

**AGE, GENDER AND RELIGIOSITY AS CORRELATES OF DEATH
ANXIETY IN A RURAL AFRICAN CONTEXT**

Master of Arts in Research Psychology

T. Mudau

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**AGE, GENDER AND RELIGIOSITY AS CORRELATES OF DEATH
ANXIETY IN A RURAL AFRICAN CONTEXT**

by

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DECLARATION

I, Tshinanne Mudau, hereby declare that the dissertation hereby submitted to the University of Limpopo for the degree of Master of Arts has not previously been submitted by me for a degree at this or any other university, that it is my own work, and that all material contained therein has been duly acknowledged.

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18-05-2012

DATE

DEDICATION

This thesis is dedicated to my grandmother, Elina Alidzulwi Mudau, for being my rock throughout all the years of my studies. Whenever I encountered challenges she always gave me a reason to go on. May the Lord bless her.

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ABSTRACT

This study sought to investigate the relationship of death anxiety to age, gender and religiosity among Africans in a rural South African context. Two hundred participants completed a questionnaire based on demographic variables, death anxiety scales, and a measure of religiosity. Results revealed that intrinsic religious motivation was inversely related to all types of death anxiety measured. Furthermore, age was correlated with death anxiety, such that the experience of death anxiety tended to decrease among older subjects. However, there were no gender effects on the experience of death anxiety.

I. Key words: Death anxiety, Religiosity

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Chapter 1

1. Overview of the study

1.1 Introduction

Humanity has always been fascinated by death. People of the oldest recorded civilization, ancient Egyptians, wrote extensively about the phenomenon, apparently expressing its frightfulness (Abdel-Khalek, Lester, Maltby, & Tomas-Sábádo, 2008-2009; Zandee, 1960). In recent times, theorists, as well as scientific researchers, have come up with a variety of views about people's fears and concerns about death, culminating in the death anxiety construct (Tomer, 1992). The concept, as hypothesized by Freud (1953), suggested that people have a basic fear of death intrinsic to their personalities. Freud (1953) argued that it is not death that people fear, since their own death is beyond their thinking (in the sense that it is unthinkable and therefore inconceivable). Becker (1973) found death anxiety to be a fundamental human fear. However, Freud (1953), a psychoanalyst, and Becker (1975, 1973, 1971), a theoretical anthropologist, disagreed on the nature of death anxiety. These disagreements motivated social psychology graduates from the University of Kansas, namely, Solomon, Greenberg and Pyszczynski (1998) to investigate the concept empirically.

Solomon et al. (1998) chose to follow Becker's theory of death anxiety and formulated a theory they called Terror Management Theory (TMT). The start of their theory was after they discovered that previous theories on cognitive explanations for human behavior did not explain much on it, which left so much being untold. Solomon et al. (1998) studied the concept of death anxiety extensively. They did this theoretically and empirically in different contexts. Their theory (namely, TMT) was centered on the anxiety associated with death. Solomon et al. (1998) believed, following Becker (1975, 1973, 1971), that religion can provide existential security by suppressing death anxiety

through the promise of life after death, and by increasing self-esteem for those who will be living up to religious standards.

However, studies on death anxiety have been increasing from year to year. However, most of them have been conducted in Western countries and in the Eastern cultures of Asia (Schumaker, Warren & Groth-Marnat, 1991). The researcher is not aware about the studies of death anxiety that have been conducted in South Africa. This study recognizes that the starting point is to investigate concepts that are related to death anxiety. They include religiosity and the demographic variables of gender and age. Regarding the latter two variables, it can be said that if the concept of death anxiety is valid among South Africans, then it is likely that it will be significantly related to gender and age in a predictable way.

1.2 **Background to and motivation for the study**

Death anxiety as a concept has received much attention from a number of researchers. As early as the 1970s researchers, Collet and Lester (1969) and Templer (1970), contributed a number of measuring scales for death anxiety, thereby making research on the concept more meaningful. A number of researchers (Singh & Singh, 2007; Suhail & Akram, 2002) argued that death anxiety can be associated with many different variables such as religiosity, age and gender. The relationship between religion and death anxiety was found to be negative (Duff & Hong, 1995). However, death anxiety is positively related to age, where it was found that as people grow older and come closer to death, they would be expected to have higher death anxiety levels (Belsky, 1999). In addition, gender was also found to influence the experience of death anxiety. Results have shown that there is a significant difference in scores for death anxiety between the sexes, with women scoring significantly higher on the death anxiety scale than men (Abdel-Khalek et al., 2008-2009; Abdel-Khalek, 2001-2000, 1998; Goebel & Boeck, 1987).

Fortner and Neimeyer (1999) found that death anxiety could be measured against a variety of scales (e.g., Collet & Lester, 1969; Templer, 1970). It was found that even though the concept can be measured, it still poses challenges in measuring it; and there are still limitations regarding the conclusions reached. For instance, a researcher examining death anxiety may not experimentally manipulate the variables to determine causality. There were serious challenges that were found; which limited the researcher when seeking to arrive at conclusions. The confounding factor often encountered by researchers studying this concept is the distinction between *death* and *dying*. In other words, there is often confusion on whether the greater source of anxiety is related to death itself, or to the process of dying. It is also worth noting that research directly measuring death anxiety in younger subjects is severely limited.

This study investigates death anxiety (Collet & Lester 1969; Lester, 1990; Templer, 1970) and its relationship to age, gender and religiosity in an African context. The way people approach the issue of death is influenced by their respective cultures (Sagara-Rosemeyer & Davies, 2007). It is possible to find different results when studying views of Africans about death. This study is conducted because, as far as the researcher is aware, there are no death anxiety studies which have to date been conducted in Vhembe. Therefore, this study provides the first glimpse of how death anxiety is reflected in that area.

1.3 **The need for the study**

Although there are a number of studies on death anxiety, very few of them have been conducted among Africans, but not particularly on rural South Africans of African descent. However, the odd study exists where death anxiety is studied using Africans as participants, namely, Samuel and Russell's (2003) study which was conducted within the communities of Asante in Ghana, West Africa. This study highlighted the need for further African

studies in this area - especially as the possibility exists that African people from outside West Africa may have different conceptions with regard to death. In addition, the relations between death anxiety and its correlates (for example, age, sex) may be different in different contexts.

Cross-cultural studies also show that Asians generally exhibit lower levels of death anxiety than do Westerners (McMordie & Kumar, 1984), and in turn, therefore, the researcher in this study is of the view that South Africans may also perceive and experience death differently to the way Westerners do. At this point, however, it is not clear what the attitudes of South Africans to death are, and, therefore, it is not known whether they will show high levels of death anxiety, or not.

1.4 **Theoretical perspective**

Proponents of TMT accept Becker's (1973, 1971) postulates and apply them in real-life contexts (Solomon et al., 1998). Some studies conducted according to TMT are progressive in the sense that they agree with the conclusion that it is usually people who feel better about themselves that have less death-related anxiety (Solomon et al., 1998). These studies suggest various possibilities for preventing or reducing the disturbingly high levels of death anxiety. They also help people to develop a strong sense of self-esteem and to be less likely to be disabled by the emotion.

TMT was also based on the reasoning that, self-esteem serves as a buffer against anxiety, just as Becker (1973, 1971) had suggested. This is because people seem to derive protection against death anxiety largely from their *worldview faith*, as well as from their own self-esteem. Worldview faith can be understood as religious belief about the nature of reality shared by groups of individuals that provides meaning, order, permanence, stability, and the promise of symbolic immortality to those who live up to the standards of value set by the worldview.

This study attempts to understand the concept of death anxiety in relation to age, gender, and religiosity and these concepts will be explored in Chapter Two of this document. Although the study is guided by theories such as the TMT, the actual approach used during this study is essentially empirical, as relationships or correlations between death anxiety and its related variables are measured. A study such as Suhail and Akram (2002) is an example of this approach.

1.5 **Statement of the problem**

Knowledge of people's concerns and fears regarding death and dying bears important theoretical and practical implications. However, studies have shown that people from various cultures react to death and dying differently—as they tend to attribute distinct and different values and meanings to life and death (Kubler-Ross, 1975). For instance, McMordie and Kumar (1984) reported that cross-cultural studies show that people from the East of Asia generally exhibit lower levels of death anxiety than do those from the West.

