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Development and Psychometric Evaluation of the Unfinished Business in Bereavement Scale

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DEVELOPMENT AND PSYCHOMETRIC EVALUATION OF THE
UNFINISHED BUSINESS IN BEREAVEMENT SCALE

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ABSTRACT

Development and Psychometric Evaluation of the Unfinished Business in Bereavement Scale

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Bereavement is one of life's greatest challenges, but most grievors recover within approximately six months after the loss. *Prolonged Grief Disorder* or *Complicated Grief* describes the 10-20% who continue to struggle with chronic and severe symptoms such as yearning and/or longing for the deceased. Those with prolonged grief are at elevated risk for a number of detrimental physical and mental health outcomes. *Unfinished business*, which refers to a subjective perception that something was left undone, unsaid, or unresolved with the deceased, is one marker indicating greater risk for such symptomology. Although a common target for intervention, no empirically validated tool exists to evaluate this construct. The purpose of the present study was to develop and test a measure of unfinished business based on emerging themes from previous investigations and for use in clinical assessment, intervention, and research.

Drawing upon a student sample of bereaved adults, principal component analysis was used to examine the factor structure of the proposed measure. Two- and four-factor solutions were examined. The rotated and unrotated solutions exhibited minimal differences in loadings. All items positively loaded on the first factor in both solutions. The first factor, *General Unfinished Business (UFB) Distress*, exhibited significant associations with greater pathological

grief symptoms, less meaning made of the loss, and greater self-reported anxious attachment, indicating good concurrent validity. Using hierarchical multiple linear regression, this factor demonstrated good incremental validity, accounting for 36% of the variance in both the two- and four-factor solutions. However, *General UFB Distress* did not demonstrate convergent or divergent validity with personality dimensions. The other factors in the two- and four-factor solutions showed less utility in predicting pathological grief. Future investigations should aim for a measure with fewer, better-crafted items producing a clear factor structure.

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CHAPTER 1

INTRODUCTION

Bereavement is considered one of the most stressful life experiences (Holmes & Rahe, 1967). Most grievers recover from this challenge but about 10-20% (Ott, 2003) experience a constellation of chronic symptoms, termed *Prolonged Grief Disorder*, or *Complicated Grief*. Prolonged Grief Disorder includes symptoms such as yearning and longing for the deceased loved one, avoidance of reminders of the loss, and an inability to move forward in life (Prigerson et al., 2009; Prigerson, Vanderwerker, & Maciejewski, 2008). Prolonged grief has been shown to be unique from other related psychiatric disorders, such as depression, anxiety, and posttraumatic stress (Boelen & van den Bout, 2005; Boelen, van den Bout, & de Keijser, 2003; Bonanno et al., 2007; Chen et al., 1999; Ogrodniczuk et al., 2003; Prigerson et al 1996; Prigerson et al., 1995). Prolonged Grief Disorder is conceptualized as an attachment-based disorder based on the primary characteristic of severe and chronic separation distress (Prigerson et al., 2008). Elevated prolonged grief symptoms have also been shown to be uniquely associated with various negative physical and psychological outcomes even after controlling for other psychiatric symptoms (Boelen, van de Bout & Keiser, 2003; Bonanno et al., 2007; Maercker et al., 2013; Ogrodniczuk et al., 2003; Prigerson et al., 1995; Prigerson et al., 1996; Prigerson et al., 1997).

Given the distinctiveness of Prolonged Grief Disorder, a need exists to identify risk factors that may differentiate prolonged grievers from those who exhibit a more typical trajectory through the bereavement process. *Unfinished business*, a term that refers to unexpressed or unresolved issues between the griever and the deceased, is one widely discussed risk factor both in theoretical and clinical literature (Holland, Thompson, Rozalski, & Lichtenhal, 2014). Empirical examination of subjective unfinished business and related distress has found

associations with poorer self-reported physical and mental health (Klingspon, Holland, Neimeyer, & Lichtenthal, 2015).

Separation distress, a defining feature of Prolonged Grief Disorder, is conceptualized by some as originating from difficulties in finding and maintaining an enduring emotional bond with the deceased (Field, Gao, & Paderna, 2005; Klass, Silverman, & Nickman, 1996). The presence of unfinished business is theorized to indicate a problem with this sustained attachment to the deceased. From an attachment perspective, expectations that we form early in life are believed to impact the way that we relate to others throughout the lifespan, including adult attachment figures such as partners and spouses (Bonanno et al., 2002, Stroebe, 2002; Van Doorn et al., 1998). Though early theorists believed this connection, or *continuing bond*, with the deceased was problematic (e.g., Bowlby, 1980; Freud, 1957; Lindemann, 1944; Volkan, 1981), modern theorists posit that the specific nature of the continuing bond largely determines if it will be experienced as distressful, comforting, or benign (Fraley & Shaver, 1999; Klass et al., 1996). Unfinished business may thus indicate a problem in this enduring relationship to the deceased, given that it is associated with both distressing continuing bonds and greater prolonged grief symptomatology (Klingspon et al., 2015).

Unfinished business is often a target for treatment in commonly implemented bereavement interventions. For instance, evidence-based *Complicated Grief Treatment* uses imaginal dialogues and letters to the deceased to give patients a chance to resolve aspects of the relationship that are perceived as unfinished (Shear, Frank, Houck, & Reynolds, 2005). Through "empty chair" exercises, in which a bereaved person is encouraged to engage in emotionally evocative conversations with the deceased (who is imagined to be sitting in an empty chair),

other troubled grieverers have found some sense of resolution (Greenberg, Rice, & Elliott, 1993; Paivio & Greenberg, 1995).

Assessment tools are few despite the clinical salience of unfinished business. For instance, one study used a 13-item questionnaire based on empirical spousal bereavement literature to rate the degree of perceived adjustment to unfinished business (e.g., self-blame, blame toward the deceased, helplessness, non-acceptance of the loss) after using the 'empty chair' technique with spousally bereaved participants (Field & Horowitz, 1998). Though exhibiting face validity, this evocative clinical exercise was found to be highly distressing to participants (e.g., over 75% wept) and required thorough debriefing and follow up. Further, hierarchical regression revealed that the amount of variance accounted for by the measure for the prediction of grief symptoms was small, indicating the measure would be impractical in many settings. Another study employed a one-item measure with good face validity to assess unfinished business, and this self-report instrument was found to be associated with more severe prolonged grief symptoms, even after controlling for demographic factors and circumstances of the loss (Klingspon et al., 2015). Although this one-item scale exhibited usefulness in predicting poor outcomes, unfinished business is believed to represent a multi-dimensional construct and thus cannot be fully assessed with a single item.

At present, the only existing multi-item scale of unfinished business is the *Unfinished Business Resolution Scale* (UFB-RS; Singh, 1994). However, this scale was developed primarily for interpersonal relationships with the living rather than for bereavement-related use. Further, items are specifically geared toward those who have already reported problems in the relationship (e.g., *I have come to terms with not getting what I need or want from this person*).

Thus, the instrument would be difficult to administer to a broad range of bereaved individuals, and was not used to guide this investigation.

The present study sought to overcome the limitations of previous assessment tools by developing and testing a measure of unfinished business in bereavement that could be administered quickly and easily. In particular, this study had four aims: first, a pool of relevant candidate items was developed based on thematic types of unfinished business that emerged from earlier work and consultation with experts in the bereavement field (Klingspon et al., 2015; Lichtenthal et al., 2013; R. Neimeyer, personal communication, October 3, 2014). Second, exploratory factor analysis was used to examine the pilot items and their factor structure. The internal consistency of the measure was tested using Cronbach's alpha. Third, concurrent validity was examined by testing the association between scores on this unfinished business measure and related constructs (e.g., prolonged grief symptoms, meaning made of the loss, problematic attachment, relationship quality with the deceased). Convergent and divergent validity was tested using personality constructs. The fourth aim of the study was to test incremental validity using a multiple hierarchical linear regression.

The validated measure was hypothesized to be multi-factorial and broadly represent the themes that have emerged in previous examinations of unfinished business and on which the pilot items were based. Those with higher distress scores on this unfinished business measure were expected to report more severe prolonged grief symptoms, less meaning made of the loss, higher attachment anxiety, and lower relationship quality with the deceased. The pilot measure was expected to exhibit predictive utility for identifying problematic grievers beyond that of currently available tools and predictive variables.

Relevant constructs to the proposed study included prolonged grief, attachment theory and

bereavement, relationship quality, personality characteristics, continuing bonds, and unfinished business. A literature review and full description of present aims and hypotheses follows.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Bereavement is considered one of life's most stressful events (Holmes & Rahe, 1967). Most individuals will navigate this stressor successfully, returning to pre-loss conditions in a relatively short period of time, often within six months or less. However, some griever (10-20%) will struggle to adapt (Ott, 2003). When compared to more normative trajectories, these griever display symptoms that become persistent and chronic, increasing the risk for high blood pressure, heart problems, cancer, increased alcohol and tobacco use, and suicidal ideation (Chen et al., 1999; de Groot & Kollen, 2013; Prigerson et al., 1997). Disabling symptoms such as pining or yearning after their lost loved one, finding little or no meaning in life, and avoidance of reminders of their loss, result in functional disturbances in everyday life six months or more after the death (Ott, 2003; Prigerson et al., 2009; Prigerson, Vanderwerker, & Maciejewski, 2008). This cluster of chronic and severe symptoms is described as *complicated grief* or *prolonged grief* (Prigerson, Vanderwerker, & Maciejewski, 2008). Slated for consideration in the 11th edition of the International Classification of Diseases (ICD-11; Maercker et al., 2013), the proposed diagnostic criteria for Prolonged Grief Disorder (Prigerson et al., 2009) are in Appendix I.

Prolonged grief symptoms overlap to some extent with other disorders such as depression, anxiety, and posttraumatic stress. However, factor-analytic studies have found prolonged grief symptoms to be distinct from these other types of psychiatric symptomatology (Boelen & van den Bout, 2005; Boelen, van den Bout, & de Keijser, 2003; Bonanno et al., 2007; Chen et al., 1999; Ogrodniczuk et al., 2003; Prigerson et al 1996; Prigerson et al., 1995). In fact, the majority of individuals who meet criteria for Prolonged Grief Disorder do not qualify for other related psychiatric diagnoses. For instance, in one study, only a small number of older

bereaved adults were diagnosed with both Prolonged Grief Disorder and other related disorders (e.g., Prolonged Grief Disorder and depression 9.7%; Prolonged Grief Disorder and anxiety 17.2%; Newson et al., 2011). Of note, Prolonged Grief Disorder is distinguished from other disorders by its emphasis on separation distress (characterized by yearning, longing or pining for the deceased). Subsequently, many in the bereavement field conceptualize this clinical concern as an attachment-based disorder (Silverman, Johnson, & Prigerson, 2001; Van Doorn, Kasl, Beery, Jacobs & Prigerson, 1998).

Longitudinal studies that have controlled not only for depression and anxiety symptoms, but also relevant demographic variables (e.g., age, gender, medical history; Prigerson et al., 1997), have associated the presence of prolonged grief symptoms with a myriad of detrimental outcomes. Prolonged grievers suffer both physically and psychologically. Findings include an increased incidence in cancer, heart disease, and high blood pressure; a higher frequency of suicidal thoughts; and changes in eating and smoking habits (Latham & Prigerson, 2004; Prigerson et al., 1996). Of significant clinical concern, findings show prolonged grievers significantly more likely to endorse suicidal thoughts even after controlling for symptoms of both depression and posttraumatic stress (Latham & Prigerson, 2004).

The ability to distinguish between prolonged and normal grief appears to impact the efficacy of treatment. For example, a meta-analysis that investigated bereavement interventions found greater effect sizes only when patients with more severe symptomology were targeted (Currier, Neimeyer, & Berman, 2008). Identifying grievers at greater risk for prolonged grief would thus allow clinicians to determine the most appropriate and efficacious treatment strategy.

Attachment and Bereavement

The emergence of prolonged grief symptoms may be explained as a difficulty in finding a functional, sustained attachment to the deceased. Attachment theory posits that expectations for forming and maintaining relationships develop through early interactions with primary caregivers (Bowlby, 1973, 1980). A key component in establishing a child's *internal working model* of relationships is the quality of infant attachment security (Mash & Wolfe, 2007). Interaction with an early primary caregiver is believed to provide the template that guides how the child relates to him/herself and others (Mash & Wolfe, 2007). The internal working model is used as a guide for later emotional regulation mechanisms in times of stress, as a basis for negotiating conflict, in coping with frustration, and to repair disharmony in relationships (Bowlby, 1969/1982, Thompson, 2000). The internal working model unconsciously addresses both the reliability of others and the worthiness of the self, and provides a set of expectations for these interpersonal interactions (Fiske & Taylor, 1991; Hazan & Shaver, 1994; Piaget, 1952). Even when confronted with disconfirming evidence, the inclination to assimilate new information into existing models, rather than accommodate or change, increases the likelihood that these expectations will guide interpersonal behavior (Fiske & Taylor, 1991; Hazan & Shaver, 1994; Piaget, 1952).

Attachment theory suggests that attachment security influences not only relationships throughout the lifespan, but also may influence the manner in which death of a loved one is managed (Stroebe, 2002). The preoccupation and longing that often serves to enhance affiliation in life may be problematic in death. Emotional problems and secondary losses may result (e.g., loss of companionship, parental support, and/or financial resources; Archer, 1988; Parkes, 1972). In fact, the loss of a spouse or life partner is considered one of life's most taxing events (Holmes

& Rahe, 1967). Longitudinal studies have indicated great impact on the emotional well being of widows and widowers (Luhmann, Hofmann, Eid, & Lucas, 2012).

Bereavement theorists have speculated that the death of an attachment figure (e.g., partner, spouse) reactivates the internal working model. To incorporate the reality of the loss, the model must be adjusted accordingly (Shear & Shair, 2005). The griever is challenged by fundamental questions regarding the reliability of others and the worthiness of the self (Shear & Shair, 2005). As such, securely attached individuals are believed to have developed the most adaptive and pliable mechanisms to address this challenge (Stroebe, 2002). Attachment style may thus have significant impact on the ability to navigate this psychological challenge.

Modern empirically based attachment research suggests that a two-dimensional continuum best describes preferences for forming, maintaining, and reorganizing relationships. With secure attachment at the mid-point, one dimension, attachment avoidance, is defined as a pattern of self-reliance that may use denial and/or suppression of emotion to create affective distance in relationships (Fraley & Bonnano, 2004; Mikulincer & Shaver, 2008). The other dimension, attachment anxiety, is characterized by a preoccupation with the attachment figure via emotional and behavioral hypervigilance (Fraley & Bonnano, 2004; Mikulincer & Shaver, 2008).

Evidence supports an association between the dimension of attachment anxiety and bereavement outcomes. Anxiously attached grievers often show greater prolonged grief symptomology (Lobb et al., 2010) as well as other psychiatric symptoms both in longitudinal (Field & Sundin, 2001; Griffin & Bartholomew, 1994; Wijngaards-de Meij et al., 2007b) and cross-sectional research (Boelen & Klugkist, 2011; Meier, Carr, Currier, & Neimeyer, 2013; Wayment & Vierthaler, 2002). Regret in close relationships is more likely to be reported by

anxiously attached individuals (Schoemann, Gillath, & Sesko, 2012). Further, attachment behavior characterized by excessive dependency, compulsivity, and defensive separation is a risk factor for increased prolonged grief symptoms (Van Doorn et al., 1998). Theorists speculate that when early childhood is characterized by intermittent reinforcement, the resulting internal working model is less able to acknowledge the permanence of physical loss (Field & Sundin, 2001). Anxiously attached individuals are more likely to have experienced unpredictable reinforcement, and in times of crisis or extreme stress, the internal working model is less able to make the necessary adjustments (Field & Sundin, 2001). Greater dependency prior to death on the deceased may be a contributing factor to this outcome (Mikulincer & Shaver, 2008). Affect regulation may also be diminished in anxiously attached individuals. Lowered emotional regulation may result in rumination and maladaptive coping strategies, such as clinging to physical possessions (Field, Gao, & Paderna, 2005). These behaviors discourage the revision of internal working models necessary to accommodate making sense of the physical loss (Field, Gao, & Paderna, 2005). Anxious attachment is associated with diminished benefit from group therapy for prolonged grief compared to grievers with a secure attachment style (Joyce, Ogrodniczuk, Piper, & Sheptycki, 2010).

The association between attachment avoidance and bereavement outcomes is less clear. Attachment avoidance has been associated with somatization, depressive symptoms, and prolonged grief symptomology in some cross-sectional studies (Boelen & Klugkist, 2011; Wayment & Vierthaler, 2002; Wijngaards-de- Meij et al, 2007b). In a recent study, highly avoidant attachment styles showed the greatest association with problematic continuing bonds after the violent loss of a loved one (Currier, Irish, Neimeyer, & Foster, 2015). However, others have failed to find a significant association between attachment avoidance and bereavement-

related outcomes (Meier et al., 2013). Longitudinal evidence suggests that attachment avoidant grievers displaying a dismissive attitude may fare better than those with a fearful attitude (Fraley & Bonanno, 2004). Some evidence has indicated that the self-reliance typical to avoidant attachment may be protective in bereavement, and compulsive self-sufficiency has been associated with avoidant attachment (Brennan, Clark, & Shaver, 1998). The diminished emotional investment in the relationship prior to death possibly may allow greater ease in adjustment after loss (Field & Sundin, 2001). Longitudinal research has yielded no significant association between attachment avoidance and the hallmark symptoms of prolonged grief (e.g., yearning and/or preoccupation with the loss, crying; Field & Sundin, 2001). These mixed results suggest that the emotional distance and lack of interpersonal dependence often characterizing the dimension of attachment avoidance could, in some cases, play an adaptive role (Fraley & Bonanno, 2004). Overall, avoidant attachment may have a more complicated relationship to bereavement outcomes than anxious attachment.

The *Dual Process Model* of bereavement offers another conceptualization of how attachment style affects bereavement outcome (DPM: Stroebe & Schut, 1999). This contemporary model of adaptive coping posits an oscillation between two principle bereavement stressors: loss-oriented and restoration-oriented stressors. Loss-oriented stressors focus on issues of the loss itself, while restoration-oriented stressors focus on secondary stressors resulting from the loss (e.g., coping with bills, parenting alone or other concurrent changes; Stroebe & Schut, 1999). Grievers that successfully alternate between these two, while taking respite from these emotion-laden tasks, exhibit the most positive outcomes (Stroebe, 2002). However, the ability to attend to both tasks, as well as to allow for respite, is impacted by attachment style. When the oscillation is less balanced or controlled, grievers may find a focus on loss-oriented tasks (e.g.,

chronic grief symptoms, inability to make meaning, create a narrative and/or come to terms with the physical loss), or alternately, a focus on restoration-oriented tasks (e.g., avoidance of the loss, moving away from loss emotions, focus on secondary tasks such as a new relationship; Stroebe, 2002). Anxious or avoidant attachment style may thus bias a griever to attend to one task and not the other.

