A COMPARISON OF DEATH ANXIETY IN DEATH-EXPOSURE AND DEATH-RISK OCCUPATIONS

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DEDICATION

This thesis is dedicated to my family for their love, encouragement and support.

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ABSTRACT

The current study was an attempt to examine the relationship between death anxiety and occupation using two measures of death anxiety (Templer's Death Anxiety Scale and Hoelter's Multidimensional Fear Of Death Scale). In addition, the two scales were compared to evaluate whether or not they were measuring the same construct. Questionnaire data were collected from three groups of subjects: a death-risk group comprised of U.S. military; a death-exposure group comprised of healthcare professionals; and a control group comprised of undergraduates. The two death anxiety measures were found to be positively correlated. No significant differences were found between the two death anxiety measures across the three groups. However, significant differences were apparent across groups when Hoelter's Multidimensional Fear Of Death Scale was broken down into its eight subscale scores. Implications of findings and directions for further research were discussed.

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CHAPTER 1

INTRODUCTION

Technological advances in modern medicine are allowing individuals to live longer lives. As a result, society is experiencing an increase in the number of elderly individuals in the population. This increase within the elderly population brings about a tremendous need for individuals who are willing to work in geriatric settings where the issues brought about by death are inevitable. Secondly, these technological advances are also allowing individuals who are suffering from life threatening diseases, such as Acquired Immunodeficiency Syndrome and leukemia, to live longer while battling their illness.

Leming and Dickinson (1994) argue that within the last few decades the United States has experienced a dramatic change in the context in which death occurs. Although death is impossible to avoid, modern medical advances are allowing individuals to live longer which is causing our society to be faced with medical conditions that affect all age groups. Learning to cope effectively with the process of death, as opposed to experiencing impaired psychological functioning due to increased levels of anxiety, is a challenge for individuals, especially those who face death every day through their occupations.

Events such as war, violent crimes, natural disasters and incurable diseases are all examples of causes of death that occur in our society. Although war, crime and disease are not new to our society, our awareness of such events, as transmitted by television and other forms of mass media, has increased. This exposure to death and dying has caused a change in our general reaction to death (Leming & Dickinson, 1994). For example, in the early 1900's, a greater number of individuals were raised in rural environments which provided individuals with direct exposure to the birth and dying process of animals and humans. These individuals were able to view death as part of a natural life cycle, as opposed to today's society where these natural processes of life and death have been removed from personal observations and replaced with more violent images of death brought about by people, not nature. Secondly, Leming and Dickinson (1994) reported that seventy percent of current deaths in the United States occur in institutional settings, such as hospitals and nursing homes. This change in setting has brought about a change in how people are able to cope with the dying process. When a person is stricken with a terminal illness, family members and health care providers who come into contact with that person must learn to cope with the knowledge that the terminally

ill person is slowly dying. On the other hand, when a person dies unexpectedly, individuals must also learn to cope with the sudden loss. Bohart and Bergland (1979) argued that the fear of death has led to psychological impairment for many individuals. Examples of such impairment are depression, posttraumatic stress disorder and anxiety. As a result, psychologists now consider our culture's attitude toward death as an emerging mental health problem (Leming & Dickinson, 1994).

CHAPTER 2

REVIEW OF LITERATURE

Death Anxiety As A Focus Of Research

One such problem that has become a focus of research is death anxiety. A wide variety of scales to assess death anxiety have emerged in the last two decades (Neimeyer, 1988). Neimeyer's examination of the history of death anxiety research suggested that although numerous questionnaires existed to assess death anxiety, only a small portion of those questionnaires were commonly used in empirical research. Neimeyer reported that the four most commonly used measures of death anxiety were Templer's Death Anxiety Scale, the Threat Index, the Collett-Lester Fear of Death Scale and the Hoelter Multidimensional Fear of Death Scale.

As in many areas of psychological research, the study of death anxiety has been plagued with limitations (Lester & Templer, 1993). One such limitation is that the concept of death anxiety is poorly defined. A second limitation is that the scales used to assess death anxiety measure only the anxiety that a person is aware of and willing to acknowledge. A third limitation is that the death anxiety scales do not focus on the extent that a person thinks about or is affected by the thought of death. For example, two

people may respond similarly to an item on a death anxiety questionnaire; however, the personal meaning behind their answer may be different and the time spent concentrating on that fear may vary. These limitations must be taken into consideration when discussing the outcomes of death anxiety research.

Templer's Death Anxiety Scale

One of the most widely used scales of measurement to assess reactions to death, specifically anxiety, is the Death Anxiety Scale (DAS) which was developed by Templer in 1970. For the past twenty years the DAS has been used by psychologists to measure death anxiety in a variety of groups, individuals and situations including females and males, children and adults, and individuals suffering from mental illness. Different professionals, such as mental health workers, nurses, doctors, and funeral home directors have been used to study the concept of death anxiety. Death anxiety research has also been conducted using undergraduate college students and medical students.

