



Honors College

Honors Thesis

An Honors Thesis Titled

Peer Death Experiences: Mortality Salience and Perceptions of Illness with Deceased Friends and Classmates

Submitted in partial fulfillment of the requirements for the Honors Designation to the

Honors College

of

Salisbury University

in the Major Department of

Psychology

by

Brendan Patrick Gallagher

Date and Place of Oral Presentation: April 8, 2017 National Conference on Undergraduate Research

Signatures of Honors Thesis Committee

Mentor:

Lance C Gerny

Reader 1:

Larence Becker

Reader 2:

Director:

James J. Buss

Signature

Print

Abstract

Jiang, Chou, and Tsai (2006) suggest that the death of same-aged peers strikes “closer to home” emotionally than the death of an individual of a different age. The current study examined how experiencing the death of a peer (reported as either a Friend or a Classmate) affects Death Anxiety and Death Obsession, two elements of mortality salience, and how reported level of Closeness to the peer affected these elements. Additional analyses focused on gender differences and manner of peer death (terminal illness, suicide, or accident).

A total of 1575 University students answered online questions related to their own experiences with the death of someone in their life as well as measures assessing their current level of mortality salience. Maltby and Day’s (2000) Death Obsession Scale (DOS) has three parts (*Rumination*, *Dominance* and *Idea Repetition*) and “measure(s) a preoccupation with death, impulses and persistent ideas regarding death” (p. 696). The DOS complements research working with the Death Anxiety Scale (DAS; Templer, 1970), which assesses apprehension and fear of death.

Contrary to hypothesis, reported death of a *Friend* was related to neither expressed *Death Anxiety* nor *Death Obsession* and its subtypes. Reported death of a *Classmate* was linked to lower death *Rumination*. Overall *Closeness* to deceased *Friends* was negatively correlated with *Death Anxiety*, while *Closeness* to deceased *Classmates* was positively correlated with *Death Obsession* variables. Also contrary to hypothesis, males report significantly higher degrees of *Closeness* to deceased peers than do females. No statistical differences were found in degrees of mortality salience for different

PEER DEATH EXPERIENCES

manners of peer death. Results suggest that the degree of *Closeness* felt to a peer increases thought on the matter but not in a manner that is explicitly anxiety inducing, and that the experience of a peer dying overall rather than the details of such an experience are most affecting for surviving individuals.

Peer Death Experiences: Mortality Salience and Perceptions of Closeness with Deceased Friends and Classmates

Death is a ubiquitous experience that is explicitly related to the manner in which people conceptualize and live their lives. The inevitability of death makes it universally relevant, providing a unique variable for study that is applicable to all people. The development of a mature understanding of death is of great importance to growth as an individual. Maltby and Day (2000a) assert that individuals “use interpretations of death to provide meaning to their lives” (p. 695). In this sense, the prospect of death provides a significant framework that shapes human behavior throughout life. Solomon’s, Greenberg’s, and Pyszczynski’s (2000) Terror Management Theory posits that recognition of personal mortality motivates people to accept customs or social behaviors and practices purposed with granting life meaning. Such behaviors are particularly evident in religious beliefs such as an afterlife or reincarnation, or in behaviors that seek to build a legacy. These behaviors “[facilitate] symbolic identities in which people can feel as if they are part of something larger” (Routledge & Arndt, 2007, p. 532). Thus people may seek to circumvent the finality of death.

Social Context of Death Experiences: Friends versus Classmates

Experiencing the death of people within one's social context, as opposed to the death of strangers, appears to increase feelings of maturity in adolescents as well as increasing feelings of Death Anxiety and Death Obsession (Maltby & Day, 2000a). Jiang, Chou and Tsai (2006) reported that the death of same-aged peers may strike "closer to home" than instances in which the deceased is of a different age. Other social contexts that could exist, but which are not examined in the current study include the immediate family or other, non-related adults such as teachers or neighbors.

The current study examines the manner in which the death of a peer affects attitudes related to mortality later in life, and whether those effects differ according to the relationship of the surviving individuals to the deceased. Specifically, we explored differences in mortality salience for individuals who reported the death of a peer that was exclusively described either as a Friend or a Classmate/acquaintance. On the premise that the death of a person in one's social context, classified here as a Friend or Classmate, is a strongly affecting experience, the current study seeks to explore how the social role of the deceased within the context of the surviving individuals' life affects their levels of mortality salience. When a Friend dies, their more significant social role in others' lives is vacated. This may elicit greater mortality salience because it causes a greater change in the surviving friend's social fabric than would the death of an acquaintance.

As well as comparing instances of Friend versus Classmate death, additional analysis in this study focuses on the degree of Closeness expressed by the surviving individual to the deceased and its effects upon mortality salience. Past research has

indicated that the level of social support received by an adolescent from family and friends following the death of a peer varies depending upon how “close” a relationship they perceived themselves to have had with the deceased (Garmon, 2006). These findings suggest that the responses of those with consoling roles in the life of the person whose peer has died differ according to their beliefs about the importance of intimacy with the deceased. However, the beliefs of these others do not necessarily reflect the actual importance of perceived Closeness to the deceased for the surviving individual. The present study attempts to supplement these findings by analyzing reported Closeness of the participant to the deceased peer and its relationship to elements of mortality salience.

Mortality Salience

Mortality salience refers to the attitudes and perspectives held by an individual on the topic of death. Past research has demonstrated that these attitudes are heavily influenced by death-related experiences throughout life, and especially early in life (Florian & Mikulincer, 1997). Research by Dickinson (1992) on a college sample found the average earliest age of recollections of death experiences to be eight. These early experiences educate us on the topic of death, and can bring thoughts of personal mortality to bear. Mortality salience describes these thoughts and includes such constructs as Death Anxiety and Death Obsession. Measures of mortality salience attempt to determine the degree to which people think about the topic of death and to describe the complexion of such thoughts. Andersen, Silver, Stewart, Koperwas & Kirschbaum (2013) found that recurrent peer death experiences within a brief timespan increased Death Anxiety,

bereavement, and social disengagement in surviving peers following exposure to as many as fourteen deaths in an academic year. The current study focuses on peer death experiences from the participants' past, and examines the effects of those experiences on present mortality salience as emerging adults.

Mortality Salience: Death Anxiety

Death Anxiety refers to stressful thoughts over the prospect of imminent and “ubiquitous” death (Templer, 1970). Individuals experience differing degrees of negative affect or apprehension that is evoked by thoughts of one's death. Research has consistently indicated that Death Anxiety is higher in African-Americans than in Caucasians and in younger and middle-aged people than in the elderly (DeSpelder & Strickland, 2008; Neimeyer, Moser & Wittkowski, 2003). Death Anxiety has marked effects upon the way people conceptualize their personal mortality and frame their outlooks on life as a whole.

Research conducted by Greenberg, Martens, Jonas, Eisenstadt, Pyszczynski and Solomon (2003) suggests that “heightened accessibility of death-related thoughts signals the potential for anxiety, which is avoided by clinging to one's worldview and self-esteem” (p. 518). Death Anxiety also affects how people comport themselves related to self-care. Research on the effects of death anxiety on health-related behaviors indicates a negative correlation between Death Anxiety and seeking active involvement in personal health care (Knight & Elfenbein, 1996). That is, individuals with higher Death Anxiety

are more likely to leave medical issues in the hands of health care professionals than to attempt self-treatment.