Shear and Mulhare (2008) posited an alternate model to explain the relationship between attachment style and grief. Rumination and avoidance are the maladaptive vehicles to disrupt the assimilation of the loss (Shear & Mulhare, 2008). Both strategies disrupt the reappraisal and modification necessary to adapt the mental representation of the attachment figure post-loss. The mental energy necessary to sustain ruminative behaviors increases suffering and prevents modification of memories that are key to assimilation. Insecure attachment styles are posited to be more likely to use rumination or avoidance as defense mechanisms to prevent integration of the information regarding the death, and the finality of the loss.

Continuing Bonds and Meaning Making in Bereavement

According to systems theory, the physical exit of an individual from the family system requires a renegotiation of emotional, psychological, and sometimes even spiritual connections (Carter & McGoldrick, 1989). Whether with family members or fictive kin, the construct of *continuing bonds* is used in bereavement literature to describe the nature and quality of the sustained attachment with the deceased post-loss (Schuchter & Zisook, 1993). Early theorists viewed any such lasting emotional bond with the deceased as an indication of a problem or non-acceptance of the loss (e.g., Bowlby, 1980; Freud, 1917/1957; Lindemann, 1944; Volkan, 1981).

Current bereavement theory, however, has shifted. The continuing bond is now believed to be a key factor in determining bereavement outcomes. Despite the lack of physical presence, the

griever holds an internalized representation of the deceased that may be experienced as either comforting or distressing. Although continuing bonds are believed to exhibit fluidity and may change over time, adjustment to the loss at a given time point may be correlated with the emotional valence of this post-loss connection (Klass, Silverman, & Nickman, 1996; Fraley & Shaver, 1999).

The specific nature of the continuing bond impacts its association with prolonged grief and other bereavement outcomes. Overall, more abstract bonds (e.g., warm memories) tend to contribute to adaptation to a loss, while concrete bonds (e.g., using physical possessions to feel connected, feeling the presence of the deceased individual) tend to be associated with more difficulties in adjustment (Field, 2006b; Field, Nichols, Holen & Horowitz, 1999). Several studies have noted that the continuing bond may represent an ongoing, comforting connection that unites the griever in an adaptive or benign way to the deceased (Fraley & Shaver, 1999; Klass, Silverman, & Nickman, 1996). When the bond exhibits these reassuring qualities, there is an association with increased perceptions of personal growth, and decreased prolonged grief risk factors (Field & Filanowsky, 2010). Continuing bonds that promote acceptance of the physical loss while allowing for spiritual, emotional or psychological connection appear to be the most adaptive (Field et al., 1999; Field, Gao, & Paderna, 2005; Field, 2006a). Such an approach utilizes the continuing bonds as a secure base to promote self-assuredness and adjust to the new reality (Field & Filanowsky, 2010).

Conversely, more concrete continuing bonds, evidenced by behaviors such as clinging to the possessions of the deceased six months after the loss, are associated with poorer long-term outcomes (Field, 2006a; Field et al., 1999). However, other results reveal contradictory findings (Boelen, Stroebe, Schut, & Zijerveld, 2006). Researchers have noted that continuing bonds are

less salient to outcomes when the griever has been able to "make sense" of the loss by incorporating the experience into his/her personal narrative in a meaningful way (Neimeyer, Baldwin, & Gillies, 2006). Conversely, mourners who are unable to make sense of the loss in some way show greater prolonged grief symptoms associated with reports of problematic continuing bonds (Neimeyer, Baldwin, & Gillies, 2006). Additionally, those with stronger continuing bonds have been shown to be more likely to report unfinished business in the relationship with the deceased (Klingspon et al., 2015). These associations suggest that problematic continuing bonds may, to some extent, indicate an ongoing issue in the relationship between the griever and the deceased that has not yet been resolved.

Complications in bereavement appear to be reduced by the ability to tell a coherent story about the loss experience, so making sense of the loss, and the manner in which an individual dwells on the loss, may be tied to attachment style (Stroebe, 2002). In keeping with the literature on internal working models, bereavement theorists speculate that in the loss of attachment figure (e.g., partner, spouse), the internal working model is once again activated (Shear & Shair, 2005). The internal representation of the relationship must be reworked to incorporate the reality of the loss (Shear & Shair, 2005). This process challenges the individual at his/her foundation as the reliability of others and the worthiness of the self is once again addressed. Securely attached individuals are thought to have more adaptive and pliable coping mechanisms at their disposal to do this important psychic work (Stroebe, 2002).

Personality and Bereavement Outcomes

Literature regarding the relationship between personality constructs and bereavement outcomes is less established, with most research focused on the relationship between personality and mortality risk. Variables such as quality of the relationship, and attachment style may impact

the influence of personality domains, and thus complicate empirical investigation. One field that has examined personality traits to determine their relationship to mortality risk after loss is health psychology. Commonly, personality dimensions are measured prior to loss. The methodology is of note as bereavement research rarely is able to obtain pre-loss measurements and commonly relies on post-loss assessment of the surviving individual.

Some domains may impact bereavement outcomes more than others. Neuroticism, for instance, has shown an association with general and post-traumatic stress after experiencing trauma (Sveen, Arnberg, Arinell, & Johannesson, 2016). However, neuroticism shows an association between increased mortality risk after loss of a spouse or child in some studies (Bratt, Stenström, & Rennemark, 2016) but not in others (Taga, Friedman, & Martin, 2009). Mixed findings may be due to neuroticism contributing to either negative or positive trajectories post-loss depending on trait manifestation. The association between the unpleasant emotional valences seen in neuroticism and pathological grief is expectable, given the components believed to comprise this domain. Neuroticism is conceptualized as a six-facet construct (anxiety, angry hostility, depression, self-consciousness, impulsivity, vulnerability; McCrae & Costa, 1999) that displays some overlap with pathological grief symptoms (bitterness or anger related to the loss, feeling life is meaningless or empty, diminished sense of self, difficult moving on and accepting the loss; Prigerson et al., 2009 Appendix I). Neuroticism has some evidence of being a more robust predictor of pathological grief symptoms than attachment style (Wijngaards-de Meij et al., 2007a), and has been associated with greater bereavement distress not only with human loss, but also among pet owners (Lee & Surething, 2013). Additionally, neuroticism was associated with older bereaved adults and greater post-loss mortality risk, with risk diminishment as time passed (Bratt, Stenström, & Rennemark, 2016).

Personality traits may influence the manner in which the griever composes his or her loss narrative. The way in which the loss is communicated may indirectly influence the degree of support that the individual receives post-loss, with more neurotic individuals at a disadvantage than more extraverted individuals. Highly neurotic individuals are more prone to tell self-focused, sad narratives with storylines that move from good-to-bad or bad-to-bad (Baddeley & Singer, 2008). Such narratives elicit less acceptance and greater social discomfort than redemptive narratives that move from bad to good, which are more likely to be told by highly extraverted individuals (Baddeley & Singer, 2008). Highly extraverted individuals, and those high in openness to experience, tend to experience greater post-traumatic growth than other personality traits (Tedeschi & Calhoun, 1995). The use of loss narratives to render social support may provide a catalyst for post-traumatic growth.

Extraversion is conceptualized as a protective trait after trauma, but also has shown mixed results. Extraversion may lead to health impairments when individuals engage in unhealthy social behavior, of which grievers may be more likely to do (e.g., excessive drinking, risk taking; Kunitsche, Knibbe, Gmel, & Engels, 2006). However, other studies indicate no increase in mortality risk when the griever displays extraversion as an early personality trait (Taga, Friedman & Martin, 2009). Extraversion may also increase resilience, as other studies have noted reduced risk of PTSD after trauma when extraversion is present (Jakšić, Brajković, Ivezic, Topić, & Jakovljević, 2012).

Some evidence suggests gender differences with personality traits and outcomes. For instance, a longitudinal study that measured personality traits in early adulthood found a correlation between neuroticism and decreased mortality risk in men who were widowed as older adults, while women did not exhibit the same pattern of results (Taga, Friedman, & Martin,

2009). Widowed men also displayed an association between extraversion and increased post-loss health risk (Taga, Friedman, & Martin, 2009). For men, neuroticism may lead to greater compliance with health-related behavior patterns post-loss, whereas extraversion may predispose men to externalized behavioral coping mechanisms (Taga, Friedman, & Martin, 2009). However, this study drew their participant sample from data collected from the Terman Life Cycle study, which was comprised solely of gifted students (Gifted Children Study: Terman et al, 1925).

In regards to other personality dimensions limited research on this subject has noted an association between conscientiousness and agreeableness, and decreased mortality risk after spousal loss (Taga, Friedman, & Martin, 2009). Conscientiousness also has exhibited some evidence of an association with resilience, which is less consistent than the association between agreeableness and openness to experience (Jakšić et al., 2012).

Relationship to the Deceased and Relationship Quality

Not surprisingly, loss of a first-degree relative, compared to loss of an extended family member or friend, is associated with greater prolonged grief symptomology (Prigerson et al., 2002). More broadly, relationships perceived as more intimate are also associated with greater bereavement difficulties (Servaty-Seib & Pistole, 2006; Robak & Weitzman, 1998).

Evidence also suggests that making sense of the loss is a more difficult task when the loss is a first-degree relative (Holland, Currier, & Neimeyer, 2006). Ability to make meaning from the loss only partially mediates between the relationship to the deceased and prolonged grief symptoms, indicating that relationship, and assumed subjective closeness via this role, may be a better indicator of potential bereavement problems than other demographic factors (Rozalski, Holland, & Neimeyer, in press).

Findings on the impact of pre-loss relationship quality on the outcome for the survivor are sparse. Depth of the pre-loss relationship, which includes commitment to and importance of the relationship, has shown an association with increased grief responses in older adults (Mancini, Robinaugh, Shear, & Bonanno, 2009; van Doorn, Kasl, & Beery, 1998). Other researchers found that positive pre-loss relationship quality impacted depression both before and after loss, with no statistical difference after the death (Abakoumkin, Stroebe, & Stroebe, 2010). The positive view of the relationship appears to impact well being both before and after the loss in a consistent manner, as controlling for baseline depression yielded no association with relationship quality and depression post loss (Abakoumkin, Stroebe, & Stroebe, 2010). Young adult grievers have exhibited a relationship between the Quality of Relationship Inventory - Bereaved (QRI-B; Pierce, Sarason, & Sarason, 1991) subscale of depth and pathological grief symptoms (Herberman Mash, Fullerton, Shear, & Ursano, 2014). However, conflict, as measured by the QRI-B, was not related to pathological grief symptoms. This result was independent of the association between depression and complicated grief symptoms.

Despite limited empirical information on the impact of relationship quality on bereavement trajectories, the increased risk of mortality post-loss appears to persist across cultures and historical periods (Stroebe, 1994). Coined the "broken heart phenomenon," loss of meaningful relationships have serious consequences with bereaved individuals exhibiting higher mortality rates than non-bereaved individuals (Stroebe, 1994). Insecure attachment (Bowlby, 1980), learned helplessness (Seligman, 1975), and psychoanalytic theories (Freud, 1917/1957) posit psychological explanations for the direct consequences of the loss. However, secondary consequences of the loss play a significant role as well. Stress and role theories may account for the early peak of suicide rates in bereaved partners at post-loss (Helsing, Comstock, & Szklo,

1982), and for the high ratios of widowed to married deaths from diseases such as cancer and cirrhosis of the liver (Jones & Goldblatt, 1987).

Attachment theory posits that the dissolution of the relationship with a primary adult attachment figure will greatly impact the remaining partner. The Social Readjustment Rating Scale (Holmes & Rahe, 1967) lists death of a spouse as the most stressful life experience, followed by divorce and marital separation. Cognitive stress theory posits that the pre-loss quality of this relationship will impact the griever's appraisal of the loss (Folkman, 2001). Couples exhibiting interdependent qualities that serve to enhance stress and coping resources would fare worse after death than those who do not draw on the relationship for well-being and compounded strength (Stroebe & Stroebe, 1987). Grief is appraised as a threat, with both psychological and physiological consequences (Bonanno, Keltner, Hohen, & Horowitz, 1995). Autonomic dysregulation may manifest an increase in somatic symptoms that, in most cases, wane over time (Bonanno et al., 1995). Additionally, a psychobiological perspective posits that consequent somatization in the surviving partner may be exacerbated by the absence of biologically regulating social cues from the deceased (Hofer, 1984). Though the exact mechanism is unclear, the overall sense remains that the loss of a valued relationship would have the most impact on a griever's post-loss course.

Cause of Death and Bereavement Outcomes

Bereavement research has long held that unexpected and violent loss is more likely to result in a difficult bereavement trajectory for family members (Rando, 1996). Such losses, which are often sudden, create a situation in which the bereaved may experience more difficulty in grasping the reality of the loss and may be exacerbated in circumstances where the deceased is missing or death cannot be established (Kristensen, Weisæth, & Heir, 2012).

A recent literature review suggests that although prevalence of prolonged grief disorder varies, the overwhelming majority of studies note increased risk for mental health disorders (Kristensen, Weisæth, & Heir, 2012). Major depressive disorder (MDD) and post-traumatic stress disorder (PTSD) are often seen after a violent loss alone or in addition to prolonged grief disorder (Kristensen, Weisæth, & Heir, 2012). However, PTSD is more closely associated with direct exposure to the death (Rynearson, 2001), whereas depression has a broader association with bereavement, regardless of mode of loss (Zisook & Shear, 2009). Important to the present investigation, the pining and yearning seen in prolonged grief disorder sets it apart from MDD and PTSD (Prigerson et al., 1996; Prigerson et al., 1995). Cross-sectional research has yielded associations with integration difficulties, negative cognitions, and anxious avoidance of reminders of the loss (Boelen, de Keijser, & Smid, 2015). Thus, cognitive processes are believed to mediate the degree to which a violent loss may influence post-loss well-being (Currier et al., 2006; Mancini, Prati, & Black, 2011). This relationship between cause of death and greater prolonged grief symptoms appears to be mediated by the ability to make sense of the loss, however violent the circumstances may be (Rozalski, Holland, & Neimeyer, in press). Again, bereavement is impacted by a complicated interaction between a number of salient variables.

The act of grieving, in part, serves to communicate to others the depth and breadth represented by the relationship that now is lost (Neimeyer, 2005). Researchers note that when the loss is traumatic, an added burden is placed on the griever that promotes disconnection with others (Aldrich & Kallivayalil, 2016). Exposure, embarrassment, fear and/or shame may bi-directionally impede social support in the case of a non-normative loss (Aldrich & Kallivayalil, 2016; Burke, Neimeyer, & McDevitt-Murphy, 2010; Pearlman, Wortman, Feuer, Farber, & Rando, 2014). Survivors may choose to omit this part of their life narrative when relating to

others due to the intense unpleasant feelings evoked by listeners. In some cases, fear on the part of others can lead to victim blaming, which further isolates the griever as the loss experience is invalidated (Aldrich & Kallivayalil, 2016).

Cause of death appears to be a demographic risk factor that clinicians can reference to help inform treatment. Using the objective mode of death (i.e., accident, homicide, suicide) can help guide questioning to investigate the possibility of greater difficulties in the bereavement trajectory. Additionally, some researchers have argued that a griever's subjective interpretation of the loss and/or its consequences should be included in this definition (Currier et al., 2006).

Unfinished Business in Bereavement

Unfinished business is often discussed as a risk factor for complications in the grieving process. This term refers to the perception that an issue was left unresolved, unfinished and/or unsaid with the deceased (Holland, Thompson et al., 2014). Unfinished business is prominent in the bereavement literature and is rated as an important construct by both dying patients and bereaved individuals; however, empirical investigations on the topic are few (Klass et al., 1996; Montross, Winters, & Irwin, 2011; Neimeyer, 2012, Payne, Jarrett, Wiles & Field, 2002; Steinhauer et al., 2000; Székely, 1978). Limited available evidence shows an association between unresolved issues with the deceased and more difficult bereavement outcomes. For instance, greater reports of unsettled matters such as self-blame, blaming the deceased, and non-acceptance of the loss are predictors of both grief and depressive symptoms at 18 months post-loss (Field & Horowitz, 1998).

In a recent study, three types of unfinished business emerged from the responses of bereaved college students: *Statements of Admiration and Value* (e.g., "I wish I had told _____ how much s/he meant to me"), *Missed Opportunities and Intentions* (e.g., "Thinking about how

_____ won't be involved in my future is difficult for me"), and *Unresolved Confessions and Disclosures* (e.g., "I never got closure on some important issue or conflict in the relationship"; Klingspon et al., 2015). The reported presence of unfinished business (across all types) as well as distress associated with it were found to be associated with more severe prolonged grief symptoms, intense continuing bonds, greater global psychiatric symptoms, and less meaning made of the loss (Klingspon et al., 2015).

Despite the limited number of empirical studies that have focused on unfinished business in bereavement, many mainstream grief interventions are designed to target these types of issues. For example, *Complicated Grief Treatment* (CGT) specifically addresses unfinished business by encouraging clients to engage in imagined dialogues with the deceased in order to address outstanding issues (Shear et al., 2005). CGT is grounded in cognitive-behavioral principles and is one of the few evidence-based grief interventions available (Shear et al., 2005).

Likewise, the Gestalt-based "empty chair" method, in which the client converses with the deceased (imagined to be sitting in an empty chair), has been found to facilitate resolution of unresolved issues (Greenberg, Rice, & Elliott, 1993; Paivio & Greenberg, 1995). Based on the assumption that cognitive restructuring is accessed by emotional activation, the method allows the client to re-experience the emotions that pertained to the unfinished event (Greenberg, Rice, & Elliott, 1993). The experiential component is believed to encourage cognitive insight regarding the self and the other, and to encourage a more effective interpretation of the conflict (Greenberg & Foerster, 1996). Through this unilateral conflict resolution, the griever may be able to make sufficient meaning of the distressing event, which has been implicated in better post-loss adjustment (Neimeyer, Baldwin, & Gillies, 2006). Empty chair work has shown greater efficacy compared to psychoeducation in reducing overall global symptoms and negative

emotions (Greenberg et al., 1993; Greenberg, Warwar, & Malcolm, 2008; Paivio & Greenberg, 1995). With no requirement for the "other" to be physically present, this intervention allows thoughts and feelings regarding unresolved issues to be addressed, which is believed to facilitate deeper emotional processing of the unfinished business (Greenberg & Foerster, 1996).