Despite the widespread use of the DAS, there is still a question of whether or not the DAS is really a valid and reliable measure of the multidimensional concept of death anxiety. Templer's scale is composed of fifteen self-report items, which can be answered either true or false. The scale is scored by assigning

one point to each answer that is keyed correctly (nine are keyed true and six are keyed false) (Templer, 1970). Templer (1994) reported that the DAS has fairly good internal consistency (Kuder-Richardson formula coefficient = 0.76), stability (correlation = 0.83), and concurrent validity (0.74). These scores explain why the DAS is one of the most widely used and accepted scales of measurement in the assessment of attitudes towards death (Durlak, 1982).

Even though the DAS has been and is still being used in a wide variety of populations to assess death anxiety, it is unclear as to what and how many factors are really being measured (Durlak, 1982; Levin, 1990). Warren and Chopra (1978) found that the DAS consisted of six items (factors) assessing pain and operations. A study by Durlak and Kass (1981) suggested that the DAS measured only three factors, those being concerns about one's own death, frequency of thoughts of death, and how one reacts to death related stimuli. Durlak (1982) stated that recent factor analytic studies have indicated that the scale consists of anywhere from three to five factors.

With such a discrepancy in defining what it is that the DAS is actually measuring, it is reasonable to suggest that all of the studies that have been conducted using this scale are not, in fact, measuring

the same concept and therefore the results cannot be compared. An important step in assessing death anxiety is to first understand the different dimensions of death anxiety and to then incorporate that information into a scale that will take into account the different aspects involved (Levin, 1990).

Multidimensional Death Anxiety Scales

Multidimensional approaches to studying death anxiety have been developed by researchers to help make the study of death anxiety more psychometrically sound (Neimeyer, 1988). One such scale, the Collett-Lester Fear of Death Scale (CL), was developed in 1969 (Collett & Lester, 1969). The questionnaire consists of 36 items which can be broken down into four independent subscales or dimensions. Neimeyer (1988) stated that although this instrument is widely used to assess levels of death anxiety, it has not been established as a reliable instrument.

One instrument that has not been so widely used in research is the Hoelter Multidimensional Fear of Death Scale (HMFODS). The HMFODS consists of 42 items that are grouped into eight distinct dimensions or subscales (Hoelter & Hoelter, 1980; Neimeyer, 1988; Long, 1985). Despite the fact that this scale has only been used in four percent of the published death anxiety literature since 1977, these studies have indicated that these

eight distinct dimensions are replicable under certain circumstances (Neimeyer, 1988; Long, 1985). American subjects were used to develop the HMFODS; however, the results of an experiment conducted by Walkey (1982) suggests that this scale could be used on other nationalities, such as New Zealanders. Long (1985) was able to replicate five of the eight dimensions of HMFODS using Australian subjects, with only one of the eight dimensions having considerably different responses from those of the American subjects. In an effort to replicate the factor structure of Hoelter's multidimensional scale, Long (1985) administered the questionnaire to Saudi Arabian students who were attending college in the United States. The results were quite different from those found when using American or Australian subjects. Only two of the dimensions were replicated in this study, as opposed to five in the Australian sample and eight in the American sample. Cultural differences, such as religious background of non-western cultures, may play an important role in assessing levels of death anxiety (Neimeyer, 1988; Long, 1985).

Gender

Neimeyer (1988) reported that death anxiety research has provided mixed results in regards to the occurrence of gender differences. Iammarino (1975)

found that females had consistently higher means than males on the DAS. Other researchers have found similar gender differences (Levin, 1990). In contrast, Johnson (1980) reported that mens' means were higher than those of females. Neimeyer (1988), in his overview of the history of death anxiety research, provided examples of instances where no difference between genders occurred.

Age

The effects of age on death anxiety was a factor that Neimeyer (1988) found to have been ignored in early research, largely due to the commonly held belief that attitudes towards death did not change after mental development was completed. As with gender differences in death anxiety, a mixture of results have been found to occur. For example, Levin (1990) found no significant relationship between age and death anxiety scores. When comparing death anxiety scores of rehabilitation counselors and clients, Johnson (1980) reported that a difference due to age only occurred within the client population. A study conducted by Robbins (1992) suggested that age may have been a confounding factor in her study of hospice volunteers resulting in older volunteers obtaining lower death anxiety scores and younger volunteers obtaining higher scores. This type of cross-sectional design, in which different ages of people are tested, does not provide a

sufficient measure of direct age changes or stability of the individual over time. A longitudinal design, where selected measurements and observations are taken repeatedly over time on the same individuals, would be a better determinant of individual change, growth, and stability (Lemin & Dickinson, 1994).

