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Death anxiety and its role in psychopathology: Reviewing the status of a transdiagnostic construct

Lisa Iverach [a,*], Ross G. Menzies [b], Rachel E. Menzies [c]

[a] Centre for Emotional Health, Department of Psychology, Macquarie University, North Ryde, NSW 2109, Australia
[b] Discipline of Behavioural and Community Health Sciences, Faculty of Health Sciences, University of Sydney, Lidcombe, NSW 1825, Australia
[c] School of Psychology, University of Sydney, Camperdown, NSW 2006, Australia

HIGHLIGHTS

- Death anxiety is a normal human experience, yet it can engender paralyzing fear.
- Terror Management Theory has generated extensive research into death anxiety.
- Death anxiety is a transdiagnostic construct involved in numerous disorders.
- Existential and Cognitive–Behavior therapies can successfully treat death anxiety.
- More research into the clinical aspects of death anxiety across disorders is needed.

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ABSTRACT

Death anxiety is considered to be a basic fear underlying the development and maintenance of numerous psychological conditions. Treatment of transdiagnostic constructs, such as death anxiety, may increase treatment efficacy across a range of disorders. Therefore, the purpose of the present review is to: (1) examine the role of Terror Management Theory (TMT) and Experimental Existential Psychology in understanding death anxiety as a transdiagnostic construct, (2) outline inventories used to evaluate the presence and severity of death anxiety, (3) review research evidence pertaining to the assessment and treatment of death anxiety in both non-clinical and clinical populations, and (4) discuss clinical implications and future research directions. Numerous inventories have been developed to evaluate the presence and severity of death anxiety, and research has provided compelling evidence that death anxiety is a significant issue, both theoretically and clinically. In particular, death anxiety appears to be a basic fear at the core of a range of mental disorders, including hypochondriasis, panic disorder, and anxiety and depressive disorders. Large-scale, controlled studies to determine the efficacy of well-established psychological therapies in the treatment of death anxiety as a transdiagnostic construct are warranted.

Contents

* Corresponding author. Tel.: +61 2 9850 8052; fax: +61 2 9850 8062.
E-mail address: lisa.iverach@mq.edu.au (L. Iverach).

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1. Introduction

There is growing interest in the role that transdiagnostic constructs play in the development, course, and maintenance of psychopathology. A transdiagnostic approach to psychopathology emphasizes symptoms and predispositions that occur across multiple diagnostic categories of mental disorders. These tendencies are thought to increase vulnerability to the development of any mental disorder, and may also contribute to maintenance of these disorders. For example, perfectionism is regarded as both a risk and maintaining factor for a range of negative psychological outcomes, including anxiety disorders, depression, obsessive–compulsive disorder, and eating disorders (Egan, Wade, & Shafran, 2011; Flett, Besser, Davis, & Hewitt, 2003; Frost & Steketee, 1997; Lo & Abbott, 2013; Sassaroli et al., 2008; Shafran & Mansell, 2001). Similarly, rumination, or the tendency to engage in negative perserverative cognitions, has been linked to emotional distress and the presence of anxiety disorders, depression, and obsessive–compulsive disorder (Abbott & Rapee, 2004; Kim, Yu, Lee, & Kim, 2012; McEvoy, Watson, Watkins, & Nathan, 2013; McLaughlin & Nolen-Hoeksema, 2011). Other transdiagnostic constructs that are thought to elevate psychological vulnerability and risk for a range of mental disorders include behavioral inhibition and avoidance (Dozois, Seeds, & Collins, 2009), low positive affect (Brown & Barlow, 2009), perceived lack of control (Gallagher, Naragon-Gainey, & Brown, 2014), intolerance of uncertainty (Mahoney & McEvoy, 2012), and magical ideation (Einstein & Menzies, 2006).

Cognitive behavioral models have been devised to describe the contribution of transdiagnostic constructs to the development and maintenance of psychopathology (Egan et al., 2011; Lo & Abbott, 2013; McEvoy et al., 2013; Shafran & Mansell, 2001). These models can guide the assessment and treatment of mental disorders, and also shed light on the high rate of comorbidity frequently found across disorders (Egan et al., 2011; Harvey, Watkins, Mansell, & Shafran, 2004; McEvoy et al., 2013; Pollack & Forbush, 2013; Shafran, Cooper, & Fairburn, 2002; Titov, Gibson, Andrews, & McEvoy, 2009). Evidence suggests that targeting these maladaptive transdiagnostic constructs in treatment regardless of diagnostic profile may improve outcomes and prevent the development of comorbid disorders (Abbott & Rapee, 2004; Dudley, Kuyken, & Padesky, 2011; Egan et al., 2011; McLaughlin & Nolen-Hoeksema, 2011; Titov et al., 2009).

Interventions for mental disorders have traditionally been developed with focus on disorders as separate and distinct (Dozois et al., 2009). More recently, however, Cognitive–Behavior Therapy (CBT) packages have been developed to address clinically significant transdiagnostic constructs across a range of disorders, including eating disorders, depression, and anxiety (Crow & Peterson, 2009; Fairburn, 2008; Lampard, Tasca, Balfour, & Bissada, 2013; Lundh & Ost, 2001; Shafran et al., 2002). Significant reductions in the presence and severity of these constructs have been associated with improvements in psychopathological symptoms (Egan et al., 2011; Kutlesa & Arthur, 2008). For instance, CBT for perfectionism has been found to result in significant reductions in anxiety, depression, and obsessionality (Pleva & Wade, 2007), and CBT to improve perceptions of control has been associated with recovery from anxiety disorders (Gallagher et al., 2014). Moreover, research has shown that patients reporting significantly elevated levels of perfectionism are less likely to respond to CBT treatment for social anxiety when compared to patients with lower levels of perfectionism, highlighting the importance of directly treating transdiagnostic constructs in conjunction with treatment for specific mental disorders (Lundh & Ost, 2001).

This approach to the treatment of transdiagnostic constructs has the potential to increase treatment efficacy, generalizability, and cost-effectiveness (Dozois et al., 2009; Egan et al., 2011). It also builds a valuable bridge between the traditional medical model of categorical classification and treatment of disorders, to a more contemporary approach based on empirically supported shared dimensions with emphasis on process and individual variability (Brown & Barlow, 2009; Maxfield, John, & Pyszczynski, 2014).

2. Death anxiety as a transdiagnostic construct

Awareness of mortality and fear of death have been part of the human condition throughout recorded history (Eshbaugh & Henninger, 2013; Furer & Walker, 2008; Yalom, 2008). According to Yalom (2008), human beings are, "*forever shadowed by the knowledge that we will grow, blossom, and inevitably, diminish and die*" (p. 1). Themes of death and the wound of mortality have featured heavily in both ancient and modern art, literature, theater, philosophy, and psychology (Menzies, 2012; Yalom, 2008). Not surprisingly, death has the power to evoke fears of powerlessness, separation, loss of control, and meaninglessness (Noyes, Stuart, Longley, Langbehn, & Happel, 2002; Stolorow, 1979; Yalom, 2008), and for some individuals, fear of death can negate fulfillment and happiness (Yalom, 2008).

Although human beings are thought to develop adaptive methods for coping with death anxiety, periods of heightened stress or threats to the health of self or loved ones can result in inefficient and pathological modes of coping for some individuals (Kastenbaum, 2000; Yalom, 1980, 2008). Consequently, death anxiety is considered to be a basic fear underlying the development, maintenance and course of numerous psychological conditions (Arndt, Routledge, Cox, & Goldenberg, 2005; Furer & Walker, 2008; Strachan et al., 2007), and it is not

uncommon for psychologists and therapists to encounter individuals who struggle with the concept of death (Yalom, 2008).

The transdiagnostic nature of death anxiety can be seen across several mental disorders. For example, fear of death features heavily in somatic symptom and related disorders, with body scanning, doctor visits, and requests for medical tests often used in an attempt to identify health problems before they become serious or terminal. In a similar manner, individuals with panic disorder frequently consult with doctors regarding fear of dying from a heart attack (Fleet & Beitman, 1998). Many compulsive hand washers often name chronic, life-threatening diseases (e.g., HIV) as being linked to their anxiety and behavioral responses to threat cues (St Clare, Menzies, & Jones, 2008), and compulsive checkers also report that scrutiny over power points and stoves is designed to prevent fire and death to self and loved ones (Vaccaro, Jones, Menzies, & St Clare, 2010).

In addition, many of the specific phobias are associated with fear of objects or situations that carry the potential for harm or death (e.g., flying, heights, animals, blood), with avoidance used to reduce the likelihood of feared outcomes (e.g., by avoiding flying, heights, spiders, dogs). Research also suggests that death anxiety may be featured in the experience of separation anxiety disorder and agoraphobia (Fleischer-Mann, 1995; Foa, Steketee, & Young, 1984). For instance, one of the defining features of separation anxiety disorder is persistent worry about losing major attachment figures, including loss through death (American Psychiatric Association, 2013). Likewise, individuals with agoraphobia often report that avoidance of unfamiliar places or isolation from security figures or objects is specifically designed to prevent such outcomes (Marks, 1987). Overall, these patient reports appear to build a strong case that death anxiety is the 'worm at the core' of many mental disorders (Arndt et al., 2005).

3. The present review

In light of the potential for death anxiety to occur across a range of mental disorders, the purpose of the present paper is to review evidence regarding death anxiety and its role in psychopathology. More specifically, the present paper will: (1) examine the role of Terror Management Theory in understanding death anxiety as a transdiagnostic construct, (2) outline inventories used to evaluate the presence and severity of death anxiety, (3) review research evidence pertaining to the assessment and treatment of death anxiety in both non-clinical and clinical populations, and (4) discuss clinical implications and future research directions.

In order to obtain all relevant publications for review, a psycINFO database search was conducted with the following keywords: "*death anxiety*" or "*fear of death*" and "*generalized/generalised anxiety disorder*", "*separation anxiety*", "*social anxiety*", "*social phobia*", "*panic disorder*", "*agoraphobia*", "*phobia*", "*specific phobia*", "*obsessive compulsive disorder*", "*posttraumatic stress disorder*", "*mood disorder*", "*affective disorder*", "*major depression*", "*major depressive disorder*", "*depression*", "*depressive disorder*", "*dysthymia*", "*dysthymic disorder*", "*cyclothymic disorder*", "*somatoform disorder*", "*conversion disorder*", "*hypochondriasis*", "*body dysmorphic disorder*", "*somatoform pain disorder*", "*pain disorder*", "*eating disorder*", "*bulimia*", "*anorexia nervosa*", "*cognitive behaviour/behavior therapy*", "*cognitive therapy*", "*behaviour/behavior therapy*", "*existential therapy*", "*therapy*". In addition, the Terror Management Theory (TMT) website (www.tmt.missouri.edu), which lists all known TMT studies, was also used to source additional studies of relevance. However, the present review was not intended to provide exhaustive coverage of all research pertaining to TMT or mortality salience (see Burke, Martens, & Faucher, 2010, for an excellent meta-analysis of this literature). Finally, in order to capture all relevant theoretical knowledge and empirical evidence pertaining to the presence of death anxiety or fear of death across mental disorders, the present review included empirical research published in peer-review journals, as well as material published in books, book chapters, and case studies/reports.

4. Terror Management Theory and death anxiety

Terror Management Theory is the leading, and most influential, theoretical approach to death anxiety (for a comprehensive overview, see Greenberg, 2012). According to Arndt and Vess (2008), Terror Management Theory is a, "*social psychological theory that draws from existential, psychodynamic, and evolutionary perspectives to understand the often potent influence that deeply rooted concerns about mortality can have on our sense of self and social behaviour*" (p. 909). The theory is based upon the work of Ernest Becker, a cultural anthropologist. Becker's (1973) existential view of death proposes that the human motivation to stay alive, coupled with the awareness that death can occur at any time, has the power to engender paralyzing fear of death. According to Terror Management Theory, cultural worldviews and self-esteem are thought to serve an important anxiety-buffering function in order to manage (or 'tranquilise') existential fear of death (Greenberg et al., 1992; Hayes, Schimel, Arndt, & Faucher, 2010; Pyszczynski, Greenberg, & Solomon, 1999; Routledge, 2012; Strachan et al., 2007). Cultural worldviews refer to shared symbolic conceptions of reality which are thought to provide a sense of permanence, order and meaning, such as believing in an afterlife or identifying with personal achievements and family (Greenberg, 2012; Strachan et al., 2007). On the other hand, self-esteem is garnered through the belief that one is meeting the standards and values of the cultural worldview. Research suggests that high or temporarily raised self-esteem, coupled with increased faith in one's worldview, allows an individual to function with minimal anxiety and defensiveness in response to threats (Greenberg, 2012; Greenberg et al., 1992).