Although this construct displays potential clinical relevance, there are few measures that investigate unfinished business. One study used a one-item face-valid self-report measure to assess the presence of unfinished business (*Do you feel that anything was unfinished, unsaid, or unresolved in your relationship with your loved one?*; Klingspon et al., 2015). Those endorsing unfinished business showed associations with greater prolonged grief symptomology, less meaning made of the loss, and greater psychiatric symptoms (Klingspon et al., 2015). However, given that unfinished business is believed to be a multidimensional construct, a one-item approach is likely insufficient to fully capture the breadth of experience. Another investigation used a variation of the "empty chair" technique to trigger negative affect prior to rating the degree of perceived adjustment to unresolved issues, such as self-blame, blame toward deceased, helplessness, and non-acceptance of the loss (Field & Horowitz, 1998). Given the highly evocative nature of this assessment, many participants were significantly distressed afterward (e.g., more than 75% wept), which made extensive debriefing and follow-up necessary (Field & Horowitz, 1998). Thus, this assessment may be impractical for many research and clinical settings.

One of the few scales developed, the *Unfinished Business Resolution Scale* (UFB-RS; Singh, 1994), is an 11-item measure of the resolution of unresolved issues with a living significant other. The scale, based on a rational analysis model, assesses the nature of unfinished business on four dimensions: degree of distress with lingering feelings, perception that needs are

not met, perception of the self, and perception of the other party (Singh, 1994). This scale was developed to assess current, dynamic relationships, rather than for use with bereaved individuals, so the items reflect problems that could find natural resolve as the relationship progresses and changes over time (e.g., *I feel frustrated about not having my needs met by this person*). This distinction makes the measure less appropriate for a diverse sample of bereaved individuals. Further, this measure has only been examined in a single unpublished study (Singh, 1994), and no investigation has examined its utility for use as a predictor of prolonged grief symptomology. This scale is in Appendix II.

Purpose of Study

The present study involved the development and evaluation of a pilot measure to assess problematic unfinished business in bereavement. Empirical literature on unfinished business is limited, at best, and generally has indicated associations with more problematic post-loss trajectories (Bonnano, Wortman, & Neese, 2004; Field & Horowitz, 1998; Holland, Thompson, et al., 2014; Klingspon et al., 2015). No measure currently exists to assess this construct despite the fact that unfinished business is frequently targeted in clinical settings (Neimeyer 2012; Shear et al., 2005). The development of a reliable, multidimensional assessment tool with ease of administration may help clinicians better identify bereaved patients at greater risk for post-loss difficulties.

The first aim of the present study was to develop such a pilot measure, the Unfinished Business in Bereavement Scale (UBBS). The construction of candidate items required a broad range of potential experiences regarding unfinished business. Item content was based on three sources. First, items were created to reflect the three themes that emerged from a prior qualitative study of unfinished business: statements of admiration and value, missed opportunities and

intentions, and unresolved confessions and disclosures (Klingspon et al., 2015). Second, additional items were generated from the qualitative responses of bereaved parents to questions regarding unfinished business and making meaning of the loss event (Lichtenthal et al., 2013). Third, items were added based on expert consultation, most of which represented common clinical presentations of unfinished business (R. Neimeyer, personal communication, October 3, 2014).

The second aim of the present study was to explore the factor structure of the UBBS. An exploratory factor analysis was conducted and a 5-factor model was expected given the method of item creation. The third aim of the present study was to determine the validity and utility of the UBBS and its factor structure to identify problematic grievers. Concurrent, convergent, and divergent validity were examined to better understand the relationship between unfinished business and related constructs that included prolonged grief symptoms, meaning made of the loss, problematic attachment style, relationship quality with the deceased, and personality constructs. Individual variables in the present study included age, gender, ethnicity, and education. Variables associated with bereavement difficulties included relationship to the deceased (immediate family member vs. extended family member or friend), cause of death (natural vs. violent loss), attachment style, and emotional stability. The fourth aim of the present study was to determine the incremental validity of the UBBS. Linear regression was used to establish whether the new measure and any emergent factors predicted pathological grievers better than existing measures and variables.

Hypotheses

Hypothesis 1 was that the UBBS would consist of five factors. Three factors were expected to mirror the thematic results of the Klingspon et al. (2015) study (i.e., statements of admiration

and value, missed opportunities and intentions, unresolved confessions and disclosures), one factor was expected to reflect thematic material from the Lichtenthal et al. (2013) study (i.e., failed responsibility to the deceased), and one factor was expected to represent commonly expressed statements of clinical distress in response to grief and loss (i.e., common clinical concerns). Prior investigation yielded ten subthemes of unfinished business that were captured by three higher order categories (Klingspon et al., 2015). Items were thus created based on these three themes as well as a study investigating thematic content of unfinished business among bereaved parents (Lichtenthal et al., 2013) and common clinical concerns based on expert consultation (R. Neimeyer, personal communication, October 3, 2014).

Hypothesis 2 was that UBBS total and factor scores would exhibit concurrent validity by positively correlating with higher pathological grief, less meaning made of the loss, higher attachment anxiety, and lower reported relationship quality with the deceased. Immediate family and violent losses (accident, suicide, homicide) were also expected to positively correlate with UBBS total and factor scores. Hypothesis 3 was that UBBS total and factor scores would exhibit convergent validity in expected ways with certain personality dimensions. UBBS scores and all emergent factor scores were expected to show convergent validity with higher scores on the personality dimensions of neuroticism and lower scores on the dimension of extraversion. Hypothesis 4 was that UBBS total and factor scores would exhibit divergent validity in expected ways, with lower scores on the personality dimensions of conscientiousness, agreeableness, and openness to experiences. Hypothesis 5 was that UBBS total and factor scores would account for a significant amount of variance in pathological grief scores of participants beyond variables commonly used for assessment, such as relationship to the deceased, cause of death, attachment style, time since loss, and neuroticism, and demographic variables such as age, gender, ethnicity,

and education.

CHAPTER 3

METHOD

Participants

Participants were 169 college students aged 18-36 years ($M = 20.03$ years, $SD = 3.00$ years). Participants were largely female (63.9%) and were Caucasian (26.0%), Hispanic/Latino (21.3%), multiracial (20.1%), Asian (17.8%), African American (8.3%), Pacific Islander (1.8%), or other (3.0%). Participants had completed some college (44.4%), college (24.9%), high school or equivalent (15.4%), some high school (7.7%), or a post-graduate degree (7.7%). Participants indicated their relationship to the deceased to be grandparents (46.7%), friends (18.9%), aunts/uncles (17.8%), non-family members (e.g., friend of parent: 8.9%), parents (6.5%), and cousins (1.2%). All immediate family member losses were parent losses. Causes of death for the deceased individual included natural, anticipated death (41.4%), natural, sudden death (26.6%), accident (13.0%), other (e.g., drug overdose and death due to alcohol use: 8.3%), suicide (6.5%), and homicide (4.1%).

Measures

Unfinished Business in Bereavement Scale (UBBS)

The Unfinished Business in Bereavement Scale (UBBS) is a pilot measure developed for this investigation (Appendix III). UBBS items correspond to commonly reported subjective accounts of matters left unsaid or undone after the death of a loved one based on previous empirical studies and consultation (Klingspon et al., 2015; Lichtenthal et al., 2013). The pilot measure consisted of 47 declarative statements that required participants to indicate degree of distress in the past two weeks. Responses are rated on a 5-point scale ranging from 1 = *not at all distressed* to 5 = *extremely distressed*. An additional question (#48) allowed the respondent to

add another declarative statement and distress rating, if needed. Items included statements such as: "I wish I had told _____ how much s/he meant to me", "I wish I would have attended to _____'s needs more closely in his/her final days", and "Moving on with my life would feel like abandoning _____". Higher scores indicate greater distress regarding the subjective account of unfinished business with the deceased. The UBBS displayed excellent overall internal consistency in this sample (Cronbach's $\alpha = 0.99$).

Inventory of Complicated Grief—Revised (ICG-R)

The Inventory of Complicated Grief—Revised (ICG-R; Prigerson & Jacobs, 2001) is a 30-item measure that assesses the severity of grief symptoms outlined in the proposed diagnostic criteria for Prolonged Grief Disorder (Appendix I; Prigerson et al., 2009; Prigerson, Vanderwerker, & Maciejewski, 2008). Symptoms such as intense desire for the deceased and inability to carry on with daily life are assessed with declarative statements such as "I think about _____ so much that it can be hard for me to do the things I normally do" and "I feel myself longing and yearning for _____". Responses are rated on a 5-point scale regarding frequency of symptoms (i.e., 1 = *never* to 5 = *always*) or intensity of symptoms (i.e., 1 = *no sense of bitterness* to 5 = *an overwhelming sense of bitterness*). Higher scores indicate more severe prolonged grief symptomology, which may include cognitive, emotional, and behavioral symptoms, separation distress, and overall impairment in function (Prigerson & Jacobs, 2001).

The ICG-R displayed high concurrent validity with the Texas Revised Inventory of Grief ($r = 0.71$, Faschingbauer, 1981; Faschingbauer, Zisook, & DeVaul, 1987; Zisook, DeVaul, & Click, 1982), a well-established measure of grief assessment and problematic symptomology. A Dutch version of this measure involved grief responses in individuals experiencing the loss of a first-degree relative in the past 3 years (Boelen, van den Bout, de Keijser, & Hoijtink, 2003). The

measure displayed good test-retest reliability over 9-28 days ($r = 0.92$). The ICG-R has also displayed high internal consistency in various contexts across bereaved parents (Cronbach's $\alpha = .95$; Keesee, Currier, Neimeyer, & Berman, 2008; Cronbach's $\alpha = .94$; Lichtenthal et al., 2013), African American grievers experiencing a homicide (Cronbach's $\alpha = 0.95$; Burke, Neimeyer, & McDevitt-Murphy, 2010; Laurie & Neimeyer, 2008), college students (Cronbach's $\alpha = 0.96$; Klingspon et al., 2015), Danish grievers (Cronbach's $\alpha = 0.94$; Guldin et al, 2011), and Dutch grievers (Cronbach's $\alpha = 0.94$; Boelen et al., 2003; Holland, Neimeyer, Boelen & Prigerson, 2009). The measure has also shown predictive ability for serious physical and mental health outcomes as a consequence of bereavement (Neimeyer et al., 2008; Ott, 2003; Prigerson et al., 1997; Prigerson et al., 1999; Prigerson & Jacobs, 2001). The ICG-R displayed excellent overall internal consistency in this sample (Cronbach's $\alpha = 0.97$).

Integration of Stressful Life Experiences Scale (ISLES)

The Integration of Stressful Life Experiences Scale (ISLES; Holland, Currier, Coleman, & Neimeyer, 2010) is a 16-item general-purpose measure that assesses the degree to which participants have made meaning from a stressful life event. Meaning making refers to the ability to coherently integrate memories in a logical and purposeful way using internal models that guide the construction of a life story or narrative (Holland et al., 2010; Janoff-Bulman, 1992; Park, Edmondson & Mills, 2010). Meaning making has been found to impact post-loss adjustment in bereavement (Gillies & Neimeyer, 2006). The ISLES reflects the meaning-making framework model that appraisal and reappraisal of stressful life events is an ongoing process that may help or hinder the coping process (Park, Edmondson, & Mills, 2010). Responses are rated on a 5-point scale to declarative statements such as "I have made sense of this event" and "I have difficulty integrating this event into my understanding about the world" (i.e., 1 = *strongly agree*

to 5 = *strongly disagree*). Higher scores indicate more positive adaptation and meaning made of the event.

ISLES scores have been shown to have strong internal consistency with a general stress sample (Cronbach's $\alpha = 0.92$; Holland et al., 2010), bereaved college students (Cronbach's $\alpha = 0.94$; Holland et al., 2010), individuals having near-death experiences (Cronbach's $\alpha = 0.94$; Lee, Feudo, & Gibbons, 2014), returning military service members (Cronbach's $\alpha = 0.96$; Currier, Holland, Chisty, & Allen, 2011), veterans transitioning to college (Cronbach's $\alpha = 0.80-0.92$; Holland, Malott, & Currier, 2014), and military veterans with the experience of morally injurious events (Cronbach's $\alpha = 0.95$; Currier, Holland, & Malott, 2015). The ISLES displayed moderate test-retest reliability in general distress and bereaved samples after a 3-month interval ($r = .57$, Holland et al., 2010). Concurrent validity has been demonstrated with relevant mental health outcomes such as lower psychiatric distress and greater perceived general health (Holland et al., 2010). Bereaved respondents with higher scores reported less prolonged grief symptomology, indicating an association between complicated grief and meaning making (Holland et al., 2010). The ISLES displayed excellent overall internal consistency in this sample (Cronbach's $\alpha = 0.97$).

Experiences in Close Relationship Scale-Bereaved (ECR-B)

The Experiences in Close Relationship Scale - Bereaved (ECR-B) is a 10-item measure that assesses the nature of the attachment relationship between the deceased and the bereaved. The ECR-B uses the dimensions of anxious attachment and avoidant attachment to assess the relationship. Based on the original ECR, the ECR-B was formulated for the present study. The original ECR consists of 36 items and has been found to be highly reliable and valid in research settings (Brennan, Clark, & Shaver, 1998). Two relatively orthogonal and continuous attachment dimensions emerged from the factor analysis on these items (Brennan, Clark, & Shaver, 1998). A

short form of the ECR (ECR-R) was later formulated and uses 12 declarative statements from the original 36 items to examine adult attachment preferences in relationships. The ECR-R exhibited good internal consistency on both subscales (Anxiety: Cronbach's $\alpha = 0.78$; Avoidance: Cronbach's $\alpha = 0.84$), and correlations between the subscales indicated distinct measures of attachment ($r = .19$; Wei, Russell, Mallinckrodt, & Vogel, 2007).

The 12 ECR-R statements refer to a current romantic partner (Table 1). Statements were thus modified to reflect a more general relationship status (i.e., "this person") given that the identified deceased in the present study was not a romantic partner. Items were rewritten in past rather than present tense, and to reflect the broad nature of the possible relationship between the respondent and the deceased (e.g., "I turn to my partner for many things, including comfort and reassurance" became "I found it easy to depend on this person"). Four of the 12 ECR-R items reflected matters of closeness and availability. These items were determined to be less salient for grievers because the person in question was no longer present, and so they were not included in the ECR-B. Two statements were added to capture the general nature of these omitted items. "I talked things over with this person" (reversed) was added to measure Avoidance. "I didn't fully trust this person" was added to measure Anxiousness.

In the resulting measure, 4 of the 10 declarative statements addressed attachment anxiety (e.g., "I often worried that this person didn't really care for me") and 6 statements addressed attachment avoidance (e.g., "I preferred not to show this person how I felt deep down"). Respondents were rated on a 7-point scale ranging from 1 = *disagree strongly* to 7 = *agree strongly*. Higher scores on each subscale indicated respectively higher attachment anxiety or avoidance. The ECR-B displayed excellent overall internal consistency in this sample (Anxiety: Cronbach's $\alpha = 0.90$; Avoidance: Cronbach's $\alpha = 0.82$).

Table 1
Experiences in Close Relationship Scale Revisions

Revised Items Comprising the Experiences in Close Relationships Scale - Bereaved (Adapted from the Short Form ECR; Wei, Russell, Mallinckrodt, & Vogel, 2007).
AVOIDANCE ITEMS:
1. I usually discussed my problems and concerns with this person (reversed).
2. I talked things over with this person (reversed).
3. ____ It helped to turn to this person in times of need (reversed).
4. ____ I found it easy to depend on this person (reversed).
5. ____ I preferred not to show this person how I felt deep down.
6. ____ I didn't feel comfortable opening up to this person.
ANXIOUS ITEMS:
7. ____ I was afraid this person might abandon me.
8. ____ I worried that this person wouldn't care about me as much as I cared about him or her.
9. ____ I often worried that this person didn't really care for me.
10. ____ I didn't fully trust this person.

Quality of Relationships Inventory - Bereaved (QRI-B)

The Quality of Relationships Inventory (QRI-B) is a 24-item scale that assesses the quality of important relationships by evaluating three subjective aspects of the affiliation: how much social support the relationship provided, the depth of the connection, and the degree of conflict that typified the relationship (Duck, 1994; Pierce, Sarason, & Sarason, 1991). The respondent offers a personal interpretation of these dimensions of the relationship as they experienced them while the deceased was alive. Minor present to past tense revisions were made to the original QRI measure to address the needs of this study (i.e., "do" to "did", "can" to "could have you", "would be" to "would have been").

The quality of the relationship was evaluated using three affiliative dimensions. Social support addressed interpersonal context (e.g., "To what extent could you turn to this person for advice about a problem?"; Pierce, Sarason, & Sarason, 1991; Pierce et al., 1997). Depth assessed intrapersonal context (security and importance, e.g., "How significant was this relationship in your life?"; Pierce, Sarason, & Sarason, 1991; Pierce et al., 1997). Conflict assessed situational context and possible ambivalence in the relationship (e.g., "How often did this person make you feel angry?"; Pierce, Sarason, & Sarason, 1991; Pierce et al., 1997). Conflict items were reversed coded and thus the data represented lack of conflict and greater relationship quality. Responses are rated on a 4-point scale from 1 = *not at all* to 4 = *very much*. Higher values indicate greater overall social support, depth, or lack of conflict.

The QRI has exhibited good to adequate internal consistency over a variety of relationships, such as college students and close friends (Cronbach's α between .84 - .91; Pierce et al., 1991), college students and their fathers (Cronbach's α = .86 -.88; Pierce et al., 1991), and college students and their mothers (Cronbach's α = .70-.94; Pierce et al., 1991; Pierce et al.,

1997). The QRI has shown efficacy in assessment of common perceptions regarding a significant relationship. Spousal ratings of support ($r = .36$), depth ($r = .37$), and (lack of) conflict ($r = .49$) were comparable in assessing the marital relationship (Pierce et al., 1997). Depth ($r = .40-.48$) and (lack of) conflict ($r = .29-.37$) between adult children and a parent of either sex showed a significant relationship. However, social support ($r = .29$) was significantly related only in the student/father relationship (Pierce et al., 1997). Subsequent studies that examined the relationship between adult children and mothers noted significant correlations between social support ($r = .38$), and (lack of) conflict ($r = .45$). The QRI may not adequately represent the shared ratings of the relationship under examination because the measure may be prone to individual differences. However, the present study focused on the unilateral view of the relationship between the griever and the individual in question from the bereaved point-of-view. The QRI-B full measure and subscales displayed good internal consistency in this sample (overall scale: Cronbach's $\alpha = 0.87$; Social Support subscale: Cronbach's $\alpha = 0.94$; Depth subscale: Cronbach's $\alpha = .92$; Lack of Conflict subscale: Cronbach's $\alpha = .91$).

Ten Item Personality Inventory (TIPI)

The Ten Item Personality Inventory (TIPI) is a 10-item measure that assesses personality domains of Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experiences (Gosling, Rentfrow, & Swann, 2003). Responses are rated on a 7-point scale to polar opposite items representing each domain (i.e., "extraverted, enthusiastic" and "quiet, reserved" for extraversion) from 1 = *disagree strongly*, to 7 = *agree strongly*. Domain scores are calculated after recoding the reverse-scored item by averaging the two items that comprise the scale. Higher scores indicate the strength of the evaluated trait.