This being the case, it is not clear what the attitudes of South Africans to death are. It is not clear what the relationships between death anxiety and demographic variables such as religiosity, gender and age will be among South Africans. Therefore, this study attempts to provide insights to this question via empirical means.

1.6 **Aim, objectives and hypotheses of the study**

1.6.1 **Aim**

The aim of this study was to investigate whether death anxiety can be related to religiosity, gender and age among South African participants.

1.6.2 Objectives

The objectives of the study are follows:

- To determine the contribution of religiosity to the experience of death anxiety.
- To determine the effects of gender on the experience of death anxiety.
- To determine whether age has any effect on the experience of death anxiety.

1.6.3 Hypotheses

The study's hypotheses are as follows:

- i. Death anxiety will be lower in participants with high intrinsic religious motivation (I) than in those with low intrinsic religious motivation (I) (Lens, 2004).
- ii. Females will report higher levels of death anxiety than males (Neimeyer, 1994).
- iii. Age will be negatively related to death anxiety. Higher levels of death anxiety will, in all probability, be found among younger age groups, and levels of death anxiety should decrease as age increases (Gesser, Wong & Reker, 1987-1988).

1.6.4 Scope of the study

The study was conducted among church-going members of a community in the Vhembe District, Limpopo Province. Data were collected from both the young and the old. Since there was a hypothesis based on age, the researcher targeted a wider age range to increase the variability of age in the sample.

1.7 Operational definitions of concepts

1.7.1 Death anxiety

The concept death anxiety has been the subject of discussion by many theorists, including , Becker (1973, 1971); Freud (1953), and the creators of the TMT (Solomon et al., 1998). Although there are similarities between their theories, these authors sometimes tended to understand death anxiety in contrasting ways. Freud believed that it was not death that people feared, because one's own death is indeed quite unimaginable, and whenever attempts are made to imagine it, people end up becoming distant spectators of an imaginary event. Freud theorized that people generally do not believe in their own death, meaning that unconsciously each individual is convinced of his/her own immortality.

Although Freud's theories were widely read, Becker (1973, 1971) rejected some of their theoretical underpinnings. Becker (1973) preferred to use the theories of other psychoanalysts, such as Otto Rank. In line with them, he believed that people engage in self-esteem strivings and religious activities in order to buffer and alleviate the anxiety within them. Becker's theories are central to TMT. In fact, TMT applies Becker's (1975, 1973, 1971) theories in empirical settings, using experimental research designs. The theory (namely, TMT) states that humans experience death anxiety because, unlike other species, they have an awareness of their own mortality. A human behavior is then directed towards the avoidance of death. Based on this description of death anxiety, the concept can be briefly defined as an extreme fear that attacks a person whenever he/she is exposed to a death-related thought, experience, situation or object. For example, a thought may occur whilst reading about death; an experience may be a near-death experience; a situation can be experienced in a war or war-zone; and when a dead body is observed.

1.7.2 Spirituality and religiosity

Religiosity can be better explained within the context of religion. Religion is commonly associated with particular beliefs and practices which make it a group, communal, cultural or ethnic phenomenon (Henery, 2003). It is believed to be a social activity, and a way to express spirituality. Religion is sometimes considered to be narrower and more restricted than spirituality (Burnard, 1987). Religiosity is a term that describes the role religion plays in a person's life. Religiosity can occur in two forms, namely, intrinsic and extrinsic. For Allport (1960, in Allport & Ross, 1967), an intrinsic religious orientation implies that religion serves as the motivation and a primary meaning in an individual's life.

On the other hand, extrinsic orientation implies using religion as a means to an end of various self-serving interests. When religious beliefs affect life's decisions or actions regularly, the person has a high-intrinsic religiosity. It is clear from this that religion is a complex concept and this can make its operationalization and measurement to be rather difficult. In this study, the concept will be operationalized and measured by the Intrinsic/Extrinsic Revised Scale of (Gorsuch & McPherson, 1989).

Although the study's focus is religiosity, it is advisable to further explain the term by contrasting it with spirituality. Spirituality and religiosity are terms often used interchangeably because they are more similar than they are different in meaning. According to Moberg (2001), spirituality and religiosity are significantly correlated in a moderate way. This means that even if they share some characteristics, they also have some things that make them different from each another.

In this study, spirituality and religiosity are considered to be interchangeable concepts, although at times the differences need to be highlighted. For

Moberg (2001), religiosity is a broad term that encompasses religious activities like prayers. Spirituality, on the other hand, is the personal quest for understanding answers to ultimate questions about life, meaning, and the individual's relationship with the sacred or transcendental, which may or may not lead to or arise from the development of religious rituals (Koenig, McCullough & Larson, 2001).

1.8 **Conclusion**

Religiosity is a broad term that encompasses religious activities like prayers Moberg (2001). Religiosity was found to be better explained within the context of religion because it describes the role religion plays in a person's life. Religion is the concept that has been explained and defined by different researchers. Through all the different definition, it has been found to be an activity or beliefs that people practise (Henery, 2003). Even though researchers disagreed about the concept (Becker, 1973, 1971) and (Freud, 1953), some researchers like Terror Management Theory (1998) and (Becker (1973, 1971) agreed that death anxiety can be suppressed by religion. Religion has been found to be different from spirituality, which was found to be a form of personal connection with God. Moreover religion was found to be measured by inner motivation (intrinsic religiosity) and outer motivation (extrinsic religiosity) which serves different purpose in the human kind.

Chapter 2

Literature review

2. Introduction

Death anxiety has a long history and it is studied widely across research contexts (Becker, 1975, 1973, 1971; Solomon, et al., 1998). Various empirical studies have been conducted, where death anxiety has been correlated with different variables, including age, gender and religion (Neimeyer, 1994; Russac, Gatilif, Reece & Spottswood, 2002; Singh & Singh, 2007). These variables have both positive and negative associations with the concept of death anxiety (Allport & Ross, 1967; Cicirelli, 2002; Donahue, 1985; Gorsuch & McPherson, 1989). The following sections discuss the association of death anxiety to some of its correlates, namely, religiosity, gender and age.

2.1 Death anxiety and its relationship to the construct of religiosity

Religion is commonly associated with particular beliefs and practices which make it a group, communal, cultural or ethnic phenomenon (Henery, 2003). However, it also has a function for the individual. Its concepts, rituals, and values play the roles of healing during times of personal distress and suffering (Astrow, Puchalski & Sulmasy, 2001). It has been seen as a practice that helps people to explore the world in general. It is a practice that provides a bigger picture in which people can see and be provided with support from within their communities. Religion is seen to be helpful to people in understanding their suffering within a difficult world (terminal illnesses like cancer and AIDS, loss of loved ones, and one's own death and dying). It has not only been reported as a practice that helps people to understand their suffering, but also as a practice that helps people to connect with one another (Astrow, et al., 2001). It is for that reason that various constructs have been derived from it, and religiosity is one of them.

2.2.1 Culture, religion and the protection against death anxiety

Death correlates positively with strong religious convictions, a belief in an afterlife and spirituality (Alvarado, Templer, Bresler & Thomas-Dobson, 1995; Rasmussen & Johnson, 1994). Dezutter, Soenens, Luyckx, Bruyneel, Vansteenkiste, Duriez and Hutsebaut (2009) have indicated that, although people realize the common meaning of life and the human condition, they tend to develop different attitudes towards death. People have different views on death anxiety as some think of death as something threatening and incomprehensible, whilst others experience it as a natural end-point of life that may even serve to give meaning to the whole of life itself.

As reported by Cohen Pierce, Chambers, Meade, Gorvine and Koenig (2005), religion serves the function of providing a set of beliefs. Puchalsky and O'Donnell (2005) reported that Muslims, who are part of a religious belief system, believe in life after death, and are encouraged to do good in order to prepare for the next world. On the other hand, Jews are people who do not generally endorse life after death. Jews have an innate mandatory inclination to seek healing; they care for the body and they tend to place more emphasis on the will to live. Puchalsky and O'Donnell (2005) further indicated that Jews who are close to death usually say a prayer known as the *tzdduk hadin*. This is a prayer in which those close to death ask God to forgive them. They reported how Muslims differ in their religious practice with those who subscribe to Judaism. Hence, the inevitable conclusion is that the meaning of the religion in the individual's life determines the degree to which the individual will fear death. In view of this, Yeun's (2005) study argues that attitudes towards death and dying may vary, depending on the individual's religion.

