

Chapter 4

DATA ANALYSIS AND RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter describes the analysis of data followed by a discussion of the research findings. The findings relate to the research questions that guided the study. Data were analyzed to identify, describe and explore the relationship between death anxiety and death attitudes of nurses in a private acute care hospital and to determine the need for ongoing terminal care education in this setting. Data were obtained from self-administered questionnaires, completed by 93 nurses (n=93), a 42% response rate. Assuming that only half of the total population of 394 nurses in the hospital's employ may have experienced nursing a terminally ill patient in the last six months, a population size of 197 was expected (n=197). This is also supported by the fact that some of the nurses in this hospital's employ occupy non-nursing posts, for example, they may be involved in clerical, administrative and managerial positions that exclude them from nursing activities and patient care.

A total of 117 questionnaires were received, however, only 93 questionnaires were usable for this study and met the required inclusion criteria as discussed in the previous chapter. This represented 42% of the expected population. Although neither the reasons for refusal to participate nor the characteristics of the non-respondents are known, the typically low response to surveys about death may be a partial explanation for the low response rate in this study.

Of the remaining 24 questionnaires deemed unusable, 15 respondents did not complete the questionnaire in that two or more subsections of the questionnaires were omitted. Nine respondents reported that they had not experienced nursing a dying patient within the last six months and thus did not meet the inclusion criteria for this study.

The questionnaire comprised of three sections and data generated will be presented as follows:

- The first section comprises of demographic data such as age, sex, years of experience, and adequacy of training and institutional support.
- The second section comprises of data describing the death attitudes and death anxiety of nurses in correlation to the demographic data.
- In the third section data obtained from the analysis of the death attitude and death anxiety scales will be examined and the association between the two variables discussed.

4.2 METHODS OF DATA ANALYSIS AND PRESENTATION OF DATA

Descriptive statistical analysis was used to identify frequencies and percentages to answer all of the questions in the questionnaire. Not all respondents answered all of the questions therefore percentages reported correspond to the total number of nurses answering the individual questions. The statistical significance of relationships among selected variables was determined using the Fishers exact test. The level of significance was set at 0.05.

4.3 DISCUSSION OF FINDINGS

4.3.1 Demographic Relationships and Study Variables

Although it was not part of the purpose of the study, this set of data was intended to describe demographic variables of the sample and to assess for any influence on the research findings. The demographic data consisted of age, sex, years of experience and adequacy of training and support. Respondents largely omitted the open-ended question in this section of the questionnaire; only 7 respondents (7,5% of the total sample) provided an explanation of the support or lack thereof received in the hospital.

4.3.2 Age ranges of the participants in the sample

Participants were asked to tick the age category appropriate to them (see table 4.1 below). All the participants responded to the question (93 responses or 100%). Thirty-eight percent of the respondents were in the 31-40 years age category (35 responses) and constituted the bulk of the sample. Sixty-seven of the ninety-three respondents (72%) were below the age of forty years.

Table 4.1 Association between age, anxiety and death attitudes

Age range in years	Low death anxiety and positive death attitudes	High death anxiety and negative death attitudes	Total Respondents
18-30 years	3 respondents (3%)	29 respondents (31%)	32 (34%)
31-40 years	2 respondents (2%)	33 respondents (35%)	35 (38%)
41-50 years	1 respondent (1%)	15 respondents (16%)	16 (17%)
>50 years	4 respondents (4%)	6 respondents (6%)	10 (11%)
Total	10 respondents (11%)	83 respondents (89%)	93 respondents (100%)

Fishers exact test p -value = 0.039

*(A p -value of <0.05 denotes significance)

In this study the correlation between age, death anxiety and death attitudes was statistically significant ($p < 0.05$), indicating that older nurses reported somewhat less fear of death than younger nurses. Other studies suggest an inverse relationship between age and death anxiety and negative death attitudes. Among nursing home personnel, those who were older displayed lower levels of death anxiety and were less afraid of death than younger personnel (DePaola, Neimeyer, Lupfer, and Fiedler, 1992; DePaola, Neimeyer and Ross, 1994). Servaty, Krejci and Hayslip (1996) found that older medical and nursing students were less apprehensive about communicating with a dying person than were younger students. Gesser, Wong, and Reker (1987) suggested that the young and middle-

aged have a more difficult time accepting the reality of death than do the elderly. Rasmussen and Brems (1996) found age and psychosocial maturity to be significantly and inversely related to death anxiety. Schorr, Farnham, and Ervin (1991) reported a relatively low level of anxiety, toward death, among women age sixty-five and older. This is consistent with the findings of this study, which indicate that while 19% of respondents (5 responses) in the older age group category (41->50 years) reported lower death anxiety and positive death attitudes, only 7% (5 responses) of the younger group (18-40 years) reported the same.