The awareness of one's eventual death, also known as mortality salience or heightened death-thought accessibility, plays an integral role in Terror Management Theory (Burke et al., 2010; Greenberg, 2012). In particular, efforts to cope with one's impermanence are considered to be at the root of human social behavior, and can precipitate the development of symbolic language, creation of art and music, attempts to transcend the human body, as well as strong defense and aggression against those with alternative worldviews (Shaver & Mikulincer, 2012). Because humans typically rely on other people for social validation of their worldviews and self-esteem in order to obtain protection against anxiety, reminders of mortality can lead to favorable responding toward others who support one's worldview and self-esteem, and negative or even aggressive responding against those with opposing worldviews or who challenge the components of the anxiety-buffering system (Greenberg, Solomon, & Pyszczynski, 1997; McGregor et al., 1998). When an individual's view of his/her self and the world is threatened, he/she is likely to experience anxiety and defend against such threats in an attempt to regain psychological structure, maintain self-esteem, and uphold faith in their cultural worldview (Greenberg, 2012; Hayes et al., 2010).

Terror Management Theory provides a valuable framework for examining proximal and distal defenses against death anxiety (Abeyta, Juhl, & Routledge, 2014; Burke et al., 2010; Hayes et al., 2010; Pyszczynski et al., 1999). In particular, a dual process model has been proposed whereby proximal and distal defenses are used to prevent death-related thoughts from becoming death fears (Pyszczynski et al., 1999). According to this dual process model, when death-related thoughts come into conscious awareness, proximal (conscious, threat-focused) defenses are triggered in order to remove these thoughts from focal attention (Pyszczynski et al., 1999). These proximal defenses can include death-thought suppression and denial of vulnerability to mortality, and may include such strategies as maintaining optimum physical health for self or loved ones (Pyszczynski et al., 1999). However, when fear of death moves out of conscious awareness, the second part of the dual process model is activated, triggering distal (unconscious, symbolic) defenses. These distal defenses typically include strategies to protect the symbolic self and to reduce the accessibility of death-related thoughts, such as upholding cultural worldviews, shared

identities, and relationships that enhance self-worth, promote personal significance, and increase self-assurance that one will be remembered after death (Pyszczynski et al., 1999). This dual process model has been the focus of a substantial number of experimental studies, with evidence confirming the tendency for death-related thoughts to trigger defensive responding in order to reduce death fears (Abeyta et al., 2014; Burke et al., 2010; Greenberg, 2012; McGregor et al., 1998).

Terror Management Theory is closely aligned with Experimental Existential Psychology, an emerging sub-discipline within the field of social psychology directed toward investigating the impact of existential concerns on human thoughts and behavior using rigorous methods of psychological science (Fiske, Gilbert, & Lindzey, 2010; Greenberg, Koole, & Pyszczynski, 2004; Koole, Greenberg, & Pyszczynski, 2006; Pyszczynski, Greenberg, Koole, & Solomon, 2010). According to Experimental Existential Psychology, there are five major existential concerns facing human beings (death, freedom, isolation, identity, and meaning), and these concerns are thought to have a pervasive impact on human behavior even when they are not within conscious awareness (Greenberg et al., 2004; Koole et al., 2006; Pyszczynski et al., 2010). Not surprisingly, death is one of the most widely studied concepts within Experimental Existential Psychology, with the mortality salience paradigm used to evaluate terror management defenses against death anxiety across a considerable number of experimental studies (Koole et al., 2006). These studies have enhanced understanding of the role that existential cognition plays in social behavior (Hayes et al., 2010), and have provided incontrovertible evidence that existential issues have a pervasive, and typically unconscious, impact on human behavior (Koole et al., 2006).

Likewise, Terror Management Theory has relied heavily on experimental research to evaluate the theory, facilitating conceptual advances beyond theoretical contemplation (Hayes et al., 2010). Hundreds of studies have explored the basic tenets of the theory, and have highlighted the potential for death-related cognitions to influence human behavior. For instance, McGregor et al. (1998) conducted a series of studies exploring the aggressive responses of participants toward those with challenging worldviews. In one of these studies, participants with moderately conservative or liberal political views were asked to write a paragraph explaining their views about the United States politics, which they believed would be shared with another participant. Participants were then assigned to a mortality salient condition or a control condition. Participants in the mortality salient condition were instructed to describe their emotions at the thought of their own death, as well as their thoughts about what will happen to them when they die and once they are dead. This technique is the most commonly used method for inducing mortality salience (Burke et al., 2010; Greenberg, 2012). Participants in the control condition were asked to describe their emotions regarding a future aversive event (an important exam). Participants then received a bogus paragraph that they believed had been written by another participant, which either confirmed or threatened their political views.

In this study, the amount of hot sauce subsequently allocated by participants to the writer of the paragraph in a bogus food tasting experiment was used as a behavioral measure of aggression toward the writer. This decision was based on evidence that hot sauce is capable of inflicting pain, with a number of real world acts and media portrayals confirming the malevolent use of hot sauce to harm others (McGregor et al., 1998). In line with this, participants in this study were told that the author of the paragraph, "*did not like spicy foods and would have to consume the entire sample of hot sauce*" (p. 592). In the mortality salience group, participants who received a worldview-threatening paragraph were found to allocate more than double the amount of hot sauce to the writer of the bogus paragraph, in comparison with participants who received a worldview-consistent paragraph. In the control group, no difference in the amount of hot sauce was found in the worldview-threatening condition or the worldview-consistent condition. These findings support Terror Management Theory, and suggest that when primed with one's own mortality, individuals may behave aggressively toward, or deliberately harm, those who threaten their worldview.

These findings illustrate the potential for mortality salience to significantly influence human behavior, even when these behaviors have no obvious connection to death (Strachan et al., 2007). In line with this, a substantial number of studies have shown that mortality salience has the potential to influence behavior and perception across a wide range of life experiences and situations, including religion, politics, interracial conflict, driving, and acts of violence and terrorism (Burke et al., 2010; Hayes, Schimel, & Williams, 2008; Pyszczynski et al., 2006; Solomon, Greenberg, & Pyszczynski, 2004; Strachan et al., 2007). In particular, a recent meta-analysis of 277 mortality salience experiments conducted by Burke et al. (2010), found that mortality salience yielded moderate effects across an extensive array of worldview- and self-esteem-related variables.

For example, mortality salience has been shown to increase support for extreme military interventions by American forces (Pyszczynski et al., 2006), to reduce death-thought accessibility for participants attending to information about the death of individuals from a different religion (Hayes et al., 2008), to increase attributions of blame toward injured victims (Hirschberger, 2006), and to increase driving speed in a driving simulator for participants who perceived driving as related to self-esteem (Taubman-Ben-Ari, Florian, & Mikulincer, 2000). These effects of mortality salience are commonly referred to as "*worldview defence*" (Hayes et al., 2010, p. 701). That is, reminders of death may increase defensive needs to bolster self-esteem, thereby influencing or overriding rational behavioral and thought processes (Hirschberger, 2006). In addition, mortality salience has also been found to result in an "*unconscious and counter-intuitive*" coping response characterized by attending to positive emotional information (DeWall & Baumeister, 2007, p. 984). This suggests that reminders of death may cause some individuals to report higher levels of positive affect, with cognitive biases to support this positive affect.

Taken as a whole, these findings confirm the extent to which human behavior is influenced by the specter of death and impermanence. The consistent finding of hurtful responding toward individuals with alternative worldviews following priming with death provides strong evidence of the extent to which humans are troubled by their own mortality. Regardless of whether fear of death is conscious or unconscious, psychopathology is considered to be a maladaptive way of coping with these fears (Furer & Walker, 2008; Menzies, 2012; Strachan et al., 2007). Hence, the nature of death anxiety as a transdiagnostic construct plays an important role in evaluating and treating psychopathology.

5. Evaluating the presence and severity of death anxiety

Numerous self-report inventories have been developed to evaluate the presence and severity of death anxiety (for a review, see Neimeyer, 1994). The most widely used inventories include the Death Anxiety Scale (Templer, 1970; Templer et al., 2006), the Collett–Lester Fear of Death Scale (Collett & Lester, 1969; Lester, 1990), the Death Anxiety Inventory (Tomas-Sabado & Gomez-Benito, 2005), the Death Anxiety Questionnaire (Conte, Weiner, & Plutchik, 1982), and the Multidimensional Fear of Death Scale (Hoelter, 1979). Additional inventories include the Threat Index (Krieger, Epting, & Hays, 1979; Neimeyer, Dingemans, & Epting, 1977), the Thanatophobia Subscale of the Illness Attitudes Scale (Kellner, 1986), the Death Depression Scale Revised (Templer et al., 2001), and the Death Obsession Scale (Abdel-Khalek, 1998).

The Death Anxiety Scale and the Collett–Lester Fear of Death Scale appear to be the most widely used inventories in death anxiety research (Durlak, 1982; Furer & Walker, 2008). Both inventories have been used to evaluate death anxiety in non-clinical populations (Abdel-Khalek & Lester, 2009; Gilliland & Templer, 1985; Peal, Handal, & Gilner, 1981; Russac, Gatliff, Reece, & Spottswood, 2007; Testa, 1981; White, Gilner, Handal, & Napoli, 1983), and clinical populations of patients with a range of mental disorders, including anorexia, hypochondriasis, schizophrenia and manic depression (Giles, 1995; Hiebert, Furer, McPhail, & Walker, 2005; Khanna, Khanna, & Sharma, 1988). In addition, the Multidimensional Fear of Death Scale, which evaluates eight dimensions of

death anxiety (e.g., fear of the dying process, fear for significant others, fear of the unknown), has been used to evaluate death anxiety among adults diagnosed with agoraphobia and hyponchondriasis (Fleischer-Mann, 1995; Hiebert et al., 2005).

Overall, the wide array of death anxiety inventories that have been developed for clinical and research purposes confirms the importance of evaluating death anxiety in both non-clinical and clinical populations. However, the psychometric properties of some of these inventories have been questioned. For instance, Templer's Death Anxiety Scale is extensively used as a reliable and valid measure of death anxiety (Abdel-Khalek, 2004; Royal & Elahi, 2011), yet its forced choice response format, internal consistency, discriminant power, and factorial validity have been criticized (Abdel-Khalek, 1997; Durlak, 1982; McMordie, 1979). In addition, many death anxiety scales are regarded as unidimensional in nature and only provide a single measure of death anxiety (i.e., the total amount of death anxiety) (Durlak, 1982; Lester, 2007). In contrast, these unidimensional measures have also been found to tap into multiple dimensions of death anxiety (Durlak, 1982; Lonetto, Fleming, & Mercer, 1979; Tomas-Sabado & Gomez-Benito, 2005), thereby confirming the multifaceted nature of death anxiety and the need for multidimensional assessment tools. This suggests that multidimensional measures, such as the Multidimensional Fear of Death Scale (MFOD; Hoelter, 1979), hold promise for future research evaluating the complex dimensions of death anxiety. It is also possible that measurement of death anxiety as a transdiagnostic construct may require the development of an assessment tool specifically for this purpose.

Finally, when working with clinical populations, Furer and Walker (2008) also recommend that death anxiety inventories be supplemented with several self-report measures of anxiety, depression, distress, and psychological functioning, such as the Beck Depression and Anxiety Inventories (BDI-II; Beck, 1996; BAI; Beck, Epstein, Brown, & Steer, 1988), and the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1975). Assessing and monitoring symptoms of anxiety and depression is of particular importance given that comorbid disorders commonly occur with death anxiety (Furer & Walker, 2008). Nevertheless, death anxiety inventories are still frequently utilized in non-clinical populations, not only to evaluate the presence and severity of death anxiety, but also to manipulate or induce mortality salience (Burke et al., 2010).

6. Death anxiety in non-clinical populations

A large body of research has been dedicated to the study of death anxiety in non-clinical populations, and a number of consistent findings have emerged (Furer & Walker, 2008; Kastenbaum, 2000). In particular, females typically report higher death anxiety than males; higher education and socioeconomic status are moderately associated with lower death anxiety; older people do not typically report higher death anxiety than younger people; higher religious beliefs and practices are not necessarily associated with lower death anxiety; good physical health is associated with lower death anxiety; and more psychological problems are associated with higher levels of death anxiety (Abdel-Khalek & Lester, 2009; Eshbaugh & Henninger, 2013; Fortner & Neimeyer, 1999; Furer & Walker, 2008; Kastenbaum, 2000).

A considerable number of studies have reported on the treatment of death anxiety in non-clinical samples of nurses, healthcare professionals, students, lay people, and individuals facing serious, chronic, or terminal illnesses, such as cancer or HIV/AIDS (Furer & Walker, 2008). In these studies, various procedures to treat death anxiety have been used, including psychotherapy (Barrera & Spiegel, 2014), individual and group psychosocial therapy (Spiegel, 1995), dignity therapy (Chochinov et al., 2004), systematic desensitization (Bohart & Bergland, 1978; Peal et al., 1981; Testa, 1981), group implosive therapy (Testa, 1981), relaxation training (Peal et al., 1981; White et al., 1983), general anxiety reduction techniques (Rasmussen, 1997), humor therapy (Richman, 2006), brief gratitude induction therapy, and several other death education programs and workshops (Bell, 1975; Bohart & Bergland, 1978; McClam, 1980; Tausch, 1988).