The knowledge that death is unavoidable can be daunting, especially given the uncertainty of the time and means of death, as well as the sensations associated. It is obviously impossible to know until one's death exactly how it feels to die, which raises a number of potentially anxiety inducing questions related to personal mortality. Thorson and Powell (1988) note that "personal constructs of death are...highly individual" and may include concerns over a variety of aspects of the experience including potential pain, loss of control, and the afterlife or lack thereof (p. 698). The potential for individual variability in orientations towards death (especially those marked by apprehension) makes death anxiety an extremely pertinent topic for research, and the present study examines this construct as it relates to other complex aspects of mortality salience and experiences that affect perspectives on death.

Mortality Salience: Death Obsession

One of the other major elements of mortality salience is Death Obsession, which describes "preoccupation, impulses and persistent ideas regarding death" (Maltby & Day, 2000a, p. 696). The original measure for Death Obsession was constructed for an Egyptian sample by Abdel-Khalek (1998) and includes three dimensions: Death Rumination, Death Dominance, and Death Idea Repetition. This factor structure is the same in Maltby and Day's (2000a) adaptation of the Death Obsession Scale (DOS) for western use. Maltby and Day's extensive research on Death Obsession is amongst the

premier works on this element of mortality salience. Their analysis of the trait with regards to personality factors finds a “significant positive correlation with neuroticism and not extraversion” (p. 699). Like Death Anxiety, Death Obsession has marked effects upon individuals’ worldviews, as additional research by Maltby and Day (2000b) indicates a correlation of the construct with higher extrinsic social and personal orientations toward religion. Interestingly, the same study also associated Death Obsession with lower intrinsic orientation towards religion (Maltby & Day, 2000b).

Death Rumination refers to repetitive thinking on the topic of death and the inclination one has to consciously pursue such thoughts. As an independent construct, rumination is generally depicted in present literature as a negative thought process (Ciesla et al., 2011). Nolen-Hoeksem, McBride and Larson (1997) note that rumination on death was linked with greater psychological distress in bereaved romantic partners. Because rumination involves recurrent thought on a specific event, it is a useful variable for the study of thought patterns related to death. It may play a key role in confronting the concept of personal mortality. The Death Dominance aspect of Death Obsession refers to the prominence of thoughts of mortality in the mind of an individual. People with higher degrees of Death Dominance not only persistently contemplate their deaths, but also experience difficulty in dismissing such thoughts from their minds. This aspect of Death Obsession has characteristics of neurotic thinking and is characterized by thoughts that “overtake” or “dominate” the mind (Maltby & Day, 2000a). Death Idea Repetition is similar to death rumination but focuses upon the pervasiveness of thoughts related to

death rather than the frequency with which the individual revisits the topic of death in their mind.

Death Obsession is an important element of mortality salience for study because it is not explicitly negative in nature. Developing a mature understanding of death is a critical part of the formation of life perspectives, and the topic warrants much thought. The present study explores how degrees of Death Obsession and its subtypes are altered by experiences with death relatively early in life, especially in instances of individuals of the same age passing away.

Gender

Multiple studies have found effects of gender on major elements of mortality salience. Women often score higher in Death Anxiety than do men, a difference Eshbaugh and Henninger (2013) posit may be due to greater depressive tendencies in women. Other research suggests that women are more prone to “fear of the loss of bodily integrity and fear of pain” related to death than men (Thorson & Powell, 1988, p. 698). With respect to early-life death experiences, gender may not play a role in initial response to the event but potentially affects later processing of the experience. Research by Knight, Elfenbein, and Capozzi (2000) on mortality salience related to recollections of people’s first death experiences found little gender difference in early childhood responses to the death event, though they noted a moderating effect of gender on later death attitudes.

Overall differences in mortality salience between genders have been thoroughly explored in numerous studies. The current study is focused more on addressing potential gender differences in perceived relationship to the deceased by comparing the degrees of Closeness expressed by males and females. Burleson (2003) asserts that “women value close relationships for...emotional and expressive qualities” compared to men, who view close relationships more “in terms of their instrumental features” (p. 5). These differential perspectives on interpersonal relationships may have some effect upon interpretations of intimacy to the deceased.

Hypotheses and Research Questions

H1) Mortality salience variables were predicted to be strongly positively correlated with one another.

H2) With respect to the effects of death experiences upon mortality salience later in life, it was predicted that levels of both Death Anxiety and Death Obsession would be increased by experiencing the death of a peer, regardless of whether that peer was a Friend or a Classmate. These expectations were based in part upon Jiang, Chou & Tsai’s (2006) work asserting that peer death can be more affecting than the death of individuals of other ages.

H3) Additionally, it was predicted that instances of Friends dying would elicit greater degrees of Death Obsession and Death Anxiety in surviving individuals than in instances of Classmates dying. This expectation is premised upon the idea that Friends

PEER DEATH EXPERIENCES

occupy a more significant social role than Classmates who are simply considered acquaintances.

H4) It was anticipated that comparisons of expressed Closeness to the deceased between genders would reveal women to express greater degrees of closeness to both deceased Friends and Classmates than men. This is based on research by Burleson (2003) suggesting differences in male and female perspectives on relationships.

It seems likely that the details of a peer death, and not simply the death event alone, affect differential degrees of mortality salience. One such detail was the manner of death of the peer, but without previous research on which to base a specific hypothesis, the analyses of these variables is more exploratory.

RQ1) It was expected that different manners of death would have an impact upon an individual's processing of the experience and have lasting influence upon mortality salience as assessed via Death Obsession and Death Anxiety.

RQ2) Instances in which the deceased died suddenly or unexpectedly, as in suicides and accidents, were expected to elicit different degrees of mortality salience than deaths by terminal illness because of the extended opportunity to process the imminent death event provided by developing conditions.

Methods

Procedure

For the current study the mode of data collection was a comprehensive, online questionnaire which was administered in four phases over the course of three and one half years (see Table 1). Participants were asked to respond to a series of questions surveying a broad variety of topics and constructs. Questions pertaining to the current study asked participants about experiences with the death of people in their lives and assessed their present levels of mortality salience. Measures are described below.

Because the current study utilizes data previously collected by Drs. Garmon and Patterson for a different purpose, it is a secondary analysis. Preparing the data for exploration of the specific variables pertaining to this study required recoding a number of variables due to discrepancies in the coding of different phases of data collection. For instance, in several phases of data collection responses indicating that a questionnaire item was “N/A” or “not applicable” was coded differently than in later phases. Other discrepancies included the addition of a third gender option “other” in later phases of data collection, which slightly altered demographic coding. To remedy this discrepancy significant “cleaning” of the data was required.