One reasonable explanation of these results could be that the questionnaires administered created more anxiety in younger than in older people. Questions such as how disturbed are you by the following aspects of death: the shortness of life, dying too young, or missing out on so much, are questions that many younger people would find anxiety-provoking while many older people would not.

Another reason for the subject of death generating such high levels of anxiety in the younger population could be that these respondents' anxiety levels may also be influenced by the weight of their personal responsibilities, example: being parents to young children. In addition to this, the rising mortality rate of younger people may personalize death for this group of participants.

As people age they experience the loss of family and friends as a result of death. They must learn to cope with the thought of their own death. These findings suggest that older people may have resolved the question of death therefore some questions about death would not elicit as much anxiety as it would in younger people.

4.3.3 Gender differences of the participants in the sample

Participants were asked to indicate their gender by placing a tick next to the relevant option provided (male or female). All 93 participants (100%) responded. Of the 93 respondents 14 (15%) were male and 79 (85%) were female. Historically nursing has been a female dominated profession although more males are joining this profession in current trends (Benner and Wrubel, 1989).

Table 4.2 Association between sex, anxiety and death attitudes

Sex	Low death anxiety and positive death attitudes	High death anxiety and negative death attitudes	Total Respondents
Males	0 respondents	14 respondents (15%)	14 (15%)
Females	10 respondents (11%)	69 respondents (74%)	79 (85%)
	10 respondents (11%)	83 respondents (89%)	93 (100%)

Fishers exact test p -value = 0.350

*(A p -value of >0.1 denotes non-significance)

Mixed results exist regarding gender differences and attitudes toward death. Studies by Robbins (1989); Thorson and Powell (1988); Rigdon and Epting (1985), have shown that females report higher levels of death anxiety than males, although some researchers have reported no gender differences (Rooda, Clements and Jordan, 1989; Marks, 1986). Servaty et.al (1996) reported higher empathy scores for females than for males, and higher levels of empathy were associated with higher levels of death anxiety. However, in this study the correlation between sex, death anxiety and death attitudes was not statistically significant.

4.3.4 Number of years of nursing experience of the participants

Length of nursing experience was also tabulated and respondents were asked to tick the relevant option provided (refer to Appendix G). Again a 100% response rate was achieved (93 responses). Nineteen nurses (20%) of the 93 respondents reported 0-5 years nursing experience, 24 nurses (26%) reported 6-10 years of nursing experience and 13 respondents (14%) reported 11-15 years of nursing experience. Twenty-five (27%) of the ninety-three respondents reported 16-20 years length of nursing experience and twelve nurses (13%) reported >20 years of nursing experience.

Two studies showed that increased exposure to death or death related experience was related to a more positive attitude toward the care of dying patients among nurses (Engler, Cusson, Brockett, Cannon-Heinrich, Goldberg, West and Petow, 2004; Brent, Speece, Gates, Mood and Kaul, 1991; Brockopp, King and Hamilton, 1991). DePaola et.al. (1994), also reported that nursing home personnel with longer tenure at a facility had lower levels of death anxiety. However, in this study the correlation between length of experience, anxiety and death attitudes was marginally significant with $p=0.094$.

Table 4.3 describes the association between nursing experience, death anxiety and death attitudes. All nineteen respondents with 0-5 years length of nursing experience reported high death anxiety and correlating negative death attitudes. Although 4 respondents (4%) of the population in the 6-10 years nursing experience category showed positive death attitudes and low death anxiety, the number of respondents in the 16 years and over category with positive death attitudes and low death anxiety was proportionally larger than those with less than 16 years experience. However, of note is that nine of the twelve respondents (10%) with more than twenty years of nursing experience reported negative death attitudes and high death anxiety. Bene and Foxall (1991) found that even exclusive involvement with dying patients neither increased nor decreased nurses' death anxiety.