Effects Of Life Events On Death Anxiety Levels

Researchers have also focused on determining what life events affect levels of death anxiety. Franke and Durlak (1990) found that the death of a significant other, degree of religiosity, near-death experience, and occupational choice were four of the most significant factors that had an impact on the attitudes towards death. Hoelter and Hoelter (1980) found that there was a positive correlation between exposure to the dying process and fear of premature death. It has also been suggested that an individual's relationship with the person who is dying or deceased plays an important role in the level of death anxiety (Hoelter & Hoelter, 1980; Franke & Durlak, 1990). Hoelter and Hoelter (1980) suggested that if a person does not have a strong relationship to the deceased individual then the recent exposure to death may not necessarily force that person to deal with specific death issues beyond acknowledging that a death had occurred.

Occupational Differences In Death Anxiety

A limited amount of death anxiety research has been conducted which focuses on occupational differences in death anxiety (Neimeyer, 1988). Scally (1992) compared death anxiety scores and death involvement scores (self-reported involvement with death, funeral attendance, and handling of a corpse) of college students and home health care workers. She found no significant difference between the death anxiety scores of home health care workers and college students. A study conducted by Hare and Pratt (1989) studied the relationship between death anxiety and comfort level with dying patients. They found that the more exposure that a nurse had to patients who were dying, the more comfortable the nurse was working with that population. Differences within the field of health care have been found to support the notion that the more exposure an individual has to death and dying while on the job, the more comfortable (less anxious) that person becomes working with dying patients. In a comparison between hospice volunteers and a control group comprised of hospital volunteers (non-hospice) and non-patient-care hospice volunteers, it was reported that there were no differences between groups when comparing scores on the Death Anxiety Scale. Two other scales, Bugen's Coping with Death Scale and a

self-efficacy scale, were employed to provide information about these employees abilities to deal with death. Results suggested that experienced hospice volunteers were better able to deal with death and generally perceived themselves as being better able to cope with death (Robbins, 1992). It was hypothesized that the role of each of these professions was considerably different in regards to their approach to death. For example, hospice professionals are trained in providing a safe and comfortable environment for their dying patients, whereas medical personnel in curative settings are trained to save lives (Robbins, 1992).

Another study which examined the role of occupation on levels of death anxiety was conducted by Thorson and Powell (1991). They began their research by testing three classes of first year medical students and then retesting these same students at the end of their senior year. The death anxiety scale used was a combination of Templer's DAS along with several other items from scales (which were not named) that assessed concepts such as fear of the pain of dying and fear of the unknown. The purpose of the study was to examine the preference of medical students to work with different populations of patients, such as the elderly, and to also determine if death anxiety scores changed

over time and with increased exposure to death and dying. A comparison was also made between individuals within the general population and the medical students. Results suggested that the medical students scored lower on the death anxiety scale than the general population group. It was also found that these medical student's anxiety scores did not differ significantly after the four years of experience and exposure.

The death involved groups that were discussed previously differ from careers such as fire fighters, police officers, and active military that are considered dangerous jobs (Neimeyer, 1988). Although these death risk occupations are not exposed to death on a regular basis they do get more exposure to death than the general public. The threat of personal death or injury is an everyday occurrence for individuals within a death risk occupation (Warren, 1982). Warren compared the death anxiety scores of three groups, a control group, a death exposure group, and a death risk group. The control group was comprised of individuals whose contact with death was no more than a past, but not recent bereavement. The death exposure group consisted of funeral directors, mortuary attendants and nurses. The death risk group was comprised of parachutists and hang-gliders. The instrument he used to assess death anxiety was a combination of five

scales, one being Templer's Death Anxiety Scale. He predicted that lower threat of death scores would be obtained by individuals who had more exposure to death. Results suggested that there was no significant difference between the three groups in regards to overall death anxiety. These results may indicate that there truly was no anxiety difference or the limitations of the scales, such as poorly defined terms, as discussed earlier, caused the results to be uninterpretable. A comparison within groups suggested that males who hoped for a life after death had significantly higher scores on items concerning death or were neutral. These same men also had significantly higher fear of death scores and anxiety scores than those that were neutral. Females who strongly wished for a life after death obtained significantly higher death concern scores than those that were neutral.

The results of a wide variety of research on death anxiety has indicated that death anxiety is multidimensional and different factors, such as age, gender and occupation, may influence an individual's responses. Although Templer's Death Anxiety Scale is the most widely used instrument in this area of research, it does not take into account the multidimensionality of death anxiety. Therefore, Hoelter's Multidimensional Fear of Death Scale may be

an instrument that provides more information and a better insight into what factors are influencing an individual's responses to specific questions concerning death. Also, Neimeyer (1988) reported that recent evidence has indicated that when comparing different occupations, workers in death risk jobs have been predicted to experience higher death anxiety than members of death exposure professions. However, a certain percentage of death exposure professionals may experience elevated levels of death anxiety in reference to specific death worries, such as threat of death, exposure to death, closeness to the individual dying or having died, and fear of contagion (Warren, 1982; Neimeyer, 1988; Meisenhelder, 1994). With the rising number of individuals who are seeking treatment for diseases such as the Acquired Immunodeficiency Syndrome (AIDS), healthcare workers are experiencing feelings of being "at-risk" of contagion and death while on the job (Meisenhelder, 1994). These feelings of fear may affect the quality of care that all patients receive (Neimeyer, 1988). Neimeyer stated that "This issue may rank as the most important area for future research in vocational studies of death attitudes" (p. 117).

