Accepted Manuscript

Title: The effects of psychosocial interventions on death anxiety: A meta-analysis and systematic review of randomised controlled trials

Authors: Rachel E. Menzies, Matteo Zuccala, Louise Sharpe, Ilan Dar-Nimrod

PII: S0887-6185(18)30251-2
DOI: https://doi.org/10.1016/j.janxdis.2018.09.004
Reference: ANXDIS 2061

To appear in: Journal of Anxiety Disorders

Received date: 21-6-2018
Revised date: 28-8-2018
Accepted date: 28-9-2018


This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.
The effects of psychosocial interventions on death anxiety:

A meta-analysis and systematic review of randomised controlled trials

Rachel E. Menzies, Matteo Zuccala, Louise Sharpe, & Ilan Dar-Nimrod

The University of Sydney

Corresponding Author: Rachel E. Menzies, School of Psychology, Griffith Taylor Building

(A19) The University of Sydney, NSW 2006, AUSTRALIA

Phone: 61-2-9351 2222, Fax: 61-2-9351 2603, Email: rmen9233@uni.sydney.edu.au
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

Highlights

• Death anxiety is a transdiagnostic construct involved in numerous mental disorders
• 15 RCTs have evaluated the effects of interventions on death anxiety
• Results showed that, overall, interventions lead to improvements in death anxiety
• CBT interventions are the most effective at reducing death anxiety
• Study quality is mostly low, and more high quality RCTs are needed

Abstract
Death anxiety has been proposed as a transdiagnostic construct, underlying numerous mental disorders. Although it has been argued that treatments, which reduce death anxiety, are needed, research investigating the impact of interventions on death fears has produced mixed results. As such, the current meta-analysis aimed to examine the effect of psychosocial interventions on death anxiety. Overall, results from 15 randomised controlled trials suggested that psychosocial treatments produced significant reductions in death anxiety, with a small to medium effect size ($g = .45$). Intervention type (death education vs. therapy) did not significantly moderate the effect of intervention on death anxiety ($g = -.47$). However, therapy type was a significant moderator of treatment efficacy ($g = -1.39$). Cognitive Behaviour Therapy was found to be particularly efficacious, producing significant reductions in death anxiety relative to control ($g = 1.7$), whereas other therapies did not ($g = 0.20$). The number of treatment sessions and baseline death anxiety significantly moderated intervention efficacy, whereas the duration of the intervention, training of the interventionist, and clinical nature of the sample did not. Given the
small number and generally low quality of the included studies, future research using more rigorous methodology, as well as clinical samples, is needed.

**Key words:**
Death anxiety, fear of death, meta-analysis, systematic review, treatment outcome, transdiagnostic

The effects of psychological interventions on death anxiety:
A meta-analysis and systematic review of randomised controlled trials

1. **Introduction**

The dread of death has appeared as a pervasive theme for as long as humans have recorded their history, frequently being featured in art, literature, and cultural and religious practices. (Becker, 1973; Eshbaugh & Henninger, 2013). Over a century ago, William James famously described the awareness of our own mortality as “the worm at the core” of human existence (1985/1902, p. 119). In a similar vein, Yalom (2008) proposes that death anxiety is at the heart of much of human distress. Whilst some individuals may manage to cope with fears of death in a positive and adaptive way (e.g., through living in the present moment and pursuing a meaningful existence), an inability to effectively cope with the dread of death may lead to paralysing fear, as well as the development of unhelpful coping mechanisms (e.g., Kastenbaum, 2000).

Across the last three decades, Terror Management Theory (TMT) has been the central theoretical approach underlying research into the impact of death anxiety on a wide array of
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

phenomena (for a review, see Greenberg, 2012). TMT proposes that one’s innate human instincts of self-preservation, coupled with the conscious awareness that death is inevitable, can produce overwhelming terror (Rosenblatt, Greenberg, Solomon, Pyszczynski, & Lyon, 1989). Findings from hundreds of TMT studies to date (e.g., Arndt et al., 1997; Greenberg et al., 1992) have demonstrated the impact of thoughts of death on a wide range of behaviours, including aggression towards outgroups (McGregor et al., 1998), sun tanning (Routledge, Arndt, & Goldenberg, 2004), obsessive-compulsive handwashing (Menzies & Dar-Nimrod, 2017) and financial spending intentions (Dar-Nimrod, 2012). Thus, evidence from TMT research has indicated that the awareness of our own mortality is a central factor explaining diverse areas of human behaviour.

Although TMT research has largely focused on exploring the role of death anxiety in everyday human behaviour, the findings also have relevant implications for mental health and clinical populations. Recently, Iverach, Menzies, and Menzies (2014) have argued that death anxiety is a transdiagnostic construct, underpinning a multitude of mental illnesses, such as panic disorder (Schmidt, Lerew, & Trakowski, 1997), illness anxiety disorder (Furer, Walker, & Stein, 2007), obsessive-compulsive disorder (Menzies & Dar-Nimrod, 2017), and specific phobias (Marks, 1987). As such, some researchers have proposed that treatments focusing on reducing death anxiety may lead to overall symptom improvement (Furer et al., 2007; Iverach et al., 2014). A variety of different procedures have been proposed as a means of reducing death anxiety. These include cognitive and behavioural procedures, such as exposure therapy (e.g., Cautela, 1969; Hiebert, Furer, McPhail, & Walker, 2005), behavioural experiments (Kirk & Rouf, 2004; Silver, Sanders, Morrison, & Cowey, 2004) and cognitive reappraisal (e.g., Furer et al., 2007). Other treatments that have been argued to be effective include existential
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

psychotherapy (Yalom, 1980) and death education programs, which typically aim to educate and expose health professionals to death-relevant information.

Despite this, research on the efficacy of interventions aiming to reduce death anxiety has been limited. To date, only one systematic review and one meta-analysis have been conducted on the topic. Maglio (1994) conducted a meta-analysis investigating the effects of death education programs on death anxiety. In contrast to the present study, the meta-analysis included non-randomised designs, as well as studies that only measured death anxiety post-intervention without accounting for baseline levels of death anxiety. As a result, Maglio’s meta-analysis included 62 studies, involving both didactic death education programs (i.e., those primarily involving lectures and the delivery of factual information) and experiential (i.e., those focusing on roleplays and group discussion) death education interventions. Surprisingly, the findings of the meta-analysis suggested that, overall, participants who completed death education programs reported significantly higher death anxiety than participants in control conditions. In particular, death education programs using a didactic approach were found to increase death anxiety more so than did experiential programs. However, of the 62 included studies, 43 involved student samples with the remaining studies primarily using nurses or health professionals. That is, not a single study in Maglio’s meta-analysis used a clinical sample, making the generalisability of the results to clinical populations, and their relevance to treatment, unclear.

