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# The role of avoidance in complicated grief: A detailed examination of the Grief-Related Avoidance Questionnaire (GRAQ) in a large sample of individuals with complicated grief

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## Keywords

grief; avoidance; questionnaire; anxiety; loss

Avoidance behavior (engaging in any actions to avoid or escape particular thoughts or feelings) is a universal response to emotionally charged-situations that is most commonly associated with anxiety or fear. However, avoidance behaviors also are commonly employed to regulate a variety of distressing emotions, and therefore are present across a wide range of emotionally-charged situations. For instance, after a meaningful loss, bereaved individuals often attempt to manage the strong emotional pain associated with death, of a loved one either through deliberate suppression of painful thoughts and emotions associated with the loss, or through avoidance of situations, places, and objects related to the deceased (Boelen, van den Bout et al. 2006, Boelen, van den Hout et al. 2006). For example, a mother who lost her son might avoid places he used to go (i.e. his school or bedroom), seeing his friends, or participating in activities that they may have enjoyed together.

Avoidance is generally considered an adaptive response to loss, and an integral component of the initial, acute grief response. This avoidance may be of both situations and/or stimuli that are reminders of the loss and avoidance of emotions about the loss. Individuals with CG may use distraction or transitive shifts in awareness to non-loss related content in order to lessen the emotional impact of the loss (Bonanno et al., 1995). Avoidance (both emotional and situational) initially allows some respite from intense pain in order for the individual to process the loss and restore a satisfying ongoing life (Bonanno et al., 1995; Bowlby, 1980;

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Shear, 2010). However, persistence of, or over reliance on, avoidance strategies may prolong the acute grieving period and contribute to the development of Complicated Grief (CG), a serious and debilitating condition that is present in about 7% of the bereaved population (Kersting, et al. 2011). 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), CG has received increased research and clinical attention in recent years and has been included under the name *Persistent Complex Bereavement Disorder* in the *Conditions for Further Study* section of the Diagnostic and Statistical Manual of Mental Disorders, 5<sup>th</sup> edition (*DSM-5*; American Psychiatric Association, 2013). Ongoing research aims to refine the diagnostic criteria and to provide further empirical support for CG in the next iteration of the *DSM*.

There are two prominent, related theories that seek to explain the role of avoidance in complicated grief. Shear and colleagues (2007) hypothesize that avoidance of loss-related reminders can complicate the grieving process by impeding the bereaved individual's ability to incorporate the loss into his or her working attachment model. If the deceased was a major attachment figure, the existing model must be readjusted to integrate the loss into long-term memory in order to allow the bereaved individual to resume typical behaviors and adjust to life without the deceased (Shear, et al. 2007). For example, a daughter who has lost her father must be able to integrate that loss into her memory in order to modify expectations and predictions related to her father in day-to-day life and make new memories with other attachment figures.

Much like the attachment model of CG, the cognitive-behavioral model of CG also conceptualizes avoidance as one of the major complications in the grieving process, insomuch as it reinforces negative beliefs/interpretations related to grief reactions and contributes to insufficient integration of the loss into the bereaved individual's existing autobiographical knowledge base. In addition, the CBT model of CG posits that, avoidance of internal experiences (i.e. emotions, thoughts, memories related to the deceased) and external demands (i.e. daily routines, social, and occupational activities) directly contribute to CG symptoms by increasing numbness and detachment (Boelen, van den Bout et al., 2006, Boelen, van den Hout et al., 2006).

#### Challenges in Assessing Grief-related Behavioral Avoidance

The boundary between adaptive and maladaptive behavioral avoidance in the grieving process is difficult to determine as it is different for each individual. However, there is increasing evidence that avoidance is associated with a number of negative outcomes among bereaved individuals, including more intrusive thoughts related to the death (Shear, 2010), poorer health outcomes (Bonanno, 2005), and increased CG symptom severity and impairment (Shear, et al. 2007). Grief-related avoidance may be an important indicator of risk among bereaved individuals and is a central feature of grief-related psychopathology. However, avoidance is difficult to recognize among bereaved individuals, rendering its assessment difficult. Broad questions such as "is there anything you avoid because of the death?" often yield responses in the negative, but questions about specific avoidance

behaviors (i.e. avoiding places, objects, and activities that are reminders of the loss), will often elucidate the presence of a wide range of grief-related avoidance behaviors (Shear, Monk et al. 2007). Taken together, these findings underscore the importance of a specific, nuanced, and comprehensive manner to assess avoidance among bereaved individuals.

