

**DEATH EXPOSURE, DEATH ATTITUDE, DEATH ANXIETY AND BURNOUT  
IN NURSES**

**HELEN LOUISE FERRETT**

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Supervisor: Dr J. Wait

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## DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work, and that I have not previously in its entirety or in part, submitted it at any university for a degree.

Helen L. Ferrett

25/11/99  
Date

## ABSTRACT

This research constituted a pilot study to begin to investigate the experiences of South African nursing professionals who work with dying patients, within an existential-phenomenological theoretical paradigm. The specific purposes were to describe the profile of the sample with regard to the variables of death exposure, death attitude, death anxiety and burnout, to establish whether these variables were related, and whether the groups differed with regard to those variables. The sample (N=114) consisted of three groups of nurses. The first group included hospice nurses, who work in high mortality-exposure, death-certainty, palliative-focus contexts. The second group consisted of private hospital intensive care (ICU) nurses, who worked in moderately high mortality-exposure, death-possibility, curative-focus contexts. The third group comprised first-year university nursing students, who work in a low mortality-exposure, death-unlikely, academic-focus context. Death exposure and demographic variables were measured using a demographic questionnaire designed by the researcher. Death attitude, according to existentialist theory, was measured by the Death Attitude Profile – Revised Version (DAP). Death anxiety was measured using the Multidimensional Fear of Death Scale (MFODS), and burnout was measured with the Maslach Burnout Inventory (MBI). Statistical analyses of the data (namely calculation of descriptive statistics, correlation matrices and multiple analyses of variance) were performed using the computer package *Statistica*. The results showed that numerous aspects of death exposure, death attitude, death fear and burnout are related. In general, the findings indicated positive correlations between death exposure, reduced death anxiety, improved attitude and reduced experiences of emotional exhaustion and depersonalization. The MANOVAs demonstrated that the three groups do not differ significantly with regard to private death exposure or death attitude, but significant differences were found with regard to professional death exposure, death anxiety and burnout. Hospice nurses had experienced the most patient deaths, followed by ICU nurses and then students. Hospice nurses showed significantly less death anxiety than the nursing students. Hospice nurses were also significantly less emotionally exhausted than students, and less depersonalized than ICU nurses as well as nursing students. The findings suggest that death exposure, in combination with cognitive and emotional resolution of existential anxiety, mitigates against excessive death anxiety, and burnout due to emotional exhaustion and depersonalization, when working with the dying.

## OPSOMMING

In hierdie navorsingsprojek is die ervarings van Suid-Afrikaanse verpleegkundiges wat met sterwende pasiënte werk, ondersoek. 'n' Eksistensiële-fenomenologiese paradigma is gebruik. Die spesifieke doelstelling was om die verpleegkundiges te beskrywe in terme van die volgende veranderlikes: blootstelling aan sterfgevallen, houding teenoor die dood, ang vir die dood, en uitbranding (*burnout*); ook om vas te stel of die veranderlikes onderling verwant is, en of die onderskeie groepe ten opsigte van hierdie veranderlikes beduidend verskil het. Die deelnemers (N=114) het bestaan uit drie groepe verpleegkundiges. Die eerste groep het bestaan uit verpleegkundiges verbonde aan die hospice wat in hulle werk baie blootgestel is aan die sterfte van pasiënte. Die pasiënte was sterwend en verpleegkundiges was daarop ingestel om lyding te verminder. Die tweede groep het bestaan uit verpleegkundiges verbonde aan 'n privaat hospitaal en wat in hoe intensiewe sorg eenhede gewerk het. Hierdie groep verpleegkundiges het 'n matige blootstelling aan sterfgevallen gehad. Pasiënte kon moontlik sterf, en die doel van mediese behandeling was dikwels om die pasiënte te genees. Die derde groep het bestaan uit verplegingstudente in hul eerste studiejaar wat in 'n konteks van opleiding, lae sterfte-risiko en onwaarskynlike pasiënt sterfte gewerk het. Die deelnemers se vorige blootstelling aan sterftes en demografiese veranderlikes is deur middel van 'n vraelys gemeet wat deur die navorser opgestel is. Die houding teenoor die dood is, volgens die eksistensiële teorie, gemeet met behulp van die *Death Attitude Profile – Revised Version (DAP)*. Die ang vir die dood is gemeet met behulp van die *Multidimensional Fear of Death Scale (MFODS)*, en uitbranding is gemeet met behulp van die *Maslach Burnout Inventory (MBI)*. Die statistiese ontleding van data het beskrywende statistiek, korrelasiematrikse en variansie ontleding ingesluit. Die *Statistica* rekenarprogram is gebruik. Volgens die resultate van die ondersoek is daar in die algemeen beduidende korrelasie gevind tussen blootstelling aan, houding teenoor, en ang vir die dood, en uitbranding. 'n' Positiewe verband is gevind tussen 'n hoe blootstelling aan pasiëntsterfte, verminderde doodsangs, 'n "beter" houding teenoor die dood, verminderde ervaring van uitputting en depersonalisasie. Die MANOVAs het aangetoon dat die drie groepe nie beduidend verskil het ten opsigte van blootstelling aan persoonlike sterfterverliese nie, en houding teenoor die dood nie. Beduidende verskille is wel gevind tussen die mate van blootstelling aan sterfte van pasiënte, ang vir die dood, en uitbranding. Hospice verpleegkundiges het die meeste sterfgevallen hanteer, gevolg deur die intensiewe sorg verpleegkundiges, en die studentegroep. Hospice verpleegkundiges het beduidend minder ang vir die dood ervaar as verplegingstudente, Hospice verpleegkundiges het ook minder emosionele uitbranding ondervind as studente, en minder gedepersonaliseer as intensiewe sorg verpleegkundiges. Die resultate dui daarop dat blootstelling aan die dood, in kombinasie met kognitiewe en emosionele resoluë van eksistensiële ang, die verpleegkundige beskerm teen oormatige ang vir pasiëntsterfte, en ook teen uitbranding wanneer verpleegkundiges met sterwende pasiënte werk.

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## CONTENTS

<b>1. INTRODUCTION, MOTIVATION FOR AND AIMS OF THE RESEARCH</b>	<b>1</b>
<b>1.1. INTRODUCTION</b>	<b>1</b>
<b>1.2. CONCEPTUAL ANALYSIS</b>	<b>2</b>
1.2.1. Death exposure	2
1.2.2. Death attitude	2
1.2.3. Death anxiety	2
1.2.4. Burnout	3
<b>2. THEORETICAL PRINCIPLES</b>	<b>3</b>
<b>3. LITERATURE FINDINGS</b>	<b>6</b>
<b>4. RESEARCH AIMS</b>	<b>9</b>
<b>5. METHOD OF RESEARCH</b>	<b>9</b>
<b>5.1. SAMPLING</b>	<b>9</b>
<b>5.2. MEASURING INSTRUMENTS</b>	<b>12</b>
5.2.1. Demographic Questionnaire	12
5.2.2. Death Attitude Profile (DAP)	12
5.2.3. Multidimensional Fear of Death Scale (MFODS)	12
5.2.4. Maslach's Burnout Inventory (MBI)	13
<b>5.3. PROCEDURE</b>	<b>14</b>
<b>5.4. STATISTICAL TECHNIQUES</b>	<b>14</b>
<b>6. RESULTS</b>	<b>15</b>
<b>7. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS</b>	<b>20</b>
<b>REFERENCES</b>	<b>25</b>