The TIPI has exhibited moderate internal consistency overall (Cronbach's $\alpha = .55$) and for each dimension: Extraversion $\alpha = .68$; Agreeableness $\alpha = .40$; Conscientiousness $\alpha = .50$; Emotional Stability $\alpha = .73$; Openness to Experiences $\alpha = .45$ (Gosling et al., 2003). Items were thus developed with an emphasis on content validity. Six-week test-retest reliability is good (mean $r = .72$; Gosling et al., 2003). The TIPI (Gosling et al., 2003) shows good convergent validity with the Big Five Inventory (mean $r = .77$; John, Donahue & Kentle, 1991) and the NEO Personality Inventory - Revised (dimension scale range: $r = .56 - .68$; Costa & McCrae, 1992). Adequate psychometric properties have been noted in Dutch (Hofmans, Kuppens, & Allik, 2008), Spanish (Romero, Villar, Gómez-Fraguela, & López-Romero, 2012), Italian (Chiorri, Bracco, Piccinno, Modafferi, & Battini, 2015), and German (Muck, Hell, & Gosling 2007) validation studies.

The sample in this investigation exhibited similar results to previous studies with moderate internal consistency for the dimensions of Extraversion (Cronbach's $\alpha = 0.71$), Emotional Stability (Cronbach's $\alpha = 0.60$), and Conscientiousness (Cronbach's $\alpha = 0.53$). However, in this investigation the TIPI exhibited poor internal consistency for the dimensions of Agreeableness (Cronbach's $\alpha = 0.01$) and Openness to Experiences (Cronbach's $\alpha = 0.07$).

Procedure

The UNLV Office for the Protection of Research Subjects, Institutional Review Board (IRB), Social and Behavioral Sciences committee approved Protocol #736464-2 *Stressful Life Experiences Among College Students* on August 11, 2015. Data were collected in the Fall 2015 and Spring 2016 semesters at the University of Nevada, Las Vegas (UNLV), with research credits offered for completing the survey. Qualtrics, an online university-sponsored software program, was used to administer the survey. Participant data used in this investigation were de-

identified prior to analysis using a numeric code to maintain anonymity.

The measures used in this investigation were part of a larger survey battery aimed at (a) bereaved individuals, (b) veterans, and (c) individuals impacted by suicide, either by having had someone close make a suicide attempt and survive, or having someone close share with the participant thought of ending his/her life. Participants were asked a battery of demographic questions that included administration of the Ten Item Personality Inventory (TIPI) to begin the administration. Responses to questions regarding bereavement experience, veteran status, and experiences with suicide dictated the survey stream that followed. In the event that a participant endorsed more than one of these qualifiers, s/he was randomly directed to one of the two (or more) streams.

Eligible participants for this investigation reported having a loved one die in the past 2 years and were aged 18+ years. Respondents that indicated having "experienced the death of someone in your life (e.g., a family member or close friend) in the past 2 years" were directed to survey questions specifically related to their bereavement experience and the dependent measures. Demographic questions regarding the loss (i.e., relationship to the deceased, cause of death, time since loss, gender of deceased, age of deceased, emotional closeness, relationship satisfaction, etc.) were followed by the administration of the ISLES, ICG-R, UBBS, ECR-B, and QRI-B, in this order. Measure administration was not varied. Participants were assigned a numeric code and granted 1.5 credits upon completion of the survey.

Data Analysis

Hypothesis 1

Using SPSS Version 23, UBBS pilot items were initially vetted via exploratory factor analysis to yield one component. All items were positive and salient (coefficients greater or equal to .30 in absolute value). No items were removed to improve internal consistency.

Hypothesis 1 was that the UBBS items would consist of five factors based on the themes that were used to develop the items (Appendix IV). Three methods were used to determine the number of factors present. First, the Scree Plot was examined (Cattell, 1966). Second, a parallel analysis was conducted to provide an estimate of the number of factors to retain in a principal components analysis. The currently recommended and conservative practice compares eigenvalues from the data set to the 95th percentile of random eigenvalues to determine the expected number of factors. Parallel analysis has exhibited a proportion of agreement with other procedures that elicits an estimation that is +/- one component with no bias for under or over-estimation (Zwick & Velicer, 1986).

Third, a Minimum Average Partial Test was conducted (MAP test; Velicer, 1976). The MAP test is an alternative to parallel analysis and uses a matrix of partial correlations to determine the estimated number of factors in a data set (Velicer, 1976). The MAP test partials out the principal component and then the matrices of partial correlations and averaged squared partial correlations are calculated and examined at each step. The number of factors that results in the smallest averaged squared partial correlation provides the optimum solution. The MAP test has also demonstrated agreement within one factor when compared with other procedures and does not exhibit bias for over- or under-estimation of factors (Zwick & Velicer, 1986).

Hypothesis 2

Hypothesis 2 was that UBBS total and factor scores would exhibit concurrent validity with established measures by positively correlating with higher pathological grief, less meaning made of the loss, higher attachment anxiety, and lowered relationship quality with the deceased. UBBS total and factor scores were expected to exhibit higher correlations with immediate family losses compared to extended family losses, and violent causes of death (i.e., accident, suicide, homicide) compared to natural causes. A binomial variable was created for relationship to the deceased. Immediate family losses included parent, spouse/partner, child, and sibling, though all were parents in this investigation. Extended family and friends included grandparent, aunt/uncle, niece/nephew, cousin, friend, and other (e.g., friend of parent). A binomial variable was also created for cause of death. Natural deaths included expectable deaths with anticipated (e.g., old age, illness) and sudden (e.g., heart attack) causes. Violent deaths included accident (e.g., car accident), suicide, homicide, and other (e.g., drug-related death).

Pearson correlations were used to examine concurrent validity with continuous measures related to pathological grief (ICG-R), meaning made of the loss (ISLES), attachment security (ECR-B), and relationship quality (QRI-B). Partial correlations were conducted after controlling for age, gender, race, education level, relationship to the deceased, cause of death, and time since the loss occurred. A bivariate (Pearson) correlational analysis was used to examine relationships between the measure and factor scores regarding relationship to the deceased and cause of death. Pearson correlations were then used to determine associations between pathological grief scores (ICG-R) and all other variables to compare the strength of these associations and the same associations with the UBBS total and factor scores.

Pearson/bivariate correlations were chosen because the degree of the linear relationship

between the variables, rather than the direction of the relationship, was the focus of Hypothesis 2. An assumption of a linear relationship between the continuous or bivariate variables in question had been made based on prior investigation (Klingspon et al., 2015). A Pearson/bivariate correlational analysis was used in lieu of other techniques (i.e., regression) because such techniques require theoretical underpinning regarding the direction of the relationship, and distinguish between independent and dependent variables.

Hypothesis 3

Hypothesis 3 was that UBBS total and factor scores would show convergent validity with higher scores on the personality dimension of neuroticism (lack of emotional stability) and lower scores on the personality dimension of extraversion. Pearson correlations were used to examine these relationships because the variables were continuous in nature.

Hypothesis 4

Hypothesis 4 was that UBBS total and factor scores were expected to show divergent validity with the personality dimensions hypothesized to be unrelated to unfinished business distress (conscientiousness, agreeableness, and openness to experiences). Pearson correlations were used to examine and describe the relationship between the UBBS total and factor scores and the three personality dimensions. Pearson correlations were used to examine these relationships because the variables were continuous in nature.

Hypothesis 5

Hypothesis 5 was that UBBS total and factor scores would account for a significant amount of variance in pathological grief scores beyond variables commonly used for assessment (relationship to the deceased, cause of death, attachment style, time since loss, and neuroticism/lack of emotional stability) as well as demographic variables such as age, gender,

ethnicity, and education. Incremental validity and possible predictive utility of the UBBS total and factor scores were analyzed using a two-step hierarchical linear regression to control for demographic (age, gender, ethnicity, education) and grief-related variables (relationship to the deceased, cause of death, anxious attachment style, time since loss, neuroticism/ lack of emotional stability) to determine the variance accounted for by the new measure. Pathological grief scores (ICG-R) were used as the regression criterion variable. The UBBS was expected to predict grief pathology above and beyond those variables that are commonly under investigation in bereavement research.

Missing Data

Four alternatives were considered to address missing data. First, mean substitution was considered but rejected because variance on the variable in question could be reduced and may not reflect an accurate result. Second, mean imputation was considered but was rejected because the reasons for missing data are numerous. A missing response could be due to computer error (thus the individual mean is most accurate), to deliberate non-response by a participant (e.g., "I am too distressed to answer", thus *5 = always* may be most accurate), or because the item did not apply (e.g., the participant had an opportunity to say goodbye and the item "I wish I would have taken my chance to say goodbye does not apply to him/her, thus *1 = never* may be most accurate). In each of these alternatives, reflection of an accurate response requires imputing a different number.

Third, listwise deletion was considered but rejected because not only would listwise deletion have drastically reduced the number of participants, listwise deletion may have created a biased sample. Possible differences between participants that provided a partial response and those that provided a full response to the pilot items may be the underlying reason for missing

data. Subsequently, these three options were deemed unsuitable for addressing missing data in the present study.

The factor analyses and the Pearson correlations employed pairwise deletion to address missing data as the greatest amount of cases are retained. Using pairwise deletion made it more likely that the analyses would result in statistically significant item correlations that would make theoretical sense. Using this strategy minimally impacted the number of participants for each outcome measure, with 169 cases for ICG-R, ISLES, ECR-B, QRI-B depth and conflict subscales, and all TIPI subscales. The QRI-B total scale and social support subscale totaled 168 participants. The factor scores for each of the UBBS factors were calculated using the regression method. Subsequently, 25 unique participants with 34 missing data points were excluded from the computation of the factor scores, and the UBBS factor scores totaled 144 participants.

CHAPTER 4

FINDINGS OF THE STUDY

Hypothesis 1: Number of Factors

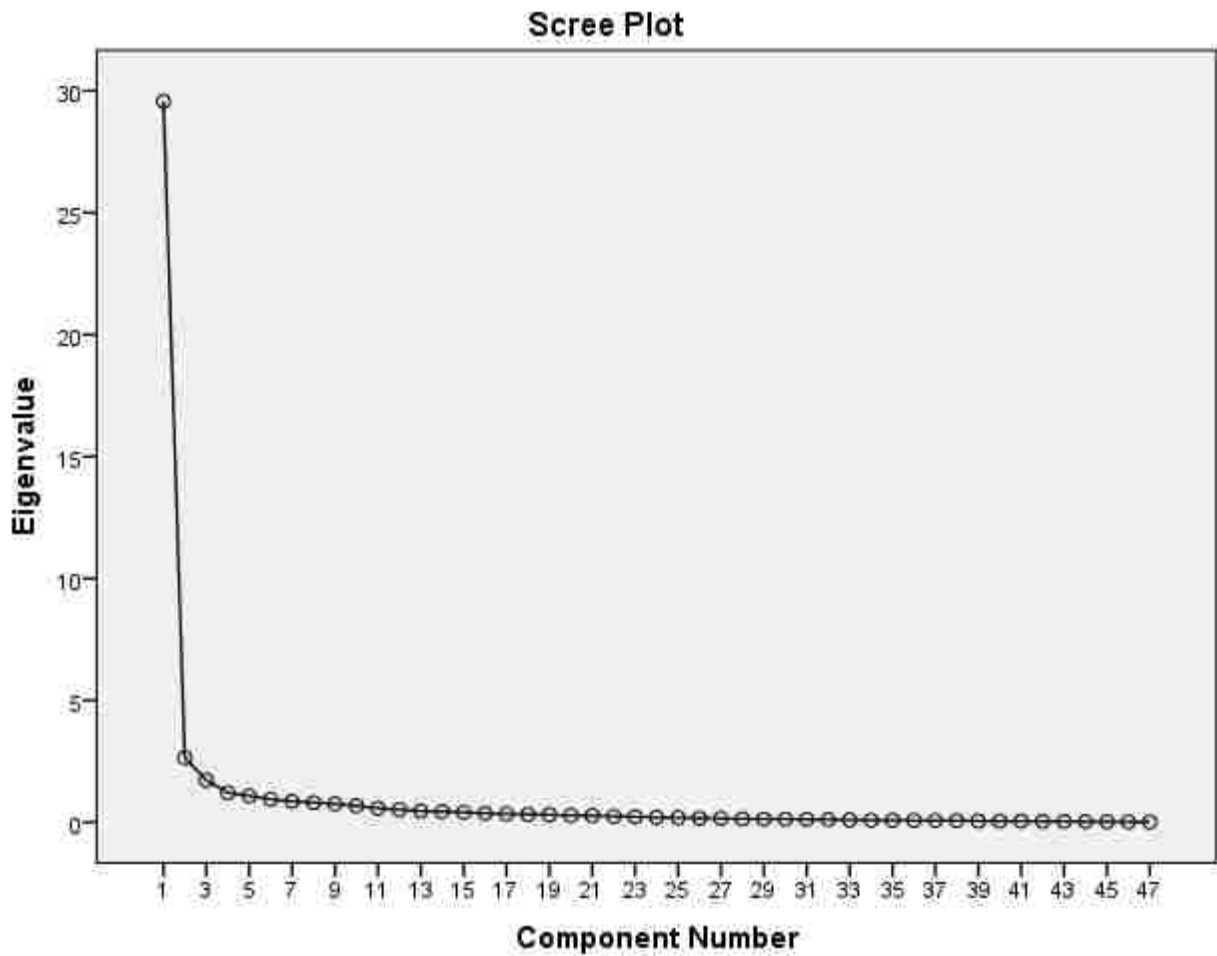
Hypothesis 1 was that the UBBS would consist of five factors based on the method of item creation. Three factors were expected to reflect themes from previous work on unfinished business: statements of admiration and value, missed opportunities and intentions, and unresolved confessions and disclosures. One factor was expected to reflect failed responsibility to the deceased. One factor was expected to reflect common clinical concerns.

A principal components analysis was used as the extraction method. The Scree Plot indicated the possible presence of three factors. Two other methods were used in conjunction with the Scree test to determine the number of factors, given the subjectivity inherent to the Scree test. Parallel analysis (Table 2) indicated the presence of two factors. However, the first eigenvalue was extremely large (30.63), suggesting that the structure likely would be dominated by the first factor. The MAP test indicated the presence of four factors. Two- and four-factor solutions were then rotated to find the simplest structure employing three criteria: the fewest number of complex items, a higher hyperplanar count, and smaller correlations among the factors. Complex items are those that make it difficult to distinguish what they are measuring as they have salient coefficients on more than one factor. Higher hyperplanar coefficients help indicate that the item is measuring specific factor content. Both solutions were examined to determine which might be most useful.

Table 2
Parallel Analysis Results

Root	Mean Random Eigenvalues	95th Percentile Random Eigenvalues	Raw Data Eigenvalues
1	2.324413	2.495457	30.634756
2	2.182029	2.331008	2.641512
3	2.052288	2.150783	1.797434
4	1.958521	2.039716	1.229223
5	1.875727	1.965539	1.074741

Figure 1
Scree Plot with Pairwise Deletion



Two-Factor Solution

A Direct Oblimin oblique rotation with a Delta value of -1 yielded the best solution for the two-factor model. Rotation made little difference to the factor structure. The rotation yielded 11 complex items, and 14 hyperplanar items with a correlation of 0.11. All 47 pilot items had positive salient coefficients and loaded on the first factor (Appendix V). All pilot items were believed to reflect subjective generalized distress regarding the reported presence of unfinished business. Consequently, this factor was labeled General Unfinished Business (UFB) Distress.

All second factor coefficients were complex items with salient coefficients on both factors, and all 11 were higher for the first factor. This finding indicates that the interpretation of the second factor may not be particularly meaningful. Eight of the 11 items had salient positive coefficients (items 43, 22, 38, 42, 12, 3, 46, 15), and the remaining three had salient negative coefficients (items 2, 20, 28). The second factor was interpreted as either avoidance of some troubling aspect of the relationship that cannot now be addressed, or an inability to engage in meaningful ways due to the loss. As such, the second factor was labeled *Helplessness*.

Four-Factor Solution

Unlike the two-factor model, a Direct Oblimin oblique rotation with a Delta value of -6 yielded the simplest solution for the four-factor model. The rotation yielded 20 complex variables, and 61 hyperplanar variables with correlations ranging from .00 to .04. All 47 items had positive salient coefficients and loaded on the first factor (Appendix VI). The four-factor structure exhibited a mean absolute difference in loadings of .004, with a maximum absolute difference in loadings of .029, and an exploratory factor analysis yielded essentially the same results. Factor one retained the label: *General UFB Distress*.

Items that comprised the second, third, and fourth factor were complex items with salient coefficients on at least two factors and were correlated higher for the first factor, strongly indicating that the factors may not be meaningful. Item 15 stood out as a unique complex variable because of salient [positive] coefficients on factors one, two, and three.

Factor two items consisted of 12 items with eight salient positive coefficients (items 43, 22, 38, 42, 12, 3, 46, 15) and four salient negative coefficients (items 2, 28, 41, 20). Item 15 loaded on factors two and three and thus was considered cautiously during interpretation. Factor two items were very similar to the second factor from the two-factor solution, with the addition of item 41 in the four-factor solution ("I should have told him/her 'I love you' more often"). Subsequently, factor two retained the label of *Helplessness*.

Factor three was comprised of seven items with three salient positive coefficients (items 15, 32, 35) and four salient negative coefficients (items 29, 33, 25, 19). Complex item 15 was used to interpret with caution due to saliency on the other factors. Factor three items seemed to capture the catastrophic paralyzing nature of the loss. The finality of the loss and inability to resolve outstanding issues creates a sense of both physical and mental immobility. The combination creates a temporal trap for the griever and thus factor three was labeled *Immobility*.

Factor four was comprised of three items with one salient positive coefficient (item 38) and two salient negative coefficients (items 31, 36). These items addressed overt disconnection with the deceased (positively correlated with item 38: "Because of the conflict/hurt in our relationship, I cut off _____ before s/he died.") over what may have been overt issues between the two parties (negatively correlated with item 36: "I held onto a secret I wish I would have told _____."). However, item 38 was also correlated more highly with factor one and two, so should be correlated with caution. The negative correlation with item 36 ("I wish I had the chance to

tell _____ that I forgive him/her.") suggests that this factor addressed a desire for continued dialogue but did not include reconciliation per se. Thus, factor four was labeled *Animosity*.

Hypothesis 1 was not supported. The UBBS was expected to consist of five factors. Parallel analysis and the MAP test indicated the presence of two and four factors. Principal component analysis in both the two- and four-factor solutions yielded all items loading on factor one (General UFB Distress), and thus all other factors consisted of complex items. The rotated and unrotated solutions showed very small absolute differences in loadings, which indicated little movement as a result of rotation. This strongly suggests the presence of one factor. For the purpose of this investigation, however, all factors were used to test the subsequent hypotheses.