Participants

The 1575 participants were undergraduates at a medium-sized university in the Mid-Atlantic region, who were enrolled in introductory and advanced psychology courses and offered compensatory extra credit points for their participation. Participants ranged in Age from 18 to 26 ($\underline{m} = 19.32$) and were mostly first or second year undergraduates (70.7%). The sample was comprised of 1014 females (64.4%) and 561

PEER DEATH EXPERIENCES

males (35.6%). Of the participants, 1173 (74.5%) identified themselves as Caucasian/Non-Hispanic White, 210 (13.3%) identified themselves as African American, 67 (4.3%) identified themselves as Hispanic/Latino, 60 (3.8%) identified themselves as Asian or Pacific Islander, 11 (.7%) identified themselves as Native American, and 53 (3.4%) did not specify their ethnicity.

A vast majority (82.8%; N= 1304) of participants had experienced a death of someone in their lives (See Figure 1). Most participants had experienced the death of any *Peer* (66.9%; N= 1054), and there were significantly more reports of that peer being a *Classmate* (59.1%; N= 931) than those reporting the death of a *Friend* (34.7%; N= 547), (See Figure 2). The most commonly reported manner of death was *Accidents* for both *Friends* (N= 260) and *Classmates* (N= 478), followed by *Suicide*, N= 108 and N= 198, respectively, and *Terminal Illness*, N= 77 and N= 107, respectively (see Figure 5).

Measures

Personal Death Experience. Research participants were asked to specify whether they had experienced the death of various people in their life, including separate items about a “friend” or a “classmate (but not a friend you knew well).” If they reported a death experience, they were asked to identify the manner of the individual’s death (terminal illness, suicide, or accident). Participants were also asked to indicate their *Closeness* to the deceased, which was assessed on a five-point Likert scale (1 being “not close at all” and 5 being “very close”). It is important to note that participants failed on occasion to answer the question assessing closeness even when reporting instances of

peer death, which resulted in discrepancies between numbers of reported peer deaths and associated closeness scores.

The Death Anxiety Scale (DAS). Constructed by Templer (1970) as an improvement upon Boyar's (1964) Fear of Death Scale (FODS), the DAS is purposed with measuring the degree to which the idea of death elicits stress responses in individuals and produces a single *Anxiety* score (see Appendix A). The assessment is comprised of fifteen true-or-false items self-perception items, nine of which are characterized as anxious thinking towards death (items 1, 4, 8, 9, 10, 11, 12, 13, and 14) and six of which are anti-anxious (items 2, 3, 5, 6, 7, and 15). The *Anxiety* score is derived from the summation of responses to the items wherein "true" responses to items indicating anxiety are coded as "1", and "false" responses as "0," and "true" responses to anti-anxious items are reverse coded as "0" and "false" responses as "1." Thus, the maximum score an individual could receive is 15, with higher scores indicating greater degrees of *Anxiety*. The DAS is an established scale with acceptable demonstrated levels of reliability and validity.

Death Obsession Scale (DOS). Maltby and Day's (2000a) Death Obsession Scale (DOS; see Appendix B) produces an overall *Obsession* score that is derived from the combination of three subscores (*Rumination*, *Dominance* and *Idea Repetition*) and "measure(s) a preoccupation with death, impulses and persistent ideas regarding death" (p. 696). The scale is comprised of 15 items with respondents indicating how well statements describe themselves on a five point Likert scale (1= "no" to 5 = "very much").

The minimum score for overall *Obsession* would thus be 15 and the maximum score would be 75 (range = 60). The breakdown of the three factors in the scale is as follows: death *Rumination* (items 3, 4, 5, 7, 8, 9, 10, and 12), death *Dominance* (items 1, 2, 6, and 15) and death *Idea Repetition* (items 11, 13, and 14). Subscores are obtained from summation of the Likert values for items in the independent categories of *Rumination* (min= 8, max= 40, range= 32), *Dominance* (min= 4, max= 20, range= 16) and *Idea Repetition* (min= 3, max= 15, range= 12). Distinguishing these three elements of Death Obsession allows the scale to better reflect the complexity of this element of mortality salience. The DOS is an established scale with acceptable demonstrated levels of reliability and validity.

Statistical Analyses

ANOVA. Analyses of variance are used to examine differences in variable means between groups. With these tests we can examine how continuous variables differ between categorical groups, and whether such differences are statistically significant. In the current study ANOVAs were used in performing gender comparisons in mortality salience variables as well as differences in these variables for the different manners of reported peer deaths.

CORRELATIONS. Correlations are used to determine whether relationships exist between two continuous variables such that as the score of one variable increases the score of the other either increases or decreases to a degree that exceeds coincidence. Variables with statistically significant correlations are assumed to interact, but even in

instances of powerful correlation causal relationships cannot be determined. Correlational analyses in the current study were used to explore relationships between elements of mortality salience as well as between these elements and expressed closeness to the deceased.

Results

Mortality Salience

With regards to the interactions of mortality salience variables, correlational analyses (see Table 2) found that higher levels of *Death Anxiety* was linked with greater overall level of *Death Obsession* ($r = 0.31, p < .001$), as well as greater levels of the subscales *Death Rumination* ($r = 0.24, p < .001$), *Death Dominance* ($r = 0.36, p < .001$) and *Death Idea Repetition* ($r = 0.31, p < .001$). Overall level of *Death Obsession* was strongly correlated with the subscales *Death Rumination* ($r = 0.98, p < .001$), *Death Dominance* ($r = 0.90, p < .001$), and *Death Idea Repetition* ($r = 0.90, p < .001$). It is important to note that because the overall *Death Obsession* score is derived from items that also comprise its' subscales, these powerful correlations are to be expected. Levels of *Death Obsession* subscales were also strongly correlated with one another, with levels of *Death Rumination* linked to higher levels of both *Death Dominance* ($r = 0.80, p < .001$) and *Death Idea Repetition* ($r = 0.82, p < .001$), and *Death Idea Repetition* linked to greater degrees of *Death Dominance* ($r = 0.75, p < .001$).

Relationship to the Deceased

A series of one-way ANOVAs demonstrated that, interestingly, respondents who experienced death of either a *Friend* or a *Classmate* did not have statistically significant differences in scores for *Death Anxiety* in comparison to respondents who reported no such experience (see Tables 3 & 5 and Figures 3 & 4). Respondents who reported the death of a *Friend* did not have statistically significant differences in level of overall *Death Obsession* or any of the three subtypes (see Tables 3 & 4 and Figure 3). Likewise, respondents who reported *Classmate* deaths did not have differences in level of overall *Death Obsession* (see Table 5 and Figure 4) or subscales *Death Dominance* or *Death Idea Repetition*, but those reporting such an experience demonstrated significantly lower levels of *Death Rumination* (see Table 6 and Figure 4).

Closeness

Degree of reported *Closeness* to deceased *Friends* was negatively correlated with scores for *Death Anxiety* ($r = -0.09$, $p < .05$) but not *Death Obsession* or its subtypes (see Table 2). Reported degree of *Closeness* to deceased *Classmates* was not related to *Death Anxiety* scores but was positively correlated with scores for overall *Death Obsession* ($r = 0.15$, $p < .001$) and its subtypes *Death Rumination* ($r = 0.17$, $p < .001$), *Death Dominance* ($r = 0.12$, $p < .001$) and *Death Idea Repetition* ($r = 0.12$, $p < .001$). See Table 2 for full results.