Purpose Of The Study

In an effort to more fully understand the

relationship between occupation and death anxiety, a study was conducted using three groups of individuals between the ages of 18 and 50. The primary interest of this study was to determine if there was a difference between groups of individuals who have different exposures to death. No prediction was made as to the direction of the difference since past research has been inconclusive. A secondary interest of this study was to determine if there was a difference between the two measures of death anxiety. This was an important step in the research process since Hoelter's MFODS is lacking reliability and validity studies (Neimeyer, 1988).

CHAPTER 3

METHODS

Subjects

A total of 158 subjects, between the ages of 18 and 50, participated in this study. Subjects were divided into one of three groups: death-exposure occupation, death-risk occupation, or control group. The death-exposure group was defined as those individuals who encounter death of others on a regular basis through their occupation as a healthcare provider. This group consisted of 51 registered nurses, licensed practical nurses, or certified nurses aides who are employed as healthcare providers in the Clarksville community. The death-risk group was defined as those individuals who are at risk of losing their lives due to the dangers involved in their occupations. This group consisted of 56 active duty military personnel who were stationed at the Fort Campbell Army Base. Fifty-one undergraduate students from Austin Peay State University comprised the control group. All participants were volunteers and no monetary compensation was given for participation. Those volunteers who were enrolled in a course that allowed for extra-credit opportunities for participation in research were provided extra-credit points.

Research Instruments

Templer's Death Anxiety Scale (TDAS) and the Hoelter Multidimensional Fear of Death Scale (HMFODS) were used to determine death anxiety scores. Templer's Death Anxiety Scale is composed of fifteen self-report items, which can be answered either true or false (Templer, 1970). The scale is scored by assigning one point to each answer that is keyed correctly (nine are keyed true and six are keyed false). Total scores can range from 0 to 15 points. Higher numbers are indicative of higher death anxiety. The TDAS was reported to have fairly good internal consistency (Kuder-Richardson formula coefficient = 0.76), stability (correlation = 0.83), and good concurrent validity (0.74) (Templer, 1994).

The Hoelter Multidimensional Fear Of Death Scale is composed of 42 items grouped into eight dimensions. The items are answered using the responses of strongly disagree (1 point), disagree (2 points), neutral (3 points), agree (4 points), and strongly agree (5 points). Items 8, 13, 20, 24, and 36 must be recoded prior to analysis (i.e., 5=1, 4=2, 3=3, 2=4, 1=5). Total scores can range from a minimum of 42 points to a maximum of 210 points. Higher scores are indicative of higher levels of death anxiety. Long (1985) defined the eight dimensions of the HMFODS as follows:

"1. Fear of the Dying Process: This dimension deals with the specific act of dying rather than any related consequences accompanying death.
2. Fear of the Dead: This dimension measures fear pertaining to things that have died.
3. Fear of Being Destroyed: This dimension is associated with human destruction of the body immediately following death.
4. Fear for Significant Others: This dimension concerns both fear from the perceived effect of one's own death on significant others and fear for significant others' lives.
5. Fear of the Unknown: This dimension deals with fear related to the ambiguity of death and the ultimate question of existence.
6. Fear of Consciousness When Dead: This dimension is a measure of those who do not accept death as final and fear they may be conscious during the procedures of burial or preparation for burial.
7. Fear for Body After Death: This dimension deals with fear related to the ambiguity of death and the ultimate question of existence.
8. Fear of Premature Death: This dimension is based on the temporal element of life and concerns failure to achieve goals before death." (pp. 43-44, 48-49).

Neimeyer (1988) reported that on a psychometric level the HMFODS is not adequately supported. He reported acceptable levels of internal consistency (0.75), but that the scale was lacking test-retest reliability information.

Procedures

All subjects were provided with an informed consent form prior to answering the questionnaires. The questionnaires were distributed to the volunteers in one of three settings: 1. APSU classroom setting, 2. Fort Campbell classroom setting, or 3. hospital and/or nursing home facilities. Designated times were set

aside in each of the three settings for completion of the questionnaires. The questionnaires were administered in groups and the researcher read the instructions and answered any pertinent questions that the subject had. After completion of the HMFODS, the subjects were also asked to indicate whether or not they considered themselves to be at risk or in jeopardy of losing their life due to their occupation. If they answered "yes" to this question they were asked to clarify what factors placed them at risk while on the job. After completing the questionnaires, the subjects were debriefed. The questionnaires were identified by the information provided on the demographic sheet, such as age and occupation. Only demographic information was collected so that subject confidentiality would be maintained.