In addition Hsu, O'Connor and Lee (2009) reported on the beliefs of Chinese people. They found that before philosophies were popular in ancient China, ancestral worship was the original philosophical underpinning of Chinese

culture. Chinese people consider the family to be the basic unit of worship, economic activity, emotional support, and prestige. Chinese societies were reported to have developed meanings about death throughout history, particularly in relation to religious beliefs, philosophical beliefs and cultural practices.

Hsu et al. (2009) found that in Chinese culture, death was seen as a taboo and death and dying were not discussed because people feared invoking bad luck. Chinese culture practiced those beliefs in order to postpone any bad luck associated with death, and also to prolong life, while acknowledging that death is an inescapable part of all life. In relation to death and dying, the majority of Chinese people hold onto traditional beliefs and experiential practices. Chinese beliefs provide the key medium for comprehending the unknown experience of life beyond death, as well as regarding death as a natural part of life and culture. Although death and dying remain taboo subjects in Chinese communities and families may not discuss those issues for fear of invoking bad luck, they do follow beliefs about death and dying from the philosophies of Taoism and Buddhism. It was concluded that Chinese communities and families believed that dying in the main hall of the house enables an individual symbolically to join the ancestors.

As regards religious practices Tsai, Wu, Chiu, Hu and Chen (2005) argues that Buddhist chaplains—as part of their religious practices—put patients in a palliative care unit, in order to provide them with strength and enlightenment. This practice also helps them to transcend their death fear and to prepare for a good death. They also found that some Taiwanese patients had had contact with clinical Buddhist chaplains two days before their death and in such patients the levels of death anxiety were found to be lower. It was reported that a correlation also existed between the degree of death fear experienced and the duration of contacts with the clinical Buddhist chaplains. It was also found that clinical Buddhist chaplains played an important role in improving

the quality of life in terminally ill patients in some palliative care units in Taiwan. This helped patients to have a good death.

Dezutter et al. (2009) found that religion can provide a sense of meaning by describing the awareness of the inevitability of death and providing comfort in this existential crisis. They indicated that most individuals were found to be essentially confronted with a need to find meaning in life and that spiritual belief may be considered the most important and effective way to put death into the right perspective and to find meaning in life. Dezutter et al. (2009) further reported that in all the theories that explained death anxiety and religion it is likely that an individual's attitude towards religion has specific relevance for his or her death experience. Carmel and Mutran (1997) further explain that some religions have more effective mechanisms for decreasing the fear of death.

Thalbourne (1996) argues that, in countries such as Slovenia, the majority of the participants believed in life after death, meaning there might be various psychological factors that contribute to how they feel about life after death. It was further reported that faith in life after death helped individuals to deal with their death anxiety. Furthermore, an attitude to the afterlife might also be related to the acceptance of death and those who accepted the existence of an afterlife would not only have lower levels of death anxiety, but would be more accepting of death when it finally comes.

Hui and Fung, (2009) found that Chinese Christian university students were found to have different emotional reactions towards the fear of dying and death. The results indicated that participants were more anxious of watching the person dying and the actual deaths of someone close to them than they were about themselves. Durlak and Riesenber (1991) and Roff, Butkevigiene and Klemmack (2002) reported that much of the literature on the relationship between death anxiety and religiosity centers on whether religious

belief/observance serves as a comfort in the face of death, or as a stimulus to anxiety.

2.1.2 **Intrinsic and extrinsic religiosity and their relationship to death anxiety**

There are two approaches to death which are equivalent to the two approaches to religiosity, namely, the intrinsic and the extrinsic approach (McClain-Jacobson, Rosenfeld, Kosinski, Pessin, Cimino & Breitbart, 2004). These differences were found to have important meaning in dealing with fundamental existential questions, such as the meaning of life and the possibility of an afterlife. DeZutter et al. (2009) showed that intrinsic or subjective religiosity was negatively related to death anxiety in a sample of Protestants. On the other hand, extrinsic religiosity (namely, using religion to gain some end such as emotional support) was positively related to death anxiety. Similarly, in a sample of elderly persons, intrinsic religiosity was strongly related to an accepting attitude towards death, while extrinsic religiosity was more closely related to death anxiety, and did not necessarily produce the same accepting attitude towards one's own death.

Lens' (2004) review of several studies found that only intrinsic, but not extrinsic religiosity, was negatively related to death anxiety and, inversely, positively related to death acceptance in a sample of older adults. For instance, Ardel and Koenig (2006) found that as older adults approached the end of life, they frequently experienced heightened death anxiety and a decline in subjective wellbeing. In addition, older adults were not always relieved by increased religious participation. They indicated that one possible explanation was the differential influences of intrinsic and extrinsic religiosity (Ardelt & Koenig, 2006).

Durlak and Riesenber (1991) indicated that among people reporting high intrinsic religiosity, religion was seen as an internal power that influences their

general behaviour, values, and personal worldview. Religion is integrated into such people's lives, and thus gives them meaning in life and a hope in the afterlife (McClain-Jacobson et al., 2004). As a result, these people tend to report less death anxiety, whilst those whose religion serves a more social than ideological function (extrinsic religiosity) report higher levels of death anxiety.

Even though religion was found to play a beneficial role in decreasing death anxiety, as indicated by studies, the issue was not final in explaining further on how religion managed to decrease death anxiety. Donahue (1985) argued that death anxiety research has produced two different sets of results regarding religiosity—one set of the results found religiosity and death anxiety to be negatively correlated. Another group of results found that the two concepts were not related at all (Falkenhain & Handal, 2003). Many other researchers found a non-significant relationship between a measure of intrinsic religiosity and death anxiety (Harding, Flannelly, Weaver & Costa, 2005; Templer & Dotson, 1970; Thorson & Powell, 1989).

Wink and Scott (2005) offered an explanation for the mixed findings between death anxiety and religiosity found in some studies over the years. They explained that the inconsistency of results was because extrinsic and intrinsic religiosity were not always properly defined and differentiated. Their explanation for mixed results is similar to that which was advanced by Cicirelli (2002). However, McClain-Jacobson et al. (2004) differentiated between intrinsic religiosity and extrinsic religiosity but failed to support the thesis that there was a relationship between intrinsic religiosity and death anxiety.

Cohen et al. (2005) argued that there is a relationship between religiosity and death anxiety. They indicated that even though different results have been reported with regard to death anxiety and religiosity, religion did not only lend meaning to life, but it also helped people who were terminally ill to accept and face death. They further indicated that spirituality and religiosity have been

found to play a significant role in managing death anxiety and enhancing a sense of wellbeing. Alvarado et al. (1995) and Young and Daniels (1980) concur. Young and Daniels (1980) indicate that those who believe in Jesus Christ as their savior (*born-again* status) had significantly lower death anxiety than those who do not believe in Jesus Christ as their savior (non-Christian participants).

Cohen et al. (2005) indicated that death anxiety also varies depending on whether the study focuses on the dying process (for example, possible pain and suffering), or on death itself (namely, the end of existence). They found that religiosity is a set of beliefs (for example, faith in God, belief in life after death) which can assist the individual in dealing with death anxiety as well as beliefs combining measures of religious belief with measures of religious behavior (for example, Bible reading and prayer). Falkenhain and Handa (2003) also support the argument that religion can help to heal.

The importance of religion was explained further by Ardelt (2003) who reported that religion not only reduces the fear of death, but also gives purpose to life. This was found in a meta-analytical study of death anxiety in older adults. In the study it was predicted that there would be higher correlations between death anxiety and religiosity. However, religiosity had to be differentiated according to its major types, namely, intrinsic and extrinsic religiosity. The intrinsic orientation to religion is viewed as religion that is deeply personal to the individual (Maltby & Lewis, 1996). As a result, a positive association between intrinsic religious orientation and a sense of purpose in life would be found rather than mere external religious behavior on its own (extrinsically religious). Because of the ability to provide a sense of cosmic meaning, intrinsic religiosity might be particularly salient as the end of life approaches. Only an intrinsic religious orientation, rather than an extrinsic religious orientation is likely to provide any meaning to life and death.