Gender

One way ANOVAs comparing elements of mortality salience scores between genders revealed no significant gender differences in *Death Anxiety* scores (see Table 7).

Males scored significantly higher on overall Death *Obsession* ($p < .01$) than females as well as its elements Death *Rumination* ($p < .01$) and Death *Idea Repetition* ($p < .05$).

There were no significant differences between genders for Death *Dominance* scores (see Table 7). Further one way ANOVAs comparing expressed *Closeness* to deceased peers across genders revealed that males report significantly higher degrees of *Closeness* to both *Friends* ($p < .05$) and *Classmates* ($p < .001$). These results are reported in Table 8 and displayed visually in Figure 6.

Manner of Death

Comparisons of mortality salience variable scores between different manners of peer death (*Terminal Illness*, *Accident*, or *Suicide*) found no significant differences in mean scores for any of the mortality salience variables (see Table 9). That is, mortality salience scores for a respondent reporting a peer death described as being the result of *Terminal Illness* did not differ to a significant degree from scores for respondents reporting death resulting from *Accident* or *Suicide*.

Discussion

This study makes a notable contribution to existing literature regarding death experiences and the effects of those experiences upon mortality salience. It provides a comprehensive examination of the various factors involved in adolescent and young adult experiences with peer death and the possible relationships of these factors. Previous studies have independently analyzed elements of death experiences such as age of the deceased compared to the survivors, but little study has focused on the social contexts of

peer death related to mortality salience. This research also uniquely addresses the complexities of death experiences such as manner of death, expressed Closeness to the deceased, and gender of the surviving individuals to grant a wide-ranging look at events that shape attitudes and perspectives on death. The large sample size for this study lends significant weight to its findings, which have the potential to inform therapeutic response to emerging adults' experiences with peer death as well as providing a strong basis for further research on the topic.

Mortality Salience

It is unsurprising that there were significant correlations between the different elements of mortality salience. As one might assume, thinking related to death that is ruminative, difficult to dismiss, and repetitive increases the opportunity for such thoughts to wax neurotic or become anxious. Death Anxiety is powerfully correlated with both overall Death Obsession and all of the subtypes, especially Dominance and Idea Repetition, a predictable finding given that anxious thoughts are typically pervasive and difficult to dismiss. The powerful intercorrelations of the subtypes of Death Obsession reaffirm the conclusions of the present literature that the scale is indeed multidimensional in nature. These findings not only increase confidence in the measure itself, but also allow for a more comprehensive interpretation of the construct.

Relationship to the Deceased

It is surprising that, for the most part, respondent scores failed to indicate significant differences in mortality salience that were related to the self-perceived

relationship of the participants to the deceased. The only instance where scores for elements of mortality salience differed between respondents who experienced a Friend death and those who experienced a Classmate death was Death Rumination, which was demonstrably lower in instances of Classmate death. This difference is possibly related to the less significant social role of the Classmate compared to someone identified as a Friend. The emotional distance of the surviving individual from a Classmate may mean that their death familiarizes the surviving individual with death experiences, such that they are led to ruminate on the topic of death less overall. However, the lack of a strong personal relationship with the deceased Classmate may also limit the emotional impact of the event compared to the death of someone the surviving individual labelled a Friend.

With respect to Death Anxiety, it is interesting that the type of relationship (Friend or Classmate) did not appear to be associated with increased Death Anxiety scores. On the contrary, expressed Closeness with deceased Friends correlated negatively with Death Anxiety scores. There are a number of potential explanations for this trend. One possibility is that in processing the death of a close Friend individuals may idealize their death with the use of metaphors connoting peace, such as “rest” or prolonged “sleep”, thus alleviating personal distress. Euphemisms for death function to distance survivors from the potentially distressing realities of universal mortality, and place the loss within a “context of memories or the healing process of time” (DeSpelder & Strickland, 2008, p. 11). Additionally, fond memories of the deceased may become associated with the experience of their death, and help bereaved individuals come to terms with loss. Appraisal of the situation in an optimistic light is likely necessary for the

bereaved, and while it will certainly not negate the loss, it could help limit the potential trauma of it.

Gender

Differences in mortality salience across genders found in this study mostly aligned with existing research on the subject. An interesting difference between the findings of this study and much of the previous literature on the subject was a lack of significant difference between male and female levels of Death Anxiety. This may be the result of the relative youth of the sample, or the fact that there were significantly more female participants than male participants. It bears noting that in spite of a lack of statistical significance, females did have higher mean Death Anxiety scores than did males.

With respect to Death Obsession, the finding that males score higher than females on overall Death Obsession and its subtypes Death Rumination and Death Idea Repetition may be the result of a number of different factors. It is possible that the frequency with which men think about death is increased by the style of play they engage in as children and adolescents. Research demonstrates that males tend towards more aggressive narrative styles in their creative play even early in childhood, and this trend continues with adolescent male preference for violent media (especially video games) over females (Libby & Aries, 1989; Hartmann, Möller & Krause, 2015). The involvement of death in these play schemes could make the topic more salient for males throughout life.

Analysis of Closeness scores found those reported by males to be higher than those reported by females, regardless of whether the deceased was a Friend or a Classmate. However, it bears noting that this gender difference may have to do with the manner in which females and males differently conceptualize relationships. Differential perspectives on the social functions of interpersonal relationships could affect the way males and females report intimacy to the deceased in hindsight. Additionally, the structures of these relationships could affect their perceived significance. Categorical descriptions of friendships such as “best friends” or “friends” may alter their perceived social value. Research by Auckett, Ritchie and Mill (1988) on gender differences in friendship patterns suggests that women prefer fewer but generally closer friendships than men, who by contrast prefer numerous friendships. This difference may account for the higher Closeness scores reported by males in the sample, especially given that there were far more peer deaths reported as Classmates than as Friends.

Manner of Death

One of the most interesting findings of the study was the lack of significant differences in mortality salience related to the manner of death of the peer. Contrary to hypothesis, different manners of death did not affect levels of mortality salience. This finding demonstrates the importance of addressing peer death experiences as genuinely affecting events independent of the circumstances of the death. It is also possible that participants had a limited awareness of the manner of their peer’s death, especially in cases where the individual was a Classmate and not someone they knew well. Family

members of the deceased or authority figures in the educational system may attempt to obscure the details of an individual's death, especially if that death is violent or otherwise traumatic. This would potentially diminish the cognizance of the death held by surviving peers, which could affect their overall response. Additionally, the untimely nature of youthful death makes it traumatic regardless of the specific circumstances. Whether it is an accident or an illness that takes the life of an adolescent, a young life has been lost. If this is the case, it may be that the manner of death is simply overshadowed by the altogether unfortunate nature of such a premature loss.

