ANXIETY DISORDERS (DJ STEIN, SECTION EDITOR)

Bereavement and Anxiety

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Abstract Bereavement, one of life's most difficult experiences, usually triggers acute grief with yearning and longing for the deceased person that is often intense and preoccupying, along with frequent thoughts and memories of the person who died and relatively little interest in anything unrelated to the deceased loved one. Anxiety is a very common feature of grief that is often neglected. Anxiety is a natural response of the attachment system to separation from a loved one, seen in adults as well as children. Confrontation with one's own death is also a natural trigger of anxiety, though we usually protect ourselves from mortality salience using terror management strategies related to cultural values and self-esteem. In addition, loss of a loved one can trigger the onset of a DSM-IV anxiety disorder that, when present, can derail the mourning process and prolong acute grief. Bereavement-related anxiety disorders need to be recognized and treated.

Keywords Bereavement · Grief · Anxiety · Death anxiety · Mortality salience · Terror management theory · Separation anxiety · Anxiety disorders · Attachment theory · Post-traumatic stress disorder · PTSD · Panic disorder · Generalized anxiety disorder · NIH Research Domain Criteria

Introduction

Loss is identified in the National Institute of Mental Health Research Domain Criteria [1] as one of the core, universal

M. K. Shear (⊠) • N. A. Skritskaya Columbia University School of Social Work, 1255 Amsterdam Avenue, New York, NY 10027, USA e-mail: ks2394@columbia.edu negative valence experiences expected to be associated with subsequent activation of identifiable brain circuitry. Bereavement, defined as loss of a loved one, is the prototypic loss experience. Bereavement is widely recognized as one of life's most difficult experiences and is expected to trigger an instinctive grief response. As a consequence, clinicians are often confused as to whether to diagnose and treat a bereaved person. Authors of the diagnostic nomenclature have long been concerned about inadvertently encouraging clinicians to diagnose people experiencing normal grief. Much of the confusion centers on symptoms of depression. However, grief is not a simple emotion [2], but rather contains a complex and multifaceted array of features, some of which also manifest as anxiety. The situation is further complicated by the fact that in addition to evoking grief, bereavement is a major stressor that can trigger the onset or worsening of a DSM-IV disorder. A co-occurring mood or anxiety disorder can complicate the natural grief reaction and prolong the pain related to the loss. In order to best know how to help the bereaved, it is important to understand the symptoms of normal grief and to be alert to clinically significant symptoms of comorbid disorders. This paper focuses on anxiety as a component of normal grief and on describing the rates and risk factors for co-occurring anxiety.

Sorrow and yearning are core features of grief. However, other emotions, including anxiety, are also seen frequently during acute grief. Fear and anxiety are the usual, natural response to danger or significant threat of danger. Danger can be social or physical, and the threatening situation can be internal or external. We protect ourselves from danger primarily by flight or fight responses. The threat of danger can also be triggered by loss of our usual sense of protection. Companionship with others, in particular our closest attachments, contributes importantly to protection from social and physical threats and serves as an important source of security and well-being. We often experience some degree of separation anxiety during periods when significant others are unavailable and/or perceived to be in some danger themselves. Correspondingly, separation anxiety is usually a prominent feature of acute grief. A number of studies [3–12, 13•, 14] confirm that anxiety, like sadness, is usually present during acute grief. However, far less attention is usually paid to symptoms of anxiety during acute grief. The stress of bereavement can trigger the onset or worsening of a major depressive disorder (MDD) and also of anxiety disorders. Anxiety disorders, like depression, can complicate grief and interfere with the natural healing process.

Worldwide, more than 60 million people die each year, leaving untold numbers of close friends and relatives behind. Estimates place the numbers of bereaved people at about two to five times the number of deaths. A recent study in Germany found that 60 % of an epidemiologic sample reported having experienced bereavement [15]. Translated to about 6.5 billion people in the world, this would mean about 3.9 billion of us have lost a loved one at some point in our lives. In the United States alone, the estimate is 186 million. Bereavement typically triggers an acute grief response that includes anxiety related to the separation along with yearning and longing for reunion and deep sadness about the loss. These feelings are often accompanied by a sense of disbelief that the person is really gone. Initially, interest and energy are strongly focused on thoughts and memories of the deceased, with relative disinterest in other things. It takes some time to come to terms with the painful reality, to comprehend its frightening finality and far-flung consequences, and to find a way to re-envision a meaningful future without this person.