Awareness of and ability to identify grief-related behavioral avoidance may be further impeded among bereaved individuals with CG due to a unique feature of the CG avoidance profile that differs from anxiety disorders. Individuals with CG may continue to seek out reminders of their lost loved ones, rather than avoid them. For instance, many individuals with CG will seek sensory experiences that help them to continue feeling close to the deceased, such as wearing clothes that smell like their loved one, listening to the loved one's voice on an answering machine, or looking through old photographs for long periods of time. Paradoxically, this behavior may reflect an attempt to avoid the absence of the deceased by seeking proximity to reminders to an extreme degree (Prigerson, et al., 1999, Prigerson & Jacobs, 2001, Boelen, van den Bout et al., 2006).

A scale that measures specific grief-related avoidance behaviors can help clinicians and researchers accurately assess avoidance among bereaved individuals at risk for CG due to avoidance-related behaviors. An empirically validated measure of grief-related avoidance could be useful in aiding research that evaluates the impact of grief-related avoidance on symptom severity and functional impairment among individuals with CG. Such an assessment tool could also assist clinicians in their evaluation of avoidance among patients with or at risk of developing CG, while also making it possible to track outcomes in treatment. This is why the Grief-Related Avoidance Questionnaire (GRAQ; Shear, et al., 2007) was created. The goal of present analysis was to further develop and apply this measure by replicating previous analyses of the psychometric properties (Shear et al., 2007) and examining loss-related predictors of avoidance.

In the previous treatment study, 128 individuals with CG completed the GRAQ before and after treatment. Cronbach's alpha for the GRAQ total score at baseline was 0.87 (Shear et al., 2007. The median time since the loss was 2.6 years in that sample with a range of 6 months to 36 years. Baseline and post treatment scores were highly correlated (r = 0.88) indicating good test re-test reliability (Shear et al., 2007). A principal component exploratory factor analyses, with varimax rotation, revealed 3 factors, corresponding to avoidance of places and things that are reminders of the, avoidance of activities that are reminders of the loss, and avoidance of situations related to illness or death that ordinarily evoke sympathy. However, the 3 factors only encompassed 12 of the 15 items on the scale; 3 items were excluded because of ambiguous loadings. The GRAQ showed significant correlation with an Impact of Events avoidance subscale (Weiss, 2007; r = 0.52; P < 0.0001) indicating good convergent validity.

# Expansion of the Validation of a Grief-Related Avoidance Questionnaire

The present study examines the psychometric properties of the 15-item Grief-related Avoidance Questionnaire (GRAQ; Shear, et al. 2007) in 393 treatment-seeking individuals who participated in our multi-site clinical trial (MH085288, MH060783, MH085308, and

MH085297). The instrument was developed for use in bereaved adults and includes questions related to avoidance behaviors that have been identified by clinical and research observations. The questionnaire consists of 15 questions that each assess grief-related avoidance behaviors (i.e. Do you avoid looking at photographs of the person who died? Do you avoid talking about the person who died with family members or friends?) on a Likert scale. We evaluated the internal consistency, inter-rater and test-retest reliability, construct validity, and factor structure of the GRAQ. We also examined convergent/divergent validity and sought to identify loss-related predictors of the GRAQ in a population of bereaved adults.