Future Directions

As this topic includes a wide array of potentially interesting permutations, a number of directions exist for additional exploration. Future research on gender differences in responses to peer death could focus upon differential relationship structures in adolescent and emerging adults of both genders to further expand upon these findings with regards to closeness to the deceased. Additionally, it would be interesting to examine whether mortality saliency variables changed according to the reported gender of the deceased individual. Would experiencing the death of a same-sex peer affect mortality salience in surviving individuals in the same manner that the death of an opposite-sex peer would? Research on differences in same and opposite-sex friendships reveals notably different functions of the relationships for both genders, and it would be interesting to examine whether such differences affect levels of mortality salience.

Literature on this topic of manner of death related to perspectives on mortality is somewhat limited. Despite the findings of the current study that the manner of death is not significantly related to mortality salience, this may not hold true for different populations. It is also possible that assessing these variables at the time of the death, rather than retrospectively several years later, could result in different impressions being made by the research participants. The results of this study are specific to emerging adults, and a similar study involving older age groups may reveal different results. It would also be interesting to explore responses to peer death in different age groups to determine, for instance, if a forty year old experiencing the death of a same aged coworker or friend affects their levels of mortality salience similar to young adults in the same scenario.

Clinical Implications

These findings have a number of potential applications, particularly with regard to counselor approaches to addressing the death of students both within and outside of a school system. The finding that the death of a peer overall, rather than the manner of death, is the most affecting aspect of the experience, implies that the same degree of attention should be paid to deaths within the student body regardless of the manner of their death. Additionally, the finding that males reported greater closeness to both deceased friends and classmates than did females should be taken into account in counseling adolescent and young adult groups who have experienced the death of a peer.

Counselors should grant significant attention to the responses of male students in the wake of a death within the student body.

Conclusion

The findings of this study suggest that it is the death experience overall rather than the details of the experience that are most affecting to mortality salience. Because of the relative youth of the population, it is possible that many of the participants reporting a peer death were not familiar with experiencing many deaths around them, especially deaths of those that are not “older,” like grandparents. As such, the novelty of the experience might have more powerful effects upon their levels of death-related thinking than experiences later in life. The fact that the majority of participants had experienced a peer death of some sort indicates that this study is extremely relevant. People in supporting roles following a death should be aware of how powerfully affecting the experience is for young adults and adolescents. It is my hope that the insight gained from this study will prove useful to counselors and programs helping young adults and adolescents cope in the wake of a peer’s death.

References:

- Abdel-Khalek, A. M. (1998). The structure and measurement of death obsession. *Personality & Individual Differences*, 24, 159-165.
- Andersen, J. P., Silver, R. C., Stewart, B., Koperwas, B., & Kirschbaum, C. (2013). Psychological and physiological responses following repeated peer death. *Plos One*, 8 (9).
- Aukett, R., Ritchie, J., & Mill, K. (July 01, 1988). Gender differences in friendship patterns. *Sex Roles : a Journal of Research*, 19, 57-66.
- Boyar, J.I. (1964). The construction and partial validation of a scale for the measurement of the fear of death. Unpublished Doctoral dissertation, University of Rochester, Rochester, New York.
- Burleson, B. R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion, and interpersonal communication. *Personal Relationships*, 10 (1), 1-23.
- Ciesla, J. A., Dickson, K. S., Anderson, N. L., & Neal, D. J. (2011). Negative repetitive thought and college drinking: Angry rumination, depressive rumination, co-rumination, and worry. *Cognitive Therapy and Research*, 35(2), 142-150.
- DeSpelder, L. A., & Strickland, A. L. (2008). *The last dance: Encountering death and dying*. New York: McGraw-Hill Higher Education.
- Dickinson, G. E. (1992). First Childhood Death Experiences. *Omega: Journal of Death and Dying*, 25 (3), 169-82.

- Eshbaugh, E., & Henninger, W. (2013, March 01). Potential Mediators of the Relationship Between Gender and Death Anxiety. *Individual Differences Research, 11*(1), 22-30.
- Florian, V., & Mikulincer, M. (1997). Fear of personal death in adulthood: the impact of early and recent losses. *Death Studies, 21* (1).
- Garmon, L., Ph. D. (2006). Peer Death Experiences in Adolescence: Exploring Possible Interactions Involving Relationships With Significant Others. Poster presented at the Biennial Meeting of the Society for Research in Adolescence, San Francisco, CA.
- Hartmann, T., Möller, I., & Krause, C. (2015). Factors underlying male and female use of violent video games. *New Media & Society, 17* (11).
- Jiang, R., Chou, C., & Tsai, P. (2006). The Grief Reactions of Nursing Students Related to the Sudden Death of a Classmate. *Journal of Nursing Research, 14* (4), 279-285.
- Knight, K. H., & Elfenbein, M. H. (1996). Relationship of death anxiety/fear to health-seeking beliefs and behaviors. *Death Studies, 20* (1).
- Knight, K. H., Elfenbein, M. H., & Capozzi, L. (2000). Relationship of recollections of first death experience to current death attitudes. *Death Studies, 24* (3).
- Lester, D. (2003). Death Anxiety, Death Depression, and Death Obsession. *Psychological Reports, 93* (3), 695-696.
- Libby, M. N., & Aries, E. (1989). Gender differences in preschool children's narrative fantasy. *Psychology of Women Quarterly, 13* (3), 293-306.

- Maltby, J., & Day, L. (2000a). The reliability and validity of the Death Obsession Scale among English university and adult samples. *Personality and Individual Differences*, 28(4), 695-700.
- Maltby, J., & Day, L. (2000b). Religious orientation and death obsession. *Journal of Genetic Psychology*, 16, 122-124.
- Neimeyer, R. A., Moser, R. P., & Wittkowski, J. (May 01, 2003). Assessing attitudes toward dying and death: psychometric considerations. *Omega: Journal of Death & Dying*, 47 (1).
- Neimeyer, R. A., Wittkowski, J., & Moser, R. P. (2004). Psychological research on death attitudes: an overview and evaluation. *Death Studies*, 28 (4), 309-40.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (2000). Pride and Prejudice: Fear of Death and Social Behavior. *Current Directions in Psychological Science*, 9 (6), 200-204.
- Templer, D. I. (1970). The Construction and Validation of a Death Anxiety Scale. *The Journal of General Psychology*, 82(2), 165-177.
- Thorson, J. A., & Powell, F. C. (January 01, 1988). Elements of death anxiety and meanings of death. *Journal of Clinical Psychology*, 4, (5) 691-701.