**INDEX OF TABLES**

<b>Table 1.</b>	<b>4</b>
<b>Examples of Existential Conflicts and their Unsuccessful and Successful Resolutions</b>	
<b>Table 2.</b>	<b>7</b>
<b>Articles which Review Thanatological Issues in Health Care Professionals</b>	
<b>Table 3.</b>	<b>11</b>
<b>Demographic Profile of Participants</b>	
<b>Table 4.</b>	<b>13</b>
<b>Reliability Coefficients for the DAP, MFODS, and MBI</b>	
<b>Table 5.</b>	<b>15</b>
<b>Descriptive Statistics for Death Exposure</b>	
<b>Table 6.</b>	<b>16</b>
<b>Descriptive Statistics for Death Attitude</b>	
<b>Table 7.</b>	<b>16</b>
<b>Descriptive Statistics for Death Anxiety</b>	
<b>Table 8.</b>	<b>16</b>
<b>Descriptive Statistics for Burnout</b>	
<b>Table 9.</b>	<b>17</b>
<b>Correlation Matrix for Death Exposure, Death Attitude, Death Anxiety and Burnout</b>	
<b>Table 10.</b>	<b>19</b>
<b>Group Differences in Death Exposure, Death Attitude, Death Anxiety and Burnout</b>	



## 1. INTRODUCTION, MOTIVATION FOR AND AIMS OF THE RESEARCH

### 1.1. INTRODUCTION

Nurses who work in intensive care, oncology, trauma and palliative care units work in a climate of ongoing exposure to death. Their work life is permeated with the difficulties of constantly having to deal with death and tragedy (Benoliel & Degner, 1995; Guppy & Gutteridge, 1991), being confronted with the limitations of medicine, while having to balance technical caregiving with emotional support for patients and their families (Costantini, Solano, Di Napoli & Bosco, 1997; Gawronski & Privette, 1997; Maestri-Banks & Gosney, 1997). The vast majority of research on palliative care focuses on the patients' needs and the nurses' role in meeting these needs (MacDonald, 1993; Rapin & Weber, 1991). The necessity to investigate the needs of both providers and recipients of care for the dying, in keeping with the World Health Organization's objectives for palliative care for 2000 (Johnston & Abraham, 1995; MacDonald, 1993), have been acknowledged internationally (Boyle & Carter, 1998; Cawley & Webber, 1995; Saunders & Valente, 1994; VanYperen, 1998; Wilkes et al., 1998), in developing countries (Rapin, 1991; Twycross, 1993; Vachon, 1995), in the African continent (Okafor & Reuben, 1995), in South Africa (HSRC, 1995; Ludik, 1988; Roux, 1997; Van der Merwe, 1982; Van Niekerk, 1987; Van Rooyen, 1987; Van Wijk, 1997; Venter, 1993; Wagenaar, 1990), and in particular, in black South Africans (Mtalane, 1990; Ngwezi, 1997).

Thanatological research in general, and research on high-mortality nurses in particular has yielded conflicting and inconclusive results (Neimeyer, 1998). Particular phenomena, and the interactions between them, have been found to significantly affect both nurses and their dying patients, but warrant further investigation. These include *death exposure* (Berkowitz & Nuttall, 1996; Garyfallos, Adamopoulou, Moutzakis & Panakleridou, 1993), *death attitude* (Alexander & Richie, 1990; Gow & Williams, 1997; Hare & Pratt, 1988, 1989), *death anxiety* (Bene & Foxall, 1991; Boyle & Carter, 1998; Brockopp, King & Hamilton, 1991; Carr & Merriman, 1995; Coleman, 1993; Giles, 1993; Hare & Pratt, 1989) and *burnout* (Bennett, Kelaher & Ross, 1994; Bennett, Michie & Kippax, 1991; Bianchi, Ferrari, Soccorsi & Tatarelli, 1997; Coleman, 1991; Copp & Dunn, 1993; Costantini et al., 1997; De Marcato, Cantiello, Celentano & Romano, 1995; Duquette, Kerouac, Sandhu & Beaudet, 1994; Eastburg, Williamson, Gorsuch & Ridley, 1994; Glass, McKnight & Valdimarsdottir, 1993; Papadatou, Anagnostopoulos & Monos, 1994; Schaufeli & Janczur, 1994; Schaufeli, Keijsers & Miranda, 1995).

This study focuses primarily on internal aspects related to death, and is located within an existentialistic framework, which has conflicts and anxieties about mortality at its epicentre. It aims to examine nurses' ways of resolving these existential conflicts, and it is hoped that this information will be of value in

attending to the well-being of nurses and the recipients of their care. Maslach (1982, p.10) eloquently points to the absurdity of “investigating the personality of cucumbers to discover why they turned into sour pickles without analyzing the vinegar barrels in which they had been submerged”. This study acknowledges, but does not specifically investigate environmental issues which contaminate the work environment of South African nurses. These include internationally cited shortages of staff and funds (White, 1996), inequitable and uncompetitive remuneration, work overload, as well as the racial, gender, cultural and power issues inherited from our apartheid history (Badenhorst, 1997; Govender, 1995; Ludik, 1988; Marks, 1994; Mahabeer, 1980; Ngwezi, 1997; Nixon, 1995; Pope, 1996; Van der Merwe, 1982; Van der Merwe, 1993; Van Niekerk, 1987; Van Zyl, 1991).

The purpose of this study is to begin to investigate how South African nurses cope with exposure to multiple and cumulative patient deaths, specifically by investigating the variables of death exposure, death attitude, death anxiety and burnout in nursing professionals who work with dying patients.

## 1.2. CONCEPTUAL ANALYSIS

1.2.1. *Death exposure*: In this study, this term is synonymous with *death experience*. It refers to the number of deaths nurses have been exposed to, in a personal and professional capacity.

1.2.2. *Death attitude*: This term refers to the acceptance or non-acceptance of the mortality of self and others. In this study, acceptance has three styles. These include *approach acceptance* (viewing death as the pathway to a happy afterlife), *escape acceptance* (viewing death as a welcome escape from mortal misery), and *neutral acceptance* (where the reality of death is acknowledged, but neither feared nor welcomed). *Non-acceptance* of death consists of fearing or avoiding death or dying (Wong, Reker & Gesser, 1994).

1.2.3. *Death anxiety*: Although different researchers have differentiated between *death anxiety* and *death fear*, in line with current evidence suggesting that they are indistinguishable constructs (Neimeyer, 1994), they are used synonymously in this study. Death anxiety refers to acute discomfort at an emotional level, in response to issues around death and dying. Here, death anxiety refers to primary existential anxiety about one's own and others' mortality, not anxiety derived from basic instinctual drives, as conceptualized in psychodynamic theory (Barnard, 1995). It is a multidimensional concept, referring to fear of the dying process, of the dead, of being destroyed, of the death of significant others, of the unknown, of conscious death, for the body after death, and of premature death (Neimeyer & Moore, 1994).

1.2.4. *Burnout*: Burnout has succinctly been described as “when the batteries go flat” (Llewellyn & Trent, 1987, p.180). It closely resembles other phenomena in high mortality workers, described as *chronic compounded grief* (Feldstein & Gemma, 1995), and *accumulated loss phenomenon* (McKee, 1995b). This study employs Maslach and Jackson’s (1981) definition of burnout, which consists of a combination of emotional exhaustion, depersonalization and diminished sense of personal accomplishment. *Emotional exhaustion* refers to “compassion fatigue” (Maslach, 1986, p.61) as a result of being emotionally overextended and drained (Patrick, 1987). *Depersonalization* refers to being bored with, unfeeling, insensitive, callous and rude to or withdrawn from others, often those who are meant to be the recipients of care (Bishop, 1994; Llewellyn & Trent, 1987; Maslach, 1986; McCrady & Frankenstein, 1986). *Diminished personal accomplishment* refers to increased feelings of dissatisfaction, inadequacy, incompetence and failure in the work environment (Bennett et al., 1991; Maslach, 1986). Burnout has been acknowledged as a clinical syndrome, rather than merely a magnified form of tiredness (Iacovides, Fountoulakis, Moysidou & Ierodiakonou, 1997).