#### Methods

#### Participants

Participants (n = 393; 78% women) were recruited for a treatment study of complicated grief (Shear et al., in prep), signed written consent, and underwent baseline assessment of grief and comprehensive evaluation of mental health concerns. 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. Exclusion criteria included a lifetime history of schizophrenia, bipolar I disorder or any other psychosis; intellectual disability; alcohol or substance abuse or dependence within the past 6 months; active suicidal or homicidal ideation; if on benzodiazepine medication, on a stable dose for less than 3 months, or unwilling to remain on that dose throughout the study; current use of antidepressant or prior intolerance of citalopram/escitalopram; serious medical illness or instability; concurrent psychotherapy; pregnant or lactating women, or women of childbearing potential who are not using medically accepted forms of contraception; pending or active disability claim or lawsuit related to the death. Participants could have comorbid depression or other anxiety disorders if CG was designated by the participant as the primary problem.

#### Procedure

All procedures were conducted in the context of entering a treatment-outcome study aimed at comparing the efficacy of the two therapeutic interventions for CG. Prior to the initiation of study treatment, participants completed clinician-rated and self-report measures. All study procedures were reviewed and approved by the institutional review board at each site.

#### Measures

DSM-IV diagnoses were assessed using the Structured Clinical Interview for DSM-IV (SCID; First & Gibbon 2004), by trained and certified doctoral-level (M.D., or Ph.D.) clinicians. Symptoms of anxiety were assessed with the clinician rated Structured Interview Guide for the HAM-A (SIGH-A), an adaptation of the 14-item HAM-A designed to standardize clinician assessment (Shear, et al., 2001).

In addition to the GRAQ, additional self-report measures were administered; 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 raging from 0 to 76. Consistent with previous research (Shear, et al., 2005, Marques, et al., 2013), threshold CG was defined as 30.

We assessed sleep quality with a one-item modification of The Pittsburgh Sleep Quality Index (PSQI; Buysse, et al., 1989), a self-report instrument measuring sleep quality and disturbance. The question, "How often in the past month have you had trouble sleeping because of grief?" conforms to a Likert-type rating (i.e., 0= "Not during the past month" to 3= "Three or more times a week." The PSQI has high levels of internal consistency (Cronbach's alpha = 0.83) and demonstrates good test-retest reliability and discriminant validity (Buysse, et al., 1989).

We assessed functional impairment using the Work and Social Adjustment Scale (WSAS; Mundt, et al., 2002), which is a brief, 5-item validated scale asking respondents to indicate how their grief affected their work, home management, social leisure, private leisure and/or ability to form close relationships.

The Quick Inventory of Depression Symptomatology, Self-Report scale (QIDS-SR; Rush, et al. 2003) was used to assess symptoms of depression. This 17 item scale is a well-validated and widely used measurement of depression which is free for use.

#### **Statistical Methods**

To examine the internal consistency of the GRAQ, Cronbach's alpha was calculated for all 15 items. To examine construct validity, we conducted an exploratory factor analysis (EFA) with a 3 factor model (based on previous research by Shear et al., 2007), and used the varimax rotation. We examined eigenvalues, factor loadings, Cattell's scree plot, and the proportion of total variance explained. A confirmatory factor analysis was not possible because details on which 3 questions were excluded from the factors previously identified could not be obtained, and thus we did not have enough detailed information on which items comprised which factors to be able to confirm what was done previously.

To assess convergent validity, we compared the ability of the GRAQ to discriminate between participants with and without a current concurrent anxiety disorder, depression or PTSD using logistic regression, and additionally controlled for other CG symptoms by including ICG total score as a covariate. We also examined Pearson's correlations of the GRAQ with SIGH-A, QIDS, and WSAS, before and after partialling out ICG score. To assess divergent validity of the GRAQ, we examined Pearson's correlation between the GRAQ total score and sleep dysfunction severity (as measured by the PSQI one-item score), with and without partialling out the ICG total score.

Finally, we identified significant loss-related predictors of GRAQ total score. Covariates examined included Gender, Race, Ethnicity, Age at screening, Time since loss, Relationship to the deceased, and Cause of death. Covariates were first tested univariately, so as not to obscure effects due to collinearity. Significant univariate predictors were entered into a multivariable linear regression model.