Table 1: **Individuals Surveyed per Phase of Data Collection**

	Frequency	Percent
Spring 2013	209	13.3
Fall 2013	206	13.1
Spring 2014	282	17.9
Fall 2014	163	10.3
Spring 2015	179	11.4
Fall 2015	302	19.2
Spring 2016	234	14.9
Total	1575	100.0

Table 3: **Death Anxiety and Overall Death Obsession in Friend Death**

	Friend Death		No such experience		<i>F</i> (1, <i>df</i>)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Death Anxiety	8.022	2.942	7.936	3.006	.298 (1, 1571)	<i>ns</i>
Death Obsession	24.572	11.348	24.435	11.130	.053 (1, 1566)	<i>ns</i>

Table 4: **Death Obsession Subscores in Friend Death**

	Friend Death		No such experience		<i>F</i> (1, 1566)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Death Rumination	12.189	6.246	12.164	6.210	.006	<i>ns</i>
Death Dominance	7.566	3.239	7.509	3.126	.117	<i>ns</i>
Death Idea Repetition	4.816	2.649	4.762	2.540	.158	<i>ns</i>

Table 5: **Death Anxiety and Overall Death Obsession in Classmate Death**

	Classmate Death		No such experience		<i>F</i> (1, <i>df</i>)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Death Anxiety	7.982	2.967	7.943	3.009	.065 (1, 1571)	<i>ns</i>
Death Obsession	24.069	10.962	25.081	11.524	3.097 (1, 1566)	<i>ns</i>

Table 6: **Death Obsession Subscores in Classmate Death**

	Classmate Death		No such experience		<i>F</i> (1, 1566)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Death Rumination	11.874	6.034	12.606	6.463	5.264	.022
Death Dominance	7.499	3.196	7.572	3.121	.201	<i>ns</i>
Death Idea Repetition	4.696	2.543	4.903	2.625	2.444	<i>ns</i>

	Male		Female		<i>F</i> (1, <i>df</i>)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Death Anxiety	7.775	2.910	8.071	3.020	3.552 (1, 1571)	<i>ns</i>
Death Obsession	25.489	12.092	23.923	10.641	7.068 (1, 1566)	.008**
Rumination	12.820	6.834	11.813	5.825	9.468 (1, 1566)	.002**
Dominance	7.716	3.305	7.425	3.081	3.058 (1, 1566)	<i>ns</i>
Idea Repetition	4.954	2.691	4.685	2.510	3.928 (1, 1566)	.048*

**p* < .05, ** *p* < .01

Table 8: **Expressed Closeness to the Deceased across Genders**

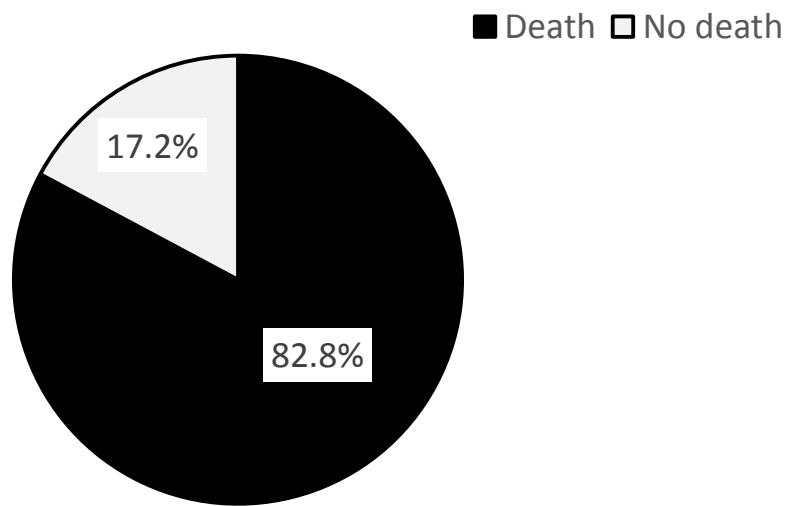
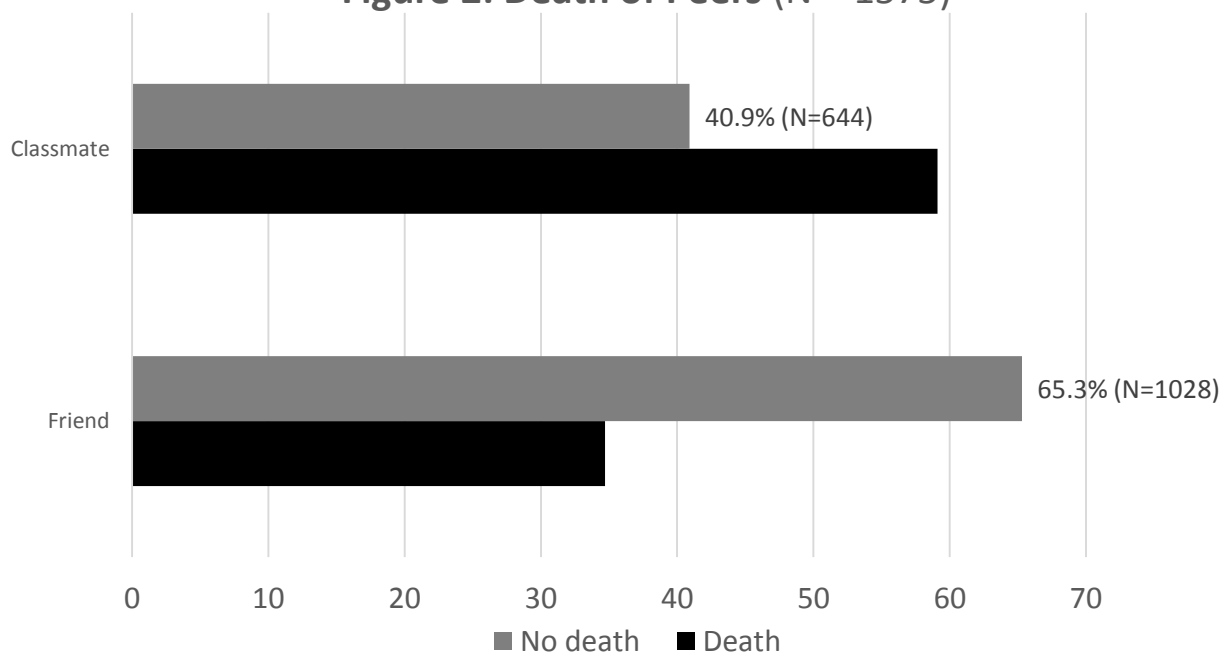
	Male		Female		<i>F</i> (1, <i>df</i>)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Friend Closeness	3.750	1.154	3.553	1.065	4.446 (1, 599)	.035*
Classmate Closeness	2.102	1.131	1.820	.964	15.738 (1, 948)	.000***