## 2. THEORETICAL PRINCIPLES

Existentialism, rather than being one unified paradigm, is a collection of related ideas originating from the philosophies of Kierkegaard, Heidegger and Sartre, and the derivative psychological therapies of Frankl, van den Berg, May and Laing (Sue, Sue & Sue, 1994). One of the central philosophical existentialistic assumptions is that the awareness of the possibility of *non-being* (our own and other’s mortality) causes *existential angst* (Sue et al., 1994). This ranges from a sense of disequilibrium and discomfort (Schwartzberg, 1992), to anxiety, fear, and at worst, dread (Farber, 1994). Resolution of *angst* necessitates *being mindfully* rather than *being forgetfully* (Heidegger, in Yalom, 1994). This means living consciously, meaningfully and responsibly and making choices, at an emotional, behavioural, and transcendental level (Farber, 1994; Haberecht & Prior, 1997; Sue et al., 1994). Re-evaluation of existential issues may be characteristically pessimistic, focusing on decay and destruction (Barnard, 1995), or optimistic, focusing on the possibility of growth, transformation and transcendence, even in potentially devastating circumstances (Bennett & Kelaher, 1993). Table 1 articulates some of the specific conflicts and examples of successful and unsuccessful resolution of those conflicts, in terms of existentialist theory.

Research findings demonstrate many of the concepts alluded to in Table 1. Some studies provide evidence of the negative effects of unsuccessful resolution of death anxiety. Representative features include helplessness in AIDS care (Farber, 1994), and palliative nurses experiencing more distress and discomfort in *being*, rather than *doing* (Nebauer et al., 1996). This has consequences such as diminished quality of

Table 1.  
Examples of Existential Conflicts, and their Unsuccessful and Successful Resolutions.

Conflict	Unsuccessful Resolution	Successful Resolution
<i>Being</i> versus the possibility of <i>non-being</i> (Heidegger, in Schwartzberg, 1992).	Avoidance, denial, defensiveness and repression. These can be expressed verbally (through euphemisms), ideologically (overidentification with causes or engaging in cultural conspiracies of silence about death) and spiritually (misinterpreting or unquestioningly following religious dogmas guaranteeing union with a powerful being after life, thus ultimately avoiding contemplating the possibility of finality of death), (Boyle & Carter, 1998; Firestone, 1994; Kastenbaum, 1993; Neimeyer & Van Brunt, 1995).	Conscious reflection, which involves thoroughly and systematically addressing one's own feelings, attitudes, conflicts and anxieties about death and dying in order to live in a meaningful way (Farber, 1994).
<i>Transcendence</i> (Frankl, in Barnard, 1995) versus nothingness or <i>nihilism</i> (Nietzsche and Sartre, in Barnard, 1995).	"Failed death transcendence" (May & Yalom, in Barnard, 1995, p.44), which involves unquestioningly accepting that "God is dead" (Nietzsche, in Barnard, 1995).	Acknowledging the inseparability of vitalizing and devitalizing factors, yet being able to find positive meaning in negative circumstances (Firestone, 1994, p.239).
<i>Responsibility to choose</i> versus technological and sociocultural <i>entrapment</i> (May, in Sue et al., 1994).	Helplessness and immobility (Farber, 1994), due to the inability to take the personal responsibility to stand alone against cultural norms, rituals and institutions (Firestone, 1994).	Action, generativity, and purposefulness (Frankl in Sue et al., 1994; Farber, 1994)
<i>Being-in-the-world</i> (Kierkegaard, in Roux, 1997) versus <i>isolation</i> (Van den Berg, in Sue et al., 1994).	Fear of connectedness due to fear of death and loss, resulting in loneliness, isolation, alienation and estrangement from others (Sue et al., 1994).	Connectedness with the world and with other people and with one's self in a meaningful way (Frankl, in Sue et al., 1994; Jones, 1998).
<i>Being-toward-death</i> while <i>living</i> meaningfully (Heidegger, in Barnard, 1995).	Fearing death means fearing life, and living in fear of change (Heidegger, in Barnard, 1995).	Living life to its fullest capacity, in the knowledge that the unknown is inevitable (Firestone, 1994).

nursing care, particularly in nurses who view failure of medical technology to cure as professional failure (Stjernsward, 1995). Higher intolerance to clinical uncertainty is associated with higher levels of thanatophobia in palliative care professionals (Merrill, Lorimor, Thornby & Woods, 1998). Examples of inferior care have been observed in nurses who were highly conflicted and anxious about nursing dying patients, and who exhibited overt and covert defensive behaviour (Skogstad, 1997), for example, depersonalization and aggressive behaviour (Marquis, 1993), with depersonalization functioning as a coping mechanism (VanYperen, Buunk & Schaufeli, 1992). High levels of death anxiety are associated

with the inability to communicate empathically with dying patients (Servaty, Kreici & Hayslip, 1996; Servaty & Hayslip, 1997). Since patients fear isolation more than death and dying, such procedures serve to exacerbate their despair, fear and loneliness (Roux, 1997).

Other research on caring for the dying attests to the existence of successful resolution of existential conflicts. Relevant examples include overcoming one's fear of mortality (Kübler-Ross, 1971), reorganization and re-evaluation of the meaning of life and death and the connectedness between them (Barbour, 1995a; Hawthorne, 1995; Marquis, 1993; Rasmussen, Sandman & Norberg, 1995, 1997), and developing a true sense of compassion for the needs of others (Rando, 1995). Other examples include developing new insights, heightened appreciation of life, spontaneity, the development of a strong present-tense orientation and the ability to enjoy the immediacy of special moments (Hawthorne, 1995; Rasmussen et al., 1995, 1997; Taylor, Glass, McFarlane & Stirling, 1997), being inspired by courage and cohesiveness in families (Hawthorne, 1995), and being trusted with patients' and families' vulnerabilities (Rasmussen et al., 1995). Finding meaning in difficult work has been found to mitigate against burnout (Cherniss, 1995) and psychopathology (Barnard, 1995). Overall findings confirm that developing a sense of generativity, and being intellectually, clinically and professionally challenged in the context of tragedy ameliorates difficulties and revitalizes professionals (Barbour, 1995a; Farber, 1994; Saunders & Valente, 1994), and that life satisfaction (sense of meaning, purposefulness and fulfillment) successfully mitigates against the terror of death (Yalom, in Farber, 1994).

Existential research has confirmed that the experience of palliative nursing is contradictory in that growing personally and professionally is inseparable from periodic physical and emotional exhaustion, feeling guilty, inadequate and hopeless. Palliative nurses' experiences have been described as *vitalizing* (enjoyable, stimulating, rewarding and exhilarating) and simultaneously, as *devitalizing* (demanding, burdensome, draining and debilitating), (Athlin, Furåker, Jansson & Norberg, 1993; Barbour, 1995a; Hawthorne, 1995; Rasmussen et al., 1995, 1997). Particularly devitalizing factors include violent and horrifying deaths, and mourning too frequently, but vitalizing factors such as meaningfulness of work seems to frequently mitigate against despair (Marquis, 1993; McIntosh, 1995).

Although critics of existentialism question the practical applicability of such philosophical concepts (Sue et al., 1994), Firestone (1994, p.239) eloquently articulates the possibility of linking theory and practice:

By opening us up to genuine feeling about our lives, involvement gives us a sense of personal freedom that makes us more aware of potential losses. Appropriate affect...deepens our sadness about the poignancy of life, death, illness, and aging as well as permitting us to enjoy the excitement and thrill of genuine positive experiences. The inevitability of future loss is a real

problem for human beings, yet when they face this issue without defending themselves, their lives become rich, powerful, and sweet, and they are capable of true intimacy, friendship, and love. Indeed, the choice to invest in a life we must certainly lose leads to tenderness and compassion for ourselves and others.