Acute grief is a transiently disruptive experience that is self-limited and heals naturally as people understand and integrate information about the finality and consequences of the loss and re-envision their future without the deceased. Bereavement-related anxiety as a part of acute grief can be understood as focused primarily on uneasiness related to loss of a safe haven and secure base provided by the deceased, and on the confrontation with mortality. These common forms of anxiety usually resolve over time and may leave the person feeling stronger and more capable than before the death [4]. A small study of neuroendocrine functioning collected data at 10 days, 40 days, and 6 months post-loss [16]. Results showed that the Hamilton Rating Scale for Anxiety was elevated at 10 days and 40 days post-bereavement, but not at 6 months. However, sometimes anxiety can be intense and impairing and can interfere with the progress of grief. In particular, several studies document the occurrence of diagnosable anxiety disorders in the wake of bereavement. We review these studies below.

A number of authors have examined the occurrence and risk factors for symptomatic anxiety following bereavement.

Much of this work focuses on the predictors and consequences of anxiety symptoms without respect to the focus of the anxiety. Cognitive and somatic symptoms are assessed, and these seem to form a cluster that performs similarly but also separately from depression and grief symptoms. A smaller group of papers have assessed the presence and clinical correlates of anxiety disorders in the wake of bereavement. These studies focus primarily on panic disorder, generalized anxiety disorder, and post-traumatic stress disorder (PTSD). Taken together, this work strongly suggests the importance of anxiety as a component of bereavement reactions that is clinically significant. The purpose of this paper is to provide an overview of anxiety as a normal component of grief, as well as clinically significant bereavement-related anxiety, as both a dimensional construct and as related to DSM-IV disorders. This review is not systematic or comprehensive, but rather seeks to provide an introduction to the topic of bereavement-related anxiety.

The Emotional Response to Death and Terror Management Theory

One's own death and loss of a loved one are two of the most threatening experiences we ever have. Because of this, we appear to have evolved neurobiological mechanisms to protect us from these experiences and/or help us adjust to them. Social psychologists have proposed a well-researched model called *terror management theory* [17, 18] that posits "much of our daily behavior is motivated by ongoing unconscious concerns about death." They further suggest that awareness of death is associated with intense anxiety. A series of experiments over the past three decades support this theory and elucidate mechanisms of death thought accessibility and processes that buffer the anxiety [19, 20, 21•, 22•, 23–25]. Much of the research in this area utilizes procedures for evoking death thought accessibility, also called mortality salience induction. Studies have focused on proximal and/or distal buffering of the anxiety related to these thoughts. When thoughts of death enter consciousness, they are thought to be defended against through suppressing the thoughts, reducing self-focused attention, or trivializing the idea of one's imminent vulnerability to death. Distal defenses are those that are activated by unconscious or implicit activation of death reminders. Implicit management processes include increasing self-esteem and/or faith in one's own cultural world view. Interestingly, a recent study demonstrated that cognitive processing of death-related linguistic cues, compared with other negative-valence words, is associated with reduction in BOLD activity in right and left insula, consistent with the findings of reduction in self-focused attention [21•].

Mortality salience studies have included topics such as cancer, terrorism, and other life-threatening situations, but

few have examined mortality salience or the effects of death thought accessibility following bereavement. Notwithstanding the dearth of research, it is clear that bereavement is a trigger for death thought accessibility. Moreover, it is likely a strong enough trigger for many people that anxiety is not fully buffered. There are a few studies of death anxiety, as well as dying anxiety among bereaved spouses and parents [26-28, 29•]. These studies mostly support the idea that there is an increase in death and/or dying anxiety associated with bereavement. Interestingly, though, at least one cited book found that having a loved one die reduced the fear of death. We have also observed this phenomenon in people with complicated grief. By contrast, a recent study of death anxiety in bereaved Mothers Against Drunk Driving and bereaved families of Ontario showed that death anxiety was significantly associated with complicated grief [30]. In either case, confrontation with death is by definition highly stressful, and this is true not only for bereaved people, but also for psychotherapists and other health care professionals who work with them. Professionals need to come to terms with the reality of death and loss in order to work effectively with bereaved patients.