Table 4.3 Association of experience, anxiety and death attitudes

Years of experience in nursing	Low death anxiety and positive death attitudes	High death anxiety and negative death attitudes	Total Respondents
0-5 years	0 respondents	19 respondents (20%)	19 (20%)
6-10 years	4 respondents (4%)	20 respondents (22%)	24 (26%)
11-15 years	0 respondents	13 respondents (14%)	13 (14%)
16-20 years	3 respondents (3%)	22 respondents (24%)	25 (27%)
>20 years	4 respondents (4%)	9 respondents (10%)	12 (13%)
Total	10 respondents (11%)	83 respondents (89%)	93 respondents (100%)

Fishers exact test p -value = 0.094

*(A p -value of 0.094 denotes marginal significance)

4.3.5 Perceived emotional support of the hospital/unit

Participants were asked if they felt that they received the emotional support of the hospital/unit when nursing a terminally ill patient. Respondents were also asked to explain their response. A total of 93 responses (100% response rate) were received.

Table 4.4 summarizes the findings from this study between perceived support, death anxiety and death attitudes

Table 4.4 Association between support, anxiety and death attitudes

Perceived Support	Low death anxiety and positive death attitudes	High death anxiety and negative death attitudes	Total Respondents
Support present	7 respondents (8%)	36 respondents (39%)	43 (46%)
Support absent	3 respondents (3%)	47 respondents (51%)	50 (54%)
Total	10 respondents (11%)	83 respondents (89%)	93 (100%)

Fishers exact test p -value = 0.178

*(A p -value of >0.1 denotes non-significance)

The correlation between perceived hospital support, death anxiety and attitudes was statistically non-significant with a p -value of greater than 0.1. Of the 93 respondents (100% response rate) only seven explanations were received which represented 8% of the total population.

From these responses, the following reasons were given:

- Four respondents (4%) felt that they received adequate emotional support either from the hospital or their unit or both. Counselling, peer support, team involvement, debriefing sessions and prayer were given as explanations to the support systems available to them. Studies suggest that religious beliefs, belief in a supreme being, and belief in an after-life were associated with more positive attitudes toward death and dying among physicians, nurses and the general population. Alvarado, Templer, Bresler and Thomas-Dobson (1995)

found that strong religious conviction and belief in an after-life were associated with less death anxiety and death distress.

- Two respondents (2%) felt they did not receive adequate hospital/unit emotional support and supported this by stating that dealing with death and dying is not an easy thing to do and they felt that they were left to deal with the responsibility and emotions around this issue.
- One respondent (1%) felt that they did not receive adequate emotional support from the hospital/unit because they were not offered counselling services.

4.3.6 Adequacy of Palliative Care Training

Participants were asked if they felt that they were adequately trained in death and dying concerns. Of the 93 respondents only 92 responses (99% response rate) were received. A reasonable explanation for the non-response may be that palliative care training or adequacy thereof, within an acute care setting, is not perceived as necessary.

Of the 93 respondents 41 participants (44%) felt that they were adequately trained in dealing with death and dying concerns. Eight of the ten respondents (9% of the population) that reported low death anxiety and correlating positive death attitude belonged to this group.

Fifty-one respondents (55%) felt that they were inadequately trained in palliative care. Of these 2 respondents (2%) reported low death anxiety and positive attitudes while 49 respondents (53%) reported high death anxiety and negative death attitudes.

Table 4.5 summarizes the findings of this study between training adequacy, death anxiety and death attitudes.

Table 4.5 Association between training adequacy, anxiety and death attitudes

Training Adequacy	Low death anxiety and positive death attitudes	High death anxiety and negative death attitudes	Total Respondents
Training adequate	8 respondents (9%)	33 respondents (36%)	41 respondents (45%)
Training inadequate	2 respondents (2%)	49 respondents (53%)	51 respondents (55%)
Total	10 respondents (11%)	82 respondents (88%)	92 respondents (99%) 1 non-respondent (1%)

Fishers exact test p -value = 0.021

*(A p -value of <0.05 denotes significance)

The correlation between the adequacy of palliative care training, death anxiety and death attitudes was statistically significant with a p -value of less than 0.05. A substantial number of studies reported that Training or Course-work about death and dying improved overall attitudes toward terminally ill patients and their families. Course-work that addresses death and dying issues in medical school has been associated with decreased death anxiety, compared with control groups, as well as more positive attitudes and increased desire for interpersonal contact with dying patients (Engler et al, 2004; Rojas Alcantara, Campos Aranda, Armero Barranco, Gonzalez Quijano, Munoz Perez, Riquelme Marin, Hernandez Rojas, 2003; Kaye and Loscalzo, 1998; Leviton and Fretz, 1989-1990; Steinmetz, Walsh, Gabel and Williams, 1993).