Hypothesis 2: Concurrent Validity

Hypothesis 2 was that UBBS total and factor scores would exhibit positive correlations with higher pathological grief, less meaning made of the loss, higher attachment anxiety, and lower reported relationship quality with the deceased, and show higher associations with immediate family (versus extended family) and violent causes (versus natural causes).

Two-Factor Solution

Factor one, labeled general UFB distress, displayed statistically significant associations with outcome variables as hypothesized, with greater general UFB distress associated with more severe prolonged grief symptoms ($r = .81, p < .001$), less meaning made of the loss ($r = -.46, p < .001$), and anxious attachment ($r = .37, p < .001$; Table 3). However, overall quality of relationship with the deceased did not exhibit a significant association with the general UFB distress subscale scores ($r = .14, p = .089$). The subscales for the Quality of Relationships Inventory-Bereaved (QRI-B) measure yielded significant associations between general UFB

distress and the QRI-B subscale scores of social support ($r = .37, p < .001$), depth of relationship ($r = .45, p < .001$), and conflict ($r = -.51, p < .001$; Table 3).

Pearson correlations between general UFB distress and demographic variables were less robust. As expected, general UFB distress showed a large negative correlation with relationship to the deceased ($r = -.45, p < .001$), with immediate family losses reported as more distressing than loss of extended family members and/or friends. Despite 31.9% of participants reporting a violent death (e.g., accident, suicide, homicide, other), general UFB distress was not significantly correlated with this variable ($r = .11, p = .206$). No other demographic variables showed significant associations with this factor.

Partial correlations were then used to examine the association with general UFB distress and outcome variables, controlling for age, gender, ethnicity, education level, relationship to the deceased, cause of death and time since loss occurred (Table 4). All reported significant associations held, though the strength of the associations showed marginal reductions.

Factor two, labeled helplessness, exhibited minimal utility in predicting relationships with outcome variables, with no significant correlations with prolonged grief symptoms ($r = .10, p = .233$) or meaning made of the loss ($r = -.16, p = .064$; Table 4). However, helplessness showed a small significant correlation with anxious attachment style ($r = .23, p < .01$), and a moderate significant correlation with overall quality of relationship ($r = -.36, p < .001$). Helplessness was significantly correlated with two of the three subscales for the QRI-B, with a small significant correlation with social support ($r = -.20, p < .05$), and lack of conflict ($r = -.32, p < .001$). Helplessness was not significantly correlated with depth ($r = -.13, p = .118$).

Helplessness showed a moderate significant association with relationship to the deceased ($r = -.41, p < .001$), and a small significant correlation with cause of death ($r = -.22, p < .01$).

Helplessness also exhibited a small significant correlation with age ($r = .23, p < .01$).

Partial correlations controlling for age, gender, ethnicity, education level, relationship to the deceased, cause of death and time since loss occurred yielded a marginal reduction in the strength of the association between helplessness and anxious attachment (Table 4). However, strength of the relationship between helplessness and overall quality of relationship showed a marginal increase ($r = -.38, p < .001$), as did the relationship between helplessness and the social support subscale ($r = -.33, p < .001$). Helplessness and lack of conflict were no longer significantly associated, and helplessness and depth of relationship yielded a small significant correlation ($r = -.28, p < .01$).

To determine if the UBBS scaled factor scores correlated better or as well as other measures, Pearson correlations examined the association between the outcome variable (pathological grief as measured by ICG-R total scores) and all other demographic variables and variables of interest. Notably, general UFB distress was more highly correlated than any other outcome variable with the ICG-R (Table 5), indicating it may be a better measure of pathological grief than meaning made of the loss, relationship quality, or attachment style. Pearson correlations between the ECR-B, QRI-B, and TIPI scales (Table 6) yielded strong negative associations between avoidant attachment style and higher overall quality of relationship, including social support and depth. High positive associations were found between QRI-B total scores and subscale scores of social support and depth.

Hypothesis 2 was only partially supported, with the full measure in both the two and four-factor solutions exhibiting the majority of hypothesized associations. The measure appears to

have only one factor consisting of all items. However, for the purpose of this investigation all factors were explored and results follow.

Table 3

Two-Factor Solution: Pearson Correlations Between UBBS Factor Scores, Demographic Variables of Interest, and Outcome Variables

Demographic Variable or Measure	Factor 1 General UFB Distress	Factor 2 Helplessness
Age	.01	.23**
Gender	.12	-.12
Race/Ethnicity (Caucasian/Other)	.13	.03
Education Level	-.04	.09
Relationship To Deceased (Immediate v. Extended/Other)	-.45***	-.41***
Cause of Death (Accident/Suicide/Homicide v. Other)	.11	.22**
Time Since Loss	-.12	-.02
Inventory of Complicated Grief - Revised (N = 169)	.81***	.10
Integration of Stressful Life Experiences Scale (N = 144)	-.46***	-.16
Experiences in Close Relationships Scale - Bereaved		
Anxious Attachment	.37***	.23**
Avoidant Attachment	-.29**	.09
Quality of Relationships Inventory - Bereaved	.14	-.36***
Social Support	.37***	-.20*
Depth of Relationship	.45***	-.13
Lack of Conflict	-.51***	-.32***
Ten Item Personality Inventory		
Emotional Stability	-.18*	.04
Extraversion	-.01	-.07
Conscientiousness	.10	.01
Agreeableness	-.04	-.05
Openness to Experiences	.11	.01

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4

Two-Factor Solution: Partial Correlations between UBBS Factor Scores and Outcome Variables

Measure	Factor 1 General UFB Distress	Factor 2 Helplessness
1. Inventory of Complicated Grief - Revised	.76***	-.10
2. Integration of Stressful Life Experiences Scale	-.44***	-.13
3. Experiences in Close Relationships Scale - Bereaved		
Anxious Attachment Security	.30***	.17*
Avoidant Attachment Security	-.26**	.20*
4. Quality of Relationships Inventory - Bereaved	.17	-.38***
Social Support	.33***	-.33***
Depth of Relationship	.40***	-.28**
Lack of Conflict	-.41***	-.13
5. Ten Item Personality Inventory		
Emotional Stability	-.16	.03
Extraversion	-.03	-.10
Conscientiousness	.06	-.06
Agreeableness	.00	.00
Openness to Experiences	.03	-.06

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Partial correlations controlled for: age, gender, race, education level, relationship to the deceased, cause of death, and time since loss occurred.

Table 5

Pearson Correlations Between Regression Criterion Variable and All Other Variables of Interest

Demographic Variable or Measure	ICG-R
Age	.00
Gender	.13
Race/Ethnicity (Caucasian/Other)	.14
Education Level	-.06
Relationship To Deceased (Immediate v. Extended/Other)	-.41***
Cause of Death (Accident/Suicide/Homicide v. Other)	.20**
Time Since Loss Occurred	-.13
Experiences in Close Relationships Scale - Bereaved	
Anxious Attachment Security	.27***
Avoidant Attachment Security	-.43***
Ten Item Personality Inventory	
Emotional Stability	-.33***
Extraversion	.00
Conscientiousness	-.07
Agreeableness	-.10
Openness to Experiences	.06
Quality of Relationships Inventory - Bereaved	.29***
Social Support	.50***
Depth of Relationship	.53***
Lack of Conflict	-.43***
Integration of Stressful Life Experiences Scale	-.52***

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 6

Pearson Correlations Between Experiences In Close Relationship Scale - Bereaved (ECR-B), Quality of Relationships Inventory - Bereaved (QRI-B), and the Ten Item Personality Inventory (TIPI)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
ECR-B:											
1. Anxious	-----										
2. Avoidant	.12	-----									
TIPI:											
3. Emotional Stability	-.10	.06	-----								
4. Extraversion	-.10	-.21**	.09	-----							
5. Conscientiousness	.01	-.11	.23**	.09	-----						
6. Agreeableness	.13	-.02	.26**	.02	.20**	-----					
7. Openness	.02	-.17*	.09	.33***	.13	.05	-----				
QRI-B:											
8. Total	-.32***	-.67***	-.05	.15	.11	-.03	.07	-----			
9. Social Support	-.09	-.73***	-.09	.17*	.09	-.01	.12	.84***	-----		
10. Depth	-.06	-.69***	-.09	.16*	.06	.04	.11	.80***	.86***	-----	
11. Lack of Conflict	-.43***	.12	.09	-.05	.06	-.06	-.08	.27***	-.25**	-.29***	-----

* $p < .05$. ** $p < .01$. *** $p < .001$.

Four-Factor Solution

Once again, the first factor, labeled general UFB distress, consisted of all items and demonstrated the same pattern of associations as in the two-factor solution. As hypothesized, greater general UFB distress was associated with more severe prolonged grief symptoms ($r = .81, p < .001$), less meaning made of the loss ($r = -.46, p < .001$), and anxious attachment ($r = .37, p < .001$). General UFB distress did not exhibit a significant association with overall quality of relationship ($r = .14, p = .102$) and yielded significant associations with the QRI-B subscale scores of social support ($r = .37, p < .001$), depth of relationship ($r = .45, p < .001$), and lack of conflict ($r = -.51, p < .001$), as in the two-factor solution.

As hypothesized, general UFB distress showed a large negative correlation to relationship to the deceased ($r = -.46, p < .001$), indicating once again that immediate family losses are reported as most distressing. Cause of death was not significantly correlated with this factor ($r = .11, p = .19$).

When controlling for demographic variables (age, gender, race, education level, relationship to the deceased, cause of death, and time since loss occurred), the associations between general UFB distress and outcome variables held at the same significance level with a marginal reduction in strength for each case (prolonged grief symptoms: $r = .76, p < .001$; less meaning made of the loss: $r = -.44, p < .001$; anxious attachment: $r = .30, p < .001$; social support: $r = .32, p < .001$; depth of relationship: $r = .45, p < .001$; and lack of conflict: $r = -.41, p < .001$).

Factor two, labeled helplessness, demonstrated the same pattern of associations as was observed in the two-factor solution with no association with prolonged grief symptoms ($r = .03, p = .711$) or meaning made of the loss ($r = -.12, p = .165$). Helplessness demonstrated a very

small significant correlation with anxious attachment ($r = .20, p < .05$). Helpless was once again demonstrated a moderate negative correlation with overall quality of relationship ($r = -.37, p < .001$). In contrast to the two-factor solution, Helplessness showed a significant correlation with all three QRI-B subscales in the four-factor solution, including depth (social support: $r = -.24, p < .01$; depth: $r = -.17, p < .05$; lack of conflict: $r = -.27, p < .01$).

Helplessness showed the same pattern of results as in the two-factor solution, with a moderate negative association with relationship to the deceased ($r = -.37, p < .001$), a small positive correlation with cause of death ($r = .21, p < .05$), and a small positive correlation with age ($r = .23, p < .01$).

Factor three, labeled immobility, showed a small negative correlation to more severe prolonged grief symptoms and age ($r = -.21, p < .05$). When controlling for demographics, the small negative association to prolonged grief symptoms increased in strength and significance ($r = -.26, p < .01$). Immobility showed no other significant associations with outcome or other demographic variables.

Factor four, labeled animosity, yielded a small positive association to the lack of conflict subscale of QRI-B and time since the loss occurred ($r = .18, p < .05$). The association between animosity and lack of conflict was no longer significant when controlling for demographics ($r = .14, p = .10$). Both Pearson and partial Pearson correlations yielded no other significant associations.

The association between general UFB distress and pathological grief symptoms ($r = .81, p < .001$; Table 7) remains more highly correlated than other outcome variables (Table 5) even after controlling for demographic variables ($r = .76, p < .001$; Table 8). General UFB distress

once again demonstrates a greater association with pathological grief symptoms than meaning made of the loss, relationship quality, or attachment style.

Table 7

Four-Factor Solution: Pearson Correlations Between UBBS Factor Scores, Demographic Variables of Interest, and Outcome Variables

Demographic Variable or Measure	Factor 1 General UFB Distress	Factor 2 Helplessness	Factor 3 Immobility	Factor 4 Animosity
Age	.01	.23**	-.21*	-.03
Gender	.12	-.13	.11	-.04
Race/Ethnicity (Caucasian/Other)	.13	.01	-.10	-.06
Education Level	-.04	.10	-.08	-.09
Relationship to Deceased (Immediate v. Extended/Other)	-.46***	-.37***	-.07	.11
Cause of Death (Accident/Suicide/ Homicide v. Other)	.11	.21*	-.01	-.04
Anxious Attachment	.37***	.20*	.06	-.02
Avoidant Attachment	-.28**	.12	.12	.08
Time Since Loss Occurred	-.12	-.01	.15	.12*
Personality Inventory				
Emotional Stability	-.18*	.05	.00	.15
Extraversion	-.01	-.07	-.02	.05
Conscientiousness	.10	.00	.12	-.03
Agreeableness	-.04	-.05	.10	-.02
Openness to Experiences	.11	.00	.03	-.14
Quality of Relationships Inventory – Bereaved	.14	-.37***	-.04	-.02
Social Support	.37***	-.24**	-.05	-.10
Depth of Relationship	.45***	-.17*	.03	-.11
Lack of Conflict	-.51***	-.27**	-.07	.18*
Integration of Stressful Life Experiences Scale	-.46***	-.12	.11	-.06
Inventory of Complicated Grief – Revised	.81***	.03	-.21*	-.07

Table 8

Four-Factor Solution: Partial Correlations Between UBBS Factor Scores and Outcome Variables

Measure	Factor 1 General UFB Distress	Factor 2 Helplessness	Factor 3 Immobility	Factor 4 Animosity
1. Inventory of Complicated Grief - Revised	.76***	-.16	-.26**	.02
2. Integration of Stressful Life Experiences Scale	-.44***	-.09	.14	-.08
3. Experiences in Close Relationships Scale - Bereaved				
Anxious Attachment	.30***	.14	.03	.01
Avoidant Attachment	-.26**	.22*	.16	.06
4. Quality of Relationships Inventory – Bereaved	.16	-.39***	-.02	-.01
Social Support	.32***	-.35***	-.06	-.07
Depth of Relationship	.39***	-.31***	.01	-.08
Lack of Conflict	-.41***	-.09	.00	.14
4. Ten Item Personality Inventory				
Emotional Stability				
Extraversion	-.16	.04	.02	.13
Conscientiousness	-.03	-.10	-.04	.06
Agreeableness	.06	-.06	.10	-.02
Openness to Experiences	.00	.00	.08	-.04
	.02	-.06	.02	-.11

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Partial correlations controlled for: age, gender, race, education level, relationship to the deceased, cause of death, and time since loss occurred.

Hypothesis 3: Convergent Validity

Hypothesis 3 was that UBBS total and factor scores would exhibit convergent validity with higher scores on the personality dimensions of neuroticism and lower scores on the dimension of extraversion.

Two-Factor Solution

General UFB distress exhibited a very small negative correlation with emotional stability ($r = -.18, p < .05$; Table 3) and no association with extraversion ($r = -.01, p = .90$; Table 3). The latter marginally supports an association between neuroticism and grieving difficulties. However, this relationship was no longer significant when controlling for demographics and variables of interest ($r = -.16, p = .07$; Table 4). One small significant correlation may have simply been due to chance, given the number of correlations investigated.

Helplessness was not significantly correlated with emotional stability ($r = .04, p = .68$; Table 4) or extraversion ($r = -.07, p = .42$; Table 3). Hypothesis 3 was not supported by these outcomes.

Four-Factor Solution

As in the two-factor solution, general UFB distress showed a very small negative correlation with emotional stability ($r = -.18, p < .05$; Table 7) and no association with extraversion ($r = -.01, p = .89$; Table 7). The relationship between general UFB distress and emotional stability was no longer significant when controlling for demographics and other variables of interest ($r = -.16, p = .07$; Table 8). Hypothesis 3 was not adequately supported by these results. Grievors who are lacking emotional stability did not exhibit a greater amount of general UFB distress, and no association with extraversion was observed.

Hypothesis 3 was not supported by the outcomes for factors two through four. Neither helplessness or immobility, nor animosity, were significantly correlated with emotional stability (Helplessness: $r = .051, p = .54$; Immobility: $r = .003, p = .97$; Animosity: $r = .149, p = .08$; Table 7) or with extraversion (Helplessness: $r = -.067, p = .42$; Immobility: $r = -.020, p = .81$; Animosity: $r = .053, p = .53$; Table 7).

Overall, Hypothesis 3 was not adequately supported by this investigation, with only one small significant correlation with general UFB distress and emotional stability in the two-factor solution.

Hypothesis 4

Hypothesis 4 was the UBBS total and factor scores would exhibit divergent validity via negative associations on the personality dimensions of conscientiousness, agreeableness, and openness to experiences.

Two-Factor Solution

Neither factor was significantly correlated with conscientiousness (General UFB Distress: $r = .10, p = .22$; Helplessness: $r = .01, p = .94$), agreeableness (General UFB Distress: $r = -.04, p = .61$; Helplessness: $r = -.05, p = .55$), or openness to experience (General UFB Distress: $r = .11, p = .18$; Helplessness: $r = .01, p = .90$; Table 3).

Four-Factor Solution

All factors in this solution showed no significant association with conscientiousness (General UFB Distress: $r = .10, p = .22$; Helplessness: $r = -.00, p = .97$; Immobility: $r = .12, p = .516$; Animosity: $r = -.03, p = .69$), agreeableness (General UFB Distress: $r = -.04, p = .60$; Helplessness: $r = -.05, p = .57$; Immobility: $r = .10, p = .22$; Animosity: $r = -.02, p = .80$), or

openness to experience (General UFB Distress: $r = .11, p = .18$; Helplessness: $r = .00, p = .99$; Immobility: $r = .03, p = .74$; Animosity: $r = -.14, p = .10$; Table 7).

Hypothesis 4 was not supported. No significant associations emerged from this investigation in either the two-factor solution (Table 3) or the four-factor solution (Table 7). The UBBS and corresponding factor scores exhibited poor divergent validity in this investigation.

Hypothesis 5: Incremental Validity

Hypothesis 5 was that UBBS total and factor scores would account for a significant amount of variance in pathological grief scores beyond that of commonly used variables such as relationship to the deceased, cause of death, attachment style, time since loss, and neuroticism, and demographic variables such as age, gender, ethnicity, and education. The investigation employed multiple linear regression to explore this hypothesis.

Two-Factor Solution

General UFB distress, comprised of all pilot items, demonstrated a unique ability to predict pathological grief using multiple linear regression and results were identical for this factor in both the two and four-factor solution. In step one, demographic impact was controlled using the variables of age, gender, race/ethnicity, and education level. These variables showed no significant impact in the prediction of pathological grief ($R^2 = .04$; Table 9). In step two, grief-specific variables were added, including cause of death, relationship to the deceased (immediate family vs. extended family/friends), cause of death (natural vs. violent), attachment style (anxious, avoidant), and emotional stability. As expected, from step one to step two, these variables explained unique variance in pathological grief scores ($\Delta R^2 = .31$). From step two to step three, general UFB distress yielded a 36.3% increase in R^2 while adjusted R^2 also increased and accounted for 38.5% of the variance. The coefficient for general UFB distress was

significant ($\beta = .74, p < .001$). Results indicate that the measure in its entirety has predictive utility in accounting for overall variance in pathological grief scores as measured by the ICG-R.