Findings regarding the treatment of death anxiety among nurses, healthcare professionals, students, and lay people, have been mixed. Although significant reductions in death anxiety have been reported following a person-centered death discussion group (Tausch, 1988), and following desensitization and relaxation training for nursing students (White et al., 1983), conflicting findings have also been reported. In particular, Rasmussen (1997) reported that general anxiety reduction techniques were no more effective than no treatment in reducing death anxiety and death depression for nursing students, and other studies have reported no significant reductions in death anxiety following desensitization therapy for college students and nurses (Bohart & Bergland, 1978; Testa, 1981). Non-significant findings have also been reported in studies investigating the impact of death-related courses and education programs on death anxiety in college students, healthcare workers, and HIV-infected homosexual men (Bell, 1975; Braunstein, 2000; McClam, 1980). Further studies suggest that the accuracy of outcome measurement for desensitization and relaxation treatment among university students with high death anxiety may be influenced by the choice of death anxiety inventory used (Peal et al., 1981), highlighting the importance of using psychometrically-sound and well-validated measures of death anxiety when determining treatment outcomes.

Despite conflicting evidence regarding the efficacy of death anxiety treatment in non-illness groups, extensive support has been found for psychosocial interventions in oncology, hospice and palliative care settings (Barrera & Spiegel, 2014; Chochinov et al., 2004; Spiegel, 1995). Although there is some evidence that individuals with terminal conditions may report lower death anxiety than healthy controls, this may be a function of death denial (Dougherty, Templer, & Brown, 1986; Hayslip, Luhr, & Beyerlein, 1991). In contrast, there is considerable evidence that end-of-life conditions may be associated with death anxiety, depression, and psychological distress (Barrera & Spiegel, 2014; Lagerdahl, Moynihan, & Stollery, 2014; Lo et al., 2014; Royal & Elahi, 2011; Spiegel, 1995). For instance, patients with terminal conditions such as advanced cancer, HIV/AIDS, and heart disease, have been found to report higher death anxiety than healthy controls, family caregivers, and asymptomatic patients (Catania, Turner, Choi, & Coates, 1992; Feifel, Freilich, & Hermann, 1973; Sherman, Norman, & McSherry, 2010). There is also evidence that higher death anxiety in end-of-life care is associated with higher prevalence and severity of psychiatric disorders such as generalized anxiety and depression (Gonen et al., 2012; Krause, Rydall, Hales, Rodin, & Lo, 2014; Sherman et al., 2010). For instance, advanced cancer patients with a diagnosis of major depression have been found to report higher death anxiety than non-depressed advanced cancer patient (Krause et al., 2014), and death anxiety in cancer survivors has also been significantly correlated with general anxiety, depression, somatic distress, and global psychological distress (Cella & Tross, 1987). This suggests that death anxiety may be a transdiagnostic construct across terminal conditions.

Based on this evidence, reducing psychological distress and death anxiety is a fundamental element of end-of-life care and treatment (Lo, Hales, Jung, Chiu, Panday, Rydall, et al., 2014; Lo, Hales, Zimmermann, Gagliese, Rydall and Rodin, 2011; Sherman et al., 2010). According to Spiegel (1995), both individual and group psychotherapies in end-of-life care focus upon three central approaches: social support, emotional expression, and cognitive symptom management. These approaches address the psychological consequences associated with dying, including death anxiety, and have been associated with several psychosocial improvements, such as reduced depression and anxiety, enhanced quality of life, decreased pain, and improved coping skills (Lo et al., 2011; Lo et al., 2014; Sherman et al., 2010; Spiegel, 1995). For instance, Lo et al. (2014) recently reported on the efficacy of a brief individual psychotherapy, Managing Cancer and Living Meaningfully (CALM), for targeting the physical and psychosocial challenges faced by patients with advanced

cancer. This therapeutic approach focuses on symptom control, self-concept and relationships, spiritual well-being and life purpose, and preparing for the future and facing mortality. In a phase 2 study, CALM was associated with significant reductions in depressive symptomatology and death anxiety over time, with the largest effect found for death anxiety (Lo et al., 2014).

Overall, these findings from end-of-life care bolster our understanding regarding the treatment of death anxiety, and indicate the potential for applying these treatment strategies across psychological conditions associated with death anxiety. There is, nonetheless, one significant difference between end-of-life and clinical populations, and this pertains to the imminence of death. In particular, individuals with terminal illness are facing the reality of certain and impending death, whereas death anxiety in individuals with psychological disorders is potentially less certain and forthcoming. Regardless of how imminent death actually is, however, death anxiety in both end-of-life and clinical populations can be regarded as essentially rational. That is, unlike many fears reported in the anxiety disorders and related conditions, the individual dreading death is fearing an outcome that will eventually occur (Menzies, 2012).

7. Death anxiety and psychopathology

From the perspective of Terror Management Theory, meaning is often acquired through cultural worldviews, attachments, and self-esteem, thereby creating a buffer against existential anxiety. However, several factors may disable the capacity to apply these buffers against anxiety and distress, including genetic predispositions, adverse events in early childhood, temperament, insecure attachment, lack of meaning, trauma, stress, and other life difficulties (for a review of these factors, see Maxfield et al., 2014). The inability to effectively develop and use these essential components of the anxiety-buffering system to protect against anxiety and distress is likely to result in psychological vulnerability (Maxfield et al., 2014). Moreover, threats to meaning, self-esteem, and relatedness also have the capacity to increase susceptibility to anxiety, distress, and emotional difficulties. Hence, psychopathology is thought to reflect maladaptive efforts to cope with awareness of inevitable death or mismanagement of existential terror (Maxfield et al., 2014; Strachan, Pyszczynski, Greenberg, & Solomon, 2001; Strachan et al., 2007; Yalom, 1980). However, the presence of existential terror may not always be apparent or obvious, with the resulting psychopathology focused instead on "*smaller and more manageable threats, such as spiders, germs, or other common phobic objects*" (Maxfield et al., 2014, p. 42).

Numerous studies have investigated the presence and severity of death anxiety across a range of mental disorders, especially anxiety and somatic symptoms disorders (Arndt et al., 2005; Furer & Walker, 2008; Strachan et al., 2007), but also including depressive disorders, obsessive–compulsive disorders, post-traumatic stress disorder, eating disorders, schizophrenia and manic-depression (Arndt et al., 2005; Cheung, Dennis, Easthope, Werrett, & Farmer, 2005; Giles, 1995; Khanna et al., 1988; Strachan et al., 2007; Thorson & Powell, 2000).

7.1. Somatic symptom disorders (hypochondriasis) and death anxiety

Both theoretical knowledge and clinical observation suggest that the sense of bodily threat experienced in somatic symptom disorders, such as hypochondriasis and health anxiety, is related to a pathological fear of death (Furer & Walker, 2008; Furer, Walker, & Stein, 2007; Starcevic, 2005). In particular, because death is typically preceded by cessation of vital bodily functions, a significant proportion of death anxiety experienced by patients with somatic symptom disorders is thought to involve fears of bodily failure, pain, separation, and loss of control and power (Noyes et al., 2002; Starcevic, 2005). This has led some researchers to conclude that death anxiety is, in fact, a central feature of somatic symptom and related disorders, not merely an associated feature (Hiebert et al., 2005; Noyes et al., 2002).

As part of the recently released fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013), hypochondriasis was eliminated as a disorder and replaced by the somatic symptom and related disorders. However, for the purposes of the present review, previous research regarding hypochondriasis and death anxiety will be reported. Understanding the relationship between death anxiety and hypochondriasis is of importance to understanding the clinical presentation and treatment of the disorder, yet this relationship has received little research attention (Hiebert et al., 2005; Noyes et al., 2002).

To address this gap in the literature, Noyes et al. (2002) investigated death anxiety in 49 hypochondriasis patients and 113 general medical patients without hypochondriasis. Death anxiety, fear of separation, and loss of meaning were all found to be highly correlated with hypochondrias, leading the authors to conclude that death anxiety is integral to the experience of hypochondriasis. In another study conducted by Kellner, Abbott, Winslow, and Pathak (1987), hypochondriasis patients were found to report more fears of death and disease, to attend more closely to bodily sensations, and to be more likely to seek medical care and to distrust doctor's judgements, than matched family practice patients, non-patient employees, and non-hypochondriacal psychiatric patients. Fear of death has also been reported by patients with medically unexplained symptoms (Sumathipala et al., 2008), highlighting the potential for death anxiety to feature prominently across the somatic symptom and related disorders.

Death anxiety is also considered to be an integral construct in the assessment and treatment of hypochondriasis (Furer & Walker, 2008; Hiebert et al., 2005; Noyes et al., 2002; Starcevic, 2005, 2007). Several researchers have advocated the use of Cognitive Behavior Therapy (CBT) to treat death anxiety in hypochondriasis (Furer & Walker, 2008; Hiebert et al., 2005), including such strategies as in vivo and imaginal exposure to death-related themes, cognitive reappraisal, enhancement of life goals and enjoyment, development of a healthy lifestyle, and reduction of excessive checking, reassurance seeking, and safety behaviors (Furer & Walker, 2008). In the first study of its kind, Hiebert et al. (2005) investigated CBT to treat death anxiety in 39 adults diagnosed with hypochondriasis who were randomly allocated to group CBT or a 4-month wait-list control group. Group CBT consisted of 14 weekly treatment sessions, including in vivo and imaginal exposure to death-related situations, reduction of bodily checking and reassurance seeking, cognitive reappraisal of beliefs about death, strategies to increase acceptance of the reality of death, and strategies to enhance life satisfaction. Significant post-treatment reductions in death anxiety and hypochondriacal symptoms were found for group CBT, when compared to waitlist control. This evidence confirms the efficacy of CBT for death anxiety in hypochondriasis, and suggests the need for additional large-scale treatment trials (Furer & Walker, 2008; Hiebert et al., 2005).

7.2. Anxiety disorders and death anxiety

Death anxiety is considered to play a significant role in the development and severity of a range of anxiety disorders (Arndt et al., 2005; Strachan et al., 2001), and it is also thought to exacerbate anxious responding in individuals with anxiety-related problems (Strachan et al., 2007). According to Terror Management Theory, "*If the fear of non-existence lies at the core of the human capacity for anxiety, then reminding people of this deeply rooted fear should exacerbate anxious responding among people with anxiety-related problems*" (Strachan et al., 2007, p. 1138). That is, anxiety disorders are regarded as a consequence of an inefficient anxiety-buffering system (Maxfield et al., 2014). Based on this premise, numerous studies have investigated the presence of death anxiety across anxiety disorder categories such as panic disorder, agoraphobia, specific phobias, social phobia, and separation anxiety, as outlined below.

7.2.1. Phobias and death anxiety

In 1928, Kingman argued that fear of death is a universal fear underlying all phobias. In particular, life-threatening experiences concerning self or loved ones are thought to form the foundation for the development of phobias, with obsessional symptoms used to displace fear of death (Meyer, 1975). Likewise, it has also been argued that phobias may occur when fear of death is focused onto smaller, more manageable potential threats (e.g., spiders), or when fears about mortality combine with factors thought to precipitate the development of phobias (Strachan et al., 2007).

Strachan et al. (2001) conducted the first series of experimental studies to explore the processes of Terror Management Theory in relation to anxious responding, with particular focus upon whether reminders of death are capable of intensifying phobic behaviors. As predicted, they found that reminders of death increased fear reactions to spider-related stimuli for 32 spider phobics, but not for 30 non-phobic controls. Strachan and colleagues concluded that Terror Management Theory plays a significant role in understanding the impact of mortality salience on anxious responding. In particular, "*a spider phobic's feeling that a spider is threatening, when it actually poses no harm, would make more sense if the spider phobic experienced the spider as a reminder of death even when the spider is not deadly*" (Strachan et al., 2007, p. 1149). That is, the exaggerated nature of phobic fears may be triggered or exacerbated by an underlying fear of death.

Therapeutic interventions for the treatment of death anxiety in the presence of phobias, including blood phobia, have been suggested in the literature (Perez San Gregorio, Borda Mas, & Blanco Picabia, 1995; Persons, 1986). In particular, Persons (1986) reported on the generalization effects of exposure treatment for phobias in a single female patient presenting with fear of death, fear of losing control, and excessive vulnerability to criticism. In this multiple baseline study, treatment of fear of death was associated with improvements in fear of losing control, but partial worsening of vulnerability to criticism. These findings provide some support for the notion that generalization of treatment effects may be a function of cue overlap (Persons, 1986), and indicate that treatment of death anxiety may have implications for associated or overlapping fears. Further research is required to determine the utility and effectiveness of treatments for death anxiety across a range of specific phobias with larger sample sizes.

7.2.2. Social anxiety and death anxiety

As outlined above, mortality salience has been found to increase phobic reactions to spiders and compulsive hand washing (Strachan et al., 2007). In light of potential associations between spiders or germs and death, Strachan et al. (2007) also examined the impact of mortality salience on social anxiety and avoidance, which are not obviously connected with death. In this experimental study, 66 undergraduate students with low versus high social anxiety were exposed to death reminders or an aversive control topic (thoughts of dental pain). Social avoidance was then measured in terms of how long it took participants to complete a free-writing exercise before joining a staged group discussion. Interestingly, mortality salience was found to increase avoidance of social interaction for participants high on social interaction anxiety, whereas the aversive control condition did not produce the same result. That is, when reminded of their own death, participants high on social interaction anxiety left themselves less time to join the group discussion, whereas participants primed with thoughts of dental pain did not produce the same result. Moreover, in the mortality salience condition, participants high on social interaction anxiety left themselves with less time for the group discussion than participants low on social interaction anxiety. These findings support the argument that mortality salience exacerbates social anxiety and anxiety-related disorders, with these effects attributable to the unique impact of mortality salience rather than the salience of other aversive or anxiety-provoking stimuli.