The results of this study are consistent with past findings and may suggest that caregivers who have adequate training in palliative care may feel more comfortable and confident in caring for the dying patient than those who are inadequately trained. This finding has important ramifications for future training especially in light of the current health crisis in Southern Africa and escalating mortality rates.

However, the focus of nursing and medical education is frequently concerned with the management of acute disease with an emphasis on curative interventions and palliative care is often neglected. Nurse practitioners need to be equipped emotionally and specifically trained to manage dying patients in-order to provide quality end-of-life care.

In identifying a deficit in palliative care training within this sample, the need for palliative care education and the importance thereof has been highlighted by the findings of this study.

4.3.7 Relationship between Death Anxiety and Death Attitudes

The relationship between death anxiety and death attitudes was hypothesized as being inversely proportional. The findings of this study have been found to be consistent with that of the proposed hypothesis.

Not all respondents answered all of the questions therefore percentages reported corresponded to the total number of nurses who answered the individual questions.

In measuring death attitudes The Neville Strumpf Death Attitude Scale was used. Ten items were listed on this scale and items were scored on a five-point Likert scale ranging from 1 that was 'strongly disagree' to 5 which was 'strongly agree' (refer to Appendix G). This scale applied the five basic patterns to death attitude, identified by Phillippe Aries and cited by Doyle et.al (1998) (refer to chapter three).

Results from the death attitude scale revealed that 10 (11%) respondents have positive attitudes towards death and dying concerns and 83 respondents (89%) from this population have negative death attitudes towards death and dying issues.

4.3.7.1 *The Neville Strumpf Death Attitude Scale*

1. *The end of life is a time of great suffering (death of self).*
2. *Little can be done to help someone achieve a sense of peace at the end of life (death of self).*
3. *I am not comfortable caring for the dying patient (remote or imminent death).*
4. *I am not comfortable talking to families about death (remote or imminent death).*
5. *When a patient dies I feel that something went wrong (forbidden death or rescuer expectations).*
6. *The hospital is not a good place to die (forbidden death or rescuer expectations).*
7. *Patients have the right to refuse medical treatment, even if that treatment prolongs life (tame death).*
8. *Dying patients should be referred to hospice (forbidden death or rescuer expectations).*
9. *I sometimes get angry when certain people die (death of others or anger).*
10. *I sometimes feel angry with the person who has died (death of others or anger).*

Questions 1, 2, 4, 7, 8 and 9 generated more negative responses (agree or strongly agree) indicating a negative attitude toward death as compared to questions 3, 5, 6 and 10. More than 50% of respondents (>50 responses) scored questions 1, 2, 4, 7, 8 and 9 between 4-5 (agree-strongly agree) on the Likert scale while questions 3, 5, 6 and 10 was scored by less than 50% of the respondents (<45 responses) as 4-5 (agree-strongly agree) on the same scale.

The following results were obtained indicating a negative death attitude:

- Question 1- 61% of the participants (n=57) either agreed or strongly agreed that *the end of life is a time of great suffering.*

- Question 2- 54% of the participants (n=50) either agreed or strongly agreed that *little can be done to help someone achieve a sense of peace at the end of life.*
- Question 3- 40% of the participants (n=37) either agreed or strongly agreed that *they are not comfortable caring for the dying patient.*
- Question 4- 53% of the participants (n=49) either agreed or strongly agreed that *they are not comfortable talking to families about death.*
- Question 5- 35% of the participants (n= 33) either agreed or strongly agreed that *when a patient dies they feel that something went wrong.*
- Question 6- 43% of the participants (n=40) either agreed or strongly agreed that *the hospital is not a good place to die.*
- Question 7- 70% of the participants (n=65) either agreed or strongly agreed that *the patients have the right to refuse medical treatment, even if that treatment prolongs life.*
- Question 8- 54% of the participants (n=50) either agreed or strongly agreed that *dying patients should be referred to hospice.*
- Question 9- 76% of the participants (n=71) either agreed or strongly agreed that *they sometimes get angry when certain people die.*
- Question 10- 33% of the participants (n=31) either agreed or strongly agreed that *they sometimes feel angry with the person who has died.*