### 3. LITERATURE FINDINGS

Dealing with death and dying was rated as the strongest stress factor in nursing, secondary only to work overload, internationally (Hipwell, Tyler & Wilson, 1989) and locally (Govender, 1995). There is evidence of physical and psychological morbidity in palliative nurses, including depression, anxiety, substance abuse, chronic fatigue and somatization (Catalan et al., 1996; Eastburg et al., 1994; Garyfallos et al., 1993; Gawronski & Privette, 1997; Heim, 1991; Mahabeer, 1980; Trinkoff, Eaton & Anthony, 1991).

Burnout is a well documented problem, and some of its negative sequelae include higher absenteeism in emotionally exhausted nurses, and higher staff turnover in nurses who are more depersonalized (Firth & Britton, 1989), depression (Bennett et al., 1994; Gawronski & Privette, 1997), ill health (Llewelyn & Trent, 1987; Patrick, 1987) and increased interpersonal conflict and withdrawal (Llewelyn & Trent, 1987; Maslach, 1986; McCrady & Frankenstein, 1986; Patrick, 1987).

Numerous difficulties regarding nursing dying patients have been articulated, for example nurses experience great distress when patients have intractable pain and symptoms which are distressing to witness (Alexander & Ritchie, 1990; Benoliel & Degner, 1995; Copp & Dunn, 1993; Patrick, 1987). Hospice nurses, in particular, have been reported to find the discrepancies between the subtle pressure to facilitate peaceful, *good deaths* and the reality of painful, gruesome, restless and fearful deaths difficult to deal with, and leaving them feeling distressed, guilty and inadequate (Marquis, 1993; Rasmussen et al., 1997; Vachon, 1995). Unfamiliarity with patients' cultural death-related rituals and customs compounds nurses' feelings of incompetence in providing appropriate care (Katz, 1996; MacCormack, 1994; McLennan, Akande & Bates, 1993; Morgan, 1995; Mtalane, 1990; Nyatanga, 1997; Pickett, 1993; Saunders, 1987; Sheldon, 1995).

Despite the growth in thanatological and nursing research, there are inconsistencies and discrepancies about if and how nurses are affected by working with the dying (Neimeyer, 1998). These are elaborated extensively in the literature review articles listed in Table 2, which focus on thanatological issues regarding provision of care to dying patients.

Table 2 indicates literature references with regard to nursing stress in general, high-mortality nursing stress, death exposure, death attitude, death anxiety, burnout, death education and support.

Table 2.

Articles which Review Thanatological Issues in Health Care Professionals.

Concept	Population (author and date)
Stress and coping in nursing (intrapersonal, interpersonal, environmental and demographic factors)	in general nurses (Eastburg et al., 1994; Hillhouse & Adler, 1997) in palliative workers (Vachon, 1995) in South African nurses (Govender, 1995) in ICU nurses (Harris, 1989) in AIDS workers (Barbour, 1994; Horsman & Sheeran, 1995)
Nursing the dying	helplessness in AIDS nurses, linked with existentialism (Farber, 1994) vitalizing and devitalizing factors, in hospice nurses, linked with existentialism (Rasmussen et al., 1995, 1997) challenges and rewards of palliative nursing (Nebauer et al., 1996) grief in nurses (Saunders & Valente, 1994) anticipatory grief in nurses (Evans, 1994; Fulton, Madden & Minichiello, 1996) chronic compounded grief in hospice nurses (Feldstein & Gemma, 1995)
Death exposure	linked to burnout in nurses (Hare & Pratt, 1988; Hare, Pratt & Andrew, 1988) linked to death anxiety in nurses (Hare & Pratt, 1989)
Death attitude	historical and cultural attitudes to death (Morgan, 1995) general population (Kastenbaum, 1993) in palliative care (Carr & Merriman, 1995) in hospice care (Durlak, 1994) nurses' attitudes to AIDS (Horsman & Sheeran, 1995) research considerations in studying death attitude in adults (Neimeyer, 1994)
Death anxiety	in general, linked to existentialism (Tomer, 1994) compares methods and theories, including existentialism, reviews contributory factors (Neimeyer & Van Brunt, 1995) in nurses (Boyle & Carter, 1998) in palliative nurses, linked with existentialism (Boyle & Carter, 1998) in AIDS nurses, linked with death attitude (Sherman, 1996, 1997)
Burnout	in general (Maslach, 1982 & 1986) in caring professions (Cherniss, 1995; Turnipseed, 1998) in hospital nurses (Duquette, et al., 1994; Vlerick, 1996) in ICU nurses (Schaufeli et al., 1995) in palliative workers (Costantini et al., 1997; Vachon, 1995) in hospice nurses (Bennett et al., 1991) in AIDS nurses (Visintini, Campanini, Fossati & Bagnato, 1996) in South African nurses (Govender, 1995)
Support as a mitigating factor	in hospice nurses (Alexander, 1993; Booth, 1995; McKee, 1995a) in palliative nurses (Ellis, 1997)
Education (about death, disease and bereavement) as a preventative factor	in nurses (Boyle & Carter, 1998) for attitude change (Durlak, 1994) in AIDS workers in South Africa (Eagle & Brouard, 1995)

Limitations in the available thanatological, palliative nursing, and existentialist literature include absence of theoretical grounding, lack of theoretical integration, unidimensional instruments used to measure multidimensional concepts, unimaginative and conformative research design not tailored to the needs of the sample, focus on pathological rather than adaptive functioning, and the use of unstandardised instruments with dubious credentials (Barnard, 1995; DePaola et al., 1994; Govender, 1995; Neimeyer, 1998; Neimeyer & Moore, 1994; Neimeyer & Van Brunt, 1995; Tomer, 1994). The paucity in literature investigating positive death attitudes and death competency has also been recognized (Barbour, 1994; Robbins, 1994; Neimeyer, 1994).

Although qualitative existential research has been applauded for richness of description, capturing the subtleties, complexities and idiosyncracies of subjects, and the meaning of their experiences (Athlin et al., 1993; Feldstein & Gemma, 1995; Johnston & Abraham, 1995; Twycross, 1993), it has been criticized primarily on the grounds that the terms employed have not been operationally defined, and are thus difficult to measure quantitatively, therefore findings are difficult to replicate or generalize (Neimeyer, 1998; Vachon, 1995).

Limitations of South African research include restricted samples, for example one particular race or language group (Govender, 1995; Wagenaar, 1990). Much of it is unpublished, and often inaccessible from the universities of origin. In such cases, only titles, and sometimes partial abstracts are available on the *Nexus* database (for example, Booysen, 1994; De Wet, 1994; Fourie, 1988; Kagubare, 1997; Ngcobo, 1997; Raphela, 1997; Van Heerden, 1991).

The general motivation for investigating how South African nurses cope with patient deaths, is to gather information which may be valuable for nurses, patients and their families, and nursing institutions. Benefits for nurses may include prevention of pathology, amelioration of difficulties and promotion of optimal functioning (Alexander & McLeod, 1992; Athlin et al., 1993; Barnard, 1995; Bené & Foxall, 1991; Bennett & Kelaher, 1993; Catalan et al., 1996; Ellis, 1997; Garyfallos et al., 1993; Gawronski & Privette, 1997; Govender, 1995; Rosenthal, Schmid & Black, 1989; Rupolo, de Bertolini, Baldo & Pantano, 1992; Trinkoff et al., 1991). Possible benefits for patients include better delivery of care for the dying (Barnard, 1995; Boyle & Carter, 1998; Ellis, 1997; MacDonald, 1993; Maestri-Banks & Gosney, 1997; Putilo, 1987; Samarel, 1991; Skogstad, 1997), which has positive ramifications for their families (Govender, 1995; Papadatou, 1997; Rando, 1988; Samarel, 1991; Zisook & De Vaul, 1985). This information is potentially beneficial for the economy and efficiency of institutions, particularly concerning selection, ongoing training, provision of support, and reduction of institutional problems such as absenteeism, poor work performance, high turnover and drop-out rates (Barbour, 1995; Costantini et



al., 1997; Firth & Britton, 1989; Neethling, 1987; Parker & Kulik, 1995; Pope, 1996; Turnipseed, 1994; Venter, 1993).