7.3. Panic disorder and death anxiety

Death anxiety and existential concerns are considered to play an important role in panic disorder (Furer & Walker, 2008; Randall, 2001; Starcevic, 2007; Torres & Crepaldi, 2002), and a small number of studies have illustrated the potential for death anxiety to cut across diagnostic categories. For instance, Furer, Walker, Chartier, and Stein (1997) investigated the relationship between death anxiety, panic disorder, hypochondriasis, and social phobia in a sample of patients attending an anxiety disorders clinic, including 21 panic disorder patients, 23 social phobia patients, and 22 controls. These patients completed structured clinical interviews, self-report measures, and symptom diaries. Panic disorder patients were found to report substantially higher death anxiety than social phobia patients and controls. In addition, nearly half of the panic disorder group met criteria for hypochondriasis, and individuals who met criteria for both panic disorder and hypochondriasis also reported higher levels of death anxiety than individuals who only met criteria for one disorder (Furer & Walker, 2008; Furer et al., 1997).

The findings reported by Furer et al. (1997) support the transdiagnostic nature of death anxiety, and suggest an association between heightened death anxiety and the presence of comorbid disorders. In a similar manner, Radanovic-Grguric et al. (2004) also reported a significantly higher rate of death anxiety among 14 female panic disorder patients, when compared to 14 female major depressive disorder patients. However, 50% of the panic disorder patients also met criteria for major depressive disorder, and 71.4% of the major depressive disorder patients met criteria for panic disorder. Given the high rate of comorbidity for panic disorder and major depressive disorder (Weissman et al., 1993), it is possible that death anxiety may cut across both diagnostic categories.

This evidence suggests the need to address death anxiety as part of treatment for panic disorder (Randall, 2001), including focus on realistic appraisal of bodily threats and modification of attitudes to health, illness, death, and the body (Starcevic, 2007). Randall (2001), in particular, has argued that fear of death may in fact be the presenting issue for many panic disorder patients. In a single case study of a man crippled by panic disorder, Randall reported on the use of Existential Therapy to treat death anxiety, with therapy focused upon concepts such as fear of death, freedom, isolation, and life meaning/re-evaluation. The patient was reported to be in remission of panic disorder symptoms following three weeks of Existential Therapy, suggesting the need for larger, controlled studies.

An additional case study reported on the use of Morita therapy, a Japanese cognitive–behavioral treatment, to treat fear of death during anxiety attacks for a single female patient (Ishiyama, 1986). This particular type of therapy focuses on the existential meaning of anxiety, and was reported to be successful in reducing fear of death during anxiety attacks within a single session (Ishiyama, 1986). Further research evidence is clearly needed regarding the application and outcomes of such treatments on death anxiety and panic disorder symptoms in clinical populations and with larger sample sizes. It is also necessary for future research to explore the role that death anxiety may play in comorbid disorders such as panic disorder and hypochondriasis or major depressive disorder.

7.4. Agoraphobia, separation anxiety, and death anxiety

Death anxiety is thought to play an important role in the manifestation of agoraphobic symptoms (Foa et al., 1984; Torres & Crepaldi, 2002). In particular, the onset of agoraphobia is frequently preceded by traumatic events such as the loss of significant others or physical threats (Foa et al., 1984). Moreover, several agoraphobic symptoms and fears are associated with fear of death, including fears of anticipated harm when venturing out, heightened focus upon internal sensations, hypochondriacal concerns, and a high rate of death-related catastrophe fears (Foa et al., 1984). In a correlational study, Fleischer-Mann (1995)

investigated fear of death and separation anxiety in 25 agoraphobic and 25 non-clinical controls. As predicted, fear of death and separation anxiety for the agoraphobia group were positively correlated, indicating that fear of separation from loved ones may increase as death anxiety increases.

A small number of studies have also examined the relationship between separation anxiety and death anxiety (Bea & Sicart, 1989; Caras, 1995; Walser, 1985). For instance, in a correlational study, Caras (1995) reported significant relationships between death anxiety, separation anxiety, and quality of attachment characteristics among a large sample of 140 undergraduate students (Caras, 1995). In particular, lower levels of death anxiety were associated with higher affective quality of parental relationships and a more secure attachment style. Walser (1985) also reported increased death anxiety and separation anxiety among 20 borderline and 20 schizophrenic patients, when compared to 20 controls. In noting the interrelationship between death anxiety and separation anxiety, and the potential for separation anxiety to mask death anxiety, Walser concluded that further research is required to determine whether these two anxieties are, "*phenomenologically experienced synonymously*" (p. 667).

Despite this evidence, there is a lack of research regarding treatment of death anxiety in the presence of either agoraphobia or separation anxiety. Foa et al. (1984) have proposed the use of imaginal exposure techniques to address fears of separation and death as a means of treating agoraphobia symptoms. In a related manner, Bea and Sicart (1989) reported on the single case study of a female patient undergoing treatment for both separation and death anxiety. However, no studies have been conducted to determine the efficacy of these approaches, indicating the need for further research.

7.5. Depressive disorders and death anxiety

Depressive disorders may be associated with, or exacerbated by, existential despair and lack of meaning (Ghaemi, 2007; Havens & Ghaemi, 2005; Simon, Arndt, Greenberg, Solomon, & Pyszczynski, 1998). According to Terror Management Theory, depression is caused by fragile faith in cultural worldviews and an inefficient capacity to buffer anxiety and to cultivate meaning, self-esteem, and fulfilling relationships (Maxfield et al., 2014; Simon et al., 1998). This lack of protection against anxiety may lead an individual to experience life without meaning, value, or connectedness with others (Maxfield et al., 2014). As such, depressed individuals may require additional protection against mortality-related concerns and anxiety (Simon et al., 1998). In line with this, experimental research has shown that mildly depressed individuals demonstrate greater worldview defense in response to reminders of death, when compared to non-depressed individuals (Simon, Greenberg, Harmon-Jones, Solomon, & Pyszczynski, 1996). Moreover, correlational research has shown that the opportunity for worldview defense in response to mortality salience among mildly depressed individuals is also associated with greater self-reported meaning in life than for mildly depressed individuals not given this opportunity (Simon et al., 1998). These findings suggest that bolstering worldview beliefs may increase life meaning among depressed individuals (Simon et al., 1998).

The Templer Death Depression Scale-Revised was developed to evaluate the depressive components of death anxiety, including death sadness, anergia, existential vacuum, and anhedonia (Templer et al., 2001), with scores found to be moderately correlated with Templer's Death Anxiety Scale (Nassar, 2010). Research evidence has also confirmed the presence of death anxiety in depressive disorders (Brubeck & Beer, 1992; Ongider & Eyuboglu, 2013; Saggino & Ronco, 1997; Simon et al., 1996). For instance, increased death anxiety has been associated with increased depression among patients with depressive disorder (Ongider & Eyuboglu, 2013), and similar findings have been reported among people with HIV/AIDS (Miller, Lee, & Henderson, 2013). Thorson and Powell (2000) have argued that age also plays a role in the relationship between death anxiety and depression. In their study of death anxiety and depression, older adults (65–92 years, n = 253) were found to report lower death anxiety, lower depression, and higher religiosity, than younger adults (16–35 years, n = 578). For both age groups combined, however, higher death anxiety was associated with higher depression, and higher religiosity was associated with lower death anxiety. Further evidence suggests that depressed individuals may respond to reminders of death with more worldview defense than non-depressed individuals, confirming that depression may be associated with less buffering against mortality concerns (Simon et al., 1996).

In light of evidence supporting a relationship between depressive disorders and death anxiety, a considerable body of evidence supports the use of existential therapies to address the existential fears that often underlie depressive disorders (Ghaemi, 2007; Stalsett, Gude, Ronnestad, & Monsen, 2012). In addition, a small number of studies have investigated the efficacy of various other treatments for death anxiety in the presence of depressive disorders. For instance, Chait (1998) reported on the treatment of depression and fear of dying in a 7 year old boy. In this single case study, psychoanalytic therapy was used to explore early and ongoing separations thought to influence the child's fears, with treatment resulting in improvements in the child's internal structure and family ties. In addition, Hussian (1983) evaluated the effectiveness of operant therapy and cognitive therapy to treat depression and high-frequency verbalizations about death and dying in two elderly institutionalized patients. However, the treatment strategies and outcomes for these case studies were individualized, indicating the need for larger studies to determine the efficacy of well-established treatment strategies for death anxiety underlying depressive disorders.

7.6. Obsessive–compulsive disorder (OCD) and death anxiety

Many obsessive–compulsive tendencies are semantically linked with mortality-related concerns about self or loved ones (e.g., germs, disease, and danger) (Strachan et al., 2007). In line with this, Strachan et al. (2007) have provided strong evidence that reminders of death are capable of intensifying compulsive behaviors. In their experimental study, participants who scored high on compulsive hand washing were found to spend more time washing their hands, and used more paper towel to dry their hands, following mortality salience induction, than participants scoring low on compulsive hand washing. This suggests that mortality salience may be a general factor in the experience of obsessive–compulsive disorder, and may in some way explain the exaggerated focus that individuals with OCD place on the elimination of germs, disease, and danger (Strachan et al., 2007).

In line with this, Jones and Menzies (1997a) have argued that expectancy of life-threatening illness drives washing behavior. In a laboratory 'contamination' task, participants were asked to place their hands to wrist height into a compound stimulus of potting soil, food scraps, and animal hair, and were then asked to rate their anticipated severity of illness on a scale ranging from 0 ("*no symptoms*") to 100 ("*death*"). Obsessive–compulsive washers were found to give particularly high estimates of 'probability of illness' and 'severity of illness' ratings. High positive correlations were found between severity of illness ratings and urge to wash, anxiety, and time spent washing. In partial correlation analyses, when severity of illness ratings on this single item "*death*" scale was held constant, no alternative mediator (e.g., inflated perceived responsibility, perfectionism, self-efficacy strength) remained significantly related to OCD phenomena. On the basis of these findings, Jones and Menzies (1997a) argued that expectancy of life-threatening illness drives washing behavior (for further details, see St Clare et al., 2008).

In further support of this proposition, Jones and Menzies (1997b) found that 6–12 sessions of Cognitive Therapy targeting disease expectancy, without the need for exposure or ritual prevention, could return severe OCD sufferers to relatively normal functioning. This treatment program, known as Danger Ideation Reduction Therapy (DIRT), is a

novel approach for treatment resistant OCD with contamination fears, comprised of six main stages: cognitive restructuring, filmed interviews, corrective information, microbiological experiments, probability of catastrophe, and attentional focusing. As it is devoid of behavioral (i.e., exposure-based) elements, it can be considered a variant of Cognitive Therapy, rather than CBT. The effectiveness of DIRT has been demonstrated in a range of studies and research designs (Govender, Drummond, & Menzies, 2006; Hambridge & Loewenthal, 2003; Jones & Menzies, 1997b, 1998, 2002; Krochmalik, Jones, & Menzies, 2001; Krochmalik, Jones, Menzies, & Kirkby, 2004; O'Brien, Jones, & Menzies, 2004; St Clare, 2004; St Clare et al., 2008).

7.7. Post-traumatic stress disorder (PTSD) and death anxiety

Death anxiety and mortality salience are purported to also play a role in the development and maintenance of post-traumatic stress disorder (PTSD) (Chatard et al., 2012; Cheung et al., 2005; Kesebir, Luszczynska, Pyszczynski, & Benight, 2011). According to a two-factor model of death anxiety (Gilliland & Templer, 1985; Lonetto & Templer, 1986; Templer, 1976), exposure to life-threatening events is thought to increase death anxiety, which in turn may lead to the development of PTSD symptoms and increased death anxiety (Cheung et al., 2005). It has also been argued that PTSD may involve a disruption in the anxiety buffering mechanisms that usually protect individuals against anxiety (Kesebir et al., 2011; Maxfield et al., 2014). That is, while individuals without PTSD typically demonstrate increased worldview defense and an intact anxiety buffering mechanism following mortality salience induction, individuals with PTSD do not display such responses (Kesebir et al., 2011). According to Anxiety Buffer Disruption Theory, severity of PTSD symptoms depends not only on the severity of the trauma, but also on the prior strength and robustness of the anxiety buffering system (Abdollahi, Pyszczynski, Maxfield, & Lusyszczynska, 2011; Maxfield et al., 2014).

Studies have investigated this hypothesis across a range of trauma-related groups (Abdollahi et al., 2011; Chatard et al., 2012; Martz, 2004; Safren, Gershuny, & Hendriksen, 2003). Most recently, Chatard et al. (2012) investigated the anxiety buffering function among individuals with PTSD following a civil war. In this study, individuals with high PTSD symptoms reported increased immediate death-related thought accessibility following mortality salience induction, whereas individuals with low PTSD symptoms showed suppression of priming effects following mortality salience induction. In addition, mortality salience resulted in increased reporting of trauma symptoms for individuals with high exposure to the war, but not for those with low exposure. These findings confirm that high PTSD is characterized by impaired suppression of death thought accessibility following mortality salience induction, indicating a disruption to the normal anxiety buffering function that typically protects individuals from anxiety (Chatard et al., 2012).