Although all the patterns of death attitudes elicited some degree of negative response, the pattern that relates to one's own death generated the highest number of negative responses (questions 1 and 2). Different respondents omitted questions 4, 5, and 6 and each of these questions received 92 responses (99% response rate) while the remaining seven questions received a 100% (93 respondents) response rate. These omissions may be related to the respondents' uncertainty or discomfort in committing to a response or alternatively reluctance to reveal their 'true' feelings toward the question. These results should be viewed in relation to the demographic variables discussed and taking self-report bias into consideration. In considering these results, some disagreement exists between the findings of this scale and those of the Revised Collet-Lester Scale. On this scale 43%, a substantially lower number of participants (40 of the 92 respondents), felt

that the *'hospital was not a good place to die'* as compared to a similar item on the Collet-Lester Scale that generated 75%, a higher number, of 'anxious' responses with 69 of the 92 responses finding the *'thought of dying in a hospital away from family and friends'* very disturbing. It may be fair to assume from these results that the isolation from primary relationships during hospitalization probably generates more anxiety than the hospital itself. This may indicate a need for a more holistic approach to terminal care within the hospital. However there is an agreement in the findings describing the theme *'death of self'* in both scales. This theme has consistently elicited negative responses on both scales.

Although 60% of respondents (56 participants) felt comfortable caring for the dying patient, 49 participants (53%) felt uncomfortable talking to the families about death and 50 participants (54%) felt that dying people should be referred to hospices. Of note is that 49 of the 92 respondents' (53%) responses to question 4, *'I am not comfortable talking to families about death'*, either agreed or strongly agreed with this statement. This finding may indicate that communication and psychosocial skills may be lacking in terminal care situations within this health sector and that this may be a particular area in palliative care where training is required.

More than 50 of the 93 respondents (54%) felt that *'dying patients should be referred to hospice,'* however with the current mortality statistics in Southern Africa, this places an unrealistic burden on hospice organizations. As a result, acute care facilities find themselves reluctantly dealing with more and more palliative care issues as is evident from the results of this study. *Patients have the right to refuse medical treatment, even if that treatment prolongs life-* this was the view of 70% of the respondents (n=65). This highlights the nurses' belief that a patient has a right to autonomy. Thirty-five percent of nurses (n=33) reported that, *'when a patient dies they feel that something went wrong.'* This finding may indicate that in acute care settings nurses may harbor feelings of unfounded guilt for the deaths of their terminally ill patients and this in turn may affect the quality of care rendered to these patients and possibly explain the nurse's reluctance to care for these patients. Structured support and debriefing programs addressing these

issues may prove beneficial for this group of nurses. Structured guidelines and clearly defined goals focusing on comfort care rather than active treatment of terminally ill patients within this sector may facilitate healthier nurse-patient relationships.

'I sometimes feel angry with the person who has died,' this question did not elicit strong negative responses however 71 respondents (76%) reported that they *'sometimes get angry when certain people die.'* This could be related to the fact that more and more younger people are dying as a result of AIDS or AIDS related illnesses or alternatively it could be related to the dying trajectory itself (the type, length, course and duration of the illness). Established long-term nurse-patient relationships, identification with patients either by virtue of age, culture, and profession may have also influenced strong negative responses to this question. Although these areas have not been addressed in this study, it may have important implications for future studies related to death anxiety and death attitudes.

The Revised Collet-Lester Scale measured death anxiety and consisted of four sub-scales as discussed in chapter three. It consisted of thirty-two questions and was also scored on a five-point Likert scale (refer to Appendix G). Results of the death anxiety survey produced similar results to that of the death attitude scale, with 89% of the population (83 respondents) reporting high levels of death anxiety. The results generated by this scale indicated significantly high levels of anxiety on all of the sub-scales (refer to chapter three).

The findings of this study will be discussed according to the following sub-scales described by Collet and Lester.

4.3.7.2 Revised Collet-Lester Scale

Sub-scale: Your own death

1. *The total isolation of death.*
2. *The shortness of life.*

3. *Missing out on so much after you die.*
4. *Dying young.*
5. *How it will feel to be dead.*
6. *Never thinking or experiencing anything again*
7. *The possibility of pain and punishment during life-after-death.*
8. *The disintegration of your body after you die.*

The following results were obtained indicating high levels of death anxiety:

- Question 1- 59% of the participants (n=55) reported that they either felt very anxious or somewhat anxious by the *total isolation of death* (4-5 rating on the Likert scale).
- Question 2- 58% of the participants (n=54) reported that they either felt very anxious or somewhat anxious by the *shortness of life* (4-5 rating on the Likert scale).
- Question 3- 54% of the participants (n=50) reported that they either felt very anxious or somewhat anxious by the thought of *missing out on so much after you die* (4-5 rating on the Likert scale).
- Question 4- 78% of the participants (n=73) reported that they either felt very anxious or somewhat anxious by the thought of *dying young* (4-5 rating on the Likert scale).
- Question 5- 60% of the participants (n=56) reported that they either felt very anxious or somewhat anxious by trying to imagine *how it will feel to be dead* (4-5 rating on the Likert scale).
- Question 6- 49% of the participants (n=46) reported that they either felt very anxious or somewhat anxious by imagining that they would *never be able to think or experience anything again* (4-5 rating on the Likert scale).
- Question 7- 55% of the participants (n=51) reported that they either felt very anxious or somewhat anxious by the *possibility of pain and punishment during life-after-death* (4-5 rating on the Likert scale).

- Question 8- 44% of the participants (n=41) reported that they either felt very anxious or somewhat anxious by the *disintegration of your body after you die* (4-5 rating on the Likert scale).

The findings from this scale support the argument presented earlier in this chapter, within the socio-demographic context. In this section of the questionnaire, there were seven non-responses. Different respondents had omitted questions 1, 2, 5, 7 and 8. Question 3 had two non-responses (2%). Questions such as how disturbed are you by the following aspects of death: the shortness of life (question 2), dying young (question 4), or missing out on so much (question 3), are questions that many younger people would find anxiety-provoking. Taking into consideration that 72% (n=67) of this study population comprised of younger people who are probably weighted by their responsibility to their young children, spouse etcetera, questions on their mortality would generate high levels of anxiety and this could possibly be a reason for the omission of these questions. This argument may also be supported by the finding that an overwhelming 73 participants (78%) found the thought of '*dying young*' extremely uncomfortable. A plausible explanation for the omission of question 7, regarding the possibility of pain and suffering, could be unresolved spiritual conflicts, uncertainty to life-after-death or their belief system rooted in religion. Questions on spirituality or religious beliefs and its influence on death anxiety have not been addressed in this study, it is proposed that this be considered in future studies. From the responses received, questions 6 and 8 generated less anxiety as compared to the other questions on this sub-scale. It is possible that although this sub-scale may induce anxiety in this population, the physical degeneration of the body after death does not generate anxiety in more than 50% (>50 participants) of this group. All the other questions evoked strong responses from the participants with more than 50% (>50 participants) scoring these items between 4-5.

Sub-scale: Your own dying

9. *The physical degeneration involved in a slow death.*
10. *The pain involved in dying.*

11. *The intellectual degeneration involved in a slow death.*
12. *That your abilities will be limited as you lay dying.*
13. *The uncertainty as to how bravely you will face the process of dying.*
14. *Your lack of control over the process of dying.*
15. *The possibility of dying in a hospital away from friends and family.*
16. *The grief of others as you lay dying.*

The following results were obtained indicating high levels of death anxiety:

- Question 9- 68% of the participants (n=63) reported that they either felt very anxious or somewhat anxious by the *physical degeneration involved in a slow death* (4-5 rating on the Likert scale).
- Question 10- 69% of the participants (n=64) reported that they either felt very anxious or somewhat anxious by the *pain involved in dying* (4-5 rating on the Likert scale).
- Question 11- 58% of the participants (n=54) reported that they either felt very anxious or somewhat anxious by the *intellectual degeneration involved in a slow death* (4-5 rating on the Likert scale).
- Question 12- 61% of the participants (n=57) reported that they either felt very anxious or somewhat anxious by the possibility that their *abilities will be limited as they lay dying* (4-5 rating on the Likert scale).
- Question 13- 66% of the participants (n=61) reported that they either felt very anxious or somewhat anxious by the *uncertainty as to how bravely they will face the process of dying* (4-5 rating on the Likert scale).
- Question 14- 65% of the participants (n=60) reported that they either felt very anxious or somewhat anxious by their *lack of control over the process of dying* (4-5 rating on the Likert scale).
- Question 15- 74% of the participants (n=69) reported that they either felt very anxious or somewhat anxious by the *possibility of dying in a hospital away from friends and family* (4-5 rating on the Likert scale).

- Question 16- 72% of the participants (n=67) reported that they either felt very anxious or somewhat anxious by the *grief of others as you lay dying* (4-5 rating on the Likert scale).