#### 4. RESEARCH AIMS

The aims of this study were to investigate death attitude, death anxiety and burnout in nurses with different profiles regarding exposure to the dying and deaths of patients. The specific purposes were:

1. to provide a *descriptive profile* of the participants and the three subgroups with regard to death exposure, death attitudes, death anxiety and burnout;
2. to investigate whether there are significant *relationships* between death exposure, death attitudes, death anxiety and burnout;
3. to investigate whether there are significant *differences* between the three groups with regard to death exposure, death attitudes, death anxiety and burnout.

#### 5. METHOD OF RESEARCH

##### 5.1. SAMPLING

The participants in this study consist of nursing professionals (registered professional nurses, registered nurses, and nursing assistants), who work in settings with high patient mortality risks, and university nursing students with less than three months' work experience. The nursing professionals work at two non-governmental organizations, whose profiles differ in terms of patients' prognoses and goals regarding dying patients. Those from St. Luke's Hospice and its regional branches, by definition, work exclusively with patients who have no reasonable chance for survival, and whose job focus is on palliation and preparation for death, rather than cure, and where open communication about death and dying is encouraged (Benoliel & Degner, 1995; Bishop, 1994; Copp & Dunn, 1993). Regional Medi-Clinic nursing professionals working in intensive care, emergency or trauma departments, work in a setting where expectation for patient deaths is unpredictable, but usually highly possible, and whose job focus is primarily survival-oriented, rather than palliative, and where expression of feelings about death may not be institutionally sanctioned (Benoliel & Degner, 1995; Bennett et al., 1991). First year nursing students' work focus is academic, and they are unlikely to have been exposed to many patient deaths. Participants have thus been divided into three groups, according to institutional affiliation, as follows:

*Group 1: Hospice nurses:* this group constitutes nursing professionals working at hospices, in a high mortality-exposure, death-certainty, and palliative-focus context.



*Group 2: ICU nurses:* this group constitutes private hospital nursing professionals employed in intensive care units, who work in a moderately high mortality-exposure, death-possibility, curative-focus context.

*Group 3: Nursing students:* this group constitutes first-year university nursing students, who work in a low mortality-exposure, death-unlikely, academic-focus context.

A more detailed description regarding demographic variables are listed in Table 3.

The total sample consisted of 43 (37.72%) hospice nurses, 33 (28.95%) ICU nurses, and 38 (33.33%) nursing students. The vast majority of the participants were female (95.61%), and Christian (96.49%). With regards to ethnicity, most of the participants identified themselves as “white” (80.70%), followed by 13.16% ‘coloured’ and 6.14% “black”. All the black participants came from the hospice group. The predominant home languages spoken were Afrikaans and English (92.11%), with a few mother tongue Xhosa (5.26%), South Sotho (0.88%) and German speakers (1.75%). The ICU nurses and nursing students were predominantly Afrikaans speaking, and the hospice nurses mostly English. The only Xhosa or Sotho speaking respondents were from the hospice group. Of the participants 19.30% were under 20 years old, 35.97% were aged between 20 and 39 years, and 44.73% were older than 40. The hospice nurses appeared to be older than the intensive care nurses, who in turn were older than the nursing students. Most of the participants (67.55%) lived with others, while 17.54% lived alone. None of the student nurses were married, while only some of the hospice nurses had been widowed (5.26%). Approximately half the participants (52.63%) did not have children, and 47.37% had between 1 and 6 children. None of the nursing students had children, while under half (42.42%) of the ICU nurses, but most (93.02%) of the hospice nurses had children.

Most of the participants had either a matriculation certificate (36.84%) or a nursing diploma (41.23%). The ICU nurses tended to have higher levels of formal education than the hospice nurses, who were more educated than the nursing students. Two thirds of the participants were professionally employed, and most of them (84.21%) were registered professional nurses, while a few (9.21%) were registered nurses, and 6.58% were nursing assistants, who all worked at hospices. The nursing students all had less than a year’s nursing experience, while the rest of the sample had between 2 and 15 years (35.08%), or above 16 years (31.58%) of experience. The data suggests that the hospice nurses had more years of experience than the ICU nurses. Approximately half the participants (54.39%) had never worked in a high mortality context before their current placement, while the rest had worked in a variety of high mortality settings, including hospice, intensive care, oncology, trauma, emergency, and geriatric care.

Table 3.  
Demographic Profile of Participants

Characteristic	Category	n	%	Hospice	ICU	Student
Gender	Female	109	95.61	42	32	35
	Male	5	4.39	1	1	3
Religion	Christian	110	96.49	40	32	38
	Muslim	1	0.88	1	0	0
	Undefined	2	1.75	1	1	0
	None	1	0.88	1	0	0
Ethnicity	Black	7	6.14	7	0	0
	Coloured	15	13.16	4	7	4
	White	92	80.70	32	26	34
Language	Afrikaans	57	50.00	7	22	28
	Afrikaans and English	12	10.53	6	1	5
	English	36	31.58	23	9	4
	German	2	1.75	0	1	1
	South Sotho	1	0.88	1	0	0
	Xhosa	6	5.26	6	0	0
Age (in years)	below 20	22	19.30	0	0	22
	20 – 39	41	35.97	5	20	16
	40 and above	51	44.73	38	13	0
Cohabitation status	Married, cohabiting	40	35.09	25	15	0
	Unmarried, cohabiting	37	32.46	2	9	26
	Living alone	20	17.54	1	7	12
	Divorced or separated	11	9.65	9	2	0
	Widowed	6	5.26	6	0	0
Children	None	60	52.63	3	19	38
	1 – 3	44	38.60	31	13	0
	4 – 6	10	8.77	9	1	0
Highest qualifications	Below matric	5	4.39	5	0	0
	Matric	42	36.84	2	2	38
	Nursing Diploma	47	41.23	30	17	0
	Nursing Degree	20	17.54	6	14	0
Professional status	Reg. professional nurse	64	56.14	33	31	0
	Registered nurse	7	6.14	5	2	0
	Nursing assistant	5	4.39	5	0	0
	Nursing student	38	33.33	0	0	38
Nursing experience	Below 1 year	38	33.33	0	0	38
	2 – 15 years	40	35.08	20	20	0
	16 and above	36	31.58	23	13	0
Previous work context	Non-high mortality	62	54.39	17	23	22
	High mortality	52	45.61	26	10	16

## 5.2 MEASURING INSTRUMENTS

Demographic factors were measured by a questionnaire devised by the researcher for the purposes of this study, whereas attitude to death, death anxiety and burnout were measured using pre-existing and tested self-report inventories, namely the Death Attitude Profile (Wong et al., 1994), the Multidimensional Fear of Death Scale (Hoelter, 1979, in Neimeyer & Moore, 1994), and the Maslach Burnout Inventory (Maslach & Jackson, 1981).

**5.2.1. Demographic Questionnaire:** This questionnaire was designed to provide a demographic profile of the sample, and included the following information: age, gender, home language, cohabitation status, children, ethnicity, religion, qualifications, experience, and exposure to death. Professional death exposure was quantified by the ratio between years of nursing experience and number of patient deaths. Private exposure refers specifically to having experienced the deaths of significant others.