In a recent systematic review by Grossman, Brooker, Michael, and Kissane (2018), the effects of psychotherapeutic interventions on death anxiety among adult patients with advanced cancer were examined. Although this review included nine studies, only two of those studies specifically measured death anxiety (rather than, for example, ‘desire for hastened death’, or general distress). Of those two, only one study utilised a pre-existing and validated measure of
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

depth anxiety. Thus, although the review concluded that interventions such as meaning-centered therapy or dignity therapy appear to be beneficial to wellbeing overall, the effectiveness of these treatments on ameliorating death fears specifically, remains unclear. Similarly, given the nature of the review’s sample population (i.e., patients with advanced cancer), the generalisability of these findings to individuals without cancer remains limited.

The present study aimed to address these limitations, as well as the general absence of research on the topic, by conducting a meta-analysis of randomised clinical trials (RCTs) that have investigated the effects of psychosocial interventions on death anxiety in adults. Further, the study aimed to address the following research questions:

1. Overall, do psychological interventions lead to significant changes in death anxiety?
2. Do the effects of these interventions on death anxiety differ between clinical and non-clinical samples?
3. Do the effects of death education programs and therapeutically-oriented treatments (e.g., Cognitive Behaviour Therapy; CBT) on death anxiety differ?
4. Do CBT interventions produce significantly different changes in death anxiety compared to other types of treatment interventions (e.g., relaxation)?
5. Are the effects of interventions on death anxiety moderated by the number and duration of treatment sessions, or the training of the interventionist?

2. Method

2.1 Registration and literature search
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

The protocol for the present study was prospectively registered with PROSPERO\(^1\) [CRD42017058994]. To identify studies for possible inclusion, a systematic search of the electronic databases PsycINFO, MEDLINE, and Web of Science was conducted for English language peer-reviewed articles using the search terms death anxiety and/or fear of death, intersected with treatment, therapy, and/or intervention. This search was conducted up until March 23\(^{rd}\), 2018.

2.2 Selection of studies and inclusion criteria

In order to be eligible for analysis, the following inclusion criteria were used: 1) participants must be adults, 2) a psychosocial intervention must be used, 3) pre- and post-treatment fear of death scores must be measured using a validated measure of death anxiety, 4) a control condition and random allocation of participants must be used, 5) the articles must be in English. Dissertations, abstracts, and conference presentations were excluded.

Overall, the search yielded 841 articles, of which 219 were duplicates (see Figure 1). Step 1 had the first author (RM) screen the titles and abstracts for the remaining 622 studies to determine their relevance for inclusion. A second reviewer (MZ) reviewed all 622 of these studies, with excellent inter-rater reliability (Kappa = 0.832); disagreements were settled by consensus. A total of 581 papers were excluded on the basis of the title and abstract screening, as they were not considered to be an empirical study related to the effects of interventions on death anxiety outcome measures.

\(^{1}\) http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42017058994
Step 2 involved the full text manuscripts of the remaining studies being reviewed independently by RM and MZ, in order to assess eligibility for inclusion more comprehensively. Again, the inter-rater reliability was excellent (Kappa = 0.847), and disagreements were settled by consensus. Twenty-seven articles were excluded due to not meeting inclusion criteria. Of these, nine studies lacked a control condition, and ten lacked random allocation of participants. Six studies featured a control condition and random allocation, but lacked sufficient relevant quantitative data for a meta-analysis. This left a total of 15 studies that were analysed in the meta-analysis. Figure 1 outlines the process of study inclusion.

2.3 Data extraction & statistical analysis

To determine the effects of the interventions on death anxiety, means, standard deviations, and the number of participants in each condition were extracted from each study, both before and after treatment. For the papers that did not provide this information, mean change scores and either t-scores or F-values were used. For the six papers which included multiple outcome measures of death anxiety, solely the means for the Death Anxiety Scale (DAS; Templer, 1970) were included for analysis. This statistical approach of selecting a single outcome measure which appears to best represent the primary research question, has been commonly used in meta-analyses (e.g., Ahn et al., 2012; Berkeley, Scruggs, & Mastropieri, 2010). The DAS was selected for two reasons: first, it is the most widely used measure of death anxiety in the field (Sharif Nia et al., 2014), and second, it was the one measure shared by all included studies featuring multiple outcome measures of fears of death. Finally, the authors of
three studies were contacted in order to obtain data that had not been reported (Dadfar et al., 2016, Lo et al., 2016; Vargo et al., 1984). Statistical analyses for the meta-analysis were conducted using Comprehensive Meta-Analysis (CMA) Version 3.

3. Results

3.1 Study characteristics

Table 1 details the characteristics of the 15 studies included in the meta-analysis. Results revealed that a significant proportion of the variation across the 15 studies was due to heterogeneity, rather than chance, $Q_{14} = 87.53, p < .0001, I^2 = 84.01$. Therefore, due to the variation between studies, random effects models are reported.

3.1.1 Participant group

Among the 15 studies, the sample size varied between 20 participants and 104, with a mean sample size of 41.6 ($SD = 21.36, N_{total} = 624$). Although two studies did not report the mean age of their samples (Goris et al., 2017; Miles, 1980), the mean age across the remaining studies was 40.8 years ($SD = 17.92$).

Consistent with much of the literature, the majority (66.6%) of included studies used non-clinical samples; six of these studies solely used a student sample (four of which targeted nursing students), three used practicing nurses, and one used elderly residents in a retirement community. Five studies (33.3%) included a clinical sample, consisting of participants diagnosed with an illness. Of these, four studies involved cancer patients (Kim et al., 2016; Lo et al., 2016;
Onyechi et al., 2016; Zuehlke et al., 1977), whereas the remaining study involved participants diagnosed with HIV (Vaughan et al., 1996). Of note, across the 15 studies, only four studies (26.7%) required participants to have pre-existing high levels of death anxiety to be eligible for inclusion (Dadfar et al., 2016; Onyechi et al., 2016; Peal et al., 1981; White et al., 1983).