While normality of the total scores analyzed was not strictly upheld, the skewness and kurtosis were generally less than 1.0, indicating that the assumption of normality was reasonable. Individual GRAQ questions were skewed even after applying a square root transformation, due to a higher than expected frequency of 0/Never values). However, because Pearson correlation coefficients are fairly robust to the assumption of normality, our findings should not be impacted. Analyses were conducted using SAS v9.4 and employed a two-sided alpha=0.05.

#### Results

Per the methods of Clark and Watson (1995), we first examined the response distributions of GRAQ scale items, and confirmed that responses were quite evenly distributed among the answer choices. Even the most extreme choice of "Always" was endorsed by anywhere between 4%-19% of participants, and often close to 10%.

#### Internal Consistency and Factor Structure

Internal consistency of the GRAQ was high, based on a Cronbach alpha of 0.89, but was under the maximum recommended value of 0.90 suggested by Tavakol and Dennick (2011). Each question was positively but moderately correlated with the total score (with correlations ranging from 0.46 - 0.65, and about half of the correlations just over or under 0.50), and removal of any given question did not improve Cronbach's alpha.

Cattell's scree plot from an EFA showed a major elbow after factor 1, and possible another after factor 5. Factor 1 accounted for 66% of the variance, while factors 2 and 3 accounted for 19% and 15% of the total variance, respectively. As seen in Table 2, there was good separation of the scale items into factors, with only Q2 (Avoid places associated with the death) and Q7 (Avoid rooms) loading similarly onto two different factors. However, per the methods of Clark and Watson (1995), when we examined unrotated factors, we found that Q2 and Q7 both strongly loaded onto Factor 1 and weakly loaded onto the remaining factors. While the EFA results suggest that the GRAQ may be unidimensional, a 3-factor model generally corresponded with the findings by (Shear, Monk et al. 2007), which suggested the presence of 3 subscales: Reminder of Loss (Factor 1), Reminder of Death (Factor 2), and Sympathy Situation (Factor 3). The factors were maintained when the promax (vs. varimax) rotation was used.

#### **Convergent and Divergent Validity**

In support of the convergent validity of the scale, the GRAQ total score was significantly higher in those with current anxiety (p<0.001), MDD (p=0.014), and PTSD (p<0.001), with significance maintained even after controlling for other CG symptoms. Similarly, the Pearson correlations were significant for association of the GRAQ total with SIGH-A total (r=0.28, p<0.0001), QIDS total (r=0.22, p<0.0001), and WSAS total (r=0.37, p<0.0001); significance was again maintained after partialling out the ICG total. In our examination of divergent validity, contrary to our hypothesis, we found that the GRAQ total was significantly correlated with sleep dysfunction (r=0.20, p<0.0001), even after partialling out other CG symptoms (r=0.17, p=0.0008).

#### Loss-Related Predictors of GRAQ Total

Table 3 shows the predictive value of demographic and loss-related variables for the GRAQ total score. Univariately, age, relationship to the deceased, and cause of death were significant predictors. With respect to age, highest levels of grief-related avoidance were seen among participants who were younger at screening - with a 10-year increase in age associated with a 2-point decrease in GRAQ total. Loss of a child resulted in the highest levels of grief-related avoidance, followed by loss of a friend/other relative, loss of a partner, and finally loss of a parent. Grief-related avoidance was also highest among those who noted the cause of death as "Other" (n=8; details not collected), followed by short illness, suicide, murder, long illness, and finally accident. In a supplemental analysis, when we analyzed cause of death as violent vs. non-violent, we found that it was no longer a significant predictor of GRAQ total score (p=0.40). In multivariable regression, once age was entered into the model, relation to the deceased was no longer significant (p=0.25).