**5.2.2. Death Attitude Profile-Revised (DAP):** This instrument was specifically designed, tested, and approved for its use as a quantitative tool for measuring death attitudes, specifically within an Existentialist paradigmatic perspective (Wong et al., 1994). It measures acceptance and non-acceptance of death. Death acceptance is subcategorized into escape acceptance, neutral acceptance and approach acceptance. Non-acceptance is subcategorized into death fear and death avoidance. The instrument consists of 32 items, which are measured on a 7-point Likert scale ranging from *Strongly Agree* to *Strongly Disagree*. Items are interspersed between the five dimensions, and in this study, each dimensional score was computed by summing the item scores for each subscale. Adequate convergent-discriminant validity and reliability have been reported for the DAP. Cronbach's Alpha coefficients and Pearson's coefficients, which indicate adequate levels of internal consistency and test-retest reliability, respectively, are reported in Table 4. This instrument was selected for its investigation of attitudes to death that extend beyond death anxiety, and for its noteworthy credentials (Wong et al., 1994), which are tabulated in Table 4.

**5.2.3. Multidimensional Fear of Death Scale (MFODS):** This instrument, designed by Hoelter in 1979 (Neimeyer & Moore, 1994) is a multidimensional tool used to measure death anxiety with regard to the dying process and death of self and others. It has been subcategorized into eight factors, namely fear of the dying process, the dead, being destroyed, for significant others, of the unknown, of conscious death, for the body after death, and of premature death. It consists of 42 items, measured on a 5-point Likert scale, ranging from *Strongly Agree* to *Strongly Disagree*. Each factor is scored independently, with lower scores indicating higher levels of death anxiety. In order to mitigate against response sets, items 3, 9, 14, 25 and 28 are reverse scored, and the items in various subscales have been interspersed, in accordance

with the format used by Neimeyer and Moore (1994), instead of Hoelter's (1979) original format. The MFODS has been selected in preference to its shorter, therefore more easily applicable alternatives (the Templar-McCordie Death Anxiety Scale and the Collett-Lester Fear of Death Scale). Adequate convergent-discriminant validity and reliability have been reported for the MFODS. Cronbach's Alpha coefficients and Pearson's coefficients, which indicate adequate levels of internal consistency and test-retest reliability, respectively, are reported in Table 4. Reasons for selecting the MFODS include the validation of a Nigerian translation (Okafor & Reuben, 1995), and its sound credentials (De Paola et al., 1994; Neimeyer & Moore, 1994; Neimeyer & Van Brunt, 1995), which are shown in Table 4.

**5.2.4. Maslach's Burnout Inventory (MBI):** This frequency version of this inventory (Maslach & Jackson, 1981) measures burnout according to three dimensions: emotional exhaustion, depersonalization, and decreased personal accomplishment. It consists of 22 items, measured on a 7-point Likert scale, ranging in frequency of symptoms from *Never* to *Every Day*. Item 4, namely "I can easily understand how my patients feel about things" was omitted from the computations, because numerous comments were made by the respondents concerning its ambiguity. In this study, personal accomplishment was reverse scored, as diminished personal accomplishment, for interpretative ease. Consequently, high burnout levels are indicated by high scores of all three subscales. The MBI was selected because of its extensive use and wide accreditation (Bennett, Michie & Kippax, 1991; Eastburg et al., 1994; Leiter & Schaufeli, 1996). Statistics regarding its reliability are listed in Table 4 (Maslach & Jackson, 1986). The MBI has been validated in South Africa (Govender, 1995), and Italian (Pedrabissi & Santinello, 1988), Dutch (Keijsers et al., 1995) and Afrikaans translations (Wagenaar, 1990) are available.

Table 4.  
Reliability Coefficients for the DAP, MFODS and MBI

Death Attitude Profile	DAP1	DAP2	DAP3	DAP4	DAP5
Cronbach's coefficient Alpha	.86	.88	.65	.97	.84
Pearson's coefficients (Wong et al., 1994)	.71	.61	.64	.95	.83

  

Multidimensional Fear of Death Scale	MFODS 1	MFODS 2	MFODS 3	MFODS 4	MFODS 5	MFODS 6	MFODS 7	MFODS 8
Cronbach's coefficient Alpha	.80	.72	.81	.76	.73	.65	.82	.72
Pearson's coefficients (Neimeyer & Moore, 1994)	.77	.77	.71	.61	.72	.77	.81	.73

  

Maslach's Burnout Inventory	MBI1	MBI2	MBI3
Cronbach's coefficient Alpha	.90	.79	.71
Pearson's coefficients (Maslach, 1986)	.82	.79	.80

### 5.3. PROCEDURE

The researcher discussed the rationale for, feasibility of and practical and ethical issues in connection with the proposed study with the personnel in charge of nursing services for the three subgroups. These personnel offered to distribute and collect questionnaires to their staff. Agreements were made that all eligible participants were invited to participate, and that participation was entirely voluntary. Participants were not coerced to take part in the study, and were able to take their questionnaires home for completion at their convenience. Participants were not required to supply their names, and were supplied with envelopes within which to seal their completed questionnaires, in order to assure anonymity. Questionnaires were collected, or mailed to the researcher approximately five weeks after distribution. Agreements were made to make the results available to the institutions, in the hope that the information yielded may contribute towards the design and implementation of effective death education and support programmes, if deemed necessary. A demographic questionnaire was designed, and the three other questionnaires were selected, translated into Afrikaans and Xhosa, to facilitate and encourage participation by participants who do not have English as their first language. The translations were executed, re-translated into English, and proofread by independent linguistic experts. A research psychologist was consulted with regard to the research design, and the research proposal was submitted to the Psychology department for commentary and approval.

### 5.4. STATISTICAL TECHNIQUES

Statistical analyses was performed using the computer package *Statistica*. In accordance with the research aims, the following procedures were followed:

1. *Descriptive statistics* (frequencies, percentages, means, standard deviations, ranges) were calculated to provide a profile of the sample with regard to demographic characteristics, as well as death exposure, death attitude, death anxiety and burnout.
2. An *intercorrelation matrix* was created to establish whether there were significant relationships between death exposure, death attitude, death anxiety, and burnout.
3. *Multiple analyses of variance* (MANOVA's) were performed to establish whether there were differences between the three groups with regard to the variables death exposure, death attitude, death anxiety, and burnout. Where differences between the means were found, *Scheffe tests* were applied to establish the location and extent of the differences.

## 6. RESULTS

*6.1. Descriptive statistics:* Out of the 150 questionnaires, which were distributed equally between the groups, 122 questionnaires were returned, indicating a response rate of 81%. Incomplete questionnaires (n=8) were excluded, which left 114 questionnaires accessible for statistical analysis. Descriptive statistics for death exposure, death attitude, death anxiety and burnout are tabulated in Table 5, 6, 7 and 8 respectively.

Table 5.  
Descriptive Statistics for Death Exposure

Variable	Category	Valid N	n	%
Private death exposure				
	0	114	20	17.54
	1	114	31	27.19
	2	114	24	21.05
	3	114	16	14.04
	4	114	10	8.77
	5	114	6	5.26
	6	114	2	1.75
	7	114	3	2.63
	8	114	2	1.75
Professional death exposure				
	none	114	14	12.28
	1 – 5	114	21	18.42
	6 – 10	114	6	5.26
	11 – 20	114	5	4.39
	21 – 50	114	17	14.91
	above 50	114	51	44.74

Table 5 shows that only 17.54% of the participants had not experienced the death of a close friend or family member, while the number of deaths ranged from 0 to 8. Only 12.28% of the participants (who were all student nurses) had not been exposed to professional deaths, while 44.74% had experienced over 50 patient deaths at work.

*6.2 Correlations:* The relationships between death attitude, death anxiety and burnout were subjected to further statistical manipulation, and are discussed. Intercorrelations were calculated in order to investigate possible relationships between death exposure, death attitude, death anxiety and burnout. The correlation matrix is presented in Table 9.