CHAPTER 4

RESULTS

Of the 158 participants, 94 were female and 64 were male. Fifty-six of the subjects were U.S. military, with 10 being female and 46 being male. Of the healthcare providers, 42 were female and 9 were male. The control group was also comprised of 42 females and 9 males. In terms of ethnicity, 30 were African American, 3 were Asian, 114 were Caucasian, and 6 were Hispanic. The average age of participants was 28.61 with a range of 18 to 50. The average age range for each group was 26.14 for those participants in the military, 33.24 for healthcare providers, and 26.71 for college students. In terms of marital status, 22 were single, 110 were married, 6 were in a committed relationship, 15 were divorced, 3 were separated, and 2 were widowed. Eight of the participants did not provide a response to their religious preference, however, 138 considered themselves to be Christian, 2 non-Christian, 8 Atheist, and 2 Agnostic. These results are shown in Table 1.

A strong positive correlation ($r=.67$, $p=.05$) was found between Templer's Death Anxiety Scale (TDAS) and Hoelter's Multidimensional Fear Of Death Scale (HMFODS). An ANOVA revealed no significant differences between the three groups when comparing total scores.

However, further analyses showed that there were significant differences between groups when comparing Hoelter's eight subscale scores. These results are shown in Table 2. On the RP-Questionnaire, 41 of the subjects in the military group indicated that they considered themselves to be at risk or in jeopardy of losing their life due to their current occupation. Only 14 healthcare providers and 4 students indicated that they felt at risk due to their current occupation.

Although not specifically hypothesized, the results also indicated significant differences between scale scores and gender. For example, females scored significantly higher on the Fear of the Dead and Fear for Significant Others subscales. Males scored significantly higher on the Fear of the Unknown subscale and the RP-Questionnaire.

The results also indicated strong relationships between the HMFODS subscale scores and age. For example, Hoelter's Fear of Being Destroyed ($r = -.181$, $p = .023$), Fear of Consciousness When Dead ($r = -.427$, $p = .000$), and Fear for Body After Death ($r = -.206$, $p = .009$) subscales were significantly and negatively correlated with age. A significant negative correlation ($r = -.270$, $p = .001$) between the total score from the HMFODS and age was also indicated.

Table 1.

Number of Sampled Subjects In Each Demographic Category.

Demographic Category	Military	Healthcare	Students
Gender			
Female	10	42	42
Male	46	9	9
Age			
18-29	45	20	37
30-39	10	16	11
40-50	1	15	3
Ethnicity			
African American	16	5	9
Asian	0	2	1
Caucasian	33	41	40
Hispanic	5	1	0
Other	2	2	1
Marital Status			
Single, never married	7	1	14
Married	41	40	29
Committed Relationship	3	2	1
Divorced	5	5	5
Separated	0	2	1
Widowed	0	1	1
Religion			
Christian	53	41	44
Non-Christian	0	1	1
Atheist	1	4	3
Agnostic	0	2	0
No Response	2	3	3
Educational Background			
<H.S.	0	2	0
H.S.	5	5	0
Associates Degree	1	23	0
B.A./B.S.	0	14	8
College Freshman	35	4	6
College Sophomore	7	2	24
College Junior	5	1	13
College Senior	3	0	

Table 2.

Univariate F Test

Hoelter's Multidimensional Fear Of Death Scale

Variable	Military Mean	Healthcare Mean	Student Mean	F	P
HMFODS1	20.018	20.549	21.078	0.363	0.696
HMFODS2	13.482	15.608	19.216	19.106	0.000*
HMFODS3	13.821	13.020	12.588	1.155	0.318
HMFODS4	21.357	22.039	22.471	0.811	0.446
HMFODS5	13.429	11.529	10.137	8.716	0.000*
HMFODS6	14.500	11.078	14.196	7.757	0.001*
HMFODS7	14.214	13.647	14.118	0.175	0.840
HMFODS8	12.339	11.961	12.686	0.325	0.723

Hoelter's Eight Subscales		Tukey HSD
HMFODS1:	Fear of the Dying Process	
HMFODS2:	Fear of the Dead	2.25
HMFODS3:	Fear of Being Destroyed	
HMFODS4:	Fear for Significant Others	
HMFODS5:	Fear of the Unknown	1.92
HMFODS6:	Fear of Consciousness When Dead	2.29
HMFODS7:	Fear for Body After Death	
HMFODS8:	Fear of Premature Death	

*significant difference at the 0.05 level

CHAPTER 5

DISCUSSION

The primary purpose of this study was to examine the relationship between occupation and death anxiety. Although results indicated that there were no significant differences between occupation and death anxiety when comparing the two questionnaires, there were significant differences between groups when the HMFODS was grouped into its eight subscales. For example, students obtained significantly higher scores on the Fear of the Dead subscale than those in military or healthcare professions. Those employed in the military obtained significantly higher scores than the students on the Fear of the Unknown subscale. Healthcare professionals obtained significantly lower scores than the other two groups on the Fear of Consciousness When Dead subscale.