Although question 15 and 16 each had one non-response, all of the other questions on this sub-scale had a 100% response rate (93 responses). The findings on this sub-scale indicate high levels of anxiety with more than 50% (>50) of respondents scoring each of the items presented between 4-5 on the Likert scale. These results should be viewed in relation to the demographic variables presented. Considering the fact that 72% (n=67) of this study population was less than 41 years of age, it would be plausible to assume that this population may be unprepared to deal with death and dying concerns because they were still planning or raising young families and this could also be true for the non-responses. Question 15 generated the highest number of ‘anxious’ responses with 69 of the 92 responses (75%) finding the ‘*thought of dying in a hospital away from family and friends*’ very disturbing. This finding could provide insight into the care and management of the terminally ill patient in an acute care setting and the need for the inclusion of family and friends within this setting and separate from the stereotypical routines of this institution.

Sub-scale: Death of others

17. *The loss of someone close to you.*
18. *Having to see their dead body.*
19. *Regret over not being nicer to them when they were alive.*
20. *Growing old without them.*
21. *Feeling guilty that you are relieved that they are dead.*
22. *Feeling alone without them.*
23. *Envious that they are dead.*
24. *Never being able to communicate with them again.*

The following results were obtained indicating high levels of death anxiety:

- Question 17- 78% of the participants (n=73) reported that they either felt very anxious or somewhat anxious by the *loss of someone close to them* (4-5 rating on the Likert scale).
- Question 18- 57% of the participants (n=53) reported that they either felt very anxious or somewhat anxious by the thought of *having to see their dead body* (4-5 rating on the Likert scale).
- Question 19- 65% of the participants (n=60) reported that they either felt very anxious or somewhat anxious by the possibility of *regret over not being nicer to them when they were alive* (4-5 rating on the Likert scale).
- Question 20- 73% of the participants (n=68) reported that they either felt very anxious or somewhat anxious by the thought of *growing old without them* (4-5 rating on the Likert scale).
- Question 21- 53% of the participants (n=49) reported that they either felt very anxious or somewhat anxious by the possibility of *feeling guilty that they are relieved that they are dead* (4-5 rating on the Likert scale).
- Question 22- 67% of the participants (n=62) reported that they either felt very anxious or somewhat anxious by the thought of *feeling alone without them* (4-5 rating on the Likert scale).
- Question 23- 39% of the participants (n=36) reported that they either felt very anxious or somewhat anxious by the possibility of feeling *envious that they are dead* (4-5 rating on the Likert scale).
- Question 24- 59% of the participants (n=55) reported that they either felt very anxious or somewhat anxious by the thought of *never being able to communicate with them again* (4-5 rating on the Likert scale).

This sub-scale elicited a 100% response rate. All questions, with the exception of questions 21 and 23, generated high levels of anxiety in the population surveyed. More than 60% (>56) of these respondents scored these questions between 4-5 (somewhat anxious-very anxious). This may be attributed to the probability that this population may

have already experienced the death of someone close to them (example: parent, sibling or care-giver) as indicated by the high response rate to question 17. These questions may have evoked emotive responses hence the high levels of anxiety. Question 21 (*Feeling guilty that you are relieved that they are dead*) did not generate high levels of anxiety, probably because respondents may have experienced unexpected deaths as opposed to protracted or debilitating dying trajectories that may generate a sense of relief that the person has died. Question 23 (*Envious that they are dead*) also did not generate high levels of anxiety. Considering the dying trajectory and its impact on death anxiety and attitudes may be of import in future studies.

Sub-scale: Dying of others

- 25. *Having to be with someone who is dying.*
- 26. *Having them want to talk about death with you.*
- 27. *Watching them suffer from pain.*
- 28. *Having to be the one to tell them that they are dying.*
- 29. *Seeing the physical degeneration of their body.*
- 30. *Not knowing what to do about your grief at losing them when you are with them.*
- 31. *Watching the deterioration of their mental abilities.*
- 32. *Being reminded that you are going to go through the experience also one-day.*

The following results were obtained indicating high levels of death anxiety:

- Question 25- 63% of the participants (n=59) reported that they either felt very anxious or somewhat anxious by *having to be with someone who is dying*. (4-5 rating on the Likert scale).
- Question 26- 56% of the participants (n=52) reported that they either felt very anxious or somewhat anxious by *having them want to talk about death with you* (4-5 rating on the Likert scale).
- Question 27- 74% of the participants (n=69) reported that they either felt very anxious or somewhat anxious by *watching them suffer from pain* (4-5 rating on the Likert scale).