Table 6.  
Descriptive Statistics for Death Attitude

Variable	Valid N	Mean	Min	Max	SD
DAP: Death attitude					
DAP1: Death fear	114	24.04	8.00	47.00	9.10
DAP2: Death avoidance	114	13.25	5.00	34.00	6.90
DAP3: Neutral acceptance	114	29.14	13.00	35.00	3.82
DAP4: Approach acceptance	114	57.74	21.00	70.00	9.54
DAP5: Escape acceptance	114	22.82	8.00	35.00	6.47

Table 7.  
Descriptive Statistics for Death Anxiety

Variable	Valid N	Mean	Min	Max	SD
MFODS1:					
Fear of the dying process	114	12.06	6.00	24.00	4.61
MFODS2: Fear of the dead	114	20.35	7.00	29.00	4.42
MFODS3: Fear of being destroyed	114	11.35	4.00	20.00	4.70
MFODS4: Fear for significant others	114	12.21	6.00	27.00	4.36
MFODS5: Fear of the unknown	114	16.45	5.00	25.00	3.68
MFODS6: Fear of conscious death	114	14.89	5.00	25.00	5.43
MFODS7: Fear for the body after death	114	22.79	6.00	30.00	5.08
MFODS8: Fear of premature death	114	10.65	4.00	20.00	3.77
MFODS9: Death fear total	114	120.66	76.00	170.00	0.95

Table 8.  
Descriptive Statistics for Burnout

Variable	Valid N	Mean	Min	Max	SD
MBI1: Emotional exhaustion	114	14.86	1.00	34.00	7.67
MBI2: Depersonalization	114	4.35	0.00	25.00	5.17
MBI3: Diminished personal accomplishment	114	10.78	0.00	30.00	6.19
MBI4: Burnout total	114	30.00	3.00	69.00	14.90



Table 9.  
Correlation Matrix for Death Exposure, Death Attitude, Death Anxiety and Burnout.

Variable	PRIV EXP	PROF EXP	DAP 1	DAP 2	DAP 3	DAP 4	DAP 5	MFODS 1	MFODS 2	MFODS 3
PROFEXP	.15									
DAP1	-.17	-.06								
DAP2	-.24*	-.20*	.45*							
DAP3	-.07	.07	.11	.09						
DAP4	-.09	-.26*	-.14	.17	.06					
DAP5	.12	-.04	.23*	.23*	.19*	.37*				
MFODS1	.00	.10	-.53*	-.32*	-.08	-.13	-.16			
MFODS2	.26*	.34*	-.31*	-.32*	-.08	-.11	-.01	.30*		
MFODS3	.19*	.27*	-.30*	-.15	.04	-.12	-.21*	.25*	.24*	
MFODS4	-.03	.43*	-.30*	-.11	-.05	-.05	-.04	.26*	.23*	.20*
MFODS5	-.03	-.13	-.39*	-.15	-.13	.22*	-.16	.18	-.01	.07
MFODS6	.12	.53*	-.38*	-.21*	-.08	-.32*	-.25*	.29*	.21*	.37*
MFODS7	.08	.07	-.48*	-.35*	-.06	.03	-.15	.27*	.40*	.30*
MFODS8	.01	.10	-.53*	-.26*	.06	.05	-.13	.41*	.19*	.12
MFODS9	.14	.39*	-.69*	-.41*	-.08	-.11	-.24*	.64*	.56*	.57*
MBI1	-.00	-.32*	.22*	.07	-.00	-.30*	-.17	-.03	-.13	-.16
MBI2	-.10	-.31*	.06	.13	-.09	-.05	-.09	-.07	-.08	-.02
MBI3	-.17	-.16	.08	.11	.02	-.01	-.11	.11	-.03	-.13
MBI4	-.11	-.34*	.17	.13	-.03	-.18	-.16	.01	-.11	-.15
Variable	MFODS 4	MFODS 5	MFODS 6	MFODS 7	MFODS 8	MFODS 9	MBI 1	MBI 2	MBI 3	
MFODS5	-.04									
MFODS6	.25*	.20*								
MFODS7	.07	.41*	.39*							
MFODS8	.25*	.14	.29*	.34*						
MFODS9	.48*	.40*	.68*	.70*	.57*					
MBI1	-.27*	-.08	-.19*	-.06	-.11	-.22*				
MBI2	-.16	-.05	-.13	.01	-.06	-.12	.36*			
MBI3	-.09	-.01	-.06	.02	.05	-.04	.50*	.34*		
MBI4	-.23*	-.07	.17	-.02	-.05	-.17	.85*	.68*	.79*	

Marked correlations\* are significant at  $p < 0.05$

Table 9 shows that the global and subscales of the MFODS and the MBI are, understandably, significantly positively correlated. It also shows that numerous aspects of the death exposure, death attitude, death fear and burnout are related. Private death exposure (PRIVEXP) is negatively correlated with death avoidance (DAP2), indicating that as deaths of close family members and friends increase, avoidance of death decreases. Private death exposure is positively associated with two of the death anxiety subscales, indicating that as incidences of private deaths increase, fear of the dead (MFODS2) and fear of being destroyed (MFODS3) decrease. Professional death exposure (PROFEXP) is negatively correlated with death avoidance (DAP2) and approach acceptance (DAP4), indicating that as the number

of patient deaths increases, the tendency to avoid death, or to approach it with blind enthusiasm, decreases. Professional death exposure is positively associated with five of the death anxiety subscales, namely fear of the dead (MFODS2), fear of being destroyed (MFODS3), fear of the death of significant others (MFODS4), fear of conscious death (MFODS6), and death fear in general (MFODS9). This indicates that as patient deaths increase, many aspects of death fear decrease. Exposure to patients' deaths is also negatively associated with emotional exhaustion (MBI1), depersonalization (MBI2) and to burnout in general (MBI4), indicating that as professional death exposure increases, experiences of emotional exhaustion, depersonalization and burnout diminish.

Death fear (DAP1) as measured by the DAP, is positively correlated with death avoidance (DAP2; Table 9). It is negatively associated with all of the MFODS subscales, indicating that the different measures of death fear are closely related. Death fear is positively correlated with emotional exhaustion (MBI1), indicating that increased fear is associated with an increase in emotional exhaustion. Death avoidance (DAP2) is negatively associated to all of the MFODS subscales, except fear of being destroyed (MFODS3), fear for significant others (MFODS4) and fear of the unknown (MFODS5), indicating that greater avoidance of death is related to greater fear of death. Approach acceptance (DAP4) is positively associated with fear of the unknown (MFODS5; Table 9) and negatively associated with fear of conscious death (MFODS6) and with emotional exhaustion (MBI1). This indicates that the more realistically death is approached, both the fear of the unknown and the experience of emotional exhaustion decrease, but the fear of dying while conscious increases. Escape acceptance (DAP5) is positively correlated with the other four DAP subscales. It is negatively related to fear of being destroyed (MFODS3), fear of conscious death (MFODS6) and the death fear in general (MFODS9), indicating that accepting death in an escapist manner increases the fear of death (Table 9).

With the exception of fear of the unknown (MFODS5), the death fear subscales are significantly correlated with each other. There are numerous negative correlations between death fear and burnout. Fear for the death of significant others (MFODS4), fear of conscious death (MFODS6) and death fear in general (MFODS9) are negatively associated with emotional exhaustion (MBI1), and fear for the death of significant others is also negatively associated with and burnout in general (MBI4). These associations indicate that increased death fear is related to increased symptoms of burnout, particularly emotional exhaustion.