3.1.2 Type of intervention and control condition

Nine of the 15 included studies (60%) implemented a therapeutically-oriented intervention. Five studies included an intervention which was explicitly identified by the authors as being CBT-based. This included four studies involving group systematic desensitisation using either in vivo (Bohart et al., 1979) or imaginal (Peal et al., 1981; Testa, 1981; White et al., 1983) exposure, and one which used a CBT-based hospice care manual (Onyechi et al., 2016). Other therapy interventions used included a manualized individual psychotherapy designed for adults with cancer (Lo et al., 2016), relaxation training (Rasmussen et al., 1998), life review workshops and support groups (Vaughan et al., 1996), implosive therapy (a form of therapy similar to imaginal exposure; Testa, 1981) and logotherapy (an intervention focused on creating meaning in one’s life; Zuehlke et al., 1997).

In contrast, five studies (33.3%) involved death education interventions. Of these, two studies included two conditions implementing a discrete didactic and experiential approach (Dadfar et al., 2016; Vargo & Batsel, 1984). The remaining three studies included just one death education condition each, which appeared to adopt a mix of the two approaches (i.e., utilizing a mixture of lectures, discussion, and role plays; Goris et al., 2017; Kim et al., 2016; Miles, 1980).

For the purpose of the present meta-analyses, studies were classified as using either a therapeutically-oriented intervention or a death education intervention. This classification was
based both on the intervention procedures described by the authors, as well as by the original authors’ explicit overall purpose (e.g., relaxation vs. death education). Certain death education procedures may have utilised components of CBT (e.g., viewing death-related films as a component of exposure therapy; see Menzies, 2018). However, the difference in primary aims (i.e., providing educational information vs. reducing clinical anxiety), as well as key procedural differences (e.g., structured lecture format vs. graded exposure tailored to the participants’ capabilities and distress), offered a firm foundation and clear criteria to contrast these discreet forms of interventions, to allow for meaningful clinically-relevant comparisons to take place.

When the primary aims and key procedural aspects were not enough to ascertain a therapeutic vs. death education classification (i.e., Henderson, 1990, which simply involved participants recording and discussing their end of life wishes), no classification was assigned, and this study was excluded from analyses comparing death education to therapeutic interventions.

The majority of included studies (73.3%) involved group interventions, whereas only four studies involved an individually-administered intervention (Henderson, 1990; Lo et al., 2016; Onyechi et al., 2016; Zuehlke et al., 1977). Five studies included a CBT-based intervention. Of these, four used group systematic desensitisation (Bohart et al., 1979; Peal et al., 1981; Testa, 1981; White et al., 1983) and one study used a CBT-based hospice care manual (Onyechi et al., 2016).

Lastly, there was high variability regarding the type of control condition used by the included studies. Four studies used a delayed treatment control condition, (Bohart et al., 1979; Miles, 1980; Vaughan et al., 1996; Zuehlke et al., 1977), four other studies involved no treatment (Goris et al., 2017; Henderson, 1990; Peal et al., 1981; White et al., 1983), and three studies utilised a treatment as usual control condition, including access to social workers and
psychologists as required (Lo et al., 2016), weekly sessions of conventional counseling (Onyechi et al., 2016), and outpatient follow-up care for cancer (Kim et al., 2016). Finally, two studies used an attention-placebo control condition (Rasmussen et al., 1998; Testa, 1981), one study used silent reading (Vargo et al., 1984), and the control condition of one study involved an unrelated education program (Dadfar et al., 2016).

3.1.3 Program duration and frequency

The number of intervention sessions across the studies ranged from one (Henderson, 1990) to 10 sessions (Kim et al., 2016; Onyechi et al., 2016). The mean number of sessions was 5.93, although the number of sessions also varied considerably within single studies (e.g., Peal et al., 1981). The total duration time of sessions also varied considerably, ranging from two hours (Vargo & Batsel, 1984) to 36 hours (Dadfar et al., 2016), with a mean duration of 10.27 hours. Two studies did not report the duration time of the intervention sessions (Henderson, 1990; Lo et al., 2016).

3.2 Risk of bias and quality of the evidence

For each study, a risk of bias analysis was conducted by two authors (RM and MZ) using the 7-item Cochrane collaboration's tool for assessing risk of bias (Higgins et al., 2011). Moderate inter-rater reliability was obtained (weighted Kappa = 0.513), and disagreements were settled by consensus. Only four studies reported adequate generation of random sequencing, one reported adequately concealing group allocation, four reported appropriate blinding of participants (i.e., through attempting to match treatment expectancies across control and intervention conditions) and personnel, and two reported adequate blinding of outcome assessments. Ten studies were coded as having low risk of bias for incomplete outcome data,
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

whereas only one study was coded as low risk of bias for selective reporting. Overall, only one study was not classified as showing high risk of bias on any measure, and no studies were classified as low risk of bias across all measures. The detailed results of this risk of bias analysis can be found in Figures 2 and 3. When assessing for publication bias, inspection of the funnel plot (figure 4) revealed apparent symmetry. This was further supported by the results of Duval and Tweedie’s Trim and Fill procedure (Duval & Tweedie, 2000), conducted within CMA, which found no change in the estimated effect of interventions on death anxiety.

The quality of the evidence was assessed using the GRADE approach under the following five factors: Risk of bias, inconsistency, imprecision, indirectness, and publication bias (Guyatt, 2008). Given the aforementioned assessment of risk of bias, the rating of the evidence on this factor was downgraded by one level to ‘serious’. For inconsistency, due to the high heterogeneity in the included studies, this was downgraded by one level from ‘not serious’ to ‘serious’. Indirectness was not assessed to be at serious risk, due to the fact that the outcomes and interventions included in the present meta-analysis did not differ from those of interest. Lastly, due to the wide confidence intervals found for the overall effect, imprecision was downgraded by one level to ‘serious’. Overall, the evidence that psychosocial interventions affect death anxiety is considered to be of very low quality.