The Emotional Response to Loss

The experience of loss of a loved one is almost always intensely painful, with separation anxiety a component of the pain. Since the introduction of attachment theory by Bowlby [31, 32] in the last half of the 20th century, it has become increasingly clear that humans, as well as some other animals, are biologically predisposed to seek, form, and maintain close relationships with a small number of people. Most people have relationships with one to five such individuals throughout their life span [33]. Our loved ones are intrinsically rewarding to be with, and they serve as a secure base, sharing in our success and encouraging us to try new things. They are also a safe haven to whom we turn when we are under stress. When such a person is unavailable or unresponsive, this creates a threatening situation and triggers anxiety. Anxiety in turn triggers proximity seeking, regularly seen during acute grief. Notably, professionals may find that thoughts about the possibility of loss of their own closest relationships are triggered by work with bereaved people. As with death anxiety, feelings about loss of a loved one need to be addressed by a therapist in order to work comfortably with bereavement. In summary, anxiety related to death and loss is a natural part of the experience of bereavement and also a natural reaction to working with bereaved people. In addition, the stressful consequences of bereavement can trigger anxiety related to a myriad of possible challenging new demands. When anxiety is severe, it can become a problem in itself and interfere with the mourning process.

Bereavement-Related Anxiety Symptoms

Bereavement may engender high levels of fear and anxiety, especially when a loss is very difficult. Zisook et al. [34] noted "... symptoms of anxiety may be more prevalent than is often appreciated." They went on to note that early bereavement frequently brings feelings of inadequacy, insecurity, and helplessness that are compounded by realistic stressors such as financial adversity and social isolation. Findings from the San Diego widowhood study documented that the bereaved population showed statistically significant elevations at both 2 and 7 months post-loss in SCL-90–rated anxiety symptoms, including anxiety, somatization, interpersonal sensitivity, and obsessive-compulsive symptoms. Anxiety symptoms were reported as prominent in about 20 % of the bereaved spouses.

Prigerson et al. [35] identified an anxiety symptom cluster on factor analysis of symptoms reported by bereaved spouses 6 months after the death. Symptoms of restlessness, anxiousness, nervousness, fear of abandonment, and feeling worried loaded on a specific factor, different from symptoms of depression or complicated grief. This group reported on another study of spousally bereaved elders, rating symptoms at 6, 12, and 18 months post-loss. Factor analysis revealed that anxiety symptoms (hostility, anxiety, and somatization) formed a cluster different from grief and depression at each of the three time points. The anxiety factor correlated 0.55, 0.49, and 0.57 with depression at 6, 12, and 18 months, respectively, and correlated with grief 0.60, 0.67, and 0.56, respectively. Anxiety levels at baseline predicted anxiety and depression at follow-up.

A population-based study of anxiety, depression, and grief in parents who lost a child to malignancy was conducted using the Swedish National Register of Cancer [10]. Results showed an increased risk for anxiety (OR, 1.5 [95 % CI, 1.1–1.9]) among bereaved compared with non-bereaved parents, as well as for depression, low psychological wellbeing, and quality of life. The OR for anxiety was slightly higher (1.7 [95 % CI, 1.3-2.3]) during the period 4 to 6 years after the death, again similar to depression, well-being, and quality of life. Mothers, but not fathers, had elevated odds of developing anxiety or depression compared with nonbereaved mothers or fathers, respectively. Scores on the Spielberger Trait Anxiety Inventory (STAI) above the 90th percentile were endorsed by about 10 % of the non-bereaved controls and about 17 % of the bereaved parents 4 to 6 years after the death. Importantly, these results suggest that bereavement comprises a long-term risk for clinically significant anxiety symptoms, but this risk is not high, with the OR less than 2 on a single item of anxiety and the great majority of parents (>80 %) scoring below the clinical range on the STAI.