In addition, Rasmussen and Johnson (1994) also researched the correlation between death anxiety and spirituality. In their study they sampled 208 undergraduates who were taking psychology courses at a university in Alaska. The participants were assessed by Templer's (1970) death-anxiety scale and the Spiritual Well-Being Scale. They found that spirituality and death anxiety were significantly and negatively correlated. For example, as the participants' spirituality increased, their death anxiety decreased.

Ardelt (2003), as well as Cohen et al. (2005), argued that one way in which religious belief could promote wellbeing is by reducing the fear of death. These researchers reported that many scholars have identified the role of religiosity in the way people cope with their concerns about death and finitude. It was found that a religion offers answers to existential and death-related questions and can also provide individuals with a sense of predictability and control that may protect them against overwhelming anxiety provoked by the prospect of death.

Peterson and Greil (1990) also found that the death experience was related to greater levels of religious behavior and stronger religious orientations, indicating that one of the most significant factors in accounting for death attitudes were people's religious beliefs. This was also found in Agrawal and Danis' (2002) results that identified spiritual beliefs as one of the six domains that have been suggested for measuring a *good death*. Their results were supported by Elsdon (1995) who reported that spiritual pain or distress is a very real possibility that may prevent a peaceful death experience.

Abdel-Khalek (1998) concluded that the fear of pain, punishment, losing worldly involvement, together with the consequences of religious transgressions, failures and being parted from loved ones are among the major factors of death fear for Arabic or Muslim college students. Most researchers found that although the fear of death affects many aspects of human life, religion ameliorates such fears during life's trials.

2.1.3 Religiosity and its effects on death anxiety among seriously ill patients

In regard to terminal illness, religion and death anxiety, Kaldjian, Jekel and Friedland (1998) conducted a study using a survey of 90 patients in an HIV/AIDS unit of an urban hospital. The study revealed that spiritual beliefs appear to influence decisions about resuscitation status, the fear of death, and feelings of guilt or in viewing the HIV status as a punishment. Thorson and Powell (1989) also indicated that there was a relationship between spiritual wellbeing and physical and psychosocial symptoms of death distress (death-related depression and anxiety) among participants with terminal illnesses. Higher death distress was significantly associated with lower levels of spiritual wellbeing. An almost similar study was done by Franks, Templer, Cappelletty and Kauffman (1990-1991) who investigated the relationship of religious variables and death anxiety in 51 homosexual men with AIDS and 64 homosexual men without AIDS. They found higher levels of death anxiety in the AIDS-infected men, which was associated with lower levels of spiritual wellbeing.

Gibbs and Jeanne (1978) also found that cancer patients depended strongly on the perceived strength of their religious beliefs and values in coping with imminent death. This was also indicated by Cohen et al. (2005). Gibbs and Jeanne (1978) indicated that death anxiety has been shown to have a negative effect on death acceptance among terminally ill patients.

Harding, Flannelly, Weaver and Costa (2005) argued that religion does not play any role in death anxiety. Hence, multidimensional aspect can be observed as a role in decreasing death anxiety, while religiosity is not always adequately addressed to what role it can play to decrease death anxiety. They studied theological religiosity which was measured by the degree to which God and life after death were believed in. Their study was conducted amongst

213 college students, in order to measure the degree to which religion influenced their daily life and decision-making (how often individuals prayed and attended religious services, how religious persons felt and the degree to which a person found comfort and security in his/her religion).

Ardelt and Koenig (2006) indicated that the effect of priming on death anxiety differed - depending on the candidate's religiosity. They found that highly religious participants who had received religious priming reported less death anxiety than those who had received non-religious priming, while those who were moderately religious, participants reported more anxiety than those who had received non-religious priming.

In addition, Cicirelli (2002) found that the reason the studies had different results was because the meaning of religion differs from individual to individual, indicating that people practice religion differently and have different beliefs. Also, religion and death anxiety are not generally well understood.

2.2 The relationship between death anxiety and gender

The relationship between gender and death anxiety is complex, and the issue requires further exploration. In this section, those studies that have dealt with the issue of death anxiety and gender will be traced and listed. Holcomb, Neimeyer and Moore (1993) conducted a study in attempting to understand the meaning of death among 504 college students. They reported that death anxiety differed significantly - depending on the subject's sex. They indicated that some studies consider the effects of gender on death anxiety to be conditional to other factors.

For instance, Robbins (1989) found that females scored higher on Templer's Death Anxiety Scale. Also, female undergraduates scored higher than their male counterparts on "Death-of-Others" and "Dying-of-Self", two of the subscales of the Collett-Lester Fear of Death Scale. However, when Bem's

Masculinity and Femininity Scales were included in a standard regression, gender was no longer a significant factor in predicting scores on Templer's scale or the Collett-Lester Fear-of-Death of Self and Fear-of-Dying of Self. They found that when the participants contemplated their own death, gender differences in death anxiety might be accounted for by a "*feminine*" sex-role orientation.

Sameer, Adel, Anthony, Mamoun and Adnan (2007) indicated that in the Middle Eastern culture females were found to be more vulnerable to threats of illness and often feel more insecure - owing to the responsibility inherent in caring for family and children and high level of empathy was found to be associated with higher levels of death anxiety. Perkes and Schildt's (1979) argued that differences in attitudes towards death generally are still consistent with the traditional sex roles. Women were found to be more concerned with what might happen to their body after they die and what might be the capital punishment and life after death than men.

It was supported by Dickstein (1978) that all four scales showed that females and males scored differently in death anxiety. Similar results were found by (Eugene, 1994) that none of the interviewees expressed any fear of death; rather they imagined it as something positive - with movement and growth continuing beyond the grave. The study concluded that there were some differences between the sexes in the way death was perceived.

In Power and Smith's (2008) study the interactions between gender, religiosity and perceived time-left-to-live was explored in order to predict the fear of death using the Multi-dimensional Fear of Death Scale .They found that women demonstrated greater fear on the Multi-dimensional Fear of Death Scale under the sub-scale: Fear for Significant Others and Fear of The Dead, while under other sub-scales of Multi-dimensional Fear of Death Scale , more religious women expressed greater Fear of The Dead, Fear of Being Destroyed, and Fear of Conscious Death.

However, there are some studies that did not find any gender differences in death anxiety. Fang and Howell (1977) reported that no gender differences were found among graduate students when death anxiety and gender were correlated.

2.3 **The relationship between death anxiety and age**

This section explores the relationship between age and death anxiety. It is commonly assumed that the second half of life is characterized by a natural process of preparation for death (Dezutter et al., 2009). The assumption is that for older persons, the presumed nearness of death may make them more afraid of death. Belsky (1999) explored the idea that as people get older and closer to death, they could experience more death anxiety. Belsky's (1999) study was conducted to provide evidence that in a significant number of cases, elderly people will, however, experience less death anxiety than younger people. Studies conducted by De Paola and colleagues De Paola, Niemeyer, Lupfer and Fiedler (1992); De Paola, Niemeyer and Ross, (1994) showed a relationship between death anxiety and age, with older people having lower death-anxiety levels, and being less afraid of death than the young.

It was also found by Gesser et al. (1987-1988) that young and middle-aged people have a more difficult time accepting the reality of death than do elderly people. The same results were also found by Neimeyer, Wittkowsky and Moser (2004) who interviewed 40 white male American veterans of World War I. Their study found that the group was equally divided between viewing death as "*the end*" versus those who viewed it as a doorway into an afterlife. Some saw it as a means of releasing pain, or simply expressed uncertainty about its meaning. The interviews were about asking how participants preferred to die. Participants' responses were virtually unanimous in preferring to die in their sleep. Most participants professed to think of death only "*occasionally*" or

"rarely", although they were generally consistent in foreseeing a short remaining lifespan for themselves. They indicated that although the interview did not directly question interviewees about their own death anxiety, participants tended to believe that the fear of death declined in old age when they were asked to describe when "*people in general*" feared death. They found that at both "*conscious*" and "*fantasy*" levels, older subjects displayed less fear of death than did their middle-aged and younger counterparts.