3.3 Overall effect of interventions on death anxiety

The first analysis investigated the effect of psychosocial interventions overall on death anxiety, relative to a control. All 15 studies were included in this analysis. Results suggested that, on average, psychosocial treatments produced significant reductions in death anxiety, $p =$
The effect size for this was small to medium, with $g = 0.449$, 95% CI [.009, .889] (see figure 5).

3.4 Effect of death education vs. therapeutic treatments on death anxiety

To examine whether treatment type (i.e., death education vs. therapy) predicted the effect of the intervention on death anxiety, a total of 14 studies were included. Of these, five studies used a death education intervention, while the remaining nine studies used a therapy-based intervention as indicated above. When grouped according to the type of intervention used, heterogeneity remained significant ($Q_{12} = 86.55$, $p = <0.0001$, $I^2 = 86.13\%$). Results of the meta-regression revealed nominal differences based on treatment type (i.e., whether studies used a death education or therapeutically-oriented intervention). Therapeutically-oriented interventions showed, on average, greater reduction in death anxiety compared with educational interventions, although this contrast did not significantly moderate the effect of intervention on death anxiety, with $g = -.469$, $p = .382$, 95% CI [-1.52, 0.58].

3.5 Effect of CBT vs. other therapy types on death anxiety

Among studies which used a therapy-based intervention, rather than education, the impact of the therapy type on the efficacy of interventions was first explored using a meta-regression. To explore potential differences between therapy orientations, five studies, which utilised CBT, were included in the analysis. To examine the effect of therapy approaches outside of CBT on death anxiety, nine studies were included. Of these nine studies, two studies focused on relaxation strategies, whereas the remaining studies implemented interventions involving: manualised individual psychotherapy, implosive therapy, logotherapy, support groups, life
review workshops, a "non-conscious" audio tape visualisation task, and discussing end-of-life choices with participants.

When grouped according to the type of therapy used, heterogeneity remained significant ($Q_8 = 65.84, p < .0001, I^2 = 87.85\%$). The results of the meta-regression indicated that the therapy type (i.e., CBT vs. other) significantly moderated the effect of psychosocial interventions on death anxiety, with $g = -1.39, p = .029, 95\% \text{ CI } [-.265, -.140]$. That is, greater reduction in death anxiety was associated with studies utilising a CBT intervention over alternative methods.

An additional meta-analysis (Figure 6), revealed that CBT interventions produced significant reductions in death anxiety relative to control, with $g = 1.72, p = .014, 95\% \text{ CI } [.353, 3.08]$. In contrast, therapeutic interventions outside of CBT did not produce a significant improvement in death anxiety, with $g = 0.198, p = .326, 95\% \text{ CI } [-.197, .592]$.

**INSERT FIGURE 6 AROUND HERE**

### 3.6 Effect of sample type on treatment efficacy

The potential impact of the sample characteristics (i.e., clinical vs. non-clinical) on the efficacy of interventions was also explored using a meta-regression. All 15 studies were included in this analysis. The results indicated that the clinical or non-clinical nature of the sample was not a significant predictor of the effect of psychosocial interventions overall, relative to control, on death anxiety, $p = .345, 95\% \text{ CI } [-.519, 1.48]$.

### 3.7 Effect of treatment duration and frequency on death anxiety

Finally, the potential moderating effect of session number and duration on improvement in death anxiety were explored using a meta-regression. All 15 studies were examined to
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

investigate the role of session number, and 13 studies were included in the analysis using total duration of all sessions in hours as a continuous variable. Two studies could not be included for this latter analysis as they did not specify the duration of sessions (Henderson, 1990; Lo et al., 2016). When examining all psychosocial interventions overall, the number of treatment sessions experienced significantly moderated the effect of treatment on death anxiety, $g = .31, p = .011$, 95% CI [.070, .541]. That is, averaged across interventions, a higher number of sessions was associated with significantly greater reduction in death fears. Of note, among the six studies that showed significant improvement in death anxiety as a result of treatment, the number of sessions averaged 7.92, compared to an average of 4.61 sessions among the 10 studies which did not produce significant change. Interestingly, the total duration of intervention (i.e., number of hours of treatment) did not appear to significantly predict improvement in death anxiety, $g = -.00, p = .452$, 95% CI [-.001, .001].

Notably, whereas the number of intervention sessions were comparable between death education programs and therapeutic treatments (5.8 and 6 sessions on average, respectively), the average time duration of death education programs was more than double that of therapeutic interventions (15.7 hours versus 6.73 hours, respectively). Thus, it was possible that treatment type is confounded with treatment duration, wherein greater treatment duration, but not number of sessions, was associated with a specific type of treatment (i.e., death education) found to be ineffective. To test this alternative explanation, an additional meta-regression was conducted excluding the five death education studies from the analyses. However, the results remained unchanged, and total duration, again, failed to exert a significant effect, $p = .368$, 95% CI [-.004, .01].

3.8 Secondary analyses
In addition to the above aims, a secondary question of interest in the present study was to explore whether the nature of sampling method (i.e., random or non-random sampling) moderated the effect of treatment on death anxiety. However, there was insufficient information to classify any study as using a random sample.

Further, additional analyses were conducted based on the pre-registered aim of investigating whether the training of the interventionist impacted treatment efficacy for death anxiety. Only five studies reported details about the training of interventionists: In three studies, interventions were led by formally trained counsellors or psychologists (e.g., with a completed counselling degree, or a Masters-level degree, or a PhD), whereas two studies used graduate students in counselling psychology. The results of a meta-regression, which included training as a categorical variable, indicated that the training of the intervention leader did not significantly moderate the effect of the treatment on death anxiety, $g = -2.38, p = .214, 95\% \text{ CI } [-6.14, 1.38]$. However, with only two studies representing those low in experience, this analysis should be interpreted cautiously.