### Discussion

This study sought to confirm the psychometric properties of the GRAQ, and further clarify the relationship of avoidance symptoms as measured by the GRAQ to other symptoms in a well characterized, treatment seeking population of adults with CG. We found very high internal consistency for the GRAQ. While EFA results suggest that the GRAQ may be unidimensional, a 3-factor model generally corresponded with the findings by Shear et al. (2007), with three factors corresponding to: 1) avoidance of places and things that are reminders of the death (e.g., the grave site or the place where the person died), 2) avoidance of activities that are reminders of the loss (e.g., things the deceased did frequently, enjoyed, or was planning to do), and 3) avoidance of situations related to illness or death that often evoke sympathy (e.g., going to funerals or visiting ill people in the hospital).

The GRAQ was also found to have good convergent validity and differentiated those with and without anxiety, depression, and PTSD as well as impairments in functioning even when controlling for grief scores on the ICG. Avoidance was more strongly correlated with anxiety and mood symptoms rather than other symptoms of grief (e.g.: yearning and longing for the deceased). Unlike the previous study (Shear, et al., 2007) we could not confirm the divergent validity when examining the correlation of the GRAQ with sleep quality (PSQI single item score). This correlation between avoidance and sleep dysfunction is in fact in line with the CBT model of insomnia which asserts that negative thoughts and expectations about sleep coupled with avoidance of physical symptoms and maladaptive behaviors (napping, staying up watching TV, etc.) serve to maintain dysfunctional sleep patterns. This may also be due to the reliance on a single item to measure sleep quality rather than the use of the full measure. Future studies would benefit from evaluating divergent validity with additional constructs that are more dissimilar from avoidance, as well as the relationship of the GRAQ to measures of avoidance not specific to grief.

In terms of loss related predictors of avoidance in this sample of adults with CG, the highest levels of grief-related avoidance were present in younger participants, which might suggest that utilization of an avoidance-based strategy is more common in an earlier developmental stage in adults. Loss of a parent was the type of loss associated with the highest levels of

grief-related avoidance; however, once age was entered into the model, relationship to the deceased was no longer significant.

Additionally, as far as known categories, avoidance was highest when cause of death was a short illness, followed by suicide, murder, long illness, and finally accident. When analyzed as violent vs. non-violent, GRAQ total score did not significantly vary by cause of death, suggesting that the association of cause of death with grief-related avoidance is unrelated to the violence of the death. Stated differently, avoidance may be a more ubiquitous construct inherent in complicated grief regardless of the cause of death or the relationship to the deceased. This underscores the fact that grief-related avoidance is different from traumarelated avoidance which is consistent with clinical observations as well.

Overall, among help-seeking individuals with complicated grief, avoidance is common and an important contributor to impairment. Understanding the way behaviors function as avoidance is key to conceptualizing and treating bereaved individuals with CG, and these findings provide translational opportunities for clinicians. It is important to recognize however, that in addition to eschewing reminders of the loss, avoidance among bereaved individuals may also manifest as seeking closeness (proximity seeking) to the deceased. These seemingly paradoxical responses may occur simultaneously. This desire for proximity seeking can be a part of an adaptive grief process; however, when overly relied on and continued at the expense of effective reengagement in ongoing life, proximity-seeking can hinder improvement and may serve to diminish acceptance of the reality of the death. For some individuals with CG, seeking closeness takes on an intense and compulsive quality. For example, a person with CG may spend excessive amounts of time looking at pictures, constructing memorials or spending time at the burial site or with ashes such that few other activities are engaged in.

Recently-developed treatments for CG emphasize this duality (i.e., the desire to both avoid and be close to the deceased; Shear, et al., 2014). Efforts are made in the therapy to guide the patient through alternately engaging with and then setting aside painful recognition of the loss. For example, in a therapy session a patient might be encouraged to imaginally revisit the circumstances of the death and then spend time planning pleasurable activities.

Our findings support the importance of exposure-based treatment to address avoidance in CG. This has also been demonstrated in the success of complicated grief treatment (CGT; Shear, et al., 2014) as well as CBT approaches (Boelen, de Keijser & Smid, 2015; Smid et al., 2015) for CG. Exposure as well as attachment based techniques are used in CGT which was one of the treatments used in the larger treatment outcome study which these participants were enrolled in (Shear, et al., 2014).