Additional research has confirmed that this disruption to anxiety-buffering responses may be associated with increased PTSD symptom severity in earthquake survivors (Abdollahi et al., 2011), HIV patients (Safren et al., 2003), veterans and civilians with spinal cord injuries (Martz, 2004), and victims of domestic violence (Kesebir et al., 2011). For instance, in a sample of 75 patients with HIV, over half of whom met criteria for a diagnosis of PTSD, death anxiety was associated with overall PTSD symptom severity, and severity of re-experiencing, avoidance, and arousal symptoms (Safren et al., 2003). Similarly, death anxiety was also found to predict a significant amount of posttraumatic stress reactions in 313 veterans and civilians with spinal cord injuries, with higher death awareness significantly predicting all three clusters of PTSD symptoms (re-experiencing, avoidance, and hyper-arousal) (Martz, 2004). Given the capacity for conditions such as HIV and spinal cord injury to elicit thoughts of death, it is not surprising that death anxiety may exacerbate PTSD symptoms. These findings suggest that death anxiety is an appropriate target for mental health intervention, and may assist in reducing PTSD symptoms and reactions (Martz, 2004; Safren et al., 2003).

7.8. Eating disorders and death anxiety

A small number of studies have investigated the relationship between death anxiety and eating disorders (Alantar & Maner, 2008; Farber, Jackson, Tabin, & Bachar, 2007; Goldenberg, Arndt, Hart, & Brown, 2005; Hochdorf, Latzer, Canetti, & Bachar, 2005). Evidence from these studies suggests that existential concerns may drive the desire to be thin, and may form an integral part of the behavioral and cognitive repertoire of patients with anorexia (Giles, 1995; Goldenberg et al., 2005). For instance, females diagnosed with anorexia nervosa have been found to report significantly higher death anxiety than matched controls (Giles, 1995), and experimental evidence has also confirmed the potential for mortality salience to influence eating behavior in females (Goldenberg et al., 2005). More specifically, in a series of experiments, Goldenberg et al. (2005) found that reminders of death were subsequently associated with restricted consumption of nutritious but high-calorie food for females but not for males. When this experiment was subsequently conducted in a group setting where social comparison was likely, only women with a high body mass index were found to restrict eating after mortality salience induction. In a third experiment, women with a high body mass index who were reminded of their own death were found to perceive themselves as more discrepant from their ideal thinness. These findings indicate that death anxiety may underlie eating-related behavior for females in particular. In light of this evidence, further research is required to determine whether the treatment of death anxiety may have any valuable, long-term impact on the severity of eating disorder symptoms.

8. Discussion

Death anxiety has the potential to profoundly influence the human psyche (Yalom, 2008). Research conducted in clinical and non-clinical populations has provided compelling evidence that death anxiety is a significant issue, both theoretically and clinically. In support of Yalom's (1980) existential perspective, death anxiety appears to be a basic fear underlying a range of mental disorders, including hypochondriasis, panic disorder, separation anxiety, depression, and eating disorders (Becker, 1973; Furer & Walker, 2008; Greenberg, 2012; Starcevic, 1989; Strachan et al., 2007). This confirms the transdiagnostic nature of death anxiety in the development and maintenance of psychopathology.

The studies conducted by Strachan et al. (2007), in particular, have demonstrated the relevance of Terror Management Theory when investigating the impact of mortality salience on anxious responding across several types of phobic and compulsive behaviors. The findings from these studies make it clear that mortality salience constitutes a unique psychological threat, with the potential to significantly impact anxious responding and behavior (Hayes et al., 2010). That is, psychological disorders may develop as a result of, "*maladaptive attempts to cope with insufficiently buffered death anxiety*" (Strachan et al., 2007, p. 1149). There are also indications that individuals with anxiety disorders have a tendency toward lower self-esteem, which corresponds with the proposition put forth by Terror Management Theory that self-esteem serves an important anxiety-buffering function (Strachan et al., 2007).

8.1. Clinical implications and future directions

In light of compelling evidence regarding the transdiagnostic nature of death anxiety, several therapeutic approaches to the treatment of death anxiety and psychopathology have been recommended and evaluated.

8.1.1. Existential therapies

Yalom (1980) provided a comprehensive existential framework for treating death anxiety across a range of psychopathological conditions. This therapeutic approach, referred to as Existential Psychotherapy, focuses on the ultimate existential concerns (fear of death, avoidance of freedom, isolation, and lack of meaning), and acknowledges that fear of death is a significant and omnipresent source of anxiety that impacts social, personal, spiritual, and physical realms of existence. Existential Psychotherapy addresses these fears across a range of clinical presentations, and acknowledges that although raw or naked death anxiety is not always evident, the defensive structures surrounding death anxiety are often apparent (Yalom, 1980). This existential framework confirms that death anxiety indeed cuts across a range of psychological disorders, and that treatment of death anxiety may result in improvements across these disorders (Yalom, 1980).

To this end, Existential Psychotherapy has been applied across a range of psychological disorders and conditions (Goldner-Vukov, Moore, & Cupina, 2007; Randall, 2001; Stalsett et al., 2012), as well as to treat psychological symptoms among other illness groups such as patients with terminal illness, cancer, and traumatic brain injury (Bahmani, Etemadi, Shafiabadi, Delavar, & Motlagh, 2010; Iglesias, 2004; Ruff, 2013). For instance, Lewis (2014) proposed the use of TMT integrated existential therapy (TIE), which conceptualizes psychological concerns as related to mortality salience and disturbances in the anxiety-buffering system, and includes the use of exposure to existential anxiety in order to overcome death-related fears. In addition, a range of Existential–Humanistic therapeutic approaches have shown promise in the treatment of death anxiety in end-of-life care, including Dignity Therapy, Meaning-Centered Therapy, and Cognitive-Existential Group Therapy (Barrera & Spiegel, 2014; Breitbart et al., 2000; Chochinov et al., 2004; Kissane et al., 2004).

These Existential–Humanistic approaches to treatment acknowledge that individuals facing death experience physical pain, as well as psychological distress and existential suffering. As such, treatment is focused on bolstering meaning and purpose, increasing psychosocial support, building relationships, improving coping skills, minimizing maladaptive coping mechanisms, resolving unconscious and conscious conflicts, providing education about depressive symptoms and possible triggers, and changing dysfunctional behavior patterns (for a review of these approaches, see Chochinov et al., 2004). Dignity Therapy, in particular, is designed to reduce existential suffering as death approaches, and has developed a promising evidence base to support its use in treating psychological distress, anxiety, and depression, among end-of-life patients (Johns, 2013). It has also been used to treat major depressive disorder (Avery & Baez, 2012), indicating the potential for this therapeutic approach to be applied across a range of psychological conditions. Similarly, evidence confirms the efficacy of Meaning-Centered Therapy in improving outcomes, with findings suggesting that spiritual well-being and meaning have the capacity to provide a buffer against depression and hopelessness among terminally ill cancer patients (Breitbart et al., 2000).

8.1.2. Cognitive–Behavioral Therapy (CBT)

Existential approaches to the treatment of death anxiety have the potential to inform other treatment paradigms for psychopathology, such as Cognitive–Behavior Therapy (CBT). Although cognitive and existential therapies have largely been regarded as, "*so diverse in their assumptions as to be largely incompatible, representing opposite ends of the psychotherapeutic spectrum*" (Ottens & Hanna, 1998, p. 312), existential therapies are regarded as having provided a rich contextual base for the development of CBT (Beck & Weishaar, 1995; Ottens & Hanna, 1998; Safran, 1996). Consequently, integration of these two therapeutic approaches has been recommended, with emphasis placed on the many connections and compatibilities between them (Ottens & Hanna, 1998). This integrative approach may yield advances in the treatment of death anxiety and psychopathology, with focus on improving self-esteem, meaning, and relatedness in order to strengthen the anxiety-buffering system, thereby reducing anxiety and increasing agency (Maxfield et al., 2014). Existential therapies, especially those used in end-of-life care, may also provide insight into the aspects of dying and death that arouse anxiety (e.g., pain, isolation, unresolved regrets, concern for the well-being of others).

Consequently, CBT has been used to treat death anxiety across a range of psychological conditions (Ottens & Hanna, 1998). This has included the application of various forms of exposure, systematic desensitization, and cognitive reappraisal, with comprehensive frameworks proposed for the treatment of death anxiety and hypochondriasis in particular (Furer & Walker, 2008; Hiebert et al., 2005). Hiebert et al. (2005) published the first study to report significant reductions in death anxiety and hypochondriacal symptoms following group CBT, in comparison with the waitlist control condition. This evidence confirms that CBT holds promise as a transdiagnostic treatment for death anxiety, and suggests the need for controlled studies to determine the efficacy of various CBT treatment strategies to reduce death anxiety (Furer & Walker, 2008).

In addition, the so-called 'third wave' CBT programs should be explored in the context of death anxiety. Acceptance and Commitment Therapy (ACT), for example, typically includes tasks that explicitly confront death, such as writing multiple versions of your own eulogy, and choosing the text for your own tombstone (Hayes & Smith, 2005). Further, ACT focuses on the identification of values to assist in building a meaningful life (Waltz & Hayes, 2010). Accordingly, given its transdiagnostic nature and broad focus on impermanence and meaning, ACT may be the behavioral approach most likely to impact death fears.

8.1.3. Treating proximal and distal death defenses

According to Terror Management Theory's dual process model, both proximal and distal defenses are used to prevent death-related thoughts from becoming death fears (Strachan et al., 2001). Proximal defenses are conscious and threat-focused, including suppression of death thoughts, denial of vulnerability to mortality, and strategies to promote optimum health (Abeyta et al., 2014; Pyszczynski et al., 1999). Distal defenses, on the other hand, are unconscious and symbolic, including strategies to protect the symbolic self, such as upholding cultural worldviews, building relationships that enhance self-worth, and promoting personal significance (Abeyta et al., 2014; Pyszczynski et al., 1999). It is of particular interest, then, that existential therapies appear to focus on increasing these distal defenses against death anxiety by increasing meaning, improving purpose, and building supportive relationships (Chochinov et al., 2004). It is possible that these existential strategies are effective in increasing psychosocial functioning because, in effect, they bolster the symbolic self and reduce death-related thoughts and anxiety. This provides support for Terror Management Theory's dual process model.

Similarly, CBT for death anxiety in health anxiety and hypochondriasis also appears to increase proximal and distal death defenses by improving life goals/enjoyment/satisfaction and developing a healthy lifestyle, respectively (Furer & Walker, 2008; Hiebert et al., 2005). In contrast, however, CBT for death anxiety in health anxiety and hypochondriasis also places particular emphasis on cognitive reappraisal and exposure to feared death themes in order to reduce the use of avoidance and safety behaviors to deal with death anxiety (Furer & Walker, 2008; Hiebert et al., 2005). This suggests that some proximal defenses against death anxiety may be maladaptive, with the goal of treatment aimed at acknowledging death fears and developing healthy mechanisms for coping with these fears, rather than denying or suppressing them.

Accordingly, Menzies (2012) has urged against cognitive and behavioral tasks that simply dispute threat appraisal around death themes. Menzies has called for a redirection of CBT strategies toward tasks designed to explore the unlikelihood of life (e.g., calculating the probability of your parent's initial meeting), rather than tasks designed to

provide assurance of its continuance (e.g., psychoeducation about panic attacks) (Menzies, 2012). In a position similar to Dawkins (1998) and Bryson (2003), Menzies argues that individuals should focus more on the improbability of their unique DNA sequence arising in the first place, rather than on the fact that it will inevitably disassemble with their death. As Dawkins (1998) puts it in the opening sentences of *Unweaving the Rainbow*, "*we are going to die, and that makes us the lucky ones. Most people are not going to die because they are never going to be born*" (p. 1). In this way, traditional CBT may be expanded to challenge the very notion that death is an adverse event (Menzies, 2010, 2012).

8.1.4. Future clinical and research directions

It is not yet clear whether clinical treatment of death anxiety is capable of facilitating consistent, long-term improvements in psychopathology. Hence, future research investigating the treatment of death anxiety and other mental disorders is clearly warranted (Furer et al., 2007; Greenberg, 2012). In particular, Strachan et al. (2001) have also advocated the inclusion of self-esteem and worldview components in treatment plans for individuals with anxiety disorders. Furthermore, large controlled trials are necessary to determine the efficacy of well-established therapeutic approaches in treating death anxiety, such as Existential Psychotherapy, traditional CBT, ACT or an integrated version of the these approaches. This may include an evaluation of whether effective treatment of death anxiety has any impact on the presence or severity of mental disorders (Furer & Walker, 2008; Furer et al., 2007). This bears significance to the Cue Generalization Hypothesis, which suggests that similar fears with the same cues or elements in common will exhibit generalization of treatment effects (Persons, 1986). It is also of particular relevance to understanding the transdiagnostic nature of death anxiety (Furer & Walker, 2008).