- Question 28- 75% of the participants (n=70) reported that they either felt very anxious or somewhat anxious by *having to be the one to tell them that they are dying* (4-5 rating on the Likert scale).
- Question 29- 65% of the participants (n=60) reported that they either felt very anxious or somewhat anxious by *seeing the physical degeneration of their body* (4-5 rating on the Likert scale).
- Question 30- 68% of the participants (n=63) reported that they either felt very anxious or somewhat anxious by *not knowing what to do about your grief at losing them when you are with them* (4-5 rating on the Likert scale).
- Question 31- 73% of the participants (n=68) reported that they either felt very anxious or somewhat anxious by *watching the deterioration of their mental abilities* (4-5 rating on the Likert scale).
- Question 32- 73% of the participants (n=68) reported that they either felt very anxious or somewhat anxious by *being reminded that they are going to go through the experience also one-day* (4-5 rating on the Likert scale).

This sub-scale also yielded a 100% response rate (93 responses). Results indicate that more than 50% (>50) of the respondents demonstrated high levels of anxiety in this category. More than 50% (>50) of respondents scored the questions on this sub-scale between 4-5 (somewhat anxious-very anxious). A possible explanation of these results could be that most of the respondents have not only experienced, ‘dying of the other’, professionally but also personally and this may have elicited a very emotive response.

Significantly high levels of death anxiety were found in the population surveyed. However these findings should be viewed with caution as it represents less than 50% of the expected sample (n=197) and may be subject to self- report bias. Perhaps these results should also be viewed within a socio-demographic context as several extraneous variables (example: exposure to crime, personal loss, dying trajectories etc) may have influenced these results.

Table 4.6 presents the association between death anxiety and death attitude as identified in this study.

Table 4.6 Association between death anxiety and death attitudes

DEATH ANXIETY	POSITIVE ATTITUDE	NEGATIVE ATTITUDE	TOTAL RESPONDENTS
Low death anxiety	10 respondents (11%)	0 respondents	10 (11%)
High death anxiety	0 respondents	83 respondents (89%)	83 (89%)
Total	10 respondents (11%)	83 respondents (89%)	93 (100%)

Table 4.6.1 Kappa Inter rate agreement

Expected Agreement	Kappa	Std. Error	Common Standardised Score (Z)	Probability>Z (p-value)
80.81%	1.0000	0.1037	9.64	0.0000

An 80.81% Kappa inter rate agreement between the scores from the death attitude scale and the death anxiety scale was expected. However a strong association was found between death attitude and death anxiety and findings suggest a perfect agreement between them as indicated by a 100% Kappa inter-rate agreement. A *p*-value of 0.0000 suggests that a significant relationship between these two variables (death attitude and death anxiety) exists. Eighty-nine percent of respondents who reported higher death anxiety also reported more negative attitudes toward death and dying patients. Interventions aimed at reducing high levels of death anxiety within this population should be implemented.

The results of the study support the research hypothesis that *nurses evidencing high death anxiety will express more negative death attitudes than nurses with low death anxiety* and are consistent with the findings of other related studies. It is evident from the findings of this study that high levels of death anxiety and correlating negative death attitudes exist in the population surveyed. Many writers have commented upon the caregivers' own feelings concerning death as constituting a crucial dynamic in the terminal situation. Ghonda and Ruark (1984) state that if staff stress and anxiety are excessive, it can decrease efficiency and threaten the physical and emotional well-being of the caregiver and thus the patient. These findings should also be viewed within a socio-demographic context as several extraneous variables (example: exposure to crime, personal loss, dying trajectories etc) may have influenced these results. It further identified the need for ongoing terminal care education within the acute care setting. Doyle, Geoffrey, Hanks and Macdonald (1998) state that research into training is still embryonic in terms of identifying what particular psychosocial attitudes, skills and knowledge have to be taught and how they can be taught in a way which ensures a long-term link between training and effective palliative care. Psychosocial issues in palliative care offer a rich source of challenging but important research questions. However it is imperative that findings from the research domain continue to be translatable into action and guidelines, particularly in relation to effective psychosocial interventions.

4.4 SUMMARY

In this chapter, data analysis methods, study results and a discussion of the findings have been presented. Findings from this study have been found to be consistent with the findings of several related studies on death anxiety and attitudes. In addition the impact of various demographic data on death anxiety and death attitudes, has been explored. Data findings were described as correlations to the study variables and presented as tabulations. In the next chapter, the implications of the findings for nursing practice, nursing education and nursing research will be discussed. The limitations to this study will also be presented.