There are several explanations for these findings. One explanation is that those individuals in occupations (i.e. military) where they are at-risk of dying or having to take the life of another human being may experience greater levels of anxiety related to the ambiguity of death and the ultimate question of their own existence. Another explanation is that those individuals who have less exposure to death are more fearful when presented with the idea of being exposed

to something that is dead, such as having to visit a funeral home or touching a corpse. In addition, it is likely that those individuals with the most exposure to the dying process, such as nurses, have a better understanding of what biological processes the body undergoes during and after death (i.e. It is unlikely for a person to be pronounced dead when they are in fact alive). As was suggested by Hoelter and Hoelter (1980), lower death anxiety scores in death-exposure occupations may be due to the person not having a strong relationship to the deceased individual. Therefore the recent exposure to the dying process may not force that person to deal with specific death issues beyond acknowledging that a death had occurred.

A secondary interest of this study was to determine if there were differences between the TDAS and HMFODS. These two scales were found to be positively correlated suggesting that they may measure similar types of death anxiety. If they are measuring the same construct, then it might be advantageous to use the TDAS instead of the HMFODS since it has fewer items (15 as opposed to 42) and is easier to score. However, the question remains as to whether or not Templer's Death Anxiety Scale is a valid and reliable measure of the multidimensional concept of death. As this study indicated, significant differences between

groups were found when using the multidimensional scale. A multidimensional approach to assessing death anxiety may provide additional information regarding the specific types of anxiety involved.

In contrast to Iammarino (1975) and Johnson (1980), no significant differences were found between males and females on Templer's Death Anxiety Scale. However, there were significant differences between genders on three of Hoelter's Multidimensional Fear of Death subscales. A possible reason for women having scored higher on the Fear of the Dead subscale is that there were more women in the college student sample, which, as was stated earlier, had also obtained significantly higher scores than the military and/or healthcare groups. Similarly, a possible explanation for why men scored higher on the Fear of the Unknown scale is that eighty-two percent of the military sample were men. In addition, men were more likely to have provided responses to the RP-Questionnaire indicating that they felt at-risk due to their current occupation.

Although not specifically hypothesized, age was found to be significantly negatively correlated with several of Hoelter's Multidimensional Fear of Death scales. For example, a comparison between total scores on the HMFODS suggested that older individuals experienced lower levels of death anxiety. This

correlation also appeared true for three of Hoelter's subscales (Fear of Being Destroyed, Fear of Consciousness When Dead, and Fear for Body After Death). As was suggested by Robbins (1992), age may have been a confounding factor. Therefore it is difficult to determine whether or not individuals obtained lower death anxiety scores because of their occupation or because of their age. For example, the average ages for the military, healthcare, and student groups were 26.14, 33.24, and 26.71 respectively. Given that a larger percentage of the older participants were in the healthcare group, which obtained lower death anxiety scores on the Fear of Consciousness When Dead subscale, it is difficult to determine whether or not these scores were the result of their occupation or age.

The question of how death anxiety affects job performance needs to be addressed in future research. For example, even though a significantly larger percentage of those in the military considered their lives to be at-risk because of their jobs, only two of the eight subscales on the HMFODS were elevated (Fear of the Unknown and Fear of Consciousness When Dead). Factors that were described as placing the soldiers at risk included going to war, flying helicopters, being unknowingly exposed to dangerous/hazardous chemicals,

being stationed at a well-known army base, and carrying loaded firearms during training procedures. Given that a large percentage of the subjects from the death-risk group considered themselves at risk while on the job, it appears evident that some type of program should be implemented to help them deal with these concerns. One reason for this is that if a person is experiencing feelings of anxiety, he may not be as capable of following through with his or her duties.

As was discussed by Meisenhelder (1994), some healthcare workers also experience feelings of being at-risk while on the job. Even though the healthcare providers from the current study had lower levels of death anxiety, 14 of the 51 respondents indicated that they felt at-risk or in jeopardy of losing their life due to their current occupation. Factors placing them at-risk were said to be the possibility of needle pricks (fear of contracting AIDS or hepatitis) and physical harm (i.e. punching, scratching, shooting) caused by an irate/uncontrollable patient and/or his family member. As Neimeyer (1988) indicated, these identified fears may affect the quality of care that patients receive. Those four subjects in the control group that considered themselves to be at-risk identified a major factor as being the possibility of having an automobile accident (either when driving to

and from school or after consuming alcohol).