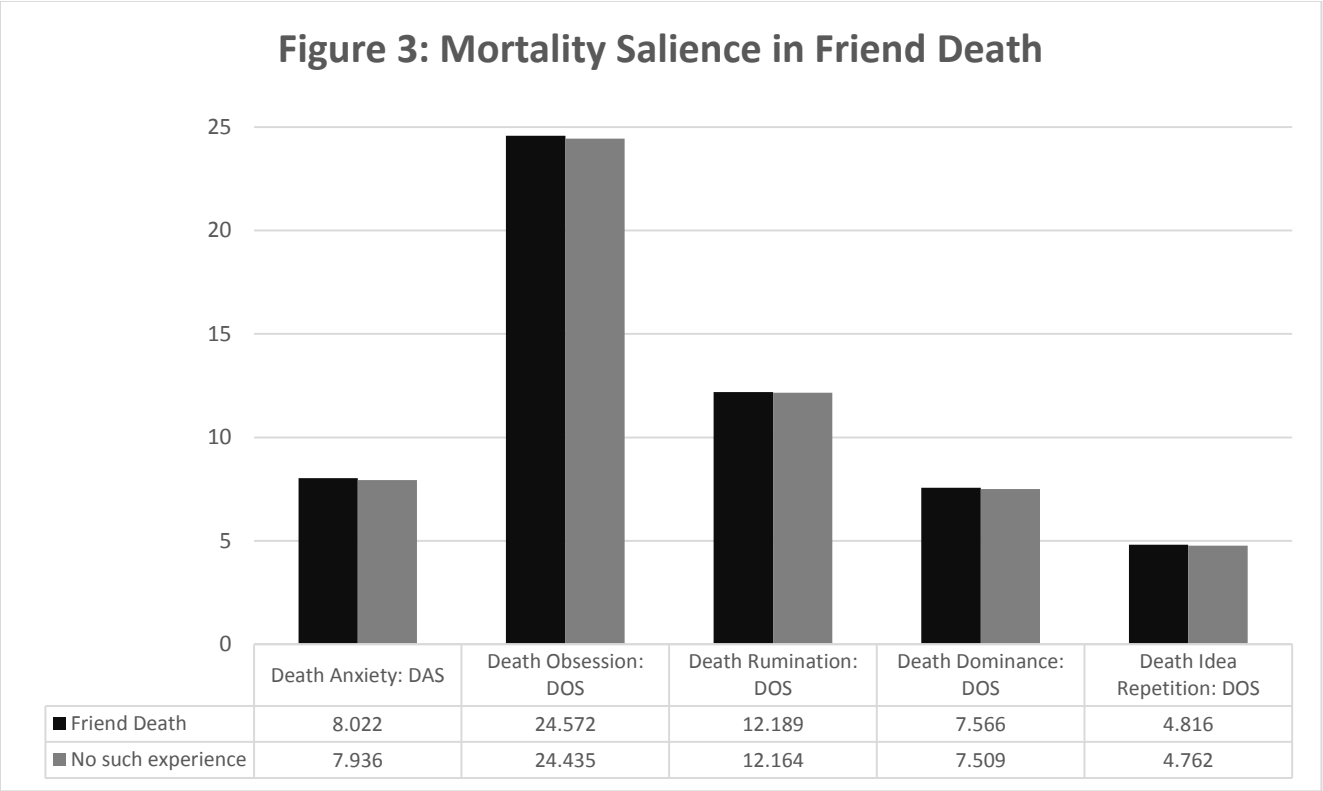
* $p < .05$, *** $p < .001$

PEER DEATH EXPERIENCES

Table 9: **Manner of Death and Mortality Salience**

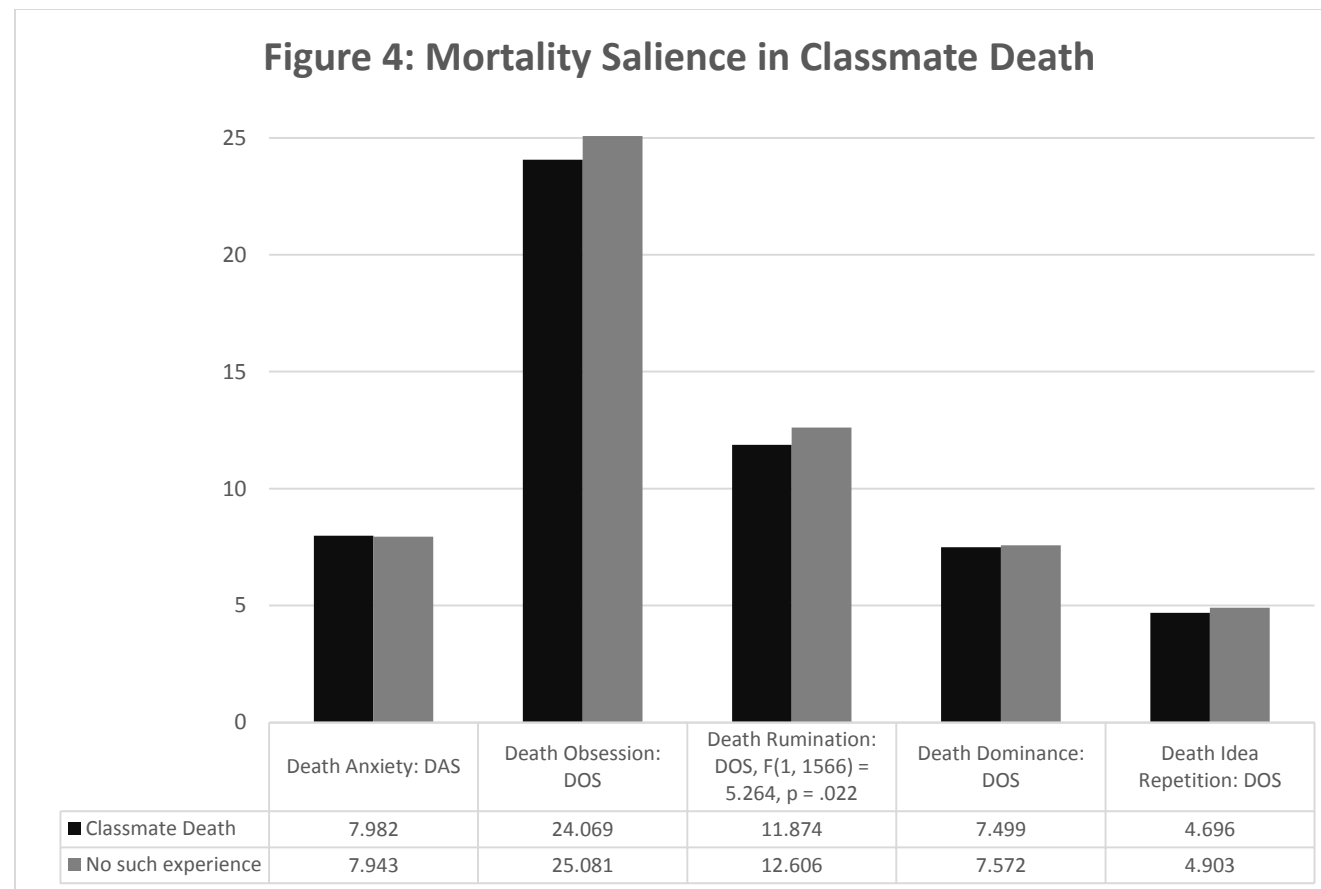
	Terminal Illness		Accident		Suicide	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Death Anxiety	8.112	2.493	7.994	3.017	7.960	3.091
Death Obsession	23.187	9.659	24.050	10.693	23.737	10.262
Rumination	11.542	5.238	11.796	5.786	11.606	5.872
Dominance	7.206	2.903	7.506	3.129	7.571	3.130
Idea Repetition	4.439	2.287	4.748	2.579	4.561	2.331

Figure 1: Overall Death Experiences (N = 1575)**Figure 2: Death of Peers (N = 1575)**