However, there are some studies that express a contrary view. Diggory and Rothman (1961) argued that college students feared the death of loved ones more than their own death. In addition some of those students do not fear death very acutely, perhaps because they believed their probability of dying was low. Moreover, men are frequently prepared to risk their lives or to lose them in order to save others or to advance some cause.

In addition Mackay, Hux, Dirk and Bluck (2007) conducted a study that focused on the role of life experience with others' death and the dying process – in order to improve attitudes towards one's own death, using a quasi-experimental design. They examined levels of death experience in order to find the differing attitudes towards death. They found that relatively little research focused on death. They indicated that developmental theorists have suggested that preparation for one's death occurs only across the second half of life. They explained that preparation of death occurs as death anxiety decreases from mid-life to later life. In addition, experience with others' deaths can reduce one's own death anxiety and possibly one's fear of death. Their findings suggest that a developmental trend of decreasing death anxiety in the second half of life. Therefore, as people age, they experience the loss of more and more loved ones, thereby gaining greater death anticipation in regard to themselves.

According to Patel, Asgar and Broota (1998), death is a reality in the lives of both adults and adolescents. Although death may be regarded as a stranger

during adolescence, by old age, it has come to be viewed as a frequent, but unwelcome companion on life's journey. They also found that older people did not generally have the same reluctance to discuss death and may openly resolve fears on mortality as they review their lives. They indicated that the elderly may have simply accumulated enough unpleasant life events over the years to make dying itself seem less traumatic and that adults of all ages ranked death as the most aversive of a wide range of concepts, even though everyone evaluated death negatively, the elderly persons rated it more positively. However, the elderly with sound emotional health, married and with a number of children, had lower death-anxiety scores, while elders who perceived time as passing slowly and those who lived in institutions tended to feel more anxious about death. The elderly with satisfactory family relationships and more life satisfaction had lower death-anxiety scores.

Balk (1990) indicated that death anxiety at a certain age was caused by the life experience through which individuals go. Their interview topics probed the meaning of death, attitudes towards religion and towards death, personal thoughts about their own death, the death of family members, and the death of friends. The results revealed a high percentage of the students who had experienced the recent death of a family member or that of a friend. A similar study was done by (Ens & Bond, 2005) on junior or senior high school students who had known a family member or friend who had died. They found that in the bereavement period, the participants faced life as a crisis. The bereavement process on those adolescents after a grandparent's death may have affected many aspects of their lives, including the adolescents' death-anxiety level.

Schachter (1991, 1992) argued that adolescent students did not know how to face the sudden death of their peers, and as such, may experience a mental or emotional breakdown. It was found that for students to have an emotional breakdown they needed to be connected to their attitudes about death. Meaning their emotional breakdown is associated with the fear of death. It

was found that the anxiety was the one that was found to be the cause of mental breakdown.

Lloyd-Williams, Kennedy, and Sixsmith (2007) indicated that elderly people who were living in the community perceived issues around death, dying, and the end of life. They found that those elderly people had issues associated with the end of life included fear of how they would die, fear of becoming a burden to others, wanting to prepare for death and having a choice with regard to where and when they would die.

A similar study was done by Singh and Singh (2007) who examined the effect of age, gender, and living circumstances on elderly persons' death anxiety. The participants were interviewed using the Death Anxiety Survey Schedule, which includes a set of ten questions relating to death anxiety from an Indian perspective. In their results, it was reported that the older women and those living with their families were significantly more anxious about the word "death". It was also found that they had significantly higher death anxiety levels. Russac et al. (2007) found that death anxiety peaked in both men and women during their 20s - and declined significantly thereafter. They indicated that women displayed a secondary spike during their 50s, but this was not seen in men. Death anxiety, as correlated, with age continued to show that gender was also a variable that contributed to the fear of death.

Depaola, Griffin, Young and Niemeyer (2003) suggested that there were negative attitudes towards other older adults, as determined by personal anxieties about ageing and death, and more specifically, fear of the unknown. They found some distinctive anxieties for particular sub-groups of respondents - especially older women who scored higher on the Fear-of-Death sub-scale on the Multi-dimensional Fear-of-Death Scale than did men. Caucasian participants displayed a higher Fear-of-Dying Process than did older African American participants. Their final finding was that older African

American participants reported higher levels of death anxiety on three of the sub-scales of the Multi-dimensional Fear-of-Death Scale (Fear of the Unknown, Fear of Conscious Death, and Fear for the Body after Death) when compared with older Caucasians

Although there is overwhelming evidence that age is related to death anxiety, some studies (e.g., Goebel & Boeck, 1987) found no age differences in the death-anxiety scores of their participants. Similar results were found by Salter and Salter (1976) who correlated Templer's Death Anxiety Scale among 65 college students with their attitudes and behaviors toward the elderly. They found that there was no evidence to support the anxiety-denial hypothesis; and that the fear of ageing and death resulted in repression of ideas associated with ageing and with rejection of the elderly.

Yeun (2005) argued that death anxiety and age were associated. It was found that elderly felt more pain parting from the things they love than from death and they tended to believe in actualizing one's death, giving up their roots of life, depending on God, and accepting human limitations. Yeun, (2005) believed that there were various factors, such as faith, educational background, and the experience of the loss of a loved one, which affected the level of acceptance of death by the elderly Koreans.

2.5 Conclusion

The literature gathered in this study shows that death anxiety correlates with the variables in this study, namely, age, gender and religiosity. However, there are indications that some studies have found no relationship between these variables and death anxiety. Moreover, these relationships have not been sufficiently studied among Africans. There is a possibility that a variable such as religiosity may yield different results from that found in Western studies as the perception exists that African tend to have fundamental religion beliefs.

Chapter 3

Methodology

3.1 Introduction

This chapter describes the study's research design, as well as the methodology of the study. The pilot study, sampling method, and data collection instruments are described.

3.2 Pilot study

Prior to conducting the main study, it was necessary to conduct a pilot study. The study was piloted using 20 participants attending the Roman Catholic Church at Makwarela, a township near Thohoyandou. The aim of the pilot study was to correct and eliminate any possible errors and problems that may exist in relation to the questionnaire, and also to ensure and/or increase the internal and external validity of the instruments.

3.3 Research design

The study is a cross-sectional, correlational research design. As part of this type of design, the researcher collected information at one point only, and did not conduct any follow-up data collection.

3.4 Participants

The study consisted of a total of 200 participants selected from churches such as St. Joseph Catholic Church, Presbyterian Church, Charis Missionary Church, and some non-churchgoing individuals. All of the participants in the study volunteered to participate. An attempt was made to target participants of various age groups, different marital status, and varying economic

backgrounds within the population of the study by addressing which categories is needed to participate in the study.

3.5 Sampling method and data collection procedure

The researcher used convenience sampling, a type of non-probability sampling method. Participants in this study came from churches, as already pointed out. The researcher first wrote letters to priests inviting their congregations to participate in the study. Subsequently, the researcher made announcements during church services, and issued written invitations to the congregations.

Participants who volunteered to take part in the study were provided with questionnaires to be completed at home and returned at a later date. The researcher then collected the questionnaires from all the participants and kept them for data analysis. In addition, non-churchgoing participants were approached within the community. Non-church going participants were considered to be those who were not present at church on the day of distributing the questionnaires. This group was also invited to participate in the study. They were randomly approached in their homes and requested to complete the questionnaires, which were later collected by the researcher

3.6 Instruments of data collection

3.6.1 Demographic data

The participants were asked to fill in a demographic data questionnaire (see Appendix A) requesting information such as: the participant's age, sex, marital status, employment and religion. This part of the questionnaire also sought information from participants to indicate whether they had children.