Another European study assessed anxiety, depression, and grief symptoms in a convenience sample of bereaved

individuals recruited by professional and lay mental health counselors seeing bereaved people and by advertisement on an Internet site [36]. Anxiety was assessed using a five-item scale from the Brief Symptom Inventory that included nervousness or shakiness inside, feeling fearful, heart pounding or racing, spells of terror or panic, and feeling restless-each rated from 1 (never) to 5 (always). Results indicated that these anxiety symptoms could be differentiated on factor analysis from grief and depression. Additionally, regression analyses indicated unique predictive power of baseline anxiety for lower mental health at follow-up, as well as less energy, lower general health perception, more difficulty sleeping, and greater levels of anxiety and depression. A recent review [37] summarized the psychosocial outcomes of parents whose children died of cancer. Seventeen studies were available for this summary, which identifies increased risk among these parents for anxiety symptoms as well as depression and complicated grief. This paper also outlines problems with existing studies and makes suggestions for future research.

A study of widows of men who died of prostate or bladder cancer was conducted using the Swedish registry [38]. All men had received the diagnosis at least 90 days prior to their death. Widows were evaluated approximately 3 years after the death. Anxiety was reported using a visual analogue scale as well as the Spielberger Trait Anxiety Scale. The investigators found that widows who had an awareness of their husband's impending death for less than 24 h were at risk of significantly greater anxiety 3 years later. More specifically, 40 % of this group endorsed current anxiety on the visual analogue scale and 20 % scored above the 90th percentile on the Spielberger Trait Anxiety Scale. Factors associated with having a short awareness time included not being informed about the terminal nature of the disease or of the patient's inevitable demise during the week prior to his actual death, having little access to health care professionals, having little support during the patient's illness, and poor relationships with significant others aside from the partner.

A recent review of parents whose children died from cancer [14] found elevated rates of anxiety, depression, and prolonged grief among parents whose child died of cancer. Focusing on studies comparing subgroups of bereaved parents' experiences with the illness revealed that parents reported more bereavement-related anxiety when the child had received hematopoietic stem cell transplant, when the child experienced significant anxiety, or when the parent had a period of awareness (intellectual or emotional) of less than 24 h prior to the child's death.

Suicide bereavement is a particularly difficult experience that has received some recent attention. Given the current rates of suicide in the United States, an estimated 5 million people have been bereaved by suicide within the past quarter century. Losing a loved one by suicide may trigger greater psychological distress than other kinds of bereavement, but this has not been clearly documented. As with other kinds of bereavement, the relationship to the person who died is likely central in determining the effects of the death. A recent study [13•] reported on anxiety, depression, and grief symptoms among suicide survivors who had differing relationships to the deceased within the first month after the loss. Anxiety, measured using the Brief Symptom Inventory subscale, was significantly elevated in close relatives (defined as parent, child, spouse, or sibling) compared with distant (defined as in-law, aunt/uncle, niece/nephew, friend, or coworker), as were depression and mental healthrelated quality of life.

There is evidence for cross-cultural similarities in vulnerability to bereavement-related anxiety. For example, Chiu et al. [39] conducted telephone interviews with caregivers of 511 terminal cancer patients who had been treated in a hospice unit. They found elevated scores on the Beck Anxiety Inventory (BAI) in female compared with male caregivers. In addition, having a spousal relationship with the deceased, experiencing a longer duration of caring for patients, and having a medical illness themselves all comprised risk factors for high BAI scores. Family and social support were protective for anxiety. The authors also conducted logistic regression analyses with the BAI dichotomized as above and below 36 (severe anxiety) and found that older caregivers with medical disease, parent-child relationship, and female gender predicted the clinically significant level of symptoms.

In summary, there is clear evidence from many studies of different bereaved populations that indicates an increased risk of clinically significant anxiety (eg, symptoms on standard rating scales that are >90th percentile in severity.) That noted, it is important to remember that high levels of anxiety are present in a fairly small subgroup (~10 %-20 %) of bereaved people, even those who have suffered a very difficult loss. For the most part, anxiety and depression subside or even resolve completely within a period of 6 to 8 months after bereavement. Grief also typically recedes over this time period, though grief is usually permanent after we lose someone close. The form of grief changes such that it no longer dominates the mental landscape, but most of us do not stop missing a deceased loved one or feeling sorrow over the loss. The transformation from acute to integrated grief requires that a bereaved person find a way to make peace with the painful reality, to come to terms with the finality and consequences of the loss, and to find a way to re-envision his or her own life with their loved one no longer present. If bereavement has triggered or exacerbated an anxiety disorder, as sometimes occurs, then grief may be complicated and integration blocked.