In addition, exploratory analyses were conducted to examine whether screening for heightened levels of death anxiety in the sample moderated the impact of treatment efficacy. A meta-regression was conducted comparing the results of four studies, which actively recruited highly death anxious samples (and excluded those who did not show excessive dread of death), to the remaining 11 studies which did not use such a criterion. The results indicated that the pre-existing level of death anxiety was a significant predictor of treatment efficacy, $g = -1.38, p = .01, 95\% \text{ CI } [-2.43, -3.38]$. That is, studies which selectively included participants with high levels of death anxiety showed significantly greater reduction in death anxiety, relative to studies with average or unknown levels of death anxiety. Further analyses were conducted in order to
explore whether differing baseline levels of death anxiety independently predicted treatment efficacy after controlling for therapy type (CBT vs. other therapies). For this purpose, Z-scores for mean death anxiety scores were calculated in order to compare across multiple measures of death anxiety used in each study. A meta-regression was conducted including the 8 studies which used a therapeutic intervention, for which Z-scores could be calculated. One therapeutic intervention (Onyechi et al., 2016) could not be included in the analysis due to the absence of existing normative means for the outcome measure used. The results revealed that neither therapy type, \( p = .705, 95\% \text{ CI } [-1.19, 0.81] \), nor baseline death anxiety, \( p = .327, 95\% \text{ CI } [-.19, .57] \), emerged as significant independent predictors of treatment efficacy, when controlling for each other.

Lastly, given the high variance in the quality of the included studies, exploratory analyses were conducted to investigate whether study quality was a significant moderator of the effect of the interventions on death anxiety. For this purpose, a ‘study quality’ score was calculated for each study based on the ratings assigned in the risk of bias assessment (see Figure 3), and a meta-regression was conducted using all 15 studies. The results indicated that study quality did not significantly predict treatment efficacy, \( g = 0.05, p = 0.83, 95\% \text{ CI } [-.44, .55] \).

3.9 Qualitative review of studies with insufficient data

As outlined in Figure 1, six studies met eligibility criteria yet lacked sufficient data to be included in the present meta-analysis, despite attempts to obtain the necessary data from those authors whose contact details could be located. Of these six studies, only two found that interventions produced overall significant reductions in death anxiety compared to a control condition: one study found significant improvement in death fears among men with a diagnosis
of PTSD following an eye movement desensitisation and reprocessing (EMDR) intervention (Ahmadi, Hazrati, Ahmadizadeh, & Noohi, 2015), whereas another found that both a placebo treatment group (involving ‘client centered therapy’) and an unspecified psychological intervention reduced death anxiety among individuals living with HIV/AIDS in Nigeria (Akindele & Ayodeji, 2016). Three studies found no significant reductions in death anxiety following an intervention. These studies involved implosive therapy for individuals with sleep difficulties (Carrera & Elenewski, 1980), hypnotic relaxation strategies and electroencephalography (EEG) biofeedback techniques (Pettigrew & Dawson, 1979), and a death education intervention (Combs, 1981). Combs (1981) found mixed results indicating a significant increase in death fears among some death education conditions, whereas Carrera and Elenewski (1980) and Pettigrew and Dawson (1979) found no significant changes. Lastly, one study (Abengózar, Bueno, & Vega, 1999) found mixed results regarding the effectiveness of experiential and didactic death education interventions among various age groups. Whereas experiential death education only reduced death anxiety for elderly participants at immediate post-test, at four month follow-up, significant reductions in death fears were found for all three age groups. However, despite this apparent improvement, the results regarding broad attitudes towards death paint a more complex picture, revealing simultaneous increases in negative attitudes such as ‘death loneliness’ and ‘death despair’ for young adults and middle-aged adults.

The variability of these six studies and their interventions somewhat limits the generalisability of these findings, however, they appear partially consistent with the results of the current meta-analysis. In particular, the results of Combs (1981) and Abengózar et al. (1999) support the present finding that death education programs do not significantly reduce death anxiety overall at immediate post-test. In addition, although none of the six studies implemented
a CBT intervention, two studies using an alternative therapeutic intervention found significant improvements in death anxiety (Akindele & Ayodeji, 2016; Ahmadi, Hazrati, Ahmadizadeh, & Noohi, 2015), while two other studies found no significant change (Carrera & Elenewski, 1980; Pettigrew & Dawson, 1979). These mixed results may support the present finding that therapeutic interventions outside of CBT do not produce overall improvement, although the diversity of therapeutic techniques used in the aforementioned studies may limit robust conclusions.

4. Discussion

This systematic review and meta-analyses examined the impact of psychosocial interventions on death anxiety. In particular, analyses explored potential differential effects between death education versus therapeutic treatments, CBT interventions versus other treatment modalities, and clinical versus non-clinical samples to maximize clinical utilisation. It was expected that frequency and duration of treatment sessions will moderate the impact of these interventions on fears of death. The results of these meta-analyses indicated that, overall, psychosocial interventions produced significant reductions in death anxiety, with small to medium effect sizes. When the effects of these interventions were examined more closely, CBT in particular produced significant improvements in death anxiety. This contrasted with alternative therapeutic approaches, which did not appear to produce such changes. Further analyses revealed that death education programs did not appear to have a significant impact on levels of death anxiety, consistent with previous research. In addition, frequency of treatment sessions, but not overall duration of treatment, significantly moderated this effect, with a greater
number of sessions predicting a greater reduction in death anxiety. Further, although the training of the interventionist did not appear to impact treatment efficacy significantly, the nature of the sample did appear to play a role. Samples screened for high death anxiety had significantly greater reductions in death anxiety relative to samples that were not recruited on the basis of excessive death fears. However, it is possible that this effect is a result of regression to the mean, rather than intrinsic differences in the efficacy of the intervention as a result of pre-existing fears of death. Alternatively, this finding is potentially due to a floor effect of death anxiety among samples which were not recruited based on level of death fears, leaving less room for participants to improve. Notably, after controlling for baseline levels of death anxiety, therapy type was no longer a significant predictor of treatment efficacy. Thus, as baseline death anxiety predicts treatment efficacy, it cannot be ruled out that death education interventions may be effective for individuals high in death anxiety.

Although psychosocial interventions resulted in significant improvements in death anxiety, these results should be considered in light of the limitations of these meta-analyses. First, the small number of studies that met inclusion criteria share a lack of methodological rigour which limits the conclusions that can be drawn. High risk of bias was found on at least one criterion in the majority of the studies, with no studies being classified as having low risk of bias across all measures. Overall, the quality of the evidence is very low when assessed using the GRADE approach (Guyatt, 2008). Second, the tentative nature of the conclusions is punctuated by the heterogeneity of studies, illustrated by the variance in death anxiety measures used, the variability of control conditions, and the diverse treatment modalities (e.g., life review, logotherapy). As such, although psychological treatments outside of CBT did not appear to produce significant changes in death anxiety, further research may be
needed before drawing strong conclusions about the efficacy of these treatments for which only a single study featured in the present meta-analysis. Third, the small sample sizes of many of the included studies suggest that most of the studies were underpowered, limiting the ability of identifying small and even moderate effects. The small-to-moderate effect size estimates found in the various meta-analyses highlight the issue of inadequacy of power in previous research. That is, due to the lack of power in many of the reviewed studies, it cannot be ruled out that the efficacy of some interventions has gone undetected. Taken together, these methodological concerns suggest that the inclusion of further research is likely to change current findings, highlighting the need for future, high quality research in this area.