Finally, despite the positive research findings and explanatory power of Terror Management Theory, more research is required to establish the relevance of the theory across a range of mental disorders and pathological forms of behavior (Strachan et al., 2007). Further evaluation and refinement of death anxiety inventories and assessment strategies is also warranted (Hiebert et al., 2005). In particular, movement toward multi-dimensional measures of death anxiety may prove useful in understanding the many facets of death anxiety, and in evaluating changes in death anxiety following treatment. There is also a need to consider the development of new measures to evaluate death anxiety as a transdiagnostic construct, with relevance to the presence of psychological difficulties and distress. For the purposes of this development, a process-focused approach to the dimensional classification and treatment of psychological disorders associated with death anxiety may prove useful in improving psychological well-being and functioning for such individuals, rather than applying the traditional medical model of distinct diagnostic categories (Maxfield et al., 2014).

9. Conclusion

In sum, death anxiety is a uniquely human dilemma and a key therapeutic issue (Martz, 2004; Solomon et al., 2004). Even at an unconscious level, death anxiety can significantly impact everyday life domains and functioning (Hayes et al., 2010). In light of the transdiagnostic nature of death anxiety, future research must answer a number of important questions. For instance, can mental disorders be successfully treated without addressing the underlying fear of death? Is it possible that death anxiety left untreated may contribute to a 'revolving door' for patients seeking treatment for mental disorders? For example, are patients with a complex history of disorders (e.g., separation anxiety disorder in childhood, obsessive–compulsive washing in late adolescence, followed by panic disorder in early adulthood) simply displaying manifestations of an underlying fear of death? If so, will successful treatment of death anxiety significantly impact the outcomes of treatment for mental disorders? Such research will have important theoretical and clinical implications, and could dramatically improve our current knowledge regarding the transdiagnostic role that death anxiety plays in psychopathology.

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Contributors

Ross G. Menzies conceived the paper and developed the clinical sections. Lisa Iverach conducted the literature searches and took the lead in writing the manuscript and revisions. Rachel E. Menzies drafted the section on Terror Management Theory and developed the opening argument. Lisa Iverach wrote the first draft of the manuscript, and all authors contributed to and have approved the final manuscript.

Conflict of interest

All authors declare that they have no conflicts of interest.

References

Abbott, M. J., & Rapee, R. M. (2004). Post-event rumination and negative self-appraisal in social phobia before and after treatment. *Journal of Abnormal Psychology*, *113*, 136–144.
Abdel-Khalek, A.M. (1997). Two scales of death anxiety: Their reliability and correlation among Kuwaiti samples. *Psychological Reports*, *84*, 921–922.
Abdel-Khalek, A.M. (1998). The structure and measurement of death obsession. *Personality and Individual Differences*, *24*, 159–165.
Abdel-Khalek, A.M. (2004). Convergent validity of the Templet, Collett–Lester, and Arabic Death Anxiety Scales: Rejoinder. *Psychological Reports*, *94*, 1171–1172.
Abdel-Khalek, A.M., & Lester, D. (2009). Death anxiety as related to somatic symptoms in two cultures. *Psychological Reports*, *105*, 409–410.
Abdollahi, A., Pyszczynski, T., Maxfield, M., & Lusyszczynska, A. (2011). Posttraumatic stress reactions as a disruption in anxiety-buffer functioning: Dissociation and responses to mortality salience as predictors of severity of post-traumatic symptoms. *Psychological Trauma: Theory, Research, Practice, and Policy*, *3*, 329–341.
Abeyta, A. A., Juhl, J., & Routledge, C. (2014). Exploring the effects of self-esteem and mortality salience on proximal and distally measured death anxiety: A further test of the dual process model of terror management. *Motivation and Emotion*, *38*, 523–528.
Alantar, Z., & Maner, F. (2008). Eating disorders in the context of attachment theory. *Anadolu Psikiyatri Dergisi*, *9*, 97–104.
American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5)*. Washington, DC: American Psychiatric Association.
Arndt, J., Routledge, C., Cox, C. R., & Goldenberg, J. L. (2005). The worm at the core: A terror management perspective on the roots of psychological dysfunction. *Applied and Preventive Psychology*, *11*, 191–213.
Arndt, J., & Vess, M. (2008). Tales from existential oceans: Terror Management Theory and how the awareness of our mortality affects us all. *Social and Personality Psychology Compass*, *2*, 909–928.
Bahmani, B., Etemadi, A., Shafiabadi, A., Delavar, A., & Motlagh, A. G. (2010). Cognitive-existential group therapy and cognitive instructional therapy for breast cancer patients. *Journal of Iranian Psychologists*, *6*, 201–214.
Barrera, I., & Spiegel, D. (2014). Review of psychotherapeutic interventions on depression in cancer patients and their impact on disease progression. *International Review of Psychiatry*, *26*, 31–43.
Bea, J., & Sicart, J. (1989). Separation anxieties and death anxieties. *Revista Catalana de Psicoanalisi*, *6*, 11–28.
Beck, A. T. (1996). *Manual for the Beck Depression Inventory, revised edition (BDI–II)*. San Antonio, TX: The Psychological Corporation.
Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*, 893–897.
Beck, A. T., & Weishaar, M. E. (1995). Cognitive therapy. In R. J. Corsini, & D. Wedding (Eds.), *Current psychotherapies* (pp. 229–261). Itasca, IL: Peacock.
Becker, E. (1973). *The denial of death*. New York: Free Press.
Bell, B.D. (1975). The experimental manipulation of death attitudes: A preliminary investigation. *Omega: Journal of Death and Dying*, *6*, 199–205.
Bohart, J. B., & Bergland, B. W. (1978). The impact of death and dying counseling groups on death anxiety in college students. *Death Education*, *2*, 381–391.
Braunstein, J. W. (2000). An investigation of irrational beliefs and death anxiety as a function of HIV status in homosexual men (immune deficiency). *Dissertation Abstracts International, Section B: The Sciences and Engineering*, *61*, 1626.
Breitbart, W., Rosenfeld, B., Pessin, H., Kaim, M., Funesti-Esch, J., Galeietta, M., et al. (2000). Depression, hopelessness, and desire for hastened death in terminally ill cancer patients. *Journal of the American Medical Association*, *284*, 2907–2911.
Brown, T. A., & Barlow, D. H. (2009). A proposal for a dimensional classification system based on the shared features of the DSM-IV anxiety and mood disorders: Implications for assessment and treatment. *Psychological Assessment*, *21*, 256–271.

Brubeck, D., & Beer, J. (1992). Depression, self-esteem, suicide ideation, death anxiety, and GPA in high school students of divorced and non-divorced parents. *Psychological Reports*, *71*, 755–763.

Bryson (2003). *A short history of nearly everything.* London, UK: Black Swan.

Burke, B.L., Martens, A., & Faucher, E. H. (2010). Two decades of Terror Management Theory: A meta-analysis of mortality salience research. *Personality and Social Psychology Review*, *14*, 155–195.

Caras, G. W. (1995). The relationships among psychological separation, the quality of attachment, separation anxiety and death anxiety. *Dissertation Abstracts International, Section B: The Sciences and Engineering*, *56*, 3436.

Catania, J. A., Turner, H. A., Choi, K. H., & Coates, T. J. (1992). Coping with death anxiety: Help seeking and social support among gay men with various HIV diagnoses. *AIDS*, *6*, 999–1005.

Cella, D., & Tross, S. (1987). Death anxiety in cancer survival: A preliminary cross-validation study. *Journal of Personality Assessment*, *51*, 451–461.

Chait, I. (1998). Terror of dying: Separation anxiety and the potential for psychic change in the psychotherapy of a 7 year-old boy. *Psycho-Analytic Psychotherapy in South Africa*, *6*, 29–40.

Chatard, A., Pyszczynski, T., Arndt, J., Selimbegovic, L., Konan, P. N., & Van der Linden, M. (2012). Extent of trauma exposure and PTSD symptom severity as predictors of anxiety-buffer functioning. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*, 47–55.

Cheung, M. C., Dennis, I., Easthope, Y., Werrett, J., & Farmer, S. (2005). A multiple-indicator multiple-cause model for posttraumatic stress reactions: Personality, coping, and maladjustment. *Psychosomatic Medicine*, *67*, 251–259.

Chochinov, H. M., Hack, T., Hassard, T., Kristjanson, L. J., McClement, S., & Harlos, M. (2004). Dignity and psychotherapeutic considerations in end-of-life care. *Journal of Palliative Care*, *20*, 134–142.

Collett, L., & Lester, D. (1969). The fear of death and dying. *Journal of Psychology*, *72*, 179–181.

Conte, H. R., Weiner, M. B., & Plutchik, R. (1982). Measuring death anxiety: Conceptual, psychometric, and factor-analytic aspects. *Journal of Personality and Social Psychology*, *43*, 775–785.

Crow, S., & Peterson, C. B. (2009). Refining treatments for eating disorders. *The American Journal of Psychiatry*, *166*, 266–267.

Dawkins, R. (1998). *Unweaving the rainbow: Science, delusion and the appetite for wonder.* New York, NY: Houghton Mifflin Company.

Derogatis, L. R. (1975). *SCL-90-R: Administration, scoring and procedures manual II for the revised version and other instruments of the psychopathology rating scale series.* Towson, MD: Clinical Psychometric Research.

DeWall, C. N., & Baumeister, R. F. (2007). From terror to joy: Automatic tuning to positive affective information following mortality salience. *Psychological Science*, *18*, 984–990.

Dougherty, K., Templer, D., & Brown, R. (1986). Psychological states in terminal cancer patients as measured over time. *Journal of Counseling Psychology*, *33*, 357–359.

Dozois, D. J. A., Seeds, P.M., & Collins, K. A. (2009). Transdiagnostic approaches to the prevention of depression and anxiety. *Journal of Cognitive Psychotherapy*, *23*, 44–59.

Dudley, R., Kuyken, W., & Padesky, C. A. (2011). Disorder specific and trans-diagnostic case conceptualisation. *Clinical Psychology Review*, *31*, 213–224.

Durlak, J. A. (1982). Using the Templer Scale to assess "death anxiety": A cautionary note. *Psychological Reports*, *50*, 1257–1258.

Egan, S. J., Wade, T. D., & Shafran, R. (2011). Perfectionism as a transdiagnostic process: A clinical review. *Clinical Psychology Review*, *31*, 203–212.

Einstein, D. A., & Menzies, R. G. (2006). Magical thinking in obsessive–compulsive disorder, panic disorder and the general community. *Behavioural and Cognitive Psychotherapy*, *34*, 351–357.

Eshbaugh, E., & Henninger, W. (2013). Potential mediators of the relationships between gender and death anxiety. *Individual Differences Research*, *11*, 22–30.

Fairburn, C. G. (2008). *Cognitive behavior therapy and eating disorders.* New York, USA: Guilford Press.

Farber, S. K., Jackson, C. C., Tabin, J. K., & Bachar, E. (2007). Death and annihilation anxieties in anorexia nervosa, bulimia, and self-mutilation. *Psychoanalytic Psychology*, *24*, 289–305.

Feifel, H., Freilich, J., & Hermann, L. J. (1973). Death fear in dying heart and cancer patients. *Journal of Psychosomatic Research*, *17*, 161–166.

Fiske, S. T., Gilbert, D. T., & Lindzey, G. (2010). *Handbook of social psychology.* Hoboken, New Jersey: John Wiley & Sons Inc.

Fleet, R. P., & Beitman, B.D. (1998). Cardiovascular death from panic disorder and panic-like anxiety: A critical review of the literature. *Journal of Psychosomatic Research*, *44*, 71–80.

Fleischer-Mann, J. (1995). Exploration of attachment-separation, fear of death and separation anxiety in agoraphobia. *Dissertation Abstracts International, Section B: The Sciences and Engineering*, *56*, 2370.

Flett, G. L., Besser, A., Davis, R. A., & Hewitt, P. L. (2003). Dimensions of perfectionism, unconditional self-acceptance, and depression. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, *21*, 119–138.

Foa, E. B., Steketee, G., & Young, M. C. (1984). Agoraphobia: Phenomenological aspects, associated characteristics, and theoretical considerations. *Clinical Psychology Review*, *4*, 431–457.

Fortner, B. V., & Neimeyer, R. A. (1999). Death anxiety in older adults: A quantitative review. *Death Studies*, *23*, 387–411.

Frost, R. O., & Steketee, G. (1997). Perfectionism in obsessive–compulsive disorder patients. *Behaviour Research and Therapy*, *35*, 291–296.

Furer, P., & Walker, J. R. (2008). Death anxiety: A cognitive–behavioral approach. *Journal of Cognitive Psychotherapy*, *22*, 167–182.

Furer, P., Walker, J. R., Chartier, M. J., & Stein, M. B. (1997). Hypochondriacal concerns and somatization in panic disorder. *Depression and Anxiety*, *6*, 78–85.

Furer, P., Walker, J. R., & Stein, M. B. (2007). *Treating health anxiety and fear of death: A practitioner's guide.* New York: Springer Publishing.