3.6.2 Templer's Death Anxiety Scale (Templer, 1970)

Templer's (1970) scale was also used as a data-collection instrument in this study. This instrument consists of 15 true or false questions. In this study only 14 items were used because of the mistake of omitting one item. Therefore, scores for the total scale ranged from 0 (absence of death anxiety) to 14 (very high levels of death anxiety) in this study. Items of the scale include: "I am very much afraid to die"; "The thought of death seldom enters my mind" etc. Templer's death anxiety scale was the work of Templer (1970). The reliability of this scale was found to be 0.567 which was found not to be reliable according to the range of Cronbach alpha 0.78. The low reliability could have been caused by the last item ($n=15$) in the questionnaire which was omitted by means of typing error.

3.6.3 Collett-Lester Fear of Death and Dying Scale (Collett & Lester, 1969; Lester & Abdel-Khalek, 2003)

The Collett-Lester Fear of Death and Dying Scale (Collett & Lester, 1969) was also employed in this study. This instrument was designed to measure four different types of death fears: "death of self", "the dying of self", "death of others", and "the dying of others". A 36-item version was devised in 1969 Collett and Lester (1969) and published in 1990 (Lester, 1990). The latest and final 28-item version was used in the present study (Abdel-Khalek, 2000-2001; Lester & Abdel-Khalek, 2003). In this scale, the respondents state how disturbed they are by different aspects of death, as specified in the scale. The response options range from 1 (*not afraid*) to 5 (*very afraid*). The four dimensions of death identified in the early, 36-item version are still retained in the 28-item version. The scale includes items such as "The pain involved in dying" and "Losing someone close to you". Collett-Lester's fear of death and dying scale was studied by Loo and Shea (1996). The alpha reliability coefficients for subscales was 0.69 for "fear of death of self", 0.65 for "fear of death of others", 0.58 for "fear of dying of self", 0.62 for "fear of dying of

others” and the coefficient of reliability for the whole scale was found to be ranging between 0.78 and 0.82 (Loo & Shea, 1996). Reliability for the current study was found to be 0.870 for “fear of death of self”, 0.649 for “fear of death of others”, 0.873 for “fear of dying of self” and 0.759 for “fear of dying of others”, and the reliability coefficient of the full scale was 0.919.

3.6.4 **Intrinsic/Extrinsic Revised Scale (Gorsuch & McPherson, 1989)**

To measure religiosity, the researcher used the Intrinsic/Extrinsic Revised edition of the Allport and Ross (1967) Religious Orientation Scale (Gorsuch & McPherson, 1989). The revised version was reported by Gorsuch and McPherson (1989) that it differs from the original Religious Orientation Scale in that there are five items (items 6, 31, 35, 39, 41) which led to them to be reversed and one conceptually ambiguous question had to be removed from the scale. Gorsuch and McPherson (1989) conducted factor analyses on the adjusted scale and found that it had improved.

The final, revised scale by Gorsuch and McPherson (1989) is more generally applicable to individuals irrespective of their educational level. It is a 14-item, Likert-style self-report instrument (see Appendix D). It is composed of three sub-scales, with items divided into the following subscales: Socially Extrinsic (Es) for extrinsic items (3, 14, and 20) Personally Extrinsic (Ep) (items number 2, 4, and 15), and Intrinsic (items number 1, 5, 6, 7, 9, 11, 12, 16, and 19). Participants were asked to respond by circling a number from 1 (strongly disagree) to 5 (strongly agree).

According to Gorsuch and Venable (1983), the revised scale continues to measure what the Allport-Ross I-E scales were designed to measure because of its sufficient reliability (Gorsuch & Mcpherson, 1989). I/E scale were suitable to be administered to adolescents and adults at any level of education. Reliability coefficients for the current study were 0.684 for I, 0.736 for Es and 0.620 for Ep.

3.5 Conclusion

This study was piloted to avoid limitations that could have resulted from administering a questionnaire which had not yet been tested in a particular context. A suitable research design was selected for this study—and to ensure valid and reliable results, the chosen design took into cognisance the aims, objectives, as well as more specifically, the study's limitations.

The study made use of a questionnaire to collect data. The questionnaire consisted of various measures, used to collect data on demographic characteristics, death anxiety and the religiosity of the participants. The following death anxiety scales were used: (1) The Collett-Lester Fear of Death Scale (Collett & Lester, 1969) and (2) Templer's Death Anxiety Scale (DAS) (Templer, 1970). Religiosity was measured with the Intrinsic/Extrinsic Revised Scale Gorsuch and McPherson (1989). In all scaled used the results were found. All scaled showed that anxiety is negatively related to religiosity. On religiosity, extrinsic religiosity showed to be the one that played a big role in decreasing death anxiety among participants.

Chapter 4

Results

4.1 Introduction

Chapter four presents the results of the study, and provides evidence of whether or not the aims and objectives of the study have been achieved. Therefore, chapter four will elaborate further on how the researcher employed the research instruments to derive conclusions, to answer the set hypotheses and so to achieve the aims of the study.

4.2 Approach to data analysis

The data were analyzed using the software program known as the Statistical Package for Social Sciences, version 16.0.1 (SPSS 16.0.1). T-test analysis and ANOVA were used to compare the performance of the respective groups (namely, male vs. female, and younger vs. elder participants' scores). In addition, the Pearson product-moment correlation coefficient analysis was conducted to see whether there was any association between the main variables, as predicted in the hypotheses.

4.3 Demographic information

The data collected for demographic information indicated that out of the total of 200 participants there were more males ($n = 118$) than females in the sample. The number of males constituted about 59% of the sample. Regarding the participants' marital status (single, widowed, and an insignificant number were either separated or divorced) and the total number of participants, reported that they had children.

Table 1: Demographic information of the sample

	Age	\bar{X}	SD	Range
Number of children		43.27	23.276	17-88 years
Have children		4.23	2.124	1-9
		Freq	%	
	Yes	52	26.0	
	No	148	74.0	
Gender				
	Male	118	59.0	
	Female	82	41.0	
Marital status				
	Married	66	33.0	
	Single	74	47.0	
	Separated	1	0.5	
	Divorced	2	1.0	
	Widowed	37	18.5	

4.3.1 Hypothesis 1

The first hypothesis of the study predicted that death anxiety would be lower amongst participants with low intrinsic religious motivation than amongst those with high intrinsic religious motivation. To explore this hypothesis, a correlation analysis was conducted to investigate the relationship between the two variables. The results of the correlation are presented as Table 2. These results (see Table 2) showed that intrinsic religiosity (*I*) correlates negatively with death anxiety as measured by the DAS ($p < 0.001$).

Similarly, the Collett-Lester total scale correlated negatively with intrinsic religiosity and the correlation was significant at $p < 0.001$. For the Collett-Lester subscales of “Your Own Death”, “Your Own Dying”, “Death of Others” and “Dying of Others”, the correlations (*r*s) ranged from -0.484 to -0.152, and all but one of them were significant at $p < 0.001$ (see Table 2). The “Death of Others” subscale was significant at $p < .05$. The first hypothesis was thus confirmed by the results, since they showed that participants with high intrinsic religiosity scored lower on death anxiety (as measured by the Collett-Lester and DAS), and vice versa.

Although hypotheses were not advanced about socially extrinsic religiosity (*E*s) and personally extrinsic religiosity (*E*p), the scores for these variables were obtained and were analyzed. According to table 2, all *E*p scales were negatively associated with the death anxiety full scales and subscales (r s = -0.139—-0.333, p s < 0.05). However, the *E*s scales were only associated with the full-scale death anxiety scales of DAS and the Collett-Lester scales and the self-oriented Collett-Lester subscales (viz., “Your own Death” and “Your own Dying”), and were not associated with the other-oriented subscales of “Death of Others” and “Dying of Others”. The relationship was positive (see table 2 below)

Table 2: Correlations between religious motivation and death anxiety (N = 200)

Religious Motivation	Death Anxiety						
	Your own Death	Your own Dying	Death of Others	Dying of Others	Collett-Lester	DAS	
I	-0.499	-0.388	-0.152	-0.284	-0.433	-0.401	
Es	0.001	0.001	0.032	0.001	0.001	0.001	
	0.271	0.185	0.068	0.103	0.209	0.188	
	0.000	0.009	0.335	0.146	0.003	0.008	
Ep	-0.333	-0.165	-0.139	-0.201	-0.266	-0.187	
	0.000	0.020	0.050	0.004	0.000	0.008	

Note:

I = intrinsic motivation; Es = socially extrinsic motivation; Ep = personally extrinsic motivation,
 CLS = Collett-Lester Scale total score; DAS = death-anxiety scale total score

4.3.2 Hypothesis 2

Hypothesis 2 predicted that females will report relatively higher death-anxiety levels compared to males. To explore this hypothesis, a series of *t*-test analyses were conducted to compare the scores of females and males on the death anxiety scales (see table 3 below). All *t*-test results did not show statistical significance in their differences, meaning that the scores of the two sexes did not differ on any of the death-anxiety scales ($p_s > 0.05$).