Finally, although some studies involved clinical samples of individuals with a terminal diagnosis, no included studies focused on participants diagnosed with a mental health disorder, limiting the generalisation to this population. That said, the inclusion of four studies with highly death anxious samples may indicate treatment efficacy among those with more pervasive fears of death. This is particularly relevant given recent evidence that death anxiety is significantly higher among individuals with a mental health diagnosis (Menzies & Dar-Nimrod, 2017), as well as being a significant predictor of mental health symptom severity (e.g., Le Marne & Harris, 2016; Menzies, Sharpe, & Dar-Nimrod, 2018). Further, death anxiety has also been argued to play a central, yet underexamined, role in fear of cancer recurrence (Curran, Sharpe & Butow, 2017; Sharpe, Curran, Butow, & Thewes, 2018) - a highly prevalent issue faced by cancer survivors - indicating wider applications of interventions targeting death fears.

In sum, given the limitations and methodological shortcomings of previous studies, several recommendations for future research appear warranted. First, given that less than one third of included studies described adequate random allocation, future studies should aim to
ensure strict random allocation procedures to avoid biases. Second, although studies using psychological interventions cannot be double-blinded, future trials should aim to compare active interventions to credible alternatives, such as psychoeducation or group counselling. Third, the importance of pre-registration of trials should be emphasised to allow for enhanced reproducability, and reduced publication and reporting biases (van’t Veer & Giner-Sorolla, 2016). This is particularly important given that pre-registration of clinical trials is associated with a trend towards null findings (Kaplan & Irvin, 2015), suggesting that transparency and rigorous, prospectively-planned methodology is likely to impact results substantially. Fourth, due to the dominance of small samples, future studies should ensure samples are adequately powered to reveal even small effects. Lastly, further research should examine the effects of psychosocial interventions on death anxiety among participants diagnosed with a mental health condition, as this population seems especially vulnerable to the detrimental outcomes of death anxiety.

Despite these limitations, the strengths of the present review are notable. It is the first meta-analysis to assess the efficacy of a range of psychosocial interventions, including both death education programs and treatment interventions, on death anxiety. Further, the use of certain strict inclusion criteria, such as ensuring only RCTs were included in the analyses, reduced the likelihood of reporting biased findings. On the other hand, the expansive approach of other inclusion criteria in the present study, such as including studies using any type of psychosocial intervention with any adult population, allowed a wider scope of the review. Thus, this review contributes to the relevant emerging literature and addresses some prior limitations in scope, such as reporting findings only for death education programs (i.e., Maglio, 1994) or failing to differentiate between death anxiety and broader wellbeing (i.e., Grossman et al., 2018).
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

Given their relevance to treatment of death fears, the implications of this study should be noted. First, the finding that death education did not produce significant improvements in death anxiety supports the findings of Maglio’s larger meta-analysis of death education programs (1994). However, in contrast with Maglio’s results, the present study did not find that such interventions increased death anxiety; rather, there appeared to be no significant change in death fears. Notably, this difference does not seem to be an outcome of reduced power in the present analysis, as the direction of the non-significant effect for the education programs was not in line with the results of Maglio’s larger meta-analysis. Regardless, the accumulated evidence suggests that death education programs are unlikely to be effective providing relief from fears of death.

Second, it is notable that session frequency, but not duration, was a significant predictor of treatment success. That is, interventions which utilised a series of multiple weekly sessions appeared to be more effective at reducing death anxiety than those which involved fewer sessions of equal overall length, such as a two-day workshop. The importance of a high number of intervention sessions is consistent with current treatment approaches to anxiety in general, as well as death fears in particular, which emphasise the need for repeated exposure to anxiety-provoking material (e.g., Abramowitz, Deacon, & Whiteside, 2010; Furer & Walker, 2005; Furer & Walker, 2008).

Third, the finding that CBT produced greater reductions in death anxiety relative to other treatment types, suggests that death fears may be treated similarly to other types of anxiety. Specifically, systematic desensitisation appeared to be particularly effective across various studies. Given that death education programs could be considered a form of exposure due to the presentation of death-related material (Menzies, 2018), it is notable that systematic desensitization, rather than mere exposure to death-relevant information, is necessary for the
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

reduction of death anxiety. Thus, consistent with theoretical arguments (e.g., Furer & Walker, 2008), future interventions targeting death fears may benefit from including forms of graded exposure therapy.

4.1 Conclusions and implications

Terror Management Theory proposes that death anxiety underlies many psychological and behavioural phenomena. More recently, the transdiagnostic nature of death fears has been explored, with arguments that treatments directly reducing these fears may improve recurrent symptoms of psychopathology. The present meta-analysis suggests that, overall, psychosocial interventions have small to moderate effects on death anxiety among adults. Notably, when these effects are examined more closely, CBT seems to be the most effective. Further, greater frequency of sessions, as well as including a sample with heightened death anxiety, led to larger reductions in death fears. However, these conclusions are tempered by methodological concerns. The current review highlights the lack of methodologically-adequate RCTs assessing the efficacy of treatments of death anxiety. Future research using rigorous methodology, and in particular, using a sample of participants with mental health diagnoses, is needed.
Articles identified with search strategy (n=841)
- PsycINFO (n=419)
- MEDLINE (n=189)
- Web of Science (n=233)

Articles’ titles and abstracts reviewed (n=622)

Articles reviewed in depth for relevance to each section (n=41)

Total articles included in the review (n=21)*
*15 in meta-analysis

Duplicates removed (n=219)

Articles not related to the focus of the review (n=581)
- Not an empirical study (n=344)
- No intervention used (n=220)
- No pre- and post- measure of death anxiety (n=17)

Articles excluded due to methodological requirements (n=20)
- No control condition (n=9)
- No random allocation (n=11)
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

Fig. 1. Search process and selection of studies.