Anxiety Disorders in the Wake of Bereavement

Acute grief is a very painful and disruptive state that contains symptoms of anxiety and depression. However, acute grief has characteristics that are very different from the syndrome we identify as MDD and different from any of the eight anxiety disorders. For one thing, a grieving person experiences prominent yearning and longing for the deceased person not seen in either MDD or any anxiety disorder. Sorrow and apprehension are present but are focused very specifically upon the loss and it consequences. With the possible exception of the immediate aftermath of the loss, most bereaved people experiencing grief still have the capacity to experience strong positive emotions, especially when thinking about their loved one. Unlike major depression, these occur along with the dysphoric ones.

The course of acute grief is typically erratic and unpredictable. However, periods of respite, even some "good days," begin to appear and become increasingly prevalent long before the mourning period is over, and the general trajectory of grief is toward attenuation of emotional intensity, resolution of anguish and uneasiness, and restoration of interest in activities and people unrelated to the deceased. In contrast, mood and anxiety disorders are chronic and often persistent over long periods of time. Most importantly, bereavement is a trigger rather than a protective factor for mood and anxiety disorders, and when they are present following bereavement, they can impede the natural healing process. In summary, symptoms of anxiety are commonly seen during a period of acute grief and are not necessarily pathological. In a subgroup of people, however, bereavement triggers the onset or worsening of an anxiety disorder that can in turn interfere with coming to terms with the loss. The most common anxiety disorders are PTSD, generalized anxiety disorder, and panic disorder. When present, it is inhumane to ignore them. People suffering from these disorders need to be provided with information and offered treatment.

Onrust and Cuijpers [40] reviewed existing studies of the prevalence and incidence of bereavement-related anxiety disorders and depression. They noted that there were surprisingly few studies of the prevalence of mental disorders after the loss of a spouse. They note that this is explained in part by the fact that depressive symptoms and anxiety are a normal part of the response to bereavement. They went on to suggest that there is likely a relationship between the occurrence and severity of these disorders in the initial period after the loss and the eventual outcome of the mourning process. Anxiety disorders are treatable, and when they occur in the wake of bereavement, it is as important to treat them effectively as when they occur at any other time—or possibly even more important. In spite of their importance, Onrust and Cuijpers [40] could identify only five studies that reported the occurrence of anxiety disorders in relation to bereavement. These studies all focused on PTSD, panic disorder, and generalized anxiety disorder. Since 2006, there appear to be one study of panic disorder and a number of studies of PTSD, and several studies of the prevalence of anxiety disorders among individuals suffering from complicated grief.

Jacobs et al. [41] provide the most systematic information about bereavement-related anxiety disorders. These investigators recruited 172 widows and widowers using death records to identify potential study participants. A little more than half of those contacted agreed to participate, including 48 who were bereaved for 6 months and 54 spouses bereaved for 12 months. Rates of panic disorder, agoraphobia, and generalized anxiety disorder were compared with previously published norms for the same community. Panic disorder was diagnosed in 6 % of those interviewed 6 months post-bereavement and 13 % among those interviewed at 12 months. These rates were markedly elevated in comparison to the 0.6 % rate in the general community. Corresponding rates for generalized anxiety disorder were 22 % at 6 months and 39 % at 12 months, again elevated in comparison to the 9 % rate in the overall community.

All totaled, 12 bereaved spouses (25 % of the interviewed sample) met criteria for at least 1 anxiety disorder in the first 6 months and more than half of these met criteria for multiple disorders. Twice as many met criteria at 1-year post-loss, with about 25 % meeting criteria for multiple disorders. The best predictor of both panic and generalized anxiety disorder was a past history of the disorder. Importantly, bereaved spouses who met criteria for an anxiety disorder had elevated levels of grief symptoms postulated to be manifestations of unresolved grief. This small study is one of the best existing studies of anxiety disorders following bereavement. There is a pressing need for more research in this area.

Zisook et al. [42] reported rates of PTSD in a group of widows (n=350) interviewed at 2 months, 13 months, and 25 months after the loss. They found 36 of 350 (~10 %) of the widows met criteria for PTSD at 2 months, and nearly half of these (40 %) still met PTSD criteria at 13 months. The majority of these (60 %) continued to meet criteria at 25 months, or about 25 % of those diagnosed with PTSD at 2 months post-loss. Widows with PTSD were younger than those without PTSD. PTSD was much more common (50 %) following accidental death compared with prolonged illness (10 %). Virtually all of those diagnosed with PTSD at 25 months also were experiencing depression.