Table 3: T-test results of comparisons of males and females on death-anxiety scales

	Sex	N	\bar{X}	SD	T	Df	P
Your Own Death	Female	82	22.829	8.747	0.137	198	0.891
	Male	118	22.653	9.119			
Your Own Dying	Female	82	21.744	8.775	-0.842	198	0.401
	Male	118	22.805	8.751			
Death of Others	Female	82	17.842	5.920	0.854	198	0.394
	Male	118	17.178	5.012			
Dying of Others	Female	82	18.52	6.311	-0.832	198	0.406
	Male	118	19.27	6.192			
Total CLS¹	Female	82	63.061	23.739	0.278	198	0.781
	Male	118	62.093	24.549			

DAS²									
	Female	82	8.09	2.790	0.802	198	.423		
	Male	118	7.75	2.926					

Note: Total CLS¹ = Collett-Lester scale; DAS² = Death Anxiety Scale

4.3.3 Hypothesis 3

Hypothesis 3 predicted that age would correlate negatively with death anxiety. Therefore, a correlation analysis was conducted between age and each of the death-anxiety scales (as measured by the Collett-Lester Death Anxiety Scale and the Death-Anxiety Scale). The results of the correlation analysis are presented in full in table 4(a) below. These results show that age correlates negatively with death anxiety ($r_s = -0.344$ — -0.653). To refine the results, the sample was divided into three groups, namely, under 25 years of age, 25 years to 45 years of age, and over 45 years of age, and the means of the three groups were compared. The results of ANOVA are presented in table 4(b) below.

Table 4a: Correlations between age and death anxiety scales (N = 200)

	CLS subscale			Total CLS	DAS
	Your Own Death	Your Own Dying	Death of Others		
Age	-.653	-.574	-.344	-.652	-.460

Note: CLS = Collett-Lester Death Anxiety Scale; DAS = Death Anxiety Scale

Table 4b: Comparison of age-group means on death anxiety

Death Anxiety	Age groups			F	P
	< 25 yrs. old ^a	25—45 yrs. old ^b	> 45 yrs. old ^c		
	\bar{X} (SD)	\bar{X} (SD)	\bar{X} (SD)		
DAS ^d	8.99 (2.452)	8.77 (2.940)	6.29 (2.487)	24.543	0.000
CLS ^e	76.19 (17.494)	43.85 (16.740)	76.19 (17.494)	62.556	0.000
Your own Death	17.92 (6.564)	5.92 (5.547)		75.515	0.000
Your own Dying	17.64 (6.563)	7.79 (5.547)		39.563	0.000
Death of Others	20.53 (6.560)	16.32 (8.418)		13.612	0.000
Dying of Others	20.08 (5.061)	13.90 (5.119)		24.558	0.000

Note: ^an = 78; ^bn = 44; ^cn = 78

^dCLS = Collett-Lester Death Anxiety Scale total score; ^eDAS = Death Anxiety Scale total score

In essence, the results of the analysis show that the means of those under 25 years and those with ages from 25 to 45 years were different to those who were 45 years and older ($ps < .001$; see Table 3). This result was the case on all the scales and sub-scales of death anxiety. This means that the older participants scored lower than the younger two groups on death anxiety, in agreement with the third hypothesis of the study.

Chapter 5

Discussion

5.1 Introduction

The purpose of this study was three-fold: namely, to find out (a) if religiosity contributes to the experience of death anxiety, (b) if gender has any effect on the experience of death anxiety, and (c) if age has any effect on the experience of death anxiety. The results are discussed below, showing that participants in this study scored different to what has been found in many other studies.

5.2 Death anxiety and religiosity

Although death anxiety and religion have been studied by many researchers, this study sought to add value from an African rural perspective. The religiosity data came from the scales developed by Gorsuch and McPherson (1989). The study hypothesized that death anxiety will be low among individuals who were influenced by intrinsic religiosity (I), than it would be among those with lower levels of intrinsic religiosity (I). The results of this study indicated that, contrary to studies such as Dezutter et al. (2009), there is an association between death anxiety and religiosity. Indeed, death anxiety is low among high intrinsic religious participants. The results are supported by Ardel and Koenig (2006) who found that highly religious participants reported less death anxiety than those who were non-religious.

Even if the study did not hypothesize about socially extrinsic religiosity (Es) and personally extrinsic religiosity (Ep), these factors were included in the study because Ep and Es are also associated with death anxiety (Ardelt & Koenig, 2006; Mcclain-Jacobson et al., 2004; Durlak & Riesenburger, 1991). There was a negative relationship between Ep and all scales and subscales

of death anxiety measured in this study. Ep seems to function in the same manner as I, in that both of them refer to subjective issues. On the other hand, Es seems to lead to the increase of death anxiety as measured with the DAS and the Collett-Lester full scales.

Interestingly, subscale analysis shows that Es is related only to the self-oriented Collett-Lester subscales (viz., "Your own Death" and "Your own Dying"), but not the other-oriented subscales (viz., "Death of Others" and "Dying of Others"). The results are in agreement with Adelt (2003) and Falkenhain and Handal (2003), who found a relationship between religiosity and death anxiety. The results support the thinking that religion plays an important role in people's lives (Becker, 1975, 1973, 1971; Dezutter et al., 2009; Peterson & Greil, 1990; Thorson & Powell, 1989). However, the results in the present study show that when death anxiety is differentiated, it is only the scales that measure death anxiety which is self-oriented and/or subjective which are associated with death anxiety.

Wink and Scott (2005) did not find any relationship between religiosity and death anxiety. Cicirelli (2002) and Templer (1970) were other researchers who reported that there was no relationship between the two variables. In the light of contradictory results, it would seem that the relationship between death anxiety and religiosity is not yet conclusive. Yet the results so far, seem to suggest that the concept of religiosity has to be refined, and defined better for it to yield conclusive results in the area of death anxiety.

5.3 **Death anxiety and gender**

This study's second hypothesis was that women will score higher on death anxiety scales than males based on findings by several researchers, including Sameer et al. (2007), and Tsai et al. (2005) Many reasons were advanced why women scored higher on death anxiety scales, including a tendency among them to be emotionally expressive (Abdel-Khalek et al., 2008-2009;

Suhail & Kabram, 2002). However, the results of this study showed that there are no gender differences on death anxiety, in line with a small group of researchers (Conte, Weiner, & Plutchik, 1982; Fang & Howell, 1977). It is not yet clear why males and females in this study scored the same on death anxiety. Whereas Suhail and Akram (2002) argued that scales used may affect the results, in this study both the CLS and the DAS were used, and the results did not show differences. But the results of the present study are important since males and females are known to generally score differently on many anxiety scales (Russack et al., 2007). The results mean that the issue of gender differences on death anxiety needs to be studied further in different populations.

5.4 **Death anxiety and age**

In the third hypothesis of the study, the researcher sought to determine whether age is negatively related to death anxiety. The results of the study showed that the younger and the middle-aged groups in this study scored higher on death anxiety than did the elder participants. The results support a number of studies, who also found a decline in the fear of death as age increased (Belsky, 1999; Depaola, Griffin, Young & Niemeyer, 2003; Gesser et al. 1988-1987). Russac et al. (2007) points out that the relationship between age and death anxiety is even complicated for women. Women experience heightened fears of death in their 20's, and then a decline, only to experience another peak in their 50s and 60s.