In the case of factor two, helplessness, the predictive ability of the grief specific factors from step one to step two once again explained unique variance in pathological grief scores ($\Delta R^2 = .31$; Table 9). From step two to step three, results for helplessness in the two-factor solution yielded a marginal increase of 1.0% in R^2 . Adjusted R^2 increased marginally also, accounting for 0.6 % of the variance. The coefficient for helplessness was not significant ($\beta = -.12, p = .15$). Helplessness did not yield predictive ability for pathological grief symptomology.

Four-Factor Solution

The results from the multiple linear regression were identical for general UFB distress in both the two and four-factor solutions (Table 9). Results indicate that the measure in its entirety explains unique variance in pathological grief scores and may be of use in predicting grief symptomology.

The results demonstrated that factor two, helplessness, does not offer utility in predicting pathological grief symptoms (Table 9). The results were very similar, but not identical, to results for this factor in the two-factor solution. Grief-specific factors explained 31.0% of unique variance in pathological grief scores from step one to step two. Helplessness exhibited a marginal increase in R^2 of 2.2% and in adjusted R^2 of 1.8% from step two to step three. The coefficient for helplessness was significant ($\beta = -.17, p < .05$).

The results indicated that factor three, immobility, offers very limited ability to predict pathological grief symptoms (Table 9). Demographic variables once again did not show a significant impact on the prediction of grief scores ($R^2 = .04$). In step two, grief-specific variables explained 31.0% of the variance in grief scores, as expected. From step two to step three,

immobility showed an R^2 increase and accounted for 5.2% of the variance, with adjusted R^2 accounting for 5.0% of the variance. The coefficient for immobility was significant ($\beta = -.24, p < .001$).

The results showed that factor four, animosity, does not contribute to the prediction of pathological grief symptoms (Table 9). Demographic variables and grief-specific variables performed as previously reported. From step two to step three, animosity accounted for 0.3% of the variance in R^2 . Adjusted R^2 decreased very slightly by 0.2%. The coefficient for animosity was not significant ($\beta = .06, p = .44$).

Table 9
Hierarchical Multiple Linear Regression Predicting Pathological Grief From Factor Scores

Predictor	ΔR^2	Δ Adjusted R^2	β
Step 1	.04	.01	
Age			.02
Gender			.14
Ethnicity (Caucasian/Other)			.14
Education			-.04
Step 2	.31	.29	
Relationship to Deceased (Immediate vs. Extended / Friends)			-.33***
Cause of Death (Natural vs. Violent)			.16*
Anxious Attachment Style			.15*
Time Since Loss			-.14*
Emotional Stability			-.28***
Step 3a	.36	.39	
General UFB Distress Factor Scores (Two and Four Factor Solutions)			.74***
Step 3b	.01	.01	
Helplessness Factor Scores (Two Factor Solution)			-.12
Step 3c	.02	.02	
Helplessness Factor Scores (Four Factor Solution)			-.17*
Step 3d	.05	.05	
Immobility Factor Scores (Four Factor Solution)			-.24***
Step 3e	.00	.00	
Animosity Factor Scores (Four Factor Solution)			.06

* $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The aim of the present study was to develop a psychometrically sound measure of unfinished business in bereavement for use in clinical settings. No empirically tested measure presently exists despite the fact that unfinished business is a common treatment target. The present study is among the first create a clinical instrument to identify griever at elevated risk for problematic post-loss bereavement-related symptomology. The Unfinished Business in Bereavement Scale (UBBS) appears to have one factor that was labeled *General Unfinished Business (UFB) Distress*. The UBBS measure in its entirety, which is the equivalent of the factor of general UFB distress, exhibited statistically significant associations with grief-related variables as expected, including more severe prolonged grief symptoms, less meaning made of the loss, and anxious attachment. Overall quality of relationship with the deceased did not exhibit a significant association with the full measure, but significance was reached with the subscales of social support, depth of relationship, and lack of conflict. Immediate family losses were more distressing than loss of extended family members and friends, and no association was found with reports of a violent death. No other demographic variables were significantly associated with the full measure. In addition, the UBBS exhibited predictive value over and above other measures and indicators of prolonged grief.

Prolonged Grief Disorder is a term used to describe a problematic grieving trajectory that is unique from other psychiatric disorders such as depression, anxiety, and posttraumatic stress (Boelen & van den Bout, 2005; Boelen, van den Bout, & de Keijser, 2003; Bonanno et al., 2007; Chen et al., 1999; Ogorodniczuk et al., 2003; Prigerson et al 1996; Prigerson et al., 1995). The hallmark symptom of Prolonged Grief Disorder is a longing and yearning for the deceased which

suggests an attachment-based clinical concern ((Silverman, Johnson, & Prigerson, 2001; Van Doorn, Kasl, Beery, Jacobs & Prigerson, 1998; Prigerson et al., 2009). The 10-20% of grieverers that struggle with their grief beyond a 6-month period represent a sub-population that would benefit from identification as early as possible in order to effectively intervene (Ott, 2003). Endorsement of specific distressing instances of unfinished business, defined as unexpressed or unresolved matters between the griever and the deceased, have previously been correlated with increased suffering both physically and mentally (Klingspon et al., 2015).

Number of Factors

The UBBS pilot items drew on thematic content from prior studies and discussion investigating subjective statements of unfinished business. The first hypothesis was that the measure would consist of five factors. This hypothesis was not supported, with results suggesting a one-factor solution. This finding was surprising considering that the sources of the pilot items had previously been identified as specific themes of unfinished business (Klingspon et al., 2015; Lichtenthal et al., 2013). However, in an earlier study, the most robust indicator of problematic unfinished business was not the thematic content, but the distress rating (Klingspon et al., 2015). Additionally, the results from the Parallel Analysis, though suggestive of a two-factor solution, produced a first eigenvalue of exceedingly large proportion. A one-factor solution may be more likely in this case.

In the investigation of the two- and four-factor solutions, the dataset essentially failed to rotate, with marginal absolute difference in loadings. All items were complex and loaded on the first factor, which made it difficult to understand the significance of subsequent factors. To obtain the simplest oblimin solution in each case, different Delta values were used. Interpretation of these other factors is difficult given the lack of clear factor structure in both solutions, and that

all other factors in both solutions were not associated with the first factor, general UFB distress. For instance, helplessness, the second factor in the two-factor solution, may have represented acts of omission on the part of the griever and/or the deceased, instead of addressing a lack of agency, which is a more expansive construct. Grievers able identify specific examples of unfinished business may more broadly be addressing the loss of capacity or freedom to act (or not act) with the deceased in a physical context. The griever can no longer make choices for this relationship in the future, nor can s/he change his/her mind and address outstanding issues. An external locus of control over one's life is suggested via the loss, which may lead to a reduced sense of agency for the griever. Research on the relationship between agency and self-esteem shows a positive association (Stein, Newcomb, & Bentler, 1992). Subsequently, prolonged grievers with this type of distressing unfinished business may be impacted by lowered self-esteem. This could be a moderating factor in determining the effect of distressing unfinished business. Further, the inability to make sense and create a coherent story that can be integrated into the internal working model contributes to lowered perceptions of self-worth, all of which connect to insecure attachment style (Shear & Shair, 2005; Stroebe, 2002).

One pilot item loaded on both factors in the two-factor solution, and three of four factors in the four-factor solution ("My relationship with _____ was deeply disappointing and now will never be resolved"). Given that this item captures the pure definition of unfinished business as defined by this study, the result is not surprising. However, this item was not salient with the fourth factor of animosity in the four-factor solution. This is notable because this factor indicated a desire for communication without necessarily a desire for reconciliation or resolve. Subjective statements of distressing unfinished business may be, in some cases, upholding the psychological attachment to the deceased (Stroebe, 2002). The association may be more akin to a problematic

continuing bond than unfinished business per se. Continuing bonds are considered key in determining post-bereavement outcomes, and are defined as a sustained attachment to the deceased (Schucter & Zizook, 1993). If the griever is not interested in resolve, the post-loss internalized representation may allow the griever to stay connected with the deceased despite both the distressing nature of the representation and the lack of physical presence. This would support the idea that prolonged grief is undergirded by attachment theory, and a problematic continuing bond may be used as a secure base regardless of whether it promotes adjustment after the loss of a loved one.

Concurrent Validity

Hypothesis 2 was that UBBS total and factor scores in the solution with the most promising factor structure would positively correlate in expected ways with higher pathological grief, less meaning made of the loss, higher attachment anxiety, lowered relationship quality with the deceased, and higher scores for immediate family member losses, and for violent losses (accident, suicide, homicide). Hypothesis 2 was only partially supported in both the two- and four-factor solutions.

The UBBS measure was more highly correlated than any other outcome variable with pathological grief, as measured by the Inventory of Complicated Grief-Revised (ICG-R), which is considered the gold standard for its ability to predict grievers who meet criteria for Prolonged Grief Disorder (Boelen et al., 2003). The pilot measure, in its entirety, could be used to clinically assess pathological grief in the absence of other instruments, such as the ICG-R. However, the ICG-R is a shorter, validated measure, and it would be unlikely that one would choose the UBBS over the ICG-R to assess grief concerns.

Unfinished business is the target of mainstream grief interventions, and thus the UBBS

could be used as an adjunct measure to pinpoint the specific nature of relevant unfinished business. However, the UBBS, in its present state, is long and without a clear factor structure. Using a one-item measure such as the one used in the Klingspon et al. (2015) study ("Do you feel that anything was unfinished, unsaid, or unresolved in your relationship with your loved one?"), with the missive to detail the content of this unfinished business, may be less taxing for the patient and yield the same information. Alternately, using this one-item face-valid question, paired with the item from the UBBS that loaded on more factors than not ("My relationship with _____ was deeply disappointing and now will never be resolved") may yield the subjective content of the unfinished business, the distress related to the unfinished business, and whether the context represents a problematic continuing bond. Further investigation regarding these questionnaire items may be helpful in determining the most efficacious way to extract this pertinent information early in treatment to lessen the impact on grieving individuals.

Consistent with other findings (Klingspon et al., 2015), the presence of distressing unfinished business as measured by the UBBS was associated with less meaning made of the loss. Anxious attachment style was also associated with higher UBBS scores, which is also consistent with an attachment-based theoretical orientation positing lowered ability to adapt to changes in internal working models for insecurely attached individuals (Stroebe, 2002). This orientation further suggests that anxious attachment in particular may increase the risk for difficulties in adjusting the internal working model due to the intermittent reinforcement modeled in childhood (Field & Sundin, 2001).

The UBBS was not associated with the overall quality of relationship. As stated previously, research investigating the impact of pre-loss quality on bereavement outcomes is sparse. Further investigation yielded associations with greater social support and depth of relationship, and

lowered pre-loss conflict. These findings are consistent with other studies that have yielded increased grief responses with higher degrees of depth, including a sense of commitment to the deceased and an increased rating of importance in the pre-loss relationship (Mancini et al., 2009; van Doorn et al., 1998).

The UBBS was also associated with immediate family losses. Relationships reported as more intimate, and the loss of a first-degree relative, often result in bereavement difficulties (Holland, Currier, & Neimeyer, 2006; Prigerson et al., 2002; Servaty-Seib & Pistole, 2006; Robak & Weitzman, 1998). However, an association was not found with UBBS-reported greater distress and violent cause of death, which did not support Hypothesis 2. The small number of immediate family losses may account for this finding because immediate family losses of a violent nature would be expected to be most distressing. The lack of association may be a limitation of the present study. However, the data set was comprised mostly of individual with extended family losses and the small number of immediate family losses may have contributed to this outcome.

Convergent Validity

Hypothesis 3 was that UBBS total and factor scores would exhibit convergent validity with higher scores on the personality dimensions of neuroticism and lower scores on the dimension of extraversion. The findings of this study did not support Hypothesis 3, with only one small significant correlation that did not hold after controlling for demographic and other variables of interest. No evidence indicated that neuroticism or a lack of emotional stability and/or extraversion predisposes a griever to greater pathological grief symptoms. The literature on this topic is limited and mixed, with neuroticism showing association with increased bereavement distress (Bratt, Stenström, & Rennemark, 2016; Lee & Surething, 2013;

Wijngaards-de Meij et al., 2007a). Neuroticism can manifest in different trait configurations that can either positively or negatively impact post-loss trajectories, so this finding is not greatly surprising (McCrae & Costa, 1999; Taga, Friedman, & Martin, 2009). Extraversion has also exhibited mixed results in association with bereavement difficulties, with some evidence that there is a greater likelihood of engaging in health impairing behaviors (Kunitsche et al., 2006). Alternately, other evidence suggests extraversion offers greater resilience in the face of trauma (Jakšić et al., 2012). The results of this study may add to the current body of literature regarding personality dimensions and their relationship to bereavement difficulties, given the scarcity of information on this topic.

Divergent Validity

Hypothesis 4 was that the UBBS total and factor scores would exhibit little association with the personality dimensions of Conscientiousness, Agreeableness and Openness to Experiences. This hypothesis was supported. The UBBS and all other factors did not correlate with any of these personality dimensions. However, the notion that certain personality characteristics, such as conscientiousness and agreeableness, may be protective in preventing the emergence of pathological symptomology in grieving individuals (Taga, Friedman, & Martin, 2009) was not supported in this investigation. The limited evidence on this topic suggests this finding contributes to the existing body of literature.

Incremental Validity

Hypothesis 5 was that the UBBS total and factor scores would account for a significant amount of variance in pathological grief scores beyond variables used more commonly for assessment such as relationship to the deceased, cause of death, attachment style, time since loss, neuroticism/lack of emotional stability, and demographic characteristics such as age, gender,

ethnicity and education. Hypothesis 5 was partially supported. Consistent with previous results, multiple linear regression showed that the UBBS measure, comprised of all pilot items, was both useful and predictive of pathological grief. No other investigated factors displayed usefulness in predicting bereavement difficulties. The measure was formulated from subjective accounts of distressing unfinished business, so this could be expected. However, the disappointing results from the other factors underscores the need for further investigation.

Clinical Implications

The present study adds to the current body of literature regarding the nature of unfinished business and subsequent post-loss distress. Scores from the complete UBBS pilot measure would be useful in predicting pathological grief in a clinical setting. However, an instrument such as the Inventory of Complicated Grief - Revised (ICG-R; Prigerson & Jacobs, 2001) is comparable in length and has been tested more extensively, and so it remains the preferred clinical measure for complicated grief symptoms exclusively. The UBBS offers a different approach to clinical grief work, with specific attention to unfinished business. The specific items may help generate therapeutic discussions around the patient's particular self-reported concerns, with more highly rated items specifically targeted for investigation and intervention. For instance, an item such as Item 15: "*My relationship with _____ was deeply disappointing and now will never be resolved*" with high distress ratings may present a strategic platform for clinical discussion. The explicit issue at hand may be identified more readily, and then other more conventional strategies, such as the "empty chair" method, may be employed to work toward post-loss resolve (Greenberg, Rice, & Elliott, 1993; Paivio & Greenberg, 1995).

The results of the current study indicate that the specific and subjective unfinished business context identified by the griever may represent the key piece of information in clinical treatment

for bereavement. Similar to the treatment of PTSD, where a specific incident of trauma is identified prior to embarking on the gold standard protocols of Cognitive Processing Therapy (CPT; Resick, Monson, & Chard, 2008) or Prolonged Exposure (PE; Foa, Hembree, & Rothbaum, 20007), bereavement case work may be led by identifying the most troubling memory of unfinished business. Unlike PTSD, unfinished business in bereavement may be more nuanced than an overt trauma experience. This may lead to difficulties in identifying the most pertinent concern. Thus the UBBS may help to validate and normalize more commonly reported issues, and the target content can be discovered more quickly and easily.

The UBBS may also guide the clinician in general exploration of possible unfinished business. Bereaved individuals may be avoiding the deliberate confrontation of unfinished business reminders. The UBBS provides both a plethora of issues and a rating system to identify the most distressing content. Additionally, this process would provide some reassurance for the griever that, by focusing on the most difficult aspects still outstanding in the relationship, there is a greater likelihood that less salient memories would not maintain the bereavement difficulties after treatment.

The UBBS can be used to help facilitate treatment regardless of comorbid conditions or specific treatment modalities. Bereaved individuals may be experiencing harmful secondary emotions and self-judgments as a result of their unfinished business (e.g., feeling guilty for feeling angry at the deceased), which can be the target of treatment from multiple theoretical orientations. These secondary emotions and self-judgments may also hinder disclosure of symptoms. A measure that explicitly details different dimensions of unfinished business may help validate these experiences.

Additionally, the UBBS can be used to track the progress of someone's grief over the course of treatment. Considering that the UBBS performed as a predictor of complicated grief, it follows that resolution of these symptoms should ameliorate complicated grief symptoms. Thus, the UBBS may be a way to measure complicated grief through very specific symptoms if unfinished business seems to be the presenting concern in treatment.

Limitations

A number of constraints limit the present investigation. First, the sample was comprised of college student data. Such samples typically truncate the age range. Given the nature of the investigation, generalizability is thus restricted. However, as empirical work on unfinished business is limited, the results provide some guidance for further investigations that provide greater sample breadth. Second, the majority of losses involved extended family members or friends with greater numbers than would normally be expected in the population at large. The narrowed age range likely influenced the type of reported loss and extended family member or friend losses are less likely to result in higher prolonged grief symptomology (Currier et al., 2006; 2008; Holland & Neimeyer, 2011). Reports of unfinished business will be influenced by what may be considered a normative phase of life event (e.g., a young adult facing the death of a grandparent), which will, in turn, impact overall UBBS scores (Hatter, 1996; Stroebe, Abakoumkin, Stroebe, & Schut, 2012). This limitation suggests that samples more representative of the population at large may elicit higher UBBS scores, and should confirm that normative losses will be associated with lower UBBS scores.

Third, student participants may have self-selected in some manner. The majority of participants indicated extended family as the deceased in question, so the results may not represent immediate family losses, which are commonly more distressing. Individuals with

immediate family losses possibly bypassed this particular online survey in part because of significant distress. However, the nature of student data alone, as already stated, may have limited these numbers. The UBBS may perform better in a population with more diverse grief experiences that include losses of immediate family members or of losses by violent causes of death (i.e., accidents, homicides, suicides). Further investigations should seek to broaden the scope of participants by both age and relationship to the deceased to evaluate individuals that have lost immediate family members.