As the results of this study suggest, specific types of anxiety are involved in death-risk and death-exposure occupations. The limitations of these death anxiety scales must be taken into consideration when interpreting the meaning of the results. For example, these instruments do not examine the extent to which a person thinks about or is affected by the thought of death. As a result, two of the participants may have responded similarly to an item on either of the death anxiety questionnaires, however, the personal meaning behind their answer may be quite different. In addition, these scales measure only the anxiety that a person is aware of and willing to acknowledge. For example, when attempting to collect data, the researcher was told by a nursing home administrator that a majority of her employees were unwilling to participate in the study because it dealt with the topic of death and they did not "want to think about death." This raises serious questions about the coping ability of these employees since they have direct exposure to the process of death, yet are unwilling and/or unable to verbally acknowledge that it is an everyday part of their occupation. Therefore, there is a need to further identify specific types of death anxiety within various occupations and then develop and

incorporate ways to ease the psychological strain that may be involved.

The current study has several advantages over the past research. One advantage is that it employed the use of a multidimensional measure of death anxiety that provided additional and much needed information about what types of fear were being self-reported. A second advantage is that a comparison between two measures of death anxiety, one being the most widely used instrument, was made. A third advantage of the study is that information from this research may provide further information about what areas pertaining to death anxiety could be focused on to help reduce fear and anxiety in differing occupations.

There are limitations to this study. One such limitation is the use of self-report questionnaires to assess death anxiety. Although subjects remained anonymous, they could have distorted their true opinions regarding the issue of death. As was mentioned earlier, some individuals felt uncomfortable being presented with questions about death. Perhaps only those individuals who were comfortable with discussing their thoughts and feelings about death participated in the study. Another limitation is that perhaps those individuals with higher death anxiety scores also had higher generalized anxiety. Further

studies need to be conducted to investigate the relationship between death anxiety and generalized anxiety. In addition, using a measure of denial and/or repression may provide further information into how individuals cope with the thought of death. Results from such studies might provide additional information about the relationship between occupation and death anxiety.

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APPENDIXES

Appendix A

INFORMED CONSENT STATEMENT

The purpose of this study is to investigate whether or not there are differences in levels of stress and anxiety within specific occupations. Your responses are confidential. At no time will you be identified nor will anyone other than the investigators have access to your responses. The investigator is not aware of any potential hazards which may occur from participation in the research. The demographic information collected will be used only for purpose of analysis. Your participation is completely voluntary, and you are free to terminate your participation at any time without penalty. The scope of the project will be explained fully upon completion.

Thank you for your cooperation.

****

I agree to participate in the present study being conducted under the supervision of a faculty member in the Department of Psychology at Austin Peay State University. I have been informed, either orally or in writing or both, about the procedures to be followed and about any discomforts or risks which may be involved. The investigator has offered to answer any further inquiries as I may have regarding the procedures. I understand that I am free to terminate my participation at any time without penalty or prejudice and to have all data obtained from me withdrawn from the study and destroyed. I have also been told of any benefits that may result from my participation.

_____
NAME (PLEASE PRINT)

_____
SIGNATURE

_____
DATE

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Appendix B

Dear Ms. Espe-Pfeifer:

Please excuse this impersonal form letter that I send to the many people who write or call me about my Death Anxiety Scale and/or Death Depression Scale. Feel free to use one or both of them in any way. Since they are not on the commercial market there is no charge.

Enclosed find a DAS form that I have used since 1970, articles pertaining to DAS construction, validation, items, scoring and norm-like information, and other important material. One point is scored for each item answered in the keyed high death anxiety direction so that a DAS score could be as low as 0 or as high as 15. A Likert format for the DAS is described by McMordie in Psychological Reports, 1979, 44, 975-980. Enclosed find the true-false and Likert form of the Death Depression Scale and a couple of articles pertaining to the DDS.

The book, Death Anxiety, by Richard Lonetto and Donald I. Templer (Hemisphere Publishing Corporation, Washington, 1986) reviews the correlates of death anxiety (age, sex, other demographic variables, parental resemblance, religion, personality, public health, psychopathology, occupation, behavior, death of significant others), factor analyses, death imagery, intervention, the measurement of death anxiety, and Templer's two-factor theory of death anxiety.

Feel free to contact me for additional information or advice, including help in preparation of a manuscript for a journal article if your findings are sufficiently interesting.

Sincerely,

Donald I. Templer, Ph.D.
Professor of Psychology

/dmo
enclosures

Appendix C

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May 3, 1996

Ms. Patricia Espe-Pfeifer
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MATERIAL REQUESTED

Reference:
Request Date: 4/30/96

Journal: OMEGA-Journal of Death and Dying Volume 11:3 - From Pages 241-254

Article: "On the Interrelationships Among Exposure to Death and Dying, Fear of Death, and Anxiety" (Multidimensional Fear of Death Scale)

Author: Jon W. Hoelter

Appendix D

TDAS

Directions: If a statement is true or mostly true as applied to you, circle "T." If a statement is false or mostly false as applied to you, circle "F."