Our results are qualified by various limitations; most significant is our reliance on a selfreport measure of avoidance behaviors. It is challenging to assess behavioral avoidance via self-report and our findings would be strengthened by an observer (family or friend) rating; however, this was not included in this study. Generally it is not feasible in clinical work to collect an observer ratings, thus the GRAQ provides a great advance through standardized query and may be more useful in clinical practice due to its self-report form. Additionally,

avoidance measured by the GRAQ is limited to behavioral avoidance and does not include emotional avoidance although both are important constructs; measurement of emotional avoidance is outside of the scope of the current research question.

Assessing validity through the use of behavioral assessments would be a beneficial next step. Additional research is needed to confirm the 3 subscales which have been identified (reminder of loss, reminder of death, and sympathy situations) as compared to a unidimensional scale. We also were unable to assess test-retest reliability in this study which should be a focus of future studies although the internal consistency was very high (Cronbach's alpha = 0.89) which can be used as a lower bound estimate of reliability as well. Because this study includes only individuals who have been diagnosed with complicated grief and also because it is cross-sectional we were not able to establish predictors or riskfactors for "pathological" avoidance or causal pathways to adverse consequences, but future, longitudinal surveys of a community sample could shed light on these important issues. Finally, we did not assess non-bereavement related avoidance behaviors so could not determine if the tendency towards avoidance was specific to be eavement related constructs only. Indeed, individuals with anxiety disorders, PTSD and depression scored higher on the GRAQ, suggesting the GRAQ may be a marker of either greater overall severity, or identify a subset of individuals who utilize avoidance as a strategy that may place them at risk for mood and anxiety disorders across the spectrum of these conditions.

The GRAQ may be useful in treatment outcome research as well as in general clinical practice. The present study supports the reliability, validity and applicability of the GRAQ in CG. Results are promising and confirm that grief-related avoidance is an important construct to assess and consider in clinical care.

# Biography

**Amanda W. Baker** is a clinical psychologist at the Center for Anxiety and Traumatic Stress Disorders at Massachusetts General Hospital and an Instructor in Psychiatry at Harvard Medical School. Her research interests involve mediators and moderators of the etiology of and cognitive behavioral treatments for emotional disorders.

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**Naomi M. Simon,** is the Director of the Center for Anxiety and Traumatic Stress Disorders at Massachusetts General Hospital and Associate Professor of Psychiatry at Harvard Medical School. Dr. Simon's major clinical and research interests include initial and next step treatments for anxiety disorders, anxiety comorbid with mood disorders, complicated grief, and the biological impact of chronic stress due to these disorders

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## Table 1

# Demographic and Clinical Characteristics

| Characteristic                        |                  | Ν      | %      |
|---------------------------------------|------------------|--------|--------|
| Gender                                | Female           | 307    | 78%    |
| Race                                  | White            | 323    | 82%    |
| Ethnicity                             | Non-Hispanic     | 348    | 89%    |
| Relationship to deceased              | Partner          | 142    | 36%    |
|                                       | Child            | 113    | 29%    |
|                                       | Parent           | 80     | 20%    |
|                                       | Other            | 58     | 15%    |
| Age at screening (years; range 19-89) | Mean (SD)        | 53     | (14.6) |
| Time since loss (years; range 0.5-59) | Mean (SD)        | 4.7    | (7.3)  |
| Cause of death                        | Illness 1 month  | 174    | 44%    |
|                                       | Illness <1 month | 79     | 20%    |
|                                       | Suicide          | 59     | 15%    |
|                                       | Accident         | 58     | 15%    |
|                                       | Murder           | 15     | 4%     |
|                                       | Other            | 8      | 2%     |
| Current Anxiety Disorder              |                  | 226    | 58%    |
| Current MDD                           |                  | 138    | 35%    |
| Current PTSD                          |                  | 153    | 39%    |
| Sleep severity PSQI Total score       | 0                | 66 17% |        |
|                                       | 1                | 48     | 12%    |
|                                       | 2                | 81     | 21%    |
|                                       | 3                | 102    | 26%    |
|                                       | 4                | 96     | 24%    |
| GRAQ Total (range 0-60)               | Mean (SD)        | 23     | (13.0) |
| ICG Total (range 0-76)                | Mean (SD)        | 43     | (8.9)  |
| SIGH-A Total (range 0-56)             | Mean (SD)        | 21     | (8.3)  |
| QIDS Total (range 0-27)               | Mean (SD)        | 13     | (4.3)  |
| WSAS Total(range 0-40)                | Mean (SD)        | 22     | (9.8)  |