Table 1
Characteristics of studies included in the meta-analysis

<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Participants</th>
<th>Treatment condition</th>
<th>Control Condition</th>
<th>Measure</th>
</tr>
</thead>
</table>
| Bohart et al.  | USA     | Undergraduate students N=104, mean age not reported, 66% female | 4x2-hr weekly sessions of either:  
  1. In vivo systematic desensitisation (n=35)  
  2. Systematic desensitisation (n=33) | 3. Delayed treatment (n=36)              | DAS, CLFD |
| Dadfar et al.  | Iran    | Nurses at a general hospital who scored high in death anxiety N=42, mean age: 36 years, 83% female | 6 x 6-hr weekly workshop of one of following:  
  1. Didactic death education (lectures, readings etc.) (n=12)  
  2. Experiential death education (films, roleplays etc.) (n=10)  
  3. 8A model death education (positive death preparation behaviours) (n=10) | 4. Control: Unrelated education program (n=10) | CLFD, DAS, DCS, DDS, DOS |
<p>| Goris et al.   | Turkey  | Nurses at an oncology hospital N=41, mean age and sex not reported | 1. 6 x 90-min sessions of palliative care training (role-plays, case studies, etc.) (n=20) | 2. No training (n=21) | DAP-R |
| Henderson      | USA     | Residents in a retirement community with living wills N=63, mean age: 81 years, 78% female | 1. Specifying end-of-life wishes and one-on-one discussion at follow-up appointment (n=32) | 2. No treatment (n=31) | DAS |
| Kim et al.     | South Korea | Hospital outpatients receiving follow-up care after breast cancer surgery N=48, mean age: 55 years, 100% female | 1. 10 x 2-hr weekly group sessions (lectures, discussion, death preparation etc.) (n=23) | 2. Treatment as usual (n=25) | CLFD |
| Lo et al.      | Canada  | Outpatients with advanced cancer N=60, mean age: 56 years, 70% female | 1. CALM (Managing Cancer And Living Meaningfully): manualized individual psychotherapy with 3-6 sessions over 3-6 months (n=30, at t2 follow-up n=24) | 2. Usual care (n=30, at t2 follow-up n=2) | DDDS |</p>
<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Description</th>
<th>Interventions</th>
<th>Control Group</th>
<th>Outcome Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles (1980)</td>
<td>USA</td>
<td>Nurses who had registered for a course on death N=24</td>
<td>1. 6 x 2-hr weekly continuing education course on death and dying (e.g., seminars, discussion, articles) (n=12)</td>
<td>2. Delayed treatment (n=12)</td>
<td>DASD</td>
</tr>
<tr>
<td>Onyechi et al. (2016)</td>
<td>Nigeria</td>
<td>Outpatients with terminal cancer and high death anxiety N=32, mean age: 48 years, 88% female</td>
<td>1. 10 x ≤45 mins weekly REBT individual home sessions, using REBT Hospice Care Manual (based on CBT approach), and 4 weekly follow-up sessions (n=16)</td>
<td>Usual care, including 10 weekly counseling sessions ≤45 mins (n=16)</td>
<td>DAQ</td>
</tr>
<tr>
<td>Peal et al. (1981)</td>
<td>USA</td>
<td>Undergraduate students high in death anxiety N=39, mean age: 20 years, 62% female</td>
<td>1. 6-10 x 35-min group sessions of systematic desensitisation (n=13)</td>
<td>2. 6-10 x 35-min group sessions of deep muscle relaxation (n=13)</td>
<td>CWIT DAS, LZDAS-R,</td>
</tr>
<tr>
<td>Rasmussen et al. (1998)</td>
<td>USA</td>
<td>Nursing students N=48, mean age: 31 years, 85% female</td>
<td>1. 4 x 90-min relaxation training and stress management classes (n=17)</td>
<td>2. Attention-placebo: 4 x 60-min sessions watching videos on topics including death, anxiety, depression etc. (n=13)</td>
<td>DAS-L DAS</td>
</tr>
<tr>
<td>Testa (1981)</td>
<td>USA</td>
<td>Nursing students N=48, mean age: 37 years, sex not reported</td>
<td>1.5 x 50-min weekly sessions of group systematic desensitisation (n=13)</td>
<td>3. No treatment (n=13)</td>
<td>CLFD DAS-L</td>
</tr>
<tr>
<td>Vargo et al. (1984)</td>
<td>USA</td>
<td>Nursing students N=20, mean age: 19 years, 100% female</td>
<td>1. Non-conscious: 1x2-hr audio tape using “Open Focus” visualization procedure (n=5)</td>
<td>2. Didactic: 1x90-min group presentation about Kubler-Ross and Ernest Becker, &amp; 1-hr discussion (n=5)</td>
<td>CLFD DAS</td>
</tr>
<tr>
<td>Vaughan et al. (1996)</td>
<td>USA</td>
<td>Adults with HIV N=27, mean age: 40 years, 4% female</td>
<td>1. 6x2-hr group life review workshops: discussion of personal histories, lifeline task etc. (n=8)</td>
<td>2. 6x2-hr support groups: problem-solving, emotional support etc. (n=9)</td>
<td>DAS</td>
</tr>
<tr>
<td>White et al. (1983)</td>
<td>USA</td>
<td>Nursing students high in death anxiety N=23, mean age: 21 years, 96% female</td>
<td>1. 9-10 x 35-min group sessions of systematic desensitisation (n=8)</td>
<td>2. 9-10 x 35-min group sessions</td>
<td>CWIT DAS, LZDAS-R,</td>
</tr>
</tbody>
</table>
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

of deep muscle relaxation (n=7)

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country</th>
<th>Study Type</th>
<th>Duration</th>
<th>Treatment Details</th>
<th>Scale(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zuehlke et al.</td>
<td>USA</td>
<td>Cancer inpatients or outpatients</td>
<td>N=20, mean age: 55 years, 0% female</td>
<td>1. 8x45-min individual sessions of logotherapy (n=10) 2. Delayed treatment (n=10)</td>
<td>DAS</td>
</tr>
</tbody>
</table>