Gallagher, M. W., Naragon-Gainey, K., & Brown, T. A. (2014). Perceived control is a transdiagnostic predictor of cognitive–behavior therapy outcome for anxiety disorders. *Cognitive Therapy and Research*, *38*, 10–22.

Ghaemi, S. N. (2007). Feeling and time: The phenomenology of mood disorders, depressive realism, and existential psychotherapy. *Schizophrenia Bulletin*, *33*, 122–130.

Giles, A. H. (1995). Death anxiety toward self and mother in clients with anorexia nervosa. *Dissertation Abstracts International, Section B: The Sciences and Engineering*, *56*, 0522.

Gilliland, J. C., & Templer, D. I. (1985). Relationship of death anxiety scale factors to subjective states. *Omega: Journal of Death and Dying*, *16*, 155–167.

Goldenberg, J. L., Arndt, J., Hart, J., & Brown, M. (2005). Dying to be thin: The effects of mortality salience and body-mass-index on restricted eating among women. *Personality and Social Psychology Bulletin*, *31*, 1400–1412.

Goldner-Vukov, M., Moore, L. J., & Cupina, D. (2007). Bipolar disorder: From psychoeducational to existential group therapy. *Australasian Psychiatry*, *15*, 30–34.

Gonen, G., Kaymak, S. U., Cankurtaran, E., Karslioglu, E., Ozalp, E., & Soygur, H. (2012). The factors contributing to death anxiety in cancer patients. *Journal of Psychosocial Oncology*, *30*, 347–358.

Govender, S., Drummond, L. M., & Menzies, R. G. (2006). Danger Ideation Reduction Therapy for the treatment of severe, chronic and resistant obsessive–compulsive disorder. *Behavioural and Cognitive Psychotherapy*, *34*, 477–480.

Greenberg, J. (2012). Terror management theory: From genesis to revelations. In P. R. Shaver, & M. Mikulincer (Eds.), *Meaning, mortality, and choice: The social psychology of existential concerns* (pp. 17–35). Washington D.C.: American Psychological Association.

Greenberg, J., Koole, S. L., & Pyszczynski, T. (2004). *Handbook of experimental existential psychology.* New York: Guilford.

Greenberg, J., Solomon, S., & Pyszczynski, T. (1997). Terror management theory of self-esteem and cultural worldviews: Empirical assessments and conceptual refinements. In M. P. Zanna (Ed.), *Advances in experimental social psychology*, *Vol. 29.* (pp. 61–139). San Diego, CA: Academic Press.

Greenberg, J., Solomon, S., Pyszczynski, T., Rosenblatt, A., Burling, J., Lyon, D., et al. (1992). Assessing the terror management analysis of self-esteem: Converging evidence of an anxiety-buffering function. *Journal of Personality and Social Psychology*, *63*, 913–922.

Hambridge, J., & Loewenthal, M. (2003). Treating obsessive–compulsive disorder: A new role for infectious diseases physicians? *International Journal of Infectious Diseases*, *7*, 152–155.

Harvey, A., Watkins, E., Mansell, W., & Shafran, R. (2004). *Cognitive behavioural processes across psychological disorders: A transdiagnostic approach to research and treatment.* Oxford, UK: Oxford University Press.

Havens, L. L., & Ghaemi, S. N. (2005). Existential despair and bipolar disorder: The therapeutic alliance as a mood stabilizer. *American Journal of Psychotherapy*, *59*, 137–147.

Hayes, J., Schimel, J., Arndt, J., & Faucher, E. H. (2010). A theoretical and empirical review of the death-thought accessibility concept in terror management research. *Psychological Bulletin*, *136*, 699–739.

Hayes, J., Schimel, J., & Williams, T. J. (2008). Fighting death with death: The buffering effects of learning that worldview violators have died. *Psychological Science*, *19*, 501–507.

Hayes, S.C., & Smith, S. (2005). *Get out of your mind and into your life: The new Acceptance and Commitment Therapy.* Oakland, CA: New Harbinger Publications, Inc.

Hayslip, B., Luhr, D.D., & Beyerlein, M. M. (1991). Levels of death anxiety in terminally ill men: A pilot study. *Omega: Journal of Death and Dying*, *24*, 13–19.

Hiebert, C., Furer, P., McPhail, C., & Walker, J. R. (2005). Death anxiety: A central feature of hypochondriasis. *Depression and Anxiety*, *22*, 215–216.

Hirschberger, G. (2006). Terror management and attributions of blame to innocent victims: Reconciling compassionate and defensive responses. *Journal of Personality and Social Psychology*, *91*, 832–844.

Hochdorf, Z., Latzer, Y., Canetti, L., & Bachar, E. (2005). Attachment styles and attraction to death: Diversities among eating disorder patients. *American Journal of Family Therapy*, *33*, 237–252.

Hoelter, J. W. (1979). Multidimensional treatment of fear of death. *Journal of Consulting and Clinical Psychology*, *47*, 996–999.

Hussian, R. A. (1983). A combination of operant and cognitive therapy with geriatric patients. *International Journal of Behavioral Geriatrics*, *1*, 57–61.

Iglesias, A. (2004). Hypnosis and existential psychotherapy with end-stage terminally ill patients. *American Journal of Clinical Hypnosis*, *46*, 201–213.

Ishiyama, F. I. (1986). Positive reinterpretation of fear of death: A Japanese (Morita) psychotherapy approach to anxiety treatment. *Psychotherapy: Theory, Research, Practice, Training*, *23*, 556–562.

Johns, S. A. (2013). Translating Dignity Therapy into practice: Effects and lessons learned. *Omega: Journal of Death and Dying*, *67*, 135–145.

Jones, M. K., & Menzies, R. G. (1997a). The cognitive mediation of obsessive–compulsive handwashing. *Behaviour Research and Therapy*, *35*, 843–850.

Jones, M. K., & Menzies, R. G. (1997b). Danger Ideation Reduction Therapy (DIRT): Preliminary findings with a cognitive treatment for obsessive–compulsive washers. *Behaviour Research and Therapy*, *35*, 955–960.

Jones, M. K., & Menzies, R. G. (1998). Danger ideation reduction therapy (DIRT) for obsessive–compulsive washers: A controlled trial. *Behaviour Research and Therapy*, *36*, 959–970.

Jones, M. K., & Menzies, R. G. (2002). Danger ideation reduction therapy. In G. Zimmar, M. Hersen, & W. Sledge (Eds.), *Encyclopedia of psychotherapy* (pp. 615–619). New York: Academic Press.