#### Table 2

Factor Loadings of the GRAQ based on a 3-Factor Exploratory Factor Analysis

| Item                                       | Factor 1 | Factor 2 | Factor 3 |
|--|----------|----------|----------|
| Q1: Avoid visiting final resting place     | 0.12     | 0.57     | 0.28     |
| Q2: Avoid places associated with the death | 0.44     | 0.31     | 0.41     |
| Q3: Avoid photographs                      | 0.21     | 0.77     | 0.13     |
| Q4: Avoid thinking about person            | 0.05     | 0.78     | 0.18     |
| Q5: Avoid talking about person             | <-0.01   | 0.69     | 0.24     |
| Q6: Avoid belongings                       | 0.35     | 0.65     | -0.02    |
| Q7: Avoid rooms or places                  | 0.55     | 0.59     | 0.01     |
| Q8: Avoid activities at home               | 0.78     | 0.25     | 0.02     |
| Q9: Avoid activities outside home          | 0.69     | 0.36     | 0.10     |
| Q10: Avoid family                          | 0.64     | 0.23     | 0.36     |
| Q11: Avoid friends                         | 0.80     | 0.04     | 0.30     |
| Q12: Avoid couples                         | 0.70     | -0.07    | 0.26     |
| Q13: Avoid funerals                        | 0.27     | 0.15     | 0.71     |
| Q14: Avoid ill people                      | 0.19     | 0.08     | 0.79     |
| Q15: Avoid others losses                   | 0.10     | 0.30     | 0.68     |

Note: Loadings reflect the rotated factor pattern based on the varimax rotation; findings were maintained in an exploratory examination using the promax rotation.

#### Table 3

Association between GRAQ Total and Demographic / Loss-Related Characteristics

| Covariate                |                           | β Estimate (Std. Error) | t-Value | p-value  |   |
|--------------------------|---------------------------|-------------------------|---------|----------|---|
| Gender                   | Female vs. Male           | -0.7 (1.59)             | -0.43   | 0.67     |   |
| Race                     | White vs. Non-White       | 2.3 (1.72)              | 1.33    | 0.18     |   |
| Ethnicity                | Non-Hispanic vs. Hispanic | -3.2 (2.06)             | -1.54   | 0.12     |   |
| Age at screening (years) |                           | -0.2 (0.04)             | -4.59   | < 0.0001 | * |
| Time since loss (years)  |                           | -0.03 (0.09)            | -0.28   | 0.78     |   |
| Relationship to deceased | ( <i>ref</i> = Partner)   |                         | 2.15    | 0.0034   | * |
|                          | Parent                    | -3.7 (1.80)             | -2.03   | 0.043    |   |
|                          | Other relative/friend     | 1.0 (2.00)              | 0.51    | 0.61     |   |
|                          | Child                     | 3.3 (1.62)              | 2.02    | 0.044    |   |
| Cause of death           | ( <i>ref</i> =Suicide)    |                         | 1.75    | 0.010    | * |
|                          | Accident                  | -5.3 (2.38)             | -2.21   | 0.028    |   |
|                          | Illness <1 month          | 1.7 (2.21)              | 0.78    | 0.43     |   |
|                          | Illness 1 month           | -2.9 (1.94)             | -1.51   | 0.13     |   |
|                          | Murder                    | -1.1 (3.72)             | -0.28   | 0.78     |   |
|                          | Other                     | 5.6 (4.85)              | 1.16    | 0.25     |   |