Fourth, the Ten Item Personality Inventory (TIPI; Gosling et al., 2003) used in this study to assess association with personality dimensions is limited because it uses only two items for each of the Big Five constructs. Although chosen for its brevity, the results of the correlations between the factor scores and the personality dimensions were disappointing, with only one very small and significant correlation. Given that there were 15 correlations in total, this result may have been spurious. Of note, the researchers who developed the measure stated that it was best used "for situations ... where personality is not the primary topic of interest" (Gosling, Rentfrow, & Costa, 2003, p. 504). Further, the TIPI has content validity concerns that may underestimate the strength of relationship between the personality domains and criteria of interest (Credé, Harms, Niehorster, & Gaye-Valentine, 2012). Additionally, more specific personality factors, such as maladaptive dependence on the deceased individual when they were alive, appear to be more directly related to complicated grief (Mancini, Sinan, & Bonanno, 2015). Given that the UBBS was associated with complicated grief symptoms, it may be that more specific and nuanced personality dimensions would perform better, compared to a brief and more general personality assessment. The relationship between unfinished business and personality dimensions would benefit from a more intensive investigation.

Fifth, the multiple comparisons used in this analysis created an inflated Type I error rate with a greater likelihood that an effect would be detected that may not be present. Most results were not robust despite this precondition, though the overall measure shows promise as compared to the gold standard of the ICG-R. Given the number of variables, the other significant correlations in this investigation could be by chance alone at the significance level of .05. Further investigations may consider transformation of the data, increasing the sample size, and then employing a correction such as a multistage Bonferroni to account for the increased Type I error rate.

Lastly, this investigation is limited by the cross-sectional design. As in the previous investigation by this author (Klingspon et al., 2014), the assumption was made that the content of subjective unfinished business occurred before the emergence of negative bereavement outcomes. The relationship was expected to go in this direction based on unfinished business with living persons. For instance, couple distress with outstanding interpersonal issues such as unresolved betrayal, anger, identity insults, or abandonment shows symptom improvement with emotion-focused work that requires both parties to actively engage in treatment (Greenberg, Warwar, & Malcolm, 2010). In bereavement, the ability to actively engage in resolve is no longer an option. So, from a temporal standpoint, this orientation makes sense. However, the symptoms themselves may encourage rumination about the lost relationship, which may facilitate the emergence of unfinished business that was not considered prior to the death. Recollection of relationship quality may be influenced by retrospective assessment, so a reversed order between unfinished business and grief symptomology is a possibility (Futterman et al., 1990). However, the nature of unfinished business makes this prospect unlikely; unfinished business requires that there be relationship dissatisfaction before the bereavement, and any

retrospective assessment would likely only modulate pre-existing unfinished business rather than creating it. As previously mentioned, limitations with the population may have hindered these findings. Longitudinal design would serve to confirm that the stated assumption was correct.

Recommendations for Future Research

Findings and limitations from the present investigation indicate some recommendations for future unfinished business research. A logical next step in the investigation of unfinished business in bereavement would be to work toward a shorter form of this measure with better factor structure. Although the UBBS showed predictive value, the length does not render it more useful than the ICG-R. Drawing from earlier studies (Klingspon et al., 2015; Lichtenthal et al., 2013), the development of better items with a factor structure that does not consist entirely of complex items to represent the thematic elements from these investigations is recommended.

A future study may consider an examination of both the face-valid question from the Klingspon et al. (2015) study ("Do you feel that anything was unfinished, unsaid, or unresolved in your relationship with your loved one?"), along with the ability to report the subjective content if answered affirmatively, and the UBBS item that loaded on majority of factors in both the two and four-factor solution ("My relationship with _____ was deeply disappointing and now will never be resolved").

As per previous investigations, the thematic content of the unfinished business in this investigation was less informative than the degree of distress (Klingspon et al., 2015). However, this does not preclude the existence of more than one factor. Consisting entirely of complex items, the UBBS did not provide clear factor structure, nor is the interpretation of the emergent factor particularly fruitful. Of note was that the other factors were not strongly related to pathological grief; items may have been written in a way that was too specific to adequately

capture a problematic representation of unfinished business. Further investigation may be warranted to expand the base of investigation to acts of omission and commission, with the griever as both actor and observer. Opportunity to act, or not to act (by either the deceased or the bereaved) may represent a more broad and salient source of distress. The broader range of subjectively reported concerns may show greater efficacy in identification of problems in clinical settings. Further, the use of a different rotation and/or type of analysis may be useful to provide greater understanding of this construct.

The hypothesized connection to problematic continuing bonds remains an area of inquiry. A sense of connection to the deceased (whether psychologically healthy or not) appears to be captured in both the construct of continuing bonds and unfinished business. These distinct and overlapping constructs may need to be parsed in the development of a measure. Additional work is needed to understand how constructs such as attachment impact the effects of subjectively reported unfinished business in treatment settings, given that these interactions may prove complicated. For instance, more anxiously attached individuals report more regret in their interpersonal interactions (Schoeman, Gillath, & Sesko, 2012). Regret is distinct from and yet overlaps the construct of unfinished business (Holland, Klingspon, & Neimeyer, 2014). Further and in the future, these efforts would benefit from the exploration of other related constructs such as regret (Holland, Klingspon, & Neimeyer, unpublished manuscript), guilt (Stroebe et al., 2014), self-blame (Field & Horowitz, 1998, Stroebe et al., 2014), and other-blame (Field & Horowitz, 1998). Greater understanding of the relationship between these variables would be useful information for the treatment of grief-related concerns.

Future investigations may consider use of another measure to investigate associations between unfinished business distress and personality dimensions. A more thorough instrument,

such the 44-item Big-Five Inventory (BFI; John, Donahue & Kentle, 1991; Benet- Martínez & John, 1998; John & Srivastava, 1999), which takes approximately five minutes to complete, may provide more conclusive data without overtaxing participants. Alternately, the mini International Personality Item Pool (Mini IPIP; Donnellan, Oswald, Baird, & Lucas, 2006), based on the Big Five factors of personality and culled from the larger IPIP-Five Factor Model Measure (Goldberg, 1999; Goldberg et al., 2006), employs only 20 items and may be more suitable due to its brevity. Whether unfinished business and subsequent distress is more closely associated with intrapersonal characteristics or interpersonal style would be another area worth further investigation. Lastly, data collection that is more representative of the population at large may also serve to elucidate whether unfinished business in bereavement is a multi-factorial construct.

Conclusion

This study sought to develop a pilot measure of unfinished business in bereavement with a factor structure that would exhibit clinical utility to assist clinicians in targeting patients that may be more at risk for development of prolonged grief symptomology. As presented in this investigation, the pilot UBBS measure given in its entirety would have some clinical utility if there were no other measure to assess pathological grief symptoms, such as the ICG-R, or if there is unfinished business content that is difficult for the patient to pinpoint specifically. However, the results of the present investigation indicate the need for current pilot items to be rewritten to create a shorter measure with a more meaningful scale structure.

Bereavement outcomes are impacted by a number of variables, such as the nature of the continuing bond (Field, 2006; Field, Nichols, Holen, & Horowitz, 1999), the cause of death (Currier, Irish, Neimeyer, & Foster, 2015), the relationship to the deceased (Holland & Neimeyer, 2011), as well as individual personality characteristics (Wijngaards-de-Meij et al.,

2007a). The present investigation indicates that the factor structure for unfinished business may be more difficult to determine than previously thought. The breadth of unfinished business matters may be so wide that, as in previous investigations (Klingspon et al., 2015), the subjective overall distress rating will remain the most robust indicator of potential bereavement difficulties. However, the loss experience is complicated and nuanced, and unfinished business remains a topic with minimal empirical investigation, and so the answer to this question has yet to be determined. Unfinished business in bereavement would benefit from further investigations to conclusively determine whether the construct is multi-factorial, to develop a measure that adequately serves as a guide to confronting the challenge of identifying grievors predisposed to more deleterious bereavement outcomes in treatment settings.

Appendix I

Proposed Diagnostic Criteria for Prolonged Grief Disorder (Prigerson et al., 2009, p. 9)

<p>A. Separation Distress: The bereaved person experiences yearning (e.g., craving, pining, or longing for the deceased; physical or emotional suffering as a result of the desired, but unfulfilled, reunion with the deceased) daily or to a disabling degree.</p>
<p>B. Cognitive, Emotional, and Behavioral Symptoms: The bereaved person must have five (or more) of the following symptoms experienced daily or to a disabling degree:</p> <ol style="list-style-type: none">1. Confusion about one's role in life or diminished sense of self.2. Difficulty accepting the loss.3. Avoidance of reminders of the reality of the loss.4. Inability to trust others since the loss.5. Bitterness or anger related to the loss.6. Difficulty moving on with life (e.g., making new friends, pursuing interests).7. Numbness (absence of emotion) since the loss.8. Feeling that life is unfulfilling, empty, or meaningless since the loss.9. Feeling stunned, dazed, or shocked by the loss.
<p>C. Timing: Diagnosis should not be made until at least six months have elapsed since the death.</p>
<p>D. Impairment: The disturbance causes clinically significant impairment in social, occupational, or other important areas of functioning (e.g., domestic responsibilities).</p>
<p>E. Relation to Other Mental Disorders: The disturbance is not better accounted for by major depressive disorder, generalized anxiety disorder, or posttraumatic stress disorder.</p>

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Appendix II

Unfinished Business Resolution Scale (UFB-RS; Singh, 1994, p. 254)

Degree of distress associated with lingering feelings:

1. I feel troubled by my persisting unresolved feelings (such as anger, grief, sadness, hurt, resentment) in relation to this person.

1-----2-----3-----4-----5
Not at all Very much

5. I am comfortable about my feelings in relation to this person.

1-----2-----3-----4-----5
Not at all Very much

8. I feel unable to let go of my unresolved feelings in relation to this person.

1-----2-----3-----4-----5
Not at all Very much

Not having needs met:

2. I feel frustrated about not having my needs met by this person.

1-----2-----3-----4-----5
Not at all Very much

7. I feel okay about not having received what I needed from this person.

1-----2-----3-----4-----5
Not at all Very much

9. I have come to terms with not getting what I want or need from this person.

1-----2-----3-----4-----5
Not at all Very much

Perceptions of the Self:

3. I feel worthwhile in relation to this person.

1-----2-----3-----4-----5
Not at all Very much

6. This person's negative view of treatment of me has made me feel bad about myself.

1-----2-----3-----4-----5
Not at all Very much

Perception of the Other:

4. I see this person negatively.

1-----2-----3-----4-----5
Not at all Very much

10. I have a deep appreciation of this person's own personal difficulties.

1-----2-----3-----4-----5
Not at all Very much

11. I feel accepting towards this person.

1-----2-----3-----4-----5
Not at all Very much

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Appendix III

Unfinished Business in Bereavement Scale (UBBS)

Sometimes people who have lost a significant person in their life are left with the sense that something was unsaid, unfinished, or unresolved in the relationship when the person died. Below is a list of different kinds of “unfinished business” that you may or may not have experienced. For each statement, please indicate how distressed you have been about this issue **in the past two weeks**. The blank spaces below represent the name of the deceased.

Item	How distressed have you been by this issue in the past two weeks?				
	Not At All	A Little	Moderately	A Lot	Extremely Distressed
1. I never got the chance to say good-bye.					
2. I didn't get to say 'I love you' one last time.					
3. I never got to resolve a breach in our relationship.					
4. I feel like if I let go of my grief, I will be letting go of _____.					
5. _____ and I should have spent more time addressing important questions					
6. I wish I would've said 'I'm sorry' to _____ for something that I did.					
7. Thinking about how _____ won't be involved in my future is difficult for me.					
8. I wish I could have given _____ one last special experience.					
9. I wish I would have told _____ how much I value the lessons that s/he taught me.					
10. I am concerned that I could have done something to prevent _____'s death.					
11. I wish we would've talked about his/her death more explicitly.					
12. _____ kept something from me that I wish we could've discussed.					
13. I should have listened to _____ when s/he told me about important things in his/her life.					

Item	How distressed have you been by this issue in the past two weeks?				
	Not At All	A Little	Moderately	A Lot	Extremely Distressed
14. _____ had plans for me that I didn't fulfill in his/her lifetime.					
15. My relationship with _____ was deeply disappointing and now will never be resolved.					
16. I wish I would have done more to prepare ___ mentally and emotionally for his/her final days.					
17. I wish I would have taken my chance to say good-bye.					
18. I have special memories of _____ that I should have shared with him/her.					
19. My grief gives me a sense of connection to _____.					
20. I wish we did more things together.					
21. I should've spent more time helping _____ make final arrangements.					
22. There were secrets in our relationship that should have been discussed.					
23. I had wanted to be back in contact with _____ but I didn't do that before s/he died.					
24. I wish I had asked _____ what s/he thought about his/her major life events.					
25. I worry that I will feel like I'm forgetting about _____ if I feel less pain.					
26. I wish I would have asked _____ specific questions.					
27. I should have apologized to him/her.					
28. I have trouble comprehending that _____ won't be there for significant events in my future.					
29. Moving on with my life would feel like abandoning _____.					

Item	How distressed have you been by this issue in the past two weeks?				
	Not At All	A Little	Moderately	A Lot	Extremely Distressed
30. I wish I would have attended to _____'s needs more closely in his/her final days.					
31. I held onto a secret that I wish I had told _____.					
32. I wish I had got to know him/her better.					
33. I feel that I need _____'s permission to live fully since s/he died.					
34. I should've spent more time ensuring _____ was emotionally as comfortable as possible.					
35. We didn't spend enough time together.					
36. I wish I had the chance to tell _____ that I forgive him/her.					
37. With no way to heal them, I fear that I will carry the scars caused by _____ to my grave.					
38. Because of the conflict/hurt in our relationship, I cut off _____ before s/he died.					
39. I wish we were able to experience all life would have had in store together.					
40. I should have been there when _____ died.					
41. I should have told him/her 'I love you' more often.					
42. I never got closure on some important issue or conflict in our relationship.					
43. I feel a deep sense of anger toward _____ that I don't know how to resolve now that s/he is gone.					
44. We had plans that I wish we would have acted on.					
45. I wish I had told _____ how much s/he meant to me.					

Item	How distressed have you been by this issue in the past two weeks?				
	Not At All	A Little	Moderately	A Lot	Extremely Distressed
46. I didn't ask _____ about what s/he believed before it was too late.					
47. I worry that I did something that contributed to _____'s death.					
48. Other: _____					

Appendix IV

UBBS Pilot Items Sorted According to Expected Factor Structure

Statements of Admiration and Value
2. I didn't get to say 'I love you' one last time. 9. I wish I would have told _____ how much I value the lessons that s/he taught me taught me. 18. I have special memories of _____ that I should have shared with him/her. 41. I should have told him/her 'I love you' more often. 45. I wish I had told _____ how much s/he meant to me.
Missed Opportunities and Intentions
1. I never got the chance to say good-bye. 3. I never got to resolve a breach in our relationship. 7. Thinking about how _____ won't be involved in my future is difficult for me. 14. _____ had plans for me that I didn't fulfill in his/her lifetime. 17. I wish I would have taken my chance to say good-bye. 20. I wish we did more things together. 23. I had wanted to be back in contact with _____ but I didn't do that before s/he died. 28. I have trouble comprehending that _____ won't be there for significant events in my future. 32. I wish I had got to know him/her better. 35. We didn't spend enough time together. 38. Because of the conflict/hurt in our relationship, I cut off _____ before s/he died. 39. I wish we were able to experience all life would have had in store together. 40. I should have been there when _____ died. 44. We had plans that I wish we would have acted on.
Unresolved Confessions and Disclosures
6. I wish I would've said I'm sorry to _____ for something that I did. 12. _____ kept something from me that I wish we could've discussed. 22. There were secrets in our relationship that should have been discussed. 27. I should have apologized to him/her. 31. I held onto a secret that I wish I had told _____. 36. I wish I had the chance to tell _____ that I forgive him/her. 42. I never got closure on some important issue or conflict in the relationship.
Failed Responsibility to the Deceased
5. _____ and I should have spent more time addressing important questions. 8. I wish I could have given _____ one last special experience. 11. I wish we would've talked about his/her death more explicitly. 13. I should have listened to _____ when s/he told me about important things in his/her life. 16. I wish I would have done more to prepare _____ mentally and emotionally

for his/her final days.

21. I should've spent more time helping _____ make final arrangements.

24. I wish I had asked _____ what s/he thought about his/her major life events.

26. I wish I would have asked _____ specific questions.

30. I wish I would have attended to _____'s needs more closely in his/her final days.

34. I should've spent more time ensuring _____ was emotionally as comfortable as possible.

46. I didn't ask _____ about what s/he believed before it was too late.

Common Clinical Concerns

4. I feel like if I let go of my grief, I will be letting go of _____.

10. I am concerned that I could have done something to prevent _____'s death.

15. My relationship with _____ was deeply disappointing and now will never be resolved.

19. My grief gives me a sense of connection to _____.

25. I worry that I will feel like I'm forgetting about _____ if I feel less pain.

29. Moving on with my life would feel like abandoning _____.

33. I feel that I need _____'s permission to live fully since s/he died.

37. With no way to heal them, I fear that I will carry the scars caused by _____ to my grave.

43. I feel a deep sense of anger toward _____ that I don't know how to resolve now that s/he is gone.

47. I worry that I did something that contributed to _____'s death.

Appendix V

Two-Factor Solution: Factor Analysis Results for Rotated Factors

Item	Factor		h ²
	1	2	
Sometimes people who have lost a significant person in their life are left with the sense that something was unsaid, unfinished, or unresolved in the relationship when the person died. Below is a list of different kinds of “unfinished business” that you may or may not have experienced. For each statement, please indicate how distressed you have been about this issue in the past two weeks. The blank spaces below represent the name of the deceased.			
45. I wish I had told _____ how much s/he meant to me.	.92	-.23	.85
8. I wish I could have given _____ one last special experience.	.88	-.21	.78
9. I wish I would have told _____ how much I value the lessons that s/he taught me.	.87	-.19	.76
17. I wish I would have taken my chance to say good-bye.	.87	-.28	.78
4. I feel like if I let go of my grief, I will be letting go of _____.	.87	-.12	.74
26. I wish I would have asked _____ specific questions.	.87	.12	.79
6. I wish I would've said “I'm sorry” to _____ for something that I did.	.87	.02	.76
39. I wish we were able to experience all life would have had in store together.	.86	-.14	.74
34. I should've spent more time ensuring _____ was emotionally as comfortable as possible	.86	-.09	.74
18. I have special memories of _____ that I should have shared with him/her.	.86	-.07	.73
44. We had plans that I wish we would have acted on.	.86	-.07	.73
20. I wish we did more things together.	.85	-.33	.77
27. I should have apologized to him/her.	.85	.20	.79
5. _____ and I should have spent more time addressing important questions.	.85	.17	.78
14. _____ had plans for me that I didn't fulfill in his/her lifetime.	.85	-.13	.71
10. I am concerned that I could have done something to prevent _____'s death.	.85	-.02	.72

30. I wish I would have attended to _____'s needs more closely in his/her final days.	.85	.02	.73
19. My grief gives me a sense of connection to _____.	.85	.01	.72
35. We didn't spend enough time together.	.84	-.28	.73
16. I wish I would have done more to prepare _____ mentally and emotionally for his/her final days.	.84	-.03	.70
41. I should have told him/her 'I love you' more often.	.83	-.29	.73
37. With no way to heal them, I fear that I will carry the scars caused by _____ to my grave.	.83	.11	.71
40. I should have been there when _____ died.	.82	-.23	.69
7. Thinking about how _____ won't be involved in my future is difficult for me.	.82	-.18	.67
24. I wish I had asked _____ what s/he thought about his/her major life events.	.82	.03	.67
1. I never got the chance to say good-bye.	.81	-.25	.67
33. I feel that I need _____'s permission to live fully since s/he died.	.81	.11	.69
23. I had wanted to be back in contact with _____ but I didn't do that before s/he died.	.81	.04	.66
2. I didn't get to say "I love you" one last time.	.80	-.40	.73
29. Moving on with my life would feel like abandoning _____.	.80	.00	.63
28. I have trouble comprehending that _____ won't be there for significant events in my future.	.79	-.30	.67
25. I worry that I will feel like I'm forgetting about _____ if I feel less pain.	.79	-.07	.62
13. I should have listened to _____ when s/he told me about important things in his/her life.	.78	.07	.62
46. I didn't ask _____ about what s/he believed before it was too late.	.74	.37	.75
36. I wish I had the chance to tell _____ that I forgive him/her.	.73	.10	.55
42. I never got closure on some important issue or conflict in our relationship.	.72	.44	.77
31. I held onto a secret that I wish I had told _____.	.70	.20	.57
32. I wish I had got to know him/her better.	.70	-.02	.48
11. I wish we would've talked about his/her death more explicitly.	.69	.25	.57
12. _____ kept something from me that I wish we could've discussed.	.68	.39	.67

47. I worry that I did something that contributed to _____'s death.	.68	.27	.58
3. I never got to resolve a breach in our relationship.	.66	.39	.64
21. I should've spent more time helping _____ make final arrangements.	.65	.18	.47
22. There were secrets in our relationship that should have been discussed.	.64	.46	.68
43. I feel a deep sense of anger toward _____ that I don't know how to resolve now that s/he is gone.	.59	.47	.62
38. Because of the conflict/hurt in our relationship, I cut off _____ before s/he died.	.59	.45	.62
15. My relationship with _____ was deeply disappointing and now will never be resolved.	.49	.33	.39

Factor Intercorrelations	1	2
Factor 1	1.00	.11
Factor 2	.11	1.00

Note. h^2 = communality. Salient factor pattern matrix coefficients are in boldface.