Hagengimana et al. [43] also found elevated rates of an anxiety disorder among a population of Rwandan widows. Thirty-five percent of widows met criteria for panic disorder. Rates of depression and PTSD were elevated in those with panic disorder compared with those without panic. Several recent studies have documented the occurrence of PTSD among bereaved survivors of disasters. It is unclear whether the trigger of PTSD in these studies is related to the trauma of the disaster or the loss of a loved one. In at least one study of the recent Wenchuan earthquake in China, most of the participants were bereaved and bereavement status did not predict PTSD 1 year after the earthquake [44].

Over the past decade, our group has been studying the syndrome of complicated grief [45•]. This condition can be reliably identified as a form of prolonged acute grief in which troubling concerns about the circumstances or consequences of a death, or excessive avoidance behaviors and dysregulated emotions derail the natural mourning process. As a result, the bereaved person continues to experience intense yearning and longing and sadness, preoccupation with thoughts and memories of the deceased, and a sense of loss of purpose or meaning in a life that no longer holds the promise of joy or satisfaction. Anxiety disorders may be a pathway to complicated grief, as we have found comorbidity with anxiety disorders is common among individuals suffering from this condition. Simon et al. [46] reported rates of anxiety disorders among 206 participants in a treatment study of complicated grief. Sixty-two percent had at least one current anxiety disorder and 69 % reported at least one lifetime anxiety disorder. Among this population, PTSD was the most frequent co-occurring anxiety disorder (48 % current PTSD and 53 % lifetime). Additionally, 14 % had current panic disorder and 22 % lifetime panic disorder, 18 % reported current generalized anxiety disorder, 8 % current social anxiety disorder, and 6 % current obsessivecompulsive disorder. The presence of any anxiety disorder was associated with significantly greater severity of complicated grief, consistent with the possibility that anxiety disorders may be a risk factor for complicated grief. Also consistent with this idea and with the Jacobs et al. [41] study above, most of the anxiety disorders had an age at onset prior to bereavement.

More recently, we have unpublished data from another group of 305 individuals who met criteria for complicated grief and presented for treatment. In this sample, we found 27 % met criteria for current and 30 % for lifetime PTSD, while 14 % met criteria for current and 19 % for lifetime panic disorder. Twenty-three percent met criteria for generalized anxiety disorder. These rates closely resemble those from our previous study and further underscore the need to diagnose and treat bereavement-related anxiety disorders.

Conclusions

In summary, bereavement is a dreaded yet universal life event that is one of the most difficult experiences in the lives of most people. Losing someone close triggers an acute grief response that is painful and disruptive. Most people find the symptoms of acute grief unfamiliar and report feeling unprepared for its intensity, erratic course, and multifaceted symptoms. Among these symptoms, anxiety is very prevalent, due in large part to the natural anxiety related to loss of a close companion, to confrontation with mortality, and to the stressful nature of the myriad demands placed upon a bereaved person. Researchers have been slow to study bereavement, and the literature on grief and other bereavement-related symptoms has only recently begun to develop. Most recent studies focus on the course of grief and/or the occurrence of bereavement-related depression. However, anxiety symptoms and anxiety disorders, especially PTSD, panic disorder, and generalized anxiety disorder, are also prevalent and potentially impairing. There is a pressing need for studies of bereavement-related anxiety to better elucidate its underpinnings, risk factors, course, and treatment.

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References

Papers of particular interest, published recently, have been highlighted as:

- · Of importance
- National Institute of Mental Health: Research Domain Criteria (RDoC). Available at http://www.nimh.nih.gov/research-funding/ rdoc/index.shtml. Accessed February 2012.
- Bonanno G. Grief and emotion: a social-functional perspective. In: Stroebe MS, Hanssen RO, Stroebe W, Schut H, editors. Handbook of bereavement research: consequences, coping, and care.Washington, DC: American Psychological Association; 2001. p. 493–515.
- Vezina J, Bourque P, Belanger Y. Spousal loss: depression, anxiety and well-being after grief periods of varying lengths. Can J on Aging. 1988;7:391–6.
- Lindstrom TC. Anxiety and adaptation in bereavement. Anxiety Stress Coping. 1995;8:251–61.
- Thuen F, Reime MH, Skrautvoll K. The effect of widowhood on psychological wellbeing and social support in the oldest groups of the elderly. J Ment Heal. 1997;6:265–74.
- Carr D, House JS, Kessler RC, et al. Marital quality and psychological adjustment to widowhood among older adults: a longitudinal analysis. J Gerontol B Psychol Sci Soc Sci. 2000;55:S197– 207.
- Carr D, House JS, Wortman C, et al. Psychological adjustment to sudden and anticipated spousal loss among older widowed persons. J Gerontol B Psychol Sci Soc Sci. 2001;56:S237–48.
- Carr D. A "Good Death" for whom? Quality of spouse's death and psychological distress among older widowed persons. J Health Soc Behav. 2003;44:215–32.

- Carr D. Black/White differences in psychological adjustment to spousal loss among older adults. Res Aging. 2004;26:591–622.
- Kreicbergs U, Valdimarsdottir U, Onelov E, et al. Anxiety and depression in parents 4–9 years after the loss of a child owing to a malignancy: a population-based follow-up. Psychol Med. 2004;34:1431–41.
- Ong AD, Bergman CS, Bisconti TL. Unique effects of daily perceived control on anxiety symptomatology during conjugal bereavement. Personal Individ Differ. 2005;38:1057–67.
- Wolchik SA, Ma Y, Tein JY, et al. Parentally bereaved children's grief: self-system beliefs as mediators of the relations between grief and stressors and caregiver-child relationship quality. Death Stud. 2008;32:597–620.
- 13. Mitchell AM, Sakraida TJ, Kim Y, et al. Depression, anxiety and quality of life in suicide survivors: a comparison of close and distant relationships. Arch Psychiatr Nurs. 2009;23:2–10. *This paper reports on anxiety experienced by suicide-bereaved individuals. This is an important subgroup of bereaved people whose suffering is often somewhat different from individuals bereaved in other ways.*
- Rosenberg AR, Baker KS, Syrjala K, Wolfe J. Systematic review of psychosocial morbidities among bereaved parents of children with cancer. Pediatr Blood Canc. 2012;58:503–12.
- Kersting A, Brahler E, Glaesmer H, Wagner B. Prevalence of complicated grief in a representative population-based sample. J Affect Disord. 2011;131:339–43.
- Gerra G, Monti D, Panerai AE, et al. Long-term immuneendocrine effects of bereavement: relationships with anxiety levels and mood. Psychiatr Res. 2003;121:145–58.
- Rosenblatt A, Greenberg J, Solomon S, et al. Evidence for terror management theory: I. The effects of mortality salience on reactions to those who violate or uphold cultural values. J Personal Soc Psychol. 1989;57:681–90.
- Pyszczynski T, Greenberg J, Solomon S. A dual-process model of defense against conscious and unconscious death-related thoughts: an extension of terror management theory. Psychol Rev. 1999;106:835–45.
- Cox CR, Arndt J, Pyszczynski T. Terror management and adults' attachment to their parents: the safe haven remains. J Pers Soc Psychol. 2008;94:696–717.
- Rutjens BT, Van Der Pligt J, Van Harreveld F. Things will get better: the anxiety-buffering qualities of progressive hope. Pers Soc Psychol Bull. 2009;35:535–43.
- 21. Han S, Qin J, Ma Y. Neurocognitive processes of linguistic cues related to death. Neuropsychologia. 2010;48:3436–3442. This interesting paper supports the idea that thoughts of death are linked to the self concept and also that such thoughts are specifically recognized by the brain as different from other kinds of stressful thoughts.
- 22. Hayes J, Schimel J, Arndt J, Faucher EH. A theoretical and empirical review of the death-thought accessibility concept in terror management research. Psychol Bull. 2010;136:699–739. This paper introduces the reader to the concept of death thought accessibility and to the theory and research related to terror management. These ideas have not reached clinical mental health professionals and are of potential clinical significance.
- Maxfield M, Pyszczynski T, Greenberg J, et al. The moderating role of executive functioning in older adults' responses to a reminder of mortality. Psychol Aging. 2012;27:256–63.
- 24. Willis GB, Tapia A-V, Martinez R. I control therefore i am: effects of mortality salience on control attributions. Span J Psychol. 2011;14:765–72.
- Cox CR, Arndt J. How sweet it is to be loved by you: the role of perceived regard in the terror management of close relationships. J Pers Soc Psychol. 2012;102:616–32.