**Note.** CLFD = Collett-Lester Fear of Death Scale (Collett & Lester, 1969); CWIT = Color-Word Interference Test (Feifel & Branscomb, 1973); DAP-R = Death Attitude Profile-Revised (Wong et al., 1994); DAQ = Death Anxiety Questionnaire (Conte et al., 1982); DAS = Death Anxiety Scale (Templer, 1970); DAS-L = Death Anxiety Scale – Likert form (McMordie, 1979); DASD = Death Anxiety Semantic Differential (Redick, 1974); DCS = Death Concern Scale (Dickstein, 1972); DDS = Death and Dying Distress Scale (Krause et al., 2015); DDS = Death Depression Scale (Templer et al., 1990); DOS = Death Obsession Scale (Mohammadzadeh, Asgharnejad Farid & Ashouri, 2009); LZDAS-R = Livingston and Zimet Death Anxiety Scale – Revised (Tolor & Reznikoff, 1967); REBT = Rational emotive behavior therapy

![Risk of bias graph](image)

*Figure 2.* Risk of bias graph: Review authors’ judgements about each risk of bias item presented as percentages across all included studies.
**Figure 3.** Risk of bias summary: Review authors’ judgements about each risk of bias item for each included study.
META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY

Figure 4. Funnel plot of standard error by Hedge’s $g$

<table>
<thead>
<tr>
<th>Study name</th>
<th>Comparison</th>
<th>Hedges’s g</th>
<th>Standard error</th>
<th>Upper limit</th>
<th>Lower limit</th>
<th>Z-Value</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bohart (1979)</td>
<td>C vs T</td>
<td>0.429</td>
<td>0.207</td>
<td>0.834</td>
<td>0.024</td>
<td>2.076</td>
<td>0.038</td>
</tr>
<tr>
<td>Dadfar (2016)</td>
<td>C vs T</td>
<td>-0.047</td>
<td>0.355</td>
<td>0.649</td>
<td>-0.744</td>
<td>-0.133</td>
<td>0.894</td>
</tr>
<tr>
<td>Gons (2017)</td>
<td>C vs T</td>
<td>-0.280</td>
<td>0.304</td>
<td>0.316</td>
<td>-0.876</td>
<td>-0.920</td>
<td>0.358</td>
</tr>
<tr>
<td>Henderson (1990)</td>
<td>C vs T</td>
<td>0.173</td>
<td>0.249</td>
<td>0.662</td>
<td>-0.315</td>
<td>0.695</td>
<td>0.487</td>
</tr>
<tr>
<td>Kim (2016)</td>
<td>C vs T</td>
<td>0.629</td>
<td>0.291</td>
<td>1.200</td>
<td>0.058</td>
<td>2.159</td>
<td>0.031</td>
</tr>
<tr>
<td>Lo (2016)</td>
<td>C vs T</td>
<td>0.098</td>
<td>0.294</td>
<td>0.674</td>
<td>-0.478</td>
<td>0.333</td>
<td>0.779</td>
</tr>
<tr>
<td>Miles (1980)</td>
<td>C vs T</td>
<td>1.361</td>
<td>0.440</td>
<td>2.224</td>
<td>0.498</td>
<td>3.091</td>
<td>0.002</td>
</tr>
<tr>
<td>Onyechi (2016)</td>
<td>C vs T</td>
<td>9.820</td>
<td>1.275</td>
<td>12.319</td>
<td>7.321</td>
<td>7.702</td>
<td>0.000</td>
</tr>
<tr>
<td>Peal (1981)</td>
<td>C vs T</td>
<td>0.758</td>
<td>0.344</td>
<td>1.432</td>
<td>0.085</td>
<td>2.207</td>
<td>0.027</td>
</tr>
<tr>
<td>Ramusen (1998)</td>
<td>C vs T</td>
<td>0.344</td>
<td>0.299</td>
<td>0.930</td>
<td>-0.242</td>
<td>1.152</td>
<td>0.249</td>
</tr>
<tr>
<td>Testa (1981)</td>
<td>C vs T</td>
<td>0.007</td>
<td>0.338</td>
<td>0.669</td>
<td>-0.655</td>
<td>0.020</td>
<td>0.984</td>
</tr>
<tr>
<td>Vargo (1984)</td>
<td>C vs T</td>
<td>-0.653</td>
<td>0.505</td>
<td>0.337</td>
<td>-1.644</td>
<td>-1.293</td>
<td>0.196</td>
</tr>
<tr>
<td>Vaughan (1996)</td>
<td>C vs T</td>
<td>0.339</td>
<td>0.389</td>
<td>1.101</td>
<td>-0.424</td>
<td>0.870</td>
<td>0.384</td>
</tr>
<tr>
<td>White (1983)</td>
<td>C vs T</td>
<td>1.113</td>
<td>0.453</td>
<td>2.000</td>
<td>0.225</td>
<td>2.457</td>
<td>0.014</td>
</tr>
<tr>
<td>Zuehlke (1977)</td>
<td>C vs T</td>
<td>-1.143</td>
<td>0.465</td>
<td>-0.232</td>
<td>-2.055</td>
<td>-2.459</td>
<td>0.014</td>
</tr>
</tbody>
</table>

Figure 5. Forest plot effect sizes for comparisons between intervention and control condition on death anxiety
<table>
<thead>
<tr>
<th>Study name</th>
<th>Comparison</th>
<th>Statistics for each study</th>
<th>Hedges's g and 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hedges's g</td>
<td>Standard error</td>
</tr>
<tr>
<td>Bohart (1979)</td>
<td>C vs 2</td>
<td>0.429</td>
<td>0.207</td>
</tr>
<tr>
<td>Peal (1981)</td>
<td>C vs 2</td>
<td>0.872</td>
<td>0.399</td>
</tr>
<tr>
<td>Testa (1981)</td>
<td>C vs 2</td>
<td>-0.040</td>
<td>0.396</td>
</tr>
<tr>
<td>White (1983)</td>
<td>C vs 2</td>
<td>0.750</td>
<td>0.491</td>
</tr>
</tbody>
</table>

*Figure 6.* Forest plot effect sizes for comparisons between CBT and control conditions on death anxiety.
References


META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY


META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY


META-ANALYSIS OF INTERVENTIONS ON DEATH ANXIETY