There are many reasons why death may be feared by younger age groups. For instance, since they are at their childbearing years, death may be seen as a threat to them bearing their own children (Russac, et al., 2007). On the other hand, one of the hypotheses advanced concerning older persons' less fear of death is denial. A sense of helplessness about the inevitability of death may lead older persons to cope by denying its reality, thereby reporting it less when asked about it. Becker (1973) expressed the same view that people

generally cope with death by denying it, although he did not emphasize the age aspect. Mackay, Hux, Dirk and Bluck (2007) contradicts these findings when they explained that preparation of death occurs as death anxiety decreases from mid-life to later life.

6 Conclusion

An overriding suggestion in this study has been that death anxiety often correlates with different variables such as religion, gender and age. Other researchers have also confirmed this suggestion. Hence, this study has taken the examination of these variables further.

After comparing the variables of interest and death anxiety, it was found that death anxiety can be influenced by religiosity. Intrinsic religiosity was of interest in this study, and it was found to influence the perception of death anxiety. Socially extrinsic religiosity (Es) and personally extrinsic religiosity (Ep), were factors that were also found to be associated with death anxiety even if the study did not hypothesize about them, age and gender. Literature on the correlation of religion and death anxiety has also supported the findings of this study, since the results indicated that religiosity decreases the level of death anxiety. With regard to gender, there was no such conclusion, as there were often limitations in the previous studies.

In terms of the correlation of death anxiety and age, the study also concluded that age does influence the level of death anxiety in people. This has also been found to be largely dependent on the age levels, that in old age at both "*conscious*" and "*fantasy*" levels, old age have displayed less fear of death than did their middle-aged and younger counterparts. Finally, it can be concluded from the study that death anxiety affects human beings - depending on the religion of a particular person and their age level.

6.6.1 Procedural Limitations

Limitations exist in most research projects and this study was not an exception. The following limitations were identified by the researcher in this study: (a) Targeting churches limited the generalizability of the final results of this study concerning religious affiliation. The results apply only to individuals who are Christians; (b) the present study found that there were no differences between the mean scores of males and females. Yet there were no items exploring the reasons why males and females tend to differ on their reports of death anxiety. This has led to the researcher being unable to explore why there were not gender differences in this study.

6.6.2 Future research

The findings of this study should be extended to include participants from other religions, for example, Moslems. In future, researchers should also not only focus on the Christian churches, but also places where people are not specifically defined as Christians. This will enable a comparison between Christians and non-Christians to be made. Future researchers should travel to different research sites and target older males to ensure a larger number of these participants.

In addition, future research could benefit by using a more diverse demographic questionnaire to elicit more data. Finally, the analysis should also attempt to include all sub-scales of the religious scales to discover more possible correlations between the different variables.

The results pertaining to gender and death anxiety are not common in this area of research. Although occasionally researchers have found that there was no difference between the scores of males and females on death anxiety scales, there is overwhelming evidence that females tend to score higher on death anxiety. Future studies in South Africa should explore the issue further

to see if the results can be reproduced, and to investigate the reasons why there are not differences between male and female scores in this context.

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Appendices

APPENDIX A

All items shown below are only sample items

II. Death Anxiety Scale

Please circle true or false.

- | | | | |
|---|---|------|-------|
| 1 | I am very much afraid to die. | true | False |
| 2 | The thought of death seldom enters my mind. | true | False |

APPENDIX B

Please fill in the blank or circle the correct answer, as the case may be. To ensure that your answers remain private and anonymous, do not put your name on this page or the remaining pages.

I. Demographic Questionnaire

1. What is your age: _____ years old.

2. Sex:

Male	<input type="checkbox"/>
------	--------------------------

Female	<input type="checkbox"/>
--------	--------------------------

3. What is your marital status?

Married	<input type="checkbox"/>
---------	--------------------------

Single	<input type="checkbox"/>
--------	--------------------------

Separated	<input type="checkbox"/>
-----------	--------------------------

Divorced	<input type="checkbox"/>
----------	--------------------------

Widowed	<input type="checkbox"/>
---------	--------------------------

4. Are you presently employed?

Yes No

5. The investigator is using the concept of race for research purposes only. This concept is used interchangeably with “ethnicity”. Please state what your “race” is. However, if you do not want to answer this question, you can leave it blank.

Please tick only one of the boxes below to indicate your “race” or “ethnicity”.

African White Asian “Coloured” Other

5. What is your religion? Please tick only one of the boxes below.

Judaism Islam Christianity Other

- 6 (a) Do you have any children?

Yes _____ No _____

- 6 (b) If yes to 6 (a), how many are they?

_____ children

APPENDIX C

Sample items of the Revised Collett-Lester Scale (Lester, & Abdel-Khalek, 2003; Lester, 1990)

How disturbed or made anxious are you by the following aspects of death and dying? Read each item and answer it quickly. Do not spend too much time thinking about your response. We want your first impression of how you think right now. Circle the number that best represents your feeling.

Very afraid

Somewhat
afraid

Not afraid

(1)	(2)	(3)	(4)	(5)
-----	-----	-----	-----	-----

Your own Death

- 1 The total isolation of death 1 2 3 4 5
- 2 The shortness of life 1 2 3 4 5

Your own Dying

- 1 The physical degeneration involved 1 2 3 4 5
- 2 The pain involved in dying 1 2 3 4 5

The Death of others

- 1 Losing someone close to you 1 2 3 4 5
- 2 Having to see the person's dead body 1 2 3 4 5

Dying of others

- 1 Having to be with someone who is dying 1 2 3 4 5
- 2 Having them want to talk about death with you 1 2 3 4 5

APPENDIX D

Sample of Intrinsic/Extrinsic-Revised Scale (Gorsuch & McPherson, 1989)

Directions: The following items deal with various types of religious ideas and social opinions. We should like to find out how common they are. Please indicate the response you prefer, or most closely agree with, by circling the response corresponding with your choice in the right margin. If none of the choices expresses exactly how you feel, then indicate the one, which is closest to your own views. If no choice is possible, you may omit the item. There are no "right" or "wrong" choices. There will be many religious people who will agree with all the possible alternative answers.

Strongly Disagree (1)	Moderately Disagree (2)	Neutral (3)	Moderately Disagree (4)	Strongly Disagree (5)
-----------------------------	-------------------------------	----------------	-------------------------------	-----------------------------

-
- 1 I enjoy reading about my religion. 1 2 3 4 5
- 2 I go to church because it helps me to make friends 1 2 3 4 5

**UNIVERSITY OF LIMPOPO
ETHICS COMMITTEE**

PROJECT TITLE: Age, gender, and religiosity as correlates of death anxiety in a rural African context

PROJECT LEADER: Mudau, T.

CONSENT FORM

I, hereby voluntarily consent to participate in the following project: *(It is compulsory for the researcher to complete this field before submission to the ethics committee)*

I realise that:

1. The study deals with Age, gender, and religiosity as correlates of death anxiety in a rural African context
2. The procedure or treatment envisaged may hold some risk for me that cannot be foreseen at this stage;
3. The Ethics Committee has approved that individuals may be approached to participate in the study.
4. The experimental protocol, i.e. the extent, aims and methods of the research, have been explained to me.
5. The protocol sets out the risks that can be reasonably expected, as well as possible discomfort for persons participating in the research, an explanation of the anticipated advantages for myself or others that are reasonably expected from the research and alternative procedures that may be to my advantage.
6. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation.
7. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research.
8. Any questions that I may have regarding the research, or related matters, will be answered by the researchers.
9. If I have any questions about, or problems regarding the study, or experience any undesirable effects, I may contact a member of the research team.
10. Participation in this research is voluntary and I can withdraw my participation at any stage.

11. If any medical problem is identified at any stage during the research, or when I am vetted for participation, such condition will be discussed with me in confidence by a qualified person and/or I will be referred to my doctor.
12. I indemnify the University of Limpopo and all persons involved with the above project from any liability that may arise from my participation in the above project or that may be related to it, for whatever reasons, including negligence on the part of the mentioned persons.

SIGNATURE OF RESEARCHED PERSON

SIGNATURE OF WITNESS

SIGNATURE OF PERSON THAT INFORMED
THE RESEARCHED PERSON

SIGNATURE OF PARENT/GUARDIAN

Signed at this day of 2006

Mudau, Tshinanne.
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