Kastenbaum, R. (2000). *The psychology of death* (3rd Ed.). Springer: New York.
Kellner, R. (1986). *Somatization and hypochondriasis.* Westport, CT: Praeger/Greenwood.
Kellner, R., Abbott, P., Winslow, W. W., & Pathak, D. (1987). Fears, beliefs, and attitudes in DSM-III hypochondriasis. *Journal of Nervous and Mental Disease*, *175*, 20–25.
Kesebir, P., Luszczynska, A., Pyszczynski, T., & Benight, C. (2011). Posttraumatic stress disorder involves disrupted anxiety-buffer mechanisms. *Journal of Social and Clinical Psychology*, *30*, 819–841.
Khanna, N., Khanna, R., & Sharma, R. G. (1988). A study on death anxiety. *Journal of Personality and Clinical Studies*, *4*, 47–51.
Kim, S., Yu, B. H., Lee, D. S., & Kim, J. -H. (2012). Ruminative response in clinical patients with major depressive disorder, bipolar disorder, and anxiety disorders. *Journal of Affective Disorders*, *136*, e77–e81.
Kingman, R. (1928). Fears and phobias: Part II. *Welfare Magazine*, *19*, 303–308.
Kissane, D. W., Love, A., Hatton, A., Bloch, S., Smith, G., Clarke, D.M., et al. (2004). Effect of cognitive-existential group therapy on survival in early-stage breast cancer. *Journal of Clinical Oncology*, *22*, 4255–4260.
Koole, S. L., Greenberg, J., & Pyszczynski, T. (2006). Introducing science to the psychology of the soul: Experimental existential psychology. *Current Directions in Psychological Science*, *15*, 212–216.
Krause, S., Rydall, A., Hales, S., Rodin, G., & Lo, C. (2014). Initial validation of the Death and Dying Distress Scale for the assessment of death anxiety in patients with advanced cancer. *Journal of Pain and Symptom Management*, http://dx.doi.org/10.1016/j.jpainsymman.2014.04.012.
Krieger, S. R., Epting, E. R., & Hays, C. H. (1979). Validity and reliability of provided constructs in assessing death threat. *Omega: Journal of Death and Dying*, *10*, 87–95.
Krochmalik, A., Jones, M. K., & Menzies, R. G. (2001). Danger Ideation Reduction Therapy (DIRT) for treatment-resistant compulsive washing. *Behaviour Research and Therapy*, *39*, 897–912.
Krochmalik, A., Jones, M. K., Menzies, R. G., & Kirkby, K. (2004). The superiority of Danger Ideation Reduction Therapy (DIRT) over Exposure and Response Prevention (ERP) in treating compulsive washing. *Behaviour Change*, *21*, 251–268.
Kutlesa, N., & Arthur, N. (2008). Overcoming negative aspects of perfectionism through group treatment. *Journal of Rational-Emotive Therapy & Cognitive-Behavior Therapy*, *26*, 134–150.
Lagerdahl, A. S. K., Moynihan, M., & Stollery, B. (2014). An exploration of the existential experiences of patients following curative treatment for cancer: Reflections from a UK sample. *Journal of Psychosocial Oncology*, http://dx.doi.org/10.1080/07347332.2014.936647.
Lampard, A.M., Tasca, G. A., Balfour, L., & Bissada, H. (2013). An evaluation of the transdiagnostic cognitive–behavioural model of eating disorders. *European Eating Disorders Review*, *21*, 99–107.
Lester, D. (1990). The Collett–Lester Fear of Death Scale: The original version and a revision. *Death Studies*, *14*, 451–468.
Lester, D. (2007). What do death anxiety scales measure? *Psychological Reports*, *101*, 754.
Lewis, A.M. (2014). Terror Management Theory applied clinically: Implications for Existential-Integrative Psychotherapy. *Death Studies*, *38*, 412–417.
Lo, A., & Abbott, M. J. (2013). Review of the theoretical, empirical, and clinical status of adaptive and maladaptive perfectionism. *Behaviour Change*, *30*, 96–116.
Lo, C., Hales, S., Jung, J., Chiu, A., Panday, T., Rydall, A., et al. (2014). Managing Cancer and Living Meaningfully (CALM): Phase 2 trial of a brief individual psychotherapy for patients with advanced cancer. *Palliative Medicine*, http://dx.doi.org/10.1177/0269216313507757.
Lo, C., Hales, S., Zimmermann, C., Gagliese, L., Rydall, A., & Rodin, G. (2011). Measuring death-related anxiety in advanced cancer: Preliminary psychometrics of the Death and Dying Distress Scale. *Journal of Pediatric Hematology and Oncology*, *33*, S140eS145.
Lonetto, R., Fleming, S., & Mercer, G. W. (1979). The structure of death anxiety: A factor analytic study. *Journal of Personality Assessment*, *43*, 388–392.
Lonetto, R., & Templer, D. I. (1986). *Death anxiety.* Washington, DC: Hemisphere Publishing Corp.
Lundh, L. G., & Ost, L. G. (2001). Attentional bias, self-consciousness and perfectionism in social phobia before and after cognitive–behaviour therapy. *Scandinavian Journal of Behaviour Therapy*, *30*, 4–16.
Mahoney, A. E. J., & McEvoy, P.M. (2012). A transdiagnostic examination of intolerance of uncertainty across anxiety and depressive disorders. *Cognitive Behaviour Therapy*, *41*, 212–222.
Marks, I. (1987). *Fears, phobias, and rituals: Panic, anxiety, and their disorders.* New York: Oxford University Press.
Martz, E. (2004). Death anxiety as a predictor of posttraumatic stress levels among individuals with spinal cord injuries. *Death Studies*, *28*, 1–17.
Maxfield, M., John, S., & Pyszczynski, T. (2014). A terror management perspective on the role of death-related anxiety in psychological dysfunction. *The Humanistic Psychologist*, *42*, 35–53.
McClam, T. (1980). Death anxiety before and after death education: Negative results. *Psychological Reports*, *46*, 513–514.
McEvoy, P.M., Watson, H., Watkins, E. R., & Nathan, P. (2013). The relationship between worry, rumination, and comorbidity: Evidence for repetitive negative thinking as a transdiagnostic construct. *Journal of Affective Disorders*, *151*, 313–320.
McGregor, H. A., Lieberman, J.D., Greenberg, J., Solomon, S., Arndt, J., Simon, L., et al. (1998). Terror management and aggression: Evidence that mortality salience motivates aggression against worldview-threatening others. *Journal of Personality and Social Psychology*, *74*, 590–605.
McLaughlin, K. A., & Nolen-Hoeksema, S. (2011). Rumination as a transdiagnostic factor in depression and anxiety. *Behaviour Research and Therapy*, *49*, 186–193.
McMordie, W. R. (1979). Improving measurement of death anxiety. *Psychological Reports*, *44*, 975–980.
Menzies, R. G. (2010). Creative CBT for the emotional disorders. *Full-Day Workshop, Melbourne, June 2010.*
Menzies, R. G. (2012). The dread of death and its role in psychopathology. *Keynote address presented at the 35th National Conference of the Australian Association for Cognitive and Behaviour Therapy, Queensland, October 2012.*
Meyer, J. -E. (1975). The theme of death and the origin and course of obsessional neuroses. *Psychotherapie und Medizinische Psychologie*, *25*, 124–128.
Miller, A., Lee, B.L., & Henderson, C. E. (2013). Death anxiety in persons with HIV/AIDS: A systematic review and meta-analysis. *Death Studies*, *36*, 640–663.
Nassar, S. L. (2010). A measure of interest to logotherapy researchers: The Death Depression Scale-Revised. *International Forum for Logotherapy*, *33*, 56–57.
Neimeyer, R. A. (1994). *Death anxiety handbook: Research, instrumentation, and application.* New York & London: Taylor & Francis.
Neimeyer, R. A., Dingemans, P., & Epting, E. R. (1977). Convergent validity, situational stability and meaningfulness of the Threat Index. *Omega: Journal of Death and Dying*, *8*, 251–265.
Noyes, R., Stuart, S., Longley, S. L., Langbehn, D. R., & Happel, R. L. (2002). Hypochondriasis and fear of death. *The Journal of Nervous and Mental Disease*, *190*, 503–509.
O'Brien, M., Jones, M. K., & Menzies, R. G. (2004). Danger Ideation Reduction Therapy (DIRT) for intractable, adolescent compulsive washing: A case study. *Behaviour Change*, *21*, 57–65.
Ongider, N., & Eyuboglu, S. O. (2013). Investigation of death anxiety among depressive patients. *Journal of Clinical Psychiatry*, *16*, 34–46.
Ottens, A. J., & Hanna, F. J. (1998). Cognitive and existential therapies: Toward an integration. *Psychotherapy: Theory, Research, Practice, Training*, *35*, 312–324.
Peal, R. L., Handal, P. J., & Gilner, F. H. (1981). A group desensitization procedure for the reduction of death anxiety. *Omega: Journal of Death and Dying*, *12*, 61–70.
Perez San Gregorio, M.A., Borda Mas, M., & Blanco Picabia, A. (1995). Fear of death in blood phobia patients: A proposal and a therapeutic programme. *Analisis Y Modificacion De Conducta*, *21*, 249.
Persons, J. B. (1986). Generalization of the effects of exposure treatments for phobias: A single case study. *Psychotherapy*, *23*, 161–166.
Pleva, J., & Wade, T. D. (2007). Guided self-help versus pure self-help for perfectionism: A randomised controlled trial. *Behaviour Research and Therapy*, *45*, 849–861.
Pollack, L. O., & Forbush, K. T. (2013). Why do eating disorders and obsessive–compulsive disorder co-occur? *Eating Behaviors*, *14*, 211–215.
Pyszczynski, T., Abdollahi, A., Solomon, S., Greenberg, J., Cohen, F., & Weise, D. (2006). Mortality salience, martyrdom, and military might: The Great Satan versus the Axis of Evil. *Personality and Social Psychology Bulletin*, *32*, 525–537.
Pyszczynski, T., Greenberg, J., Koole, S., & Solomon, S. (2010). Experimental existential psychology: Coping with the facts of life. In S. T. Fiske, D. T. Gilbert, & G. Lindzey (Eds.), *Handbook of social psychology* (pp. 724–757). Hoboken, New Jersey: John Wiley & Sons Inc.
Pyszczynski, T., Greenberg, J., & Solomon, S. (1999). A dual-process model of defense against conscious and unconscious death-related thoughts: An extension of terror management theory. *Psychological Review*, *106*, 835–845.
Radanovic-Grguric, L., Filakovic, P., Laufer, D., Vuksic-Mihaljevic, Z., Koic, O., & Barkic, J. (2004). Panic disorder and depression. *Socijalna Psihijatrija*, *32*, 155–159.
Randall, E. (2001). Existential therapy of panic disorder: A single system study. *Clinical Social Work Journal*, *29*, 259–267.
Rasmussen, C. H. A. (1997). The efficacy of general anxiety reduction techniques for death anxiety and death depression in health care providers. *Dissertation Abstracts International, Section B: The Sciences and Engineering*, *58*, 2697.
Richman, J. (2006). The role of psychotherapy and humor for death anxiety, death wishes, and aging. *Omega: Journal of Death and Dying*, *54*, 41–51.
Routledge, C. (2012). Failure causes fear: The effect of self-esteem threat on death-anxiety. *Journal of Social Psychology*, *152*, 665–669.
Royal, K. D., & Elahi, F. (2011). Psychometric properties of the Death Anxiety Scale (DAS) among terminally ill cancer patients. *Journal of Psychosocial Oncology*, *29*, 359–371.
Ruff, R. (2013). Selecting the appropriate psychotherapies for individuals with traumatic brain injury: What works and what does not? *NeuroRehabilitation*, *32*, 771–779.
Russac, R. J., Gatliff, C., Reece, M., & Spottswood, D. (2007). Death anxiety across the adult years: An examination of age and gender effects. *Death Studies*, *31*, 549–561.
Safran, J.D. (1996). Book review. *Journal of Psychotherapy Integration*, *6*, 179–181.
Safren, S. A., Gershuny, B.S., & Hendriksen, E. (2003). Symptoms of posttraumatic stress and death anxiety in persons with HIV and medication adherence difficulties. *AIDS Patient Care and STDs*, *17*, 657–664.
Saggino, A., & Ronco, A. (1997). Depression, state anxiety, trait anxiety and social desirability as predictive variables for death anxiety. *Giornale Italiano di Psicologia*, *24*, 629–638.
Sassaroli, S., Lauro, L. J. R., Ruggiero, G. M., Mauri, M. C., Vinai, P., & Frost, R. (2008). Perfectionism in depression, obsessive–compulsive disorder and eating disorders. *Behaviour Research and Therapy*, *46*, 757–765.
Shafran, R., Cooper, Z., & Fairburn, C. G. (2002). Clinical perfectionism: A cognitive–behavioural analysis. *Behaviour Research and Therapy*, *40*, 773–791.
Shafran, R., & Mansell, W. (2001). Perfectionism and psychopathology: A review of research and treatment. *Clinical Psychology Review*, *21*, 879–905.
Shaver, P. R., & Mikulincer, M. (2012). *Meaning, mortality, and choice: The social psychology of existential concerns.* Washington D.C.: American Psychological Association.
Sherman, D. W., Norman, R., & McSherry, C. B. (2010). A comparison of death anxiety and quality of life of patients with advanced cancer or AIDS and their family caregivers. *Journal of the Association of Nurses in AIDS Care*, *21*, 99–112.
Simon, L., Arndt, J., Greenberg, J., Solomon, S., & Pyszczynski, T. (1998). Terror management and meaning: Evidence that the opportunity to defend the worldview in response to mortality salience increases the meaningfulness of life in the mildly depressed. *Journal of Personality*, *66*, 359–382.

Simon, L., Greenberg, J., Harmon-Jones, E., Solomon, S., & Pyszczynski, T. (1996). Mild depression, mortality salience and defense of the worldview evidence of intensified terror management in the mildly depressed. *Personality and Social Psychology Bulletin*, *22*, 81–90.

Solomon, S., Greenberg, J., & Pyszczynski, T. (2004). The cultural animal: Twenty years of terror management theory and research. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 13–34). New York: Guilford.

Spiegel, D. (1995). Essentials of psychotherapy intervention for cancer patients. *Supportive Care in Cancer*, *3*, 252–256.

St Clare, T. (2004). Danger Ideation Reduction Therapy (DIRT) for atypical obsessive–compulsive disorder: A case study. *Behaviour Change*, *21*, 186–196.

St Clare, T., Menzies, R. G., & Jones, M. K. (2008). *Danger Ideation Reduction Therapy (DIRT) for obsessive–compulsive washers: A comprehensive guide to treatment.* Australia: Australian Academic Press.

Stalsett, G., Gude, T., Ronnestad, M. H., & Monsen, J. T. (2012). Existential dynamic therapy ("VITA") for treatment-resistant depression with Cluster C disorder: Matched comparison to treatment as usual. *Psychotherapy Research*, *22*, 579–591.

Starcevic, V. (1989). Pathological fear of death, panic attacks, and hypochondriasis. *The American Journal of Psychoanalysis*, *49*, 347.

Starcevic, V. (2005). Fear of death in hypochondriasis: Bodily threat and its treatment implications. *Journal of Contemporary Psychotherapy*, *35*, 227–237.

Starcevic, V. (2007). Body as the source of threat and fear of death is hypochondriasis and panic disorder. *Psihijatrija Danas*, *39*, 73–82.

Stolorow, R. D. (1979). Defensive and arrested developmental aspects of death anxiety, hypochondriasis and depersonalization. *The International Journal of Psychoanalysis*, *60*, 201–213.

Strachan, E., Pyszczynski, T., Greenberg, J., & Solomon, S. (2001). Coping with the inevitability of death: Terror management and mismanagement. In C. R. Snyer (Ed.), *Coping with stress: Effective people and processes* (pp. 114–136). Oxford, UK: Oxford University Press.

Strachan, E., Schimel, J., Arndt, J., Williams, T., Solomon, S., Pyszczynski, T., et al. (2007). Terror mismanagement: Evidence that mortality salience exacerbates phobic and compulsive behaviors. *Personality and Social Psychology Bulletin*, *33*, 1137–1151.

Sumathipala, A., Siribaddana, S., Hewege, S., Sumathipala, K., Prince, M., & Mann, A. (2008). Understanding the explanatory model of the patient on their medically unexplained symptoms and its implication on treatment development research: A Sri Lanka study. *BMC Psychiatry*, *8*, 54.

Taubman-Ben-Ari, O., Florian, V., & Mikulincer, M. (2000). Does a threat appeal moderate reckless driving? A terror management theory perspective. *Accident Analysis and Prevention*, *32*, 1–10.

Tausch, R. (1988). Reappraisal of death and dying after a person-centered behavioral workshop. *Person-Centered Review*, *3*, 213–228.

Templer, D. I. (1970). The construction and validation of a death anxiety scale. *Journal of General Psychology*, *82*, 165–177.

Templer, D. I. (1976). Two factor theory of death anxiety: A note. *Essence: Issues in the Study of Ageing, Dying, and Death*, *1*, 91–93.

Templer, D. I., Awadalla, A., Al-Fayez, T. G., Frazee, J., Bassman, L., Connelly, H. J., et al. (2006). Construction of a Death Anxiety Scale-Extended. *Omega: Journal of Death and Dying*, *53*, 209–226.

Templer, D. I., Harville, M., Hutton, S., Underwood, R., Tomeo, M., Russell, M., et al. (2001). Death Depression Scale-Revised. *Omega: Journal of Death and Dying*, *44*, 105–112.

Testa, J. A. (1981). Group systematic desensitization and implosive therapy for death anxiety. *Psychological Reports*, *48*, 376–378.

Thorson, J. A., & Powell, F. C. (2000). Death anxiety in younger and older adults. In A. Tomer (Ed.), *Death attitudes and the older adult: Theories, concepts, and applications* (pp. 123–136). New York, US: Brunner-Routledge.

Titov, N., Gibson, M., Andrews, G., & McEvoy, P. (2009). Internet treatment for social phobia reduces comorbidity. *Australian and New Zealand Journal of Psychiatry*, *43*, 754–759.

Tomas-Sabado, J., & Gomez-Benito, J. (2005). Construction and validation of the Death Anxiety Inventory (DAI). *European Journal of Psychological Assessment*, *21*, 108–114.

Torres, A.R., & Crepaldi, A. L. (2002). Panic disorder and hypochondriasis: A review. *Revista Brasileira de Psiquiatria*, *24*, 144–151.

Vaccaro, L., Jones, M., Menzies, R., & St Clare, T. (2010). *Danger Ideation Reduction Therapy (DIRT) for obsessive–compulsive checkers: A comprehensive guide to treatment.* Bowen Hills: Australian Academic Press.

Walser, C. B. (1985). Death anxiety and separation anxiety in borderline and schizophrenic patients. *Dissertation Abstracts International, Section B: The Sciences and Engineering*, *46*, 667.

Waltz, T. J., & Hayes, S.C. (2010). Acceptance and commitment therapy. In N. Kazantzis, M.A. Reinecke, M.A., & A. Freeman (Eds.), *Cognitive and behavioral theories in clinical practice*. New York, NY: Guilford Press.

Weissman, M. M., Wickramaratne, P., Adams, P. B., Lish, J.D., Horwath, E., Charney, D., et al. (1993). The relationship between panic disorder and major depression: A new family study. *Archives of General Psychiatry*, *50*, 767–780.

White, P. D., Gilner, F. H., Handal, P. J., & Napoli, J. G. (1983). A behavioral intervention for death anxiety in nurses. *Omega: Journal of Death and Dying*, *14*, 33–42.

Yalom, I. D. (1980). *Existential psychotherapy.* New York: Basic Books.

Yalom, I. D. (2008). *Staring at the sun: Overcoming the terror of death.* San Francisco: Jossey-Bass.