Note: Vertical axis indicates score on mortality salience measures DAS and DOS

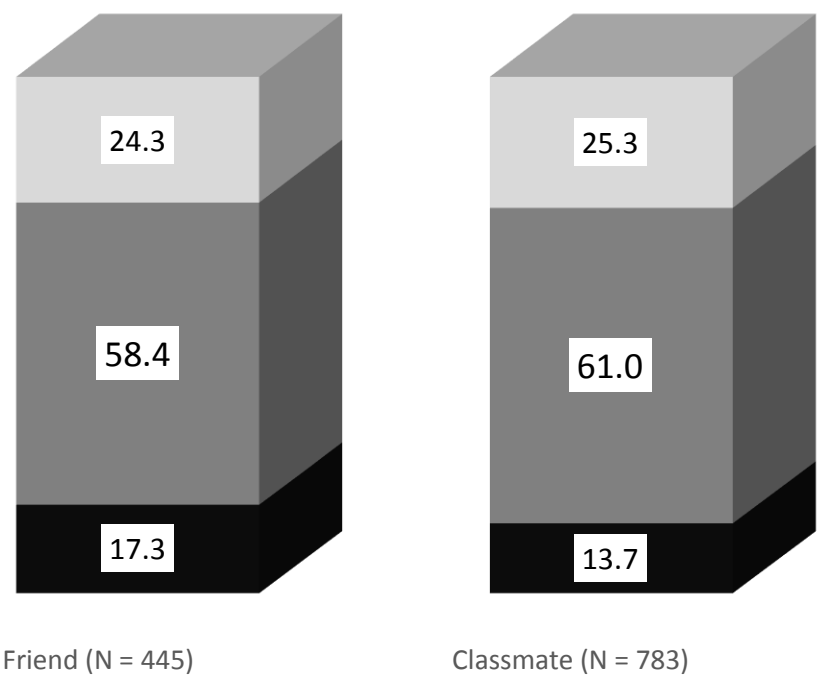
PEER DEATH EXPERIENCES



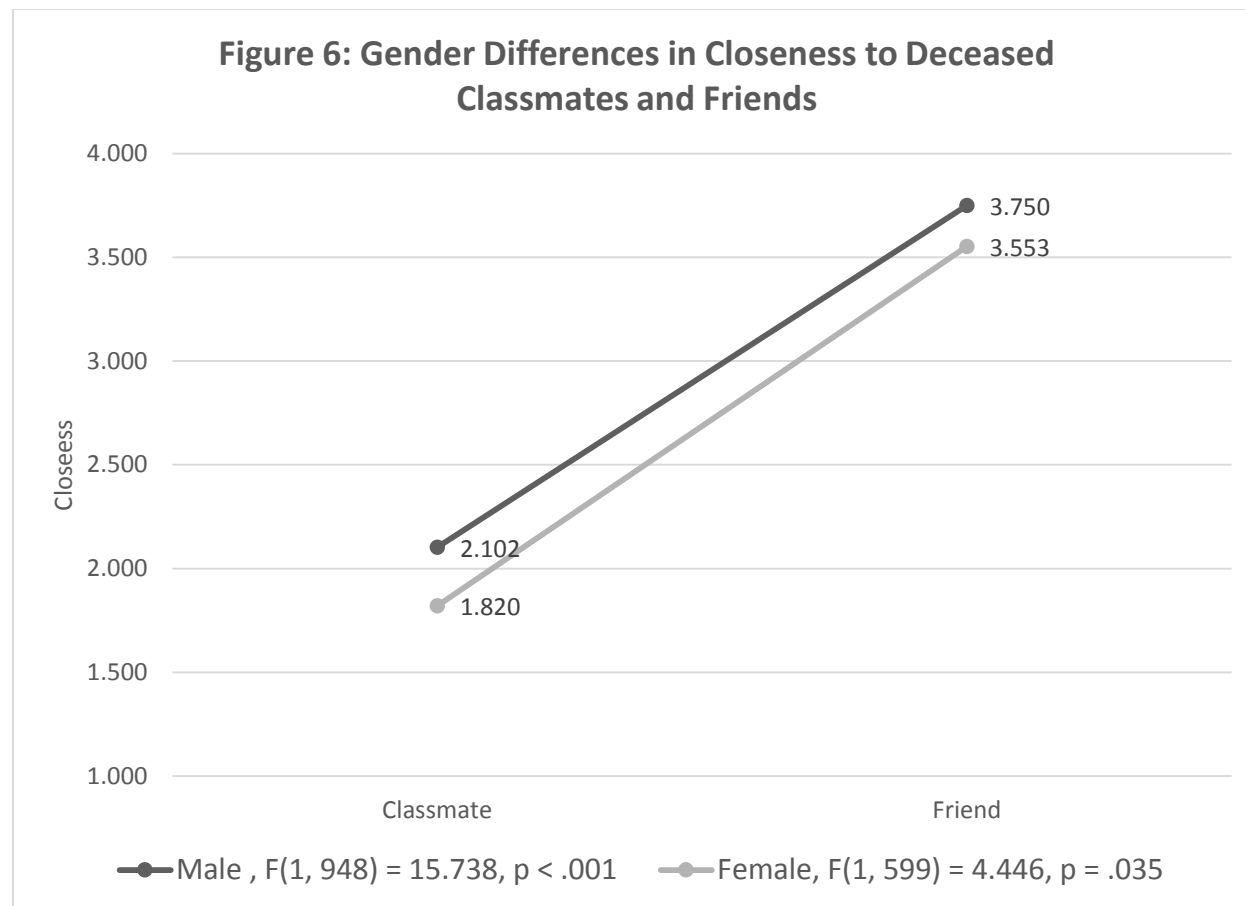
Note: Vertical axis indicates score on mortality salience measure DAS and DOS

Figure 5: Manner of Peer Death

■ Terminal Illness ■ Accident ■ Suicide



PEER DEATH EXPERIENCES



Appendix A

Templer's (1970) 15 Item DAS list

1. I am very much afraid to die.
2. The thought of death seldom enters my mind.
3. It doesn't make me nervous when people talk about death.
4. I dread to think about having in an operation.
5. I am not at all afraid to die.
6. I am not particularly afraid of getting cancer.
7. The thought of death never bothers me.
8. I am often distressed by the way time flies so very rapidly
9. I fear dying a painful death
10. The subject of life after death troubles me greatly.
11. I am really scared of having a heart attack.
12. I often think about how short life really is.
13. I shudder when I hear people talking about World War III
14. The sight of a dead body is horrifying to me
15. I feel the future holds nothing for me to fear.

Appendix B

Maltby and Day's (2000) validated 15 item Death Obsession Scale

1. Some questions about death come to my mind which I am unable to answer
2. The idea that I will die [at a young age] dominates me.
3. I fail to dismiss the notion of death from my mind.
4. Thinking about death preoccupies me.
5. I find it greatly difficult to rid of thoughts about death.
6. I recall alarming and painful aspects of death.
7. I feel I am compelled to think about death.
8. The idea of death overcomes me.
9. I have exaggerated concern with the idea of death.
10. I find myself rushing to think about death.
11. I fear to be dominated by the idea of death.
12. I think about death continuously.
13. Thinking about death causes me much tension.
14. The recurrence of the idea of death annoys me.
15. A feeling that I will die suddenly overtakes me.