No items were reverse-scored for this analysis. Factor 1 = General Unfinished Business (UFB) Distress. Factor 2 = Helplessness

Appendix VI

Four-Factor Solution: Factor Analysis Results for Rotated Factors

Item	Factor				h ²
	1	2	3	4	
Sometimes people who have lost a significant person in their life are left with the sense that something was unsaid, unfinished or unresolved in the relationship when the person died. Below is a list of different kinds of "unfinished business" that you may or may not have experienced. For each statement, please indicate how distressed you have been about this issue in the past two weeks. The blank spaces below represent the name of the deceased.					
45. I wish I had told _____ how much s/he meant to me.	.90	-.24	.15	-.02	.88
26. I wish I would have asked _____ specific questions.	.88	.10	-.03	-.05	.79
4. I feel like if I let go of my grief, I will be letting go of _____.	.87	-.13	-.29	.15	.85
6. I wish I would've said "I'm sorry" to _____ for something that I did.	.87	.00	.05	-.05	.77
27. I should have apologized to him/her.	.87	.18	-.05	.08	.80
5. _____ and I should have spent more time addressing important questions.	.86	.15	.12	-.10	.80
8. I wish I could have given _____ one last special experience.	.86	-.22	-.01	.07	.79
9. I wish I would have told _____ how much I value the lessons that s/he taught me.	.86	-.20	-.09	.11	.78
19. My grief gives me a sense of connection to _____.	.86	.00	-.31	.02	.82
30. I wish I would have attended to _____'s needs more closely in his/her final days.	.86	.00	.04	.13	.75
34. I should've spent more time ensuring _____ was emotionally as comfortable as possible	.86	-.11	.06	.06	.75

10. I am concerned that I could have done something to prevent _____'s death.	.85	-.04	-.08	.06	.73
16. I wish I would have done more to prepare _____ mentally and emotionally for his/her final days.	.85	-.04	-.24	.09	.77
18. I have special memories of _____ that I should have shared with him/her.	.85	-.08	.08	.14	.76
39. I wish we were able to experience all life would have had in store together.	.85	-.15	-.02	.08	.75
44. We had plans that I wish we would have acted on.	.85	-.09	-.07	-.14	.75
17. I wish I would have taken my chance to say good-bye.	.84	-.29	.20	.01	.81
37. With no way to heal them, I fear that I will carry the scars caused by _____ to my grave.	.84	.10	-.06	-.13	.73
14. _____ had plans for me that I didn't fulfill in his/her lifetime.	.83	-.14	.04	.06	.71
33. I feel that I need _____'s permission to live fully since s/he died.	.83	.10	-.37	-.03	.83
20. I wish we did more things together.	.82	-.35	.17	-.08	.81
24. I wish I had asked _____ what s/he thought about his/her major life events.	.82	.02	-.12	-.29	.77
7. Thinking about how _____ won't be involved in my future is difficult for me.	.81	-.19	-.12	.04	.69
23. I had wanted to be back in contact with _____ but I didn't do that before s/he died.	.81	.03	-.01	.22	.71
29. Moving on with my life would feel like abandoning _____.	.81	-.01	-.46	.08	.85
35. We didn't spend enough time together.	.81	-.29	.30	.07	.83
25. I worry that I will feel like I'm forgetting about _____ if I feel less pain.	.80	-.07	-.35	.20	.78
40. I should have been there when _____ died.	.80	-.24	.09	-.05	.70
41. I should have told him/her 'I love you' more often.	.80	-.31	.24	-.13	.80
13. I should have listened to _____ when s/he told me about important things in his/her life.	.79	.06	-.13	-.26	.71
1. I never got the chance to say good-bye.	.78	-.27	.24	.00	.72
28. I have trouble comprehending that _____ won't be there for significant events in my future.	.77	-.31	-.15	.02	.69

46. I didn't ask _____ about what s/he believed before it was too late.	.77	.36	.06	-.23	.80
2. I didn't get to say "I love you" one last time.	.75	-.42	.24	-.10	.80
42. I never got closure on some important issue or conflict in our relationship.	.75	.43	.18	-.07	.81
31. I held onto a secret that I wish I had told _____.	.73	.19	-.17	-.33	.71
36. I wish I had the chance to tell _____ that I forgive him/her.	.73	.08	.07	-.40	.71
11. I wish we would've talked about his/her death more explicitly.	.71	.24	.08	.05	.58
12. _____ kept something from me that I wish we could've discussed.	.71	.37	.06	-.20	.72
47. I worry that I did something that contributed to _____'s death.	.71	.26	-.05	.16	.61
3. I never got to resolve a breach in our relationship.	.68	.37	.26	.06	.71
22. There were secrets in our relationship that should have been discussed.	.68	.45	-.03	-.28	.76
32. I wish I had got to know him/her better.	.68	-.03	.31	.02	.58
21. I should've spent more time helping _____ make final arrangements.	.66	.17	-.04	.10	.49
38. Because of the conflict/hurt in our relationship, I cut off _____ before s/he died.	.63	.44	.22	.41	.83
43. I feel a deep sense of anger toward _____ that I don't know how to resolve now that s/he is gone.	.63	.46	-.09	.29	.72
15. My relationship with _____ was deeply disappointing and now will never be resolved.	.51	.32	.48	.15	.64

Factor Intercorrelations

	1	2	3	4
Factor 1	1.00	.04	.03	.00
Factor 2	.04	1.00	.01	.00
Factor 3	.03	.01	1.00	.01
Factor 4	.00	.00	.01	1.00

Note. h^2 = communality. Salient factor pattern matrix coefficients are in boldface.

No items were reverse-scored for this analysis. Factor 1 = General UFB Distress.

Factor 2 = Helplessness. Factor 3 = Immobility. Factor 4 = Animosity

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Wijngaards-de Meij, L. W., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P., & Dijkstra, I. (2007a). Neuroticism and attachment insecurity as predictors of bereavement outcome. *Journal of Research in Personality*, 41(2), 498-505. doi:10.1016/j.jrp.2006.06.001

Wijngaards-de Meij, L., Stroebe, M., Schut, H., Stroebe, W., van den Bout, J., van der Heijden, P., & Dijkstra, I. (2007b). Patterns of attachment and parents' adjustment to the death of their child. *Personality and Social Psychology Bulletin*, 33 (4), 537-548. doi: 10.1177/0146167206297400

Zisook, S., Devaul, R. A., & Click, M. A. Jr. (1982) Measuring symptoms of grief and bereavement. *The American Journal of Psychiatry*, 139, 1590-1593

Zisook, S., & Shear, K. (2009). Grief and bereavement: What psychiatrists need to know. *World Psychiatry*, 8, 67-74.

Zwick, W. R., & Velicer, W.F. (1986). Comparison of five rules for determining the number of components to retain. *Psychological Bulletin*, 99, 432-442. doi: 10.1037/0033-2909.99.3.432

CURRICULUM VITAE

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EDUCATIONAL HISTORY

UNIVERSITY OF NEVADA, LAS VEGAS 2014-Present

Department: Psychology
Degree: Doctor of Philosophy - Psychology
Expected Graduation - August 2017

Advisor: Christopher A. Kearney, Ph. D.

Dissertation: Development and Psychometric Evaluation of the Unfinished Business in Bereavement Scale

UNIVERSITY OF NEVADA, LAS VEGAS 2014

Department: Psychology
Degree: Master of Arts, Psychology
Advisor: Jason, M. Holland, Ph. D.

Thesis: Unfinished Business in Bereavement: A Mixed Methods Study

UNIVERSITY OF NEVADA, LAS VEGAS 2011

Department: Marriage and Family Therapy
Degree: Master of Science, Marriage and Family Therapy
Advisor: Katherine M. Hertlein, Ph. D.

Professional Paper: Working With Adult Survivors of Early Parental Loss:
An Intersystems Approach Integrating a Forgiveness Component

UNIVERSITY OF NEVADA, LAS VEGAS 2009

Degree: Bachelor of Arts
Major: Psychology

PROFESSIONAL LICENSE

Licensed Marriage and Family Therapist Intern - Nevada State License #MI0329

PROFESSIONAL MEMBERSHIPS

Psi Chi National Honors Society
Delta Kappa Zeta Chapter - International Honors Society in Marriage and Family Therapy
American Association for Marriage and Family Therapy
Nevada Association for Marriage and Family Therapy

RESEARCH INTERESTS

My research interests focus on grief and loss as experienced by individuals who are bereaved, coping with a serious illness, or undergoing other major life transitions. In particular, I am interested in understanding how people make meaning out of these experiences and how the outcome of this process impacts mental health, work and social functioning, and the ability to look toward a purposeful and hopeful future. More broadly, I am also interested in identifying risk and protective factors for individuals who have experienced major losses, with the goal of ultimately improving therapeutic interventions for this population.

PEER-REVIEWED PUBLICATIONS

- Holland, J. M., Rozalski, V., Beckman, L., Rakhkovskaya, L. M., **Klingspon, K. L.**, Donohue, B., Williams, C., Thompson, L. W., & Gallagher-Thompson, D. (2016). Treatment preferences of older adults with substance use problems. *Clinical Gerontologist: The Journal of Aging and Mental Health*, 39(1), 15-24. doi:10.1080/07317115.2015.1101633
- Holland, J. M., Graves, S., **Klingspon, K. L.**, & Rozalski, V. (2016). Prolonged grief symptoms related to loss of physical functioning: Examining unique associations with medical service utilization. *Disability and Rehabilitation*, 38(3), 205-210. doi:10.3109/09638288.2015.1031830
- Benning, S. D., Rozalski, V., & **Klingspon, K. L.** (2015). Trait absorption is related to enhanced emotional picture processing and reduced processing of secondary acoustic probes. *Psychophysiology*, 52(10), 1409-1415. doi:10.1111/psyp.12468
- Klingspon, K. L.**, Holland, J. M., Neimeyer, R. A., & Lichtenthal, W. G. (2015). Unfinished business in bereavement. *Death Studies*, 39(7), 387-398. doi:10.1080/07481187.2015.1029143
- Holland, J. M., **Thompson, K. L.**, Rozalski, V., & Lichtenthal, W. G. (2014). Bereavement-related regret trajectories among widowed older adults. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences*, 69B(1), 40-47. doi:10.1093/geronb/gbt050

Holland, J. M., Rozalski, V., **Thompson, K. L.**, Tiongson, R. J., Schatzberg, A. F., O'Hara, R., & Gallagher-Thompson, D. (2014). The unique impact of late-life bereavement and prolonged grief on diurnal cortisol. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences*, 69B(1), 4-11. doi:10.1093/geronb/gbt051

Currier, J. M., Holland, J. M., Rozalski, V., **Thompson, K. L.**, Rojas-Flores, L., & Herrera, S. (2013). Teaching in violent communities: The contribution of meaning made of stress on psychiatric distress and burnout. *International Journal of Stress Management*, 20(3), 254-277. doi:10.1037/a0033985

Louder, M. A., **Thompson, K. L.**, & de Battista, J. (2012). The King's Speech. *Journal of Feminist Family Therapy*, 24(2), 174-179. doi:10.1080/08952833.2012.648130

Thompson, K. L., Devis, K. Z. & Louder, M. A. (2012). The Roving Reporter. *Journal of Family Psychotherapy*, 23(4), doi:10.1080/08975353.2012.735603

MANUSCRIPTS UNDER REVIEW

Holland, J. M., **Klingspon, K. L.**, & Neimeyer, R. A. (2015). *Bereavement-related regrets and unfinished business with the deceased*. Manuscript submitted for publication.

CONFERENCE AND OTHER PRESENTATIONS

Holland, J. M., **Klingspon, K. L.**, Beckman, L., Plant, C., Rakhkovskaya, L., Rozalski, V., & Williams, C. D. (2015, May). *Family behavior therapy for substance abuse problems in later life*. Poster presentation at the 2015 National Veterans Administration Research Week Poster Presentation, Las Vegas, NV.

Klingspon, K. L., Chong, G., & Holland, J. M. (2015, May). *Loss experiences in chronic illness*. Lecture presentation presented at the 95th annual Western Psychological Association (WPA) Conference, Las Vegas, NV.

Schubert, K., Ross, E., & **Klingspon, K. L.** (2015, May). *Assessing the Barratt Impulsiveness Scale-11's ability to validly measure impulsivity*. Poster presentation at the 95th annual Western Psychological Association (WPA) Conference, Las Vegas, NV.

Lopez, F., **Klingspon, K. L.**, & Holland J. M. (2015, February). *Bereavement-related regrets and unfinished business with the deceased*. Poster presentation at the 18th annual American Association of Behavioral and Social Sciences (AABSS) Conference, Las Vegas, NV.

Gomez, Z., **Klingspon, K. L.**, & Holland, J. M. (2014, October). *Ethnic differences among bereaved Alzheimer's caregivers across three domains of grief*. Poster presentation at the Fall 2014 International Organization of Social Sciences and Behavioral Research (IOSSBR) Conference, Las Vegas, NV.

Thompson, K. L., & Holland, J. M. (2014, February). *Unfinished business in bereavement: A mixed methods study*. Lecture presentation presented at the 17th annual American Association of Behavioral and Social Sciences (AABSS) Conference, Las Vegas, NV.

Holland, J. M., & **Thompson, K. L.** (2013, November). *Unfinished business and grief*. Lecture presentation presented at Osher Lifelong Learning Institute (OLLI), University of Nevada, Las Vegas.

Devis, K. Z., **Thompson, K. L.**, Louder, M.A., & Hertlein, K. M. (2011, April). *Attachment and couple sexual functioning*. Poster session presented at the 43rd annual American Association of Sexuality Educators, Counselors, and Therapists Conference, San Diego, CA.

SCHOLARSHIPS, GRANTS AND AWARDS

UNLV College of Liberal Arts (COLA) Dean's Graduate Award	2015-2016
UNLV Graduate College Summer Session Scholarship	
Patricia Sastaunik Scholarship	
Sterling Scholarship	
UNLV Ph.D. Student Summer Faculty Research Award	2014-2015
UNLV Graduate College Summer Session Scholarship	
UNLV Graduate College Summer Session Scholarship	2013-2014
UNLV Graduate College Summer Session Scholarship	2012-2013

TEACHING EXPERIENCE

University of Nevada, Las Vegas

Psychology 101 - Introduction to Psychology

Fall 2014 - Spring 2016

AD HOC REVIEWER

Death Studies	2013-2015
Comprehensive Psychiatry	2013
International Journal of Therapy and Rehabilitation	2013

RESEARCH EXPERIENCE

GRADUATE RESEARCH LAB ASSISTANT 2012-2013

UNLV Stressful Transitions and Aging Research Laboratory
Supervisor: Jason M. Holland, Ph. D.

UNDERGRADUATE RESEARCH LAB ASSISTANT 2007-2009

UNLV Behavioral Neuroscience Laboratory
Supervisor: Jefferson Kinney, Ph. D.

CLINICAL EXPERIENCE

CLINICAL DOCTORAL STUDENT PSYCHOLOGY INTERN 2016-2017

VA Southern Nevada Healthcare System
Training Directors: Heather L. Manor, Psy. D., Robert Mirabella, Ph. D.

CLINICAL DOCTORAL STUDENT GRADUATE CLINICIAN 2015-2016

VA Southern Nevada Healthcare System
Northwest Primary Care Clinic
Supervisor: Sarah Raymond, Ph. D.

CLINICAL DOCTORAL STUDENT GRADUATE CLINICIAN 2014-2015

VA Southern Nevada Healthcare System
Mental Health - Main Hospital
Supervisor: Carl D. Williams, Ph. D.

CLINICAL DOCTORAL STUDENT GRADUATE CLINICIAN 2013-2014

The PRACTICE Clinic
University of Nevada, Las Vegas
Supervisor: Noelle Lefforge, Ph. D.

LICENSED MARRIAGE AND FAMILY THERAPY (MFT) INTERN 2012-2013

Renewing Life Center, Non-Profit Family Counseling Center
Supervisors: Colleen Peterson, Ph. D., Mark Whelchel, M.S.

MFT GRADUATE CLINICIAN (PRACTICUM STUDENT) 2011

Comprehensive Cancer Center of Nevada
Supervisor: Colleen Peterson, Ph. D.

MFT GRADUATE CLINICIAN (PRACTICUM STUDENT) 2010-2011

Center for Individual, Couple and Family Counseling
University of Nevada, Las Vegas
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