T F 1. I am very much afraid to die.

T F 2. The thought of death seldom enters my mind.

T F 3. It doesn't make me nervous when people talk about death.

T F 4. I dread to think about having to have an operation.

T F 5. I am not at all afraid to die.

T F 6. I am not particularly afraid of getting cancer.

T F 7. The thought of death never bothers me.

T F 8. I am often distressed by the way time flies so very rapidly.

T F 9. I fear dying a painful death.

T F 10. The subject of life after death troubles me greatly.

T F 11. I am really scared of having a heart attack.

T F 12. I often think about how short life really is.

T F 13. I shudder when I hear people talking about a World War III.

T F 14. The sight of a dead body is horrifying to me.

T F 15. I feel that the future holds nothing for me to fear.

Appendix E

HMFODS

Directions: Read each statement and decide which of the five answers best describes how you feel. Place the numeral of your answer in the blank space provided.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

___ 1. I am afraid of dying very slowly.

___ 2. I am afraid of dying in a fire.

___ 3. I am afraid of experiencing a great deal of pain when I die.

___ 4. I am afraid of dying of cancer.

___ 5. I have a fear of suffocating (or drowning).

___ 6. I have a fear of dying violently.

___ 7. I dread visiting a funeral home.

___ 8. Touching a corpse would not bother me.

___ 9. Discovering a dead body would be a horrifying experience.

___ 10. I would be afraid to walk through a graveyard, alone, at night.

___ 11. It would bother me to remove a dead animal from the road.

___ 12. I am afraid of things which have died.

___ 13. I would like to donate my body to science.

___ 14. I do not want medical students using my body for practice after I die.

___ 15. I do not like the thought of being cremated.

___ 16. I do not want to donate my eyes after I die.

___ 17. I have a fear of people in my family dying.

___ 18. If the people I am very close to were to suddenly die, I would suffer for a long time.

___ 19. If I would die tomorrow, my family would be upset for a long time.

___ 20. Since everyone dies, I won't be too upset when my friends die.

___ 21. I sometimes get upset when acquaintances die.

___ 22. If I died, my friends would be upset for a long time.

___ 23. I am afraid that there is no afterlife.

___ 24. I am not afraid of meeting my creator.

___ 25. I am afraid that death is the end of one's existence.

___ 26. I am afraid that there may not be a supreme being.

___ 27. No one can say, for sure, what will happen after death.

___ 28. There are probably many people pronounced dead that are really still alive.

___ 29. I am afraid of being buried alive.

___ 30. People should have autopsies to insure that they are dead.

___ 31. It scares me to think I may be conscious

while lying in a morgue.

___ 32. I hope more than one doctor examines me before I am pronounced dead.

___ 33. I am afraid of my body being disfigured when I die.

___ 34. I dread the thought of my body being embalmed some day.

___ 35. The thought of my body never being found after I die scares me.

___ 36. It doesn't matter whether I am buried in a wooden box or a steel vault.

___ 37. The thought of being locked in a coffin after I die scares me.

___ 38. The thought of my body decaying after I die scares me.

___ 39. I have a fear of not accomplishing my goals in life before dying.

___ 40. I am afraid I will not live long enough to enjoy my retirement.

___ 41. I am afraid I will not have time to experience everything I want to.

___ 42. I am afraid I may never see my children grow up.

Hoelter, J.W. (1980-81). OMEGA, 11(3), 241-254.

Appendix F

RP-Questionnaire

Directions: Please place a check mark in the blank beside the answer to the following question:

1. Please indicate whether or not you consider yourself to be at risk or in jeopardy of losing your life due to your current occupation.

_____ Yes

_____ No

2. If you answered "Yes" to the above question, please describe what factors you feel are placing you at risk while on the job.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Appendix G

Demographic Information

_____ Age

_____ Gender: 1 - Female 2 - Male

_____ Ethnicity:
1 - African American
2 - Asian
3 - Caucasian
4 - Hispanic
5 - Other _____

_____ Marital Status
1 - Single, never married
2 - Married
3 - Committed Relationship
4 - Divorced
5 - Separated
6 - Widowed

_____ Number of Children

_____ Religion

_____ Educational Background
1 - highest degree earned _____
(please specify)
2 - currently enrolled in a university as a
_____
(please specify freshman, sophomore, junior or senior)

_____ Current Occupation
1 - United States Military
2 - Registered Nurse
3 - Licensed Practical Nurse
4 - Certified Nurses Aide
5 - College student

_____ Military Status
1 - active military
2 - retired military
3 - non-military