- Florian V, Mikulincer M. Fear of personal death in adulthood: the impact of early and recent losses. Death Stud. 1997;21:1–24.
- 27. End CE, Bond JB. Death anxiety in adolescents: the contributions of bereavement and religiosity. Omega. 2007;55:169–84.
- Ghufran MA, Ansari S. Impact of widowhood on religiosity and death anxiety among senior citizens. J Indian Acad Appl Psychol. 2008;34:175–80.
- 29. Azaiza F, Ron P, Shoham M, Tinsky-Roimi T. Death and dying anxiety among bereaved and nonbereaved elderly parents. Death Stud. 2011;35:610–624. This paper introduces the reader to the ideas of death anxiety and dying anxiety, including similarities and differences. The paper helps the reader understand how anxiety about death can contribute to grief after losing a loved one.
- Tolskikova K, Fleming F, Chartier B. Grief, complicated grief, and trauma: the role of the search for meaning, impaired selfreference, and death anxiety. Illness Crisis Loss. 2005;13:293– 313.
- Bowlby J. Some pathological processes set in train by early mother-child separation. J Ment Sci. 1953;99:265–72.
- 32. Bowlby J. Separation anxiety. Int J Psychoanal. 1960;41:89–113.
- Antonucci TC, Akiyama H, Takahashi K. Attachment and close relationships across the life span. Attach Hum Dev. 2004;6:353–70.
- Zisook S, Schneider D, Shuchter SR. Anxiety and bereavement. Psychiatr Med. 1990;8:83–96.
- Prigerson HG, Shear MK, Newsom JT, et al. Anxiety among widowed elders: is it distinct from depression and grief? Anxiety. 1996;2:1–12.
- Boelen PA, Prigerson HG. The influence of symptoms of prolonged grief disorder, depression, and anxiety on quality of life among bereaved adults: a prospective study. Eur Arch Psychiatry Clin Neurosci. 2007;257:444–52.
- 37. Hendrickson KC. Morbidity, mortality, and parental grief: a review of the literature of the relationship between the death of a child and the subsequent health of parents. Palliat Support Care. 2009;7:109–19.
- Valdimarsdottir U, Helgason AR, Furst CJ, et al. Awareness of husband's impending death from cancer and long-term anxiety in widowhood: a nationwide follow-up. Palliat Med. 2004;18:434–43.
- Chiu YW, Yin SH, Hsieh HY, et al. Bereaved females are more likely to suffer from mood problems even if they do not meet the criteria for prolonged grief. Psycho-Oncology. 2011;20:1061–8.
- Onrust SA, Cuijpers P. Mood and anxiety disorders in widowhood: a systematic review. Aging Ment Health. 2006;10:327–34.
- Jacobs S, Hansen F, Kasl S, et al. Anxiety disorders during acute bereavement: risk and risk factors. J Clin Psychiatr. 1990;51:269–74.
- Zisook S, Chentsova-Dutton Y, Shuchter SR. PTSD following bereavement. Ann Clin Psychiatr. 1998;10:157–63.
- 43. Hagengimana A, Hinton D, Bird B, et al. Somatic panic-attack equivalents in a community sample of Rwandan widows who survived the 1994 genocide. Psychiatr Res. 2003;117:1–9.
- 44. Zhang Z, Shi Z, Wang L, Liu M. One year later: mental health problems among survivors in hard-hit areas of the Wenchuan earthquake. Publ Health. 2011;125:293–300.
- 45. Shear MK, Simon N, Wall M, et al. Complicated grief and related bereavement issues for DSM-5. Depress Anxiety. 2011;28:103–117. This paper provides a review of bereavement-related diagnostic issues and helps the reader distinguish between anxiety disorders and bereavement-related anxiety.
- 46. Simon NM, Shear KM, Thompson EH, et al. The prevalence and correlates of psychiatric comorbidity in individuals with complicated grief. Compr Psychiatr. 2007;48:395–9.