*6.3. Differences between the three groups:* A series of multiple analyses of variance was undertaken in order to establish whether there were significant differences between the means of the three groups with regard to death exposure, death attitude, death fear and burnout. Although it would have been possible to

include death exposure variables, all death attitude, death fear and burnout subscales in one large MANOVA, it was decided to perform four separate analyses. This was done for interpretative simplicity, and because the sample size was considered to be too small to conduct a meaningful multiple analysis. Table 10 indicates the group means, and whether significant differences were found between them.

Table 10.  
Group Differences in Death Exposure, Death Attitude, Death Anxiety and Burnout

Variable	Hospice Mean	ICU Mean	Student Mean	Wilks lambda	df	p-value
Death exposure				.13	4,22	.00*
PRIVEXP: Private death exposure	2.56	2.09	1.76			
PROFEXP: Professional death exposure	5.72	5.27	1.71			
DAP: Death attitude				.87	10,21	.13
DAP1: Death fear	23.91	24.56	23.74			
DAP2: Death avoidance	12.12	13.59	14.26			
DAP3: Neutral acceptance	29.53	28.72	29.00			
DAP4: Approach acceptance	55.28	56.69	61.34			
DAP5: Escape acceptance	23.55	22.50	22.63			
MFODS: Death fear				.49	16,21	.00*
MFODS1: Fear of the dying process	12.86	10.97	11.84			
MFODS2: Fear of the dead	21.42	20.84	18.76			
MFODS3: Fear of being destroyed	11.79	12.34	10.03			
MFODS4: Fear for significant others	13.84	13.00	9.66			
MFODS5: Fear of the unknown	16.44	15.47	17.24			
MFODS6: Fear of conscious death	16.84	16.53	11.05			
MFODS7: Fear for the body after death	22.53	22.84	22.84			
MFODS8: Fear of premature death	10.63	10.84	10.34			
MBI: Burnout				.75	6,22	.00*
MBI1: Emotional exhaustion	12.49	14.88	17.63			
MBI2: Depersonalization	1.26	6.56	6.11			
MBI3: Diminished personal accomplishment	9.05	11.84	11.92			

Table 10 shows that there were significant differences between the three groups with regards to death exposure, death anxiety and burnout.

*Death exposure:* Professional death exposure was treated as a continuous variable, with six levels (levels 1 to 6 indicating 0, 1-5, 6-10, 11-20, 21-50, and above 50 patient deaths respectively). A MANOVA showed that there was a significant difference (Wilks lambda = .13, df=4.22, p=.00) between the three groups with regard to private and professional death exposure. Scheffe's (post hoc) test was undertaken to

assess where the differences lay, and indicated that the 3 groups do not differ significantly on private exposure ( $P > .05$  for all combinations), but only with regard to professional exposure. On this variable all three groups differ from each other, with hospice nurses having higher professional exposure to death than ICU nurses ( $p = .03$ ) and nursing students ( $p = .00$ ), and ICU nurses have been exposed to more patient deaths than nursing students ( $p = .00$ ).

*Death attitude:* A MANOVA revealed that there were no significant differences between the 3 groups with regard to the 5 death attitude profiles (Wilks lambda = .87,  $df = 10.21$ ,  $p = .13$ ).

*Death anxiety:* The death anxiety total subscale (MFODS9) was excluded from the analysis because it merely represents the sum of the separate scale items. In this MANOVA, the groups were found to differ significantly regarding death anxiety (Wilks lambda = .49,  $df = 16.21$ ,  $p = .00$ ). Scheffe's test showed significant differences in three subscales between hospice nurses and nursing students, and between ICU nurses and nursing students, but not between hospice and ICU nurses. Hospice nurses had higher scores on MFODS2, MFODS4 and MFODS6, indicating significantly lower fear of the dead ( $p = .03$ ), lower fear for significant others ( $p = .00$ ) and lower fear of conscious death ( $p = .00$ ) than nursing students. ICU nurses had higher scores than nursing students on MFODS4 and MFODS6, indicating that they were significantly less fearful for the death of significant others ( $p = .03$ ) and less fearful about conscious death ( $p = .00$ ).

*Burnout:* The burnout total subscale (MBI4) was excluded from the analysis because it simply constitutes the sum of the separate scale items. A MANOVA determined that there were significant differences between the three groups with regard to the three burnout scales (Wilks lambda = .75,  $df = 6.22$ ,  $p = .00$ ). Scheffe's test showed that the three groups only differ with regard to emotional exhaustion and depersonalization, but not with regard to diminished personal accomplishment. Nursing students exhibit higher levels of emotional exhaustion (MBI1) than hospice nurses ( $p = .01$ ). Hospice nurses exhibit lower depersonalization scores than both ICU nurses ( $p = .00$ ) and nursing students ( $p = .00$ ).

## 7. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The aims of this study were to investigate the relationships between death-related variables, and the possibility of group differences with regard to these variables. The results showed that in this sample, death exposure, death attitude, death anxiety and burnout were significantly interrelated on some levels. Private and professional death exposure were both found to be related to reduced death avoidance.

Professional death exposure was associated with reduced approach acceptance, which implies that the unquestioning assumption that there is some form of life after death is challenged, but also that nursing dying patients precipitates evaluation of mortality and the ambiguities surrounding it. This research confirms other findings attesting to the tendency for death exposure to be associated with improved death attitude (Alexander & Ritchie, 1990; Berkowitz & Nuttall, 1996; DePaola et al., 1994; Hare & Pratt, 1989). Private death exposure was found to be associated with reduced fear of the dead, and of being destroyed, and professional death exposure was related to reduced death anxiety at numerous levels. This contradicts some research findings (De Paola et al., 1994), but confirms others which link exposure with reduced death anxiety (Brockopp et al., 1991; Firth-Cozens & Field, 1991).

In contrast to the findings that death anxiety and death attitude seem unrelated (Okafor & Reuben, 1995), this research showed that the two variables are significantly related. Non-acceptance of death, in the form of death avoidance was found to be associated with an increase of death anxiety. More accepting approaches to death were associated with death anxiety in different ways. Approach acceptance was related to decreased fear of the unknown, but also to increased fear of conscious death, while escape acceptance was associated with increased multidimensional death anxiety. This illustrates that oversimplified conceptualization of death anxiety and death acceptance as polar opposites, is problematic (Wong, et al., 1994). These findings do, however, seem to support the existentialist assumption that being *mindful* of death (in other words, consciously assimilating the consequences of personal mortality, both cognitively and emotionally), rather than being *forgetful* (escaping or avoiding such contemplation) constitutes a more successful resolution of existential conflict, and mitigates against excessive death anxiety (Farber, 1994; Firestone, 1994; Haberecht & Prior, 1997; Heidegger, in Yalom, 1994).

Frequency of burnout was found to be related to death exposure, death attitude and death anxiety. Increased death exposure was also found to reduce burnout experiences of emotional exhaustion and depersonalization, which confirms other findings (Bianchi et al., 1997). Approach acceptance was associated with reduced emotional exhaustion, which confirms the positive relationship between death anxiety and emotional exhaustion cited by others (Bené & Foxall, 1991; Wagenaar, 1990). These findings give credence to the possibility that death exposure, in combination with death attitudes which embrace more successful resolution of existential anxiety, have the potential to protect nurses from succumbing to the ravages of working in contexts where death is a constant reality (Barbour, 1995a; Bennett & Kelaher, 1993; Neimeyer & Moore, 1994; Rasmussen et al., 1995, 1997).

The comparison between the three groups demonstrated that they do not differ significantly with regard to private death exposure or death attitude, but significant differences were found with regard to professional death exposure, death anxiety and burnout.

The hospice nurses had experienced the most patient deaths, followed by the ICU nurses, and then the nursing students. It stands to reason that this can be partially attributed to the tendency for hospice nurses to be older and more experienced than ICU nurses, who were in turn older and more experienced than the nursing students. The difference between the two professional groups can also be partially explained by the working contexts, where hospice nurses nurse patients who rarely survive, but patients nursed in