assessment, patients from a single mental health clinic at Naval Medical Center San Diego completed a brief grief survey that asked if they experienced a death of a person close to them, collected metrics related to losses they have experienced and included validated screeners for CG (The Brief Grief Questionnaire [BGQ] and the Inventory for Complicated Grief [ICG]). No data concerning gender, age, marital status, socioeconomic status, diagnosis, or purpose of visit (i.e., initial or follow-up visit) were collected. Institutional review board approval was obtained. Results: In our sample of service members presenting to an adult outpatient military mental health clinic, 43.5% reported having experienced a loss that still impacts them. Of that group, 61.7% screened positive on the BGQ, 59.2% screened positive on the ICG using a cutoff of 25, and 46.1% screened positive on the ICG using the cutoff of 30. These findings suggest that military service members seeking mental health treatment who endorsed experiencing a loss are at high risk for experiencing persisting, impairing grief. Additionally, patients who either lost a fellow service member and/or experienced loss while on deployment reported significantly higher scores on the BGQ or ICG than if they did not report those factors. Furthermore, correlations between total number of losses and ICG scores suggest that service members who experienced multiple losses may be more susceptible to CG symptoms. Conclusion: The findings from this preliminary investigation suggest that many service members receiving care in military mental health care are experiencing grief-related symptoms and distress, and a brief screen for grief can help capture many of those with grief related impairment. Research shows that CG needs to be directly targeted to treat its symptoms and associated impairment. We recommend that military mental health clinics consider adding some type of grief screener to their standard intake as well as making providers aware of the importance of monitoring potential grief reactions in their patients.

BACKGROUND Bereavement is one of the most common and stressful life experiences. Typical grief reactions follow a course of recovery in which individuals come to terms with the loss and resume functioning within weeks to months, a process that does not usually need clinical intervention. However, for some, grief remains indefinitely distressing. Ongoing impairment could involve physical, emotional, social, and cognitive dysfunction, including increased risk for suicidality. Left untreated, the suffering of these individuals may persist and worsen.

Traumatic Grief, Complicated Grief Disorder, Complicated Grief, and Prolonged Grief Disorder are conceptualizations that pertain to grief related dysfunction, many with overlapping characteristics. Persistent Complex Bereavement Disorder, another grief-related phenomenon, is included as one of the “Conditions for Further Study” in the most recent version of the Diagnostic and Statistical Manual of Mental Disorder -5. For the purpose of this brief report, we use the term Complicated Grief (CG) to refer to significant chronic impairment that stems from bereavement.

In a recent review article, Shear et al provide estimates for the prevalence of CG. Worldwide about 2 to 3% of people experience CG. Prevalence rates of CG for the death of a significant other are between 10 and 20%, up to 38% for the bereavement of a child, and as high as 78% when the death is suicide or accident related.

Research has identified several factors that predict CG. Such factors include lack of social support, mood and anxiety disorders, multiple important losses, adverse life events and concurrent stressors, negative interpretations of grief reactions, lack of meaning making, traumatic death/sudden
loss, and attachment style (i.e., attachment anxiety and attachment avoidance). Discovering the body (in cases of violent death) and high levels of neuroticism are additional predictors of CG.

Military service members experience a myriad of factors that likely increase their risk for developing CG. Such factors include unique bonds between service members, exposure to constant and extreme levels of stress, multiple losses, separation from family and loved ones, witnessing/learning about sudden violent and traumatic deaths, and handling human remains.

Few studies have examined the impact of grief and loss within the military context. One of the first academic articles about military loss discussed how sudden deaths of service members could lead to peers experiencing adjustment issues, compromising unit readiness. Another study, following an Army battalion that lost 248 soldiers in an accident, found that healthy long-term adjustment was associated with directly addressing the loss, although some level of denial was adaptive. Those who used persistent avoidance showed the most dysfunction, such as heavy drinking and impaired sleep. A recent survey of soldiers found that more than 20% reported difficulty coping with grief, assessed via a single item, and that this was associated with negative physical health and occupational impairment. Despite evidence suggesting military service members are at risk for grief-related impairment, to the authors’ knowledge, many military mental health clinics do not routinely screen for CG.

The aim of this project was to explore the practicality and efficiency of screening for CG within a busy military mental health clinic. Another aim was to explore relationships between contextual variables related to a death that might be associated with screening positive for CG. We hypothesized that patients who experienced losses on deployment and patients with multiple losses would endorse more CG symptoms and thus be more likely to screen positive for CG.

METHODS

Subjects

As part of a clinical needs assessment, patients from a single mental health clinic at Naval Medical Center San Diego (NMCSV) completed a brief grief survey. NMCSV is a large military treatment facility that serves active duty service members, retirees, and their families. It is a multispecialty hospital with more than 250,000 beneficiaries eligible for care and more than 6,500 military, civilian, contract, and volunteer personnel staff.

From April 2014 to January 2016, 184 outpatients receiving care at an adult mental health outpatient clinic at NMCSV were distributed an anonymous paper and pencil grief survey (described in the next section) by front desk staff at the time of a regularly scheduled appointment with their provider. Front desk staff were asked to give out the survey to all active duty and retired patients over the age of 18 during three 2-week periods (regardless of type of appointment: intake or follow-up). We did not monitor if all patients were given a survey during these time periods, so it is possible that only a subsample of patients were surveyed for any number of reasons, such as the time of day of their appointment. To ensure patients only completed the survey once, the survey instructions stated that if patients had already completed the survey, they should not to complete it again.

Grief Survey

The grief survey consisted of two validated screeners: The Brief Grief Questionnaire (BGQ) and the Inventory for Complicated Grief (ICG).

Additional questions about the death were included to explore the relationship between those factors and BGQ and ICG scores. No data concerning gender, age, marital status, socioeconomic status, diagnosis, or purpose of visit (i.e., initial or follow-up visit) were collected.

The first question asked, “Have you experienced the death of a person close to you that still impacts you today?” Patients who answered affirmatively were instructed to answer six questions about the loss, including: (1) number of losses, (2) relationship(s) to the deceased, (3) experience of loss during deployment, as well as (4–6) length of time associated with the first loss, most recent loss, and most impactful loss. Patients were then asked to complete the BGQ. Those who scored at least “1” on the BGQ, indicating experiencing at least one grief symptom at a level of “somewhat” or “a lot” were directed to complete the ICG.

Inventory of Complicated Grief

The ICG was developed in 1995 because of concerns about morbidity and mortality associated with bereavement-related emotional distress, and a need for efficient and systematic ways to identify impaired grieving. The ICG has been used in a variety of bereaved populations, including post-trauma samples.

This 19-item scale is the most used screening instrument for CG, and collects information about symptoms that differentiate between normal and pathological reactions to a loss (e.g., preoccupation with thoughts of the deceased, disbelief about the death, nonacceptance) and are distinguishable from symptoms of depression and anxiety. Respondents are asked to report the frequency (0 = never; 1 = rarely; 2 = sometimes; 3 = often; 4 = always) of each item. Example items include “I feel I cannot accept the death of the person who died” and “I feel myself longing for the person who died.” The items are then summed to produce a total score. An ICG score of 30 or greater is considered a positive screen for CG, although scores greater than 25 have been associated with significantly worse functioning than scores.
below 25.26 As there is not yet a consensus for a cutoff score, we report on both cutoffs.

**Brief Grief Questionnaire**

Shear et al created the BGQ to assess CG in individuals affected by the terrorist attacks on September 11, 2001.7 The researchers felt that prior validated assessments, such as the ICG, were too lengthy to utilize for their study so they created a brief questionnaire they judged would be appropriate for screening. Since then, the BGQ has been used in other settings.27,28 Items that make up the five-item BGQ come from proposed criteria for CG judged to be appropriate for a screening instrument. They consist of (1) intrusive images of the deceased, (2) avoidance of reminders of the loss, (3) trouble accepting the death, (4) feeling numb and detached, and (5) overall interference with ongoing life. Respondents are asked to report the frequency (0 = not at all; 1 = somewhat; 2 = a lot) of each item. The items are then summed to produce a total score. A score of 5 or greater on the BGQ indicates possible CG and need for further assessment.7,29

**DATA ANALYSIS**

Data were screened for violations of normality and for outliers more than three standard deviations (SDs) from the mean. Two variables, “total number of losses” and “time since first loss” contained extreme outliers. Excluding these outliers resulted in acceptable skewness and kurtosis.

Independent sample t tests were used to determine whether there was a significant difference in mean scores on screening measures (i.e., BGQ and ICG) on the basis of type of loss, being deployed during a loss, and time since loss (as a discrete rather than continuous variable). Tests were used to determine whether there were statistically significant associations between categorical variables of interest. Finally, the strength and direction of relationships between continuous variables (e.g., time since loss and number of losses) and BGQ/ICG scores were assessed using Pearson’s product moment correlations.

**RESULTS**

Of the 184 patients given a grief survey, 80 endorsed “yes” to the first question (43.5%). Four additional participants were missing responses on the first question but continued with the survey. The following data analysis evaluates the 84 grief surveys.

The mean number of significant losses reported, excluding outliers, was 2.21 with a SD of 1.42 (n = 73). Table I summarizes the findings from the BGQ and ICG. The mean BGQ score was 5.40 (n = 81, SD = 2.95), out of 10 possible points. Fifty (61.7%) respondents scored 5 or higher on the BGQ, which is considered a positive screen. Of the 76 respondents who completed the ICG, the mean score was 28.34 (SD = 17.11), out of 79 possible points. Forty-five participants (59.2%) screened positive on the ICG when using a cutoff of 25, whereas 35 (46.1%) screened positive when using the stricter cutoff of 30.

The correlation between BGQ and ICG scores was 0.81 (p < 0.01). Of the 49 patients, who screened positive on the BGQ, 42 (85%) also scored positive on the ICG using a cutoff of 25, whereas 7 (14%) scored negative on the ICG. Furthermore, using the stricter criteria on the ICG (cutoff of 30), 34 patients (69%) scored positive on the ICG, whereas 15 (31%) scored negative.

A little more than three-fourths of the sample (77.4%) reported losing a family member and 32.1% of all respondents reported having lost a service member. Approximately 30% (n = 25) reported being deployed at the time of any loss. Of those, 40.0% (n = 10) reported a loss of a fellow deployed service member, 40.0% (n = 10) reported loss of a friend/family member/civilian back home, and 20.0% (n = 5) reported having suffered both. See Table II.

Table II provides a breakdown of BGQ and ICG mean scores on the basis of contextual factors. There was a statistically significantly difference on BGQ scores between those who reported having lost a service member (m = 6.56, SD = 2.65), regardless of deployment status, and those who did not report losing a service member (m = 4.91, SD = 2.89), t(78) 2.48, p < 0.05. There was also a statistically significant difference on ICG scores, t(71) 2.59, p < 0.05, between those who lost a fellow service member (m = 35.92, SD = 17.03) and those who did not (m = 25.53, SD = 15.87). Individuals who experienced any loss while deployed statistically greater mean scores on the BGQ (m = 6.36, SD = 2.66) compared those who did not experience any losses while deployed (m = 4.96, SD = 2.99), t(79) 2.00, p < 0.05. There was not a statistically significant difference in ICG scores.

Table II also summarizes the percentage of patients who screened positive on BGQ and ICG on the basis of contextual factors. Patients who reported having lost a fellow service member, irrespective of whether that loss occurred on deployment, were more likely to screen positive on the BGQ, than those who did not lose a fellow service member, χ²(1, n = 80) = 4.06, p = 0.04. Out of 27 patients who endorsed losing a service member, 77.8% (n = 21) screened positive on the BGQ, compared to only 54% (n = 29 out of 53) who screened positive on the BGQ and did not report

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**Table I. BGQ and ICG Scores**

<table>
<thead>
<tr>
<th>Cutoff</th>
<th>n</th>
<th>%</th>
<th>m (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGQ</td>
<td>81</td>
<td>—</td>
<td>5.40 (2.95)</td>
</tr>
<tr>
<td>Screened Positive on BGQ</td>
<td>50</td>
<td>61.7</td>
<td>—</td>
</tr>
<tr>
<td>ICG</td>
<td>76</td>
<td>28.34 (17.11)</td>
<td></td>
</tr>
<tr>
<td>Screened Positive on ICG</td>
<td>25</td>
<td>59.2</td>
<td>—</td>
</tr>
<tr>
<td>Screened Positive on ICG</td>
<td>30</td>
<td>46.1</td>
<td>—</td>
</tr>
</tbody>
</table>

Overall sample N = 184. Included sample n = 84 (experienced a loss that still impacts me today).
Screening for Complicated Grief  

TABLE II. Metrics Related to Loss and Mean Scores on BGQ and ICG

<table>
<thead>
<tr>
<th>Type of Loss Reported</th>
<th>n</th>
<th>%</th>
<th>BGQ m (SD)</th>
<th>ICG m (SD)</th>
<th>Screened positive on BGQ</th>
<th>Screened positive on CG</th>
<th>Screened positive on CG %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Member</td>
<td>65</td>
<td>77.4</td>
<td>5.28 (2.92)</td>
<td>27.19 (15.70)</td>
<td>59.4</td>
<td>56.1</td>
<td>42.1</td>
</tr>
<tr>
<td>Service Member</td>
<td>27</td>
<td>32.1</td>
<td>6.56 (2.65)*</td>
<td>35.92 (17.03)*</td>
<td>77.8*</td>
<td>68.0</td>
<td>68.0*</td>
</tr>
<tr>
<td>Civilian Friend</td>
<td>16</td>
<td>19.0</td>
<td>5.56 (2.92)</td>
<td>32.57 (11.85)</td>
<td>68.8</td>
<td>71.4</td>
<td>42.9</td>
</tr>
<tr>
<td>Child</td>
<td>7</td>
<td>8.3</td>
<td>6.14 (2.67)</td>
<td>37.14 (15.75)</td>
<td>85.7</td>
<td>85.7</td>
<td>71.4</td>
</tr>
<tr>
<td>Spouse</td>
<td>2</td>
<td>2.4</td>
<td>9.00 (0.00)</td>
<td>28.41 (16.65)</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2.4</td>
<td>2.50 (0.71)</td>
<td>9.00 (11.31)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Reported Having Been Deployed at the Time of a Loss

| Yes       | 25 | 29.8| 6.36 (2.66)*| 33.38 (17.72)| 76.0                     | 70.8                    | 66.7*                    |
| No        | 57 | 67.9| 4.96 (2.99)| 26.96 (16.09)| 44.6                     | 44.0                    | 38.0                     |

Types of Losses Reported During Deployment

| Service Member | 10 | 40.0| 7.00 (2.94)| 35.67 (21.23)| 80.0                     | 77.8                    | 71.4*                    |
| Family/ Civilian Friend | 10 | 40.0| 6.10 (2.85)| 30.30 (16.30)| 80.0                     | 70.0                    | 60.0                     |
| Both         | 5  | 20.0| 5.60 (1.67)| 35.40 (16.32)| 60.0                     | 60.0                    | 60.0                     |

1Categories are not mutually exclusive. Participants could endorse losses in more than one type of category. *Significant at p < 0.05.

losing a service member. Individuals reporting the loss of a service member were also more likely to meet a strict cutoff of 30 on the ICG than those who did not, \( \chi^2(1, N = 73) = 6.13, p = 0.01 \). Sixty-eight percent (\( n = 17 \) out of 25) screened positive on the ICG using a strict cutoff, compared to only 37.5% (\( n = 18 \) out of 48) who screened positive and did not report the loss of a fellow service member. Patients who reported having lost a fellow service member while deployed were also more likely to meet a strict cutoff of 30 on the ICG compared to all others in the sample, \( \chi^2(1, n = 74) = 4.03, p = 0.05 \). Of those 14 patients who reported experiencing the loss of a fellow service member while deployed, 71.4% (\( n = 10 \)) scored in the positive range on the ICG, compared to only 41.7% (\( n = 25 \) out of 60) who screened positive on the ICG but did not report that specific type of loss.

Patients who reported having been deployed during one of their losses, irrespective of the type of loss, were statistically more likely to meet a strict cutoff of 30 on the ICG than those whose losses did not occur in the context of a deployment, \( \chi^2(1, N= 74) = 5.35, p = 0.02 \). Of the 24 patients who reported having been deployed at the time of a loss, 66.7% (\( n = 16 \)) screened positive on the ICG, compared to only 38.0% (\( n = 19 \) of 31) of those who screened positive and were not deployed during the time of their loss.

Number of losses correlated with ICG scores, \( r = 0.25 (p < 0.05) \). There was not a significant correlation between number of losses and BGQ scores.

See Table III for means and percentages related to time since loss. Time since first loss, most recent loss, and most impactful loss did not correlate with either screening measure as either a continuous variable or when categorized as time since loss more or less than 6 months, or more or less than 1 year. That is, time since loss did not influence scores on either the BGQ or the ICG.

DISCUSSION

Given the military’s high risk for experiencing loss, especially sudden loss, we aimed to examine if military mental health patients experience unique symptoms related to CG and identify potential contributing factors to CG in these military personnel. These findings may assist in identifying appropriate and efficient screening tools to use with military populations and inform future research directions.

Prevalence for CG has been estimated to range between 20 and 33% in civilian outpatient psychiatric samples and one study found a range between 53 and 59% associated with military deaths (bereaved military family members). In our sample of service members presenting to an adult outpatient military mental health clinic, 43.5% reported having...
experienced a loss that still impacts them. Of that group, 61.7% screened positive on the BGQ, 59.2% screened positive on the ICG using a cutoff of 25, and 46.1% screened positive on the ICG using the cutoff of 30. The ICG has good sensitivity and specificity for detecting CG making it a valuable tool with minimal burden for clinicians who suspect their patients may be experiencing grief-related impairment.33 Although the sensitivity and specificity of the 5-item BGQ has not been established, it has demonstrated sufficient reliability and discriminant validity for identifying CG symptoms,27 and so may be less burdensome to administer during mental health screening/intake.

Our study also highlights potential risk/contextual factors specific to this vulnerable population. In this sample, patients who either lost a fellow service member and/or experienced loss while on deployment reported significantly higher scores on the BGQ or ICG than if they did not report those factors. Furthermore, correlations between total number of losses and ICG scores suggest that individuals who experienced multiple losses may be more susceptible to CG symptoms. This supports the value of utilizing a brief screen to inquire about losses and potential grief reactions for patients receiving care in military mental health clinics.

The primary limitations of this study were the absence of clinical interviews to confirm CG criteria. However, past research has documented the validity and reliability of the two CG screeners used in this study5,7 and has demonstrated that the ICG has good discriminant validity from depressive and PTSD symptoms.5,22,23 Another limitation is that this convenience sample only represents those service members who are in mental health treatment. Furthermore, we used an initial gating question to first assess if patients experienced a loss that still impacts them before instructing them to continue with the survey. Although some patients answered "no" to the impact question, if they completed the full survey they may have ultimately screened positive for CG. Readers should use caution when generalizing these findings to other populations and settings.

The findings from this preliminary investigation suggest that many patients in military mental health are experiencing grief-related symptoms and distress and a brief screen for grief can help capture many of those with grief-related impairment. Our initial screening question was intentionally broad, but appeared to show utility in capturing a larger group of patients with grief-related distress. Thus, clinics wishing to use a very brief screener might consider a single item.34 For example, Toblin et al asked, "Over the past month, how much have you experienced difficulty coping with grief over the death of someone close?"20

### TABLE III. Time Since Loss and Scores on BGQ and ICG

<table>
<thead>
<tr>
<th>Time Since First Loss</th>
<th>n</th>
<th>m (SD)</th>
<th>BSG</th>
<th>ICG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years Since Loss¹</td>
<td>79</td>
<td>7.94 (9.57)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Since Loss²</td>
<td>76</td>
<td>6.41 (5.74)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Than 6 Months</td>
<td>75</td>
<td>94.9</td>
<td>5.43 (2.96)</td>
<td>29.55 (16.56)</td>
</tr>
<tr>
<td>More Than 1 Year</td>
<td>66</td>
<td>86.8</td>
<td>5.06 (2.93)</td>
<td>27.48 (16.60)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Since Most Recent Significant Loss</th>
<th>n</th>
<th>m (SD)</th>
<th>BSG</th>
<th>ICG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years Since Loss</td>
<td>76</td>
<td>2.58 (2.55)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Than 6 Months</td>
<td>55</td>
<td>72.4</td>
<td>5.52 (3.02)</td>
<td>30.92 (17.23)</td>
</tr>
<tr>
<td>More Than 1 Year</td>
<td>50</td>
<td>65.8</td>
<td>5.40 (3.08)</td>
<td>29.61 (17.55)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Since Most Impactful Loss³</th>
<th>n</th>
<th>m (SD)</th>
<th>BSG</th>
<th>ICG</th>
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<tbody>
<tr>
<td>Years Since Loss</td>
<td>11</td>
<td>3.55 (3.33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More Than 6 Months</td>
<td>9</td>
<td>81.8</td>
<td>4.44 (2.30)</td>
<td>20.56 (11.45)</td>
</tr>
<tr>
<td>More Than 1 Year</td>
<td>8</td>
<td>72.7</td>
<td>4.50 (2.45)</td>
<td>20.38 (12.22)</td>
</tr>
</tbody>
</table>

¹Outliers included. ²Outliers excluded. ³This question was added to a later iteration of the survey, therefore the sample size is small.
Screening for Complicated Grief

Research has shown that CG needs to be directly targeted to treat its symptoms and associated impairment. In military populations, likely at high risk for CG, briefly asking about or assessing for grief-related impairment would likely confer substantial benefits in providing optimal care to service members who may be suffering from painful losses. This study demonstrates that asking a single question about grief-related impairment and/or conducting a brief grief screener was an efficient way to fill a potentially large gap in military mental health care. We recommend that military mental health clinics add some type of grief screener, either a single question or a brief screener like the BGQ, to their standard intake. We also encourage future research to explore possible causal mechanisms for why service members appear to be at increased risk for CG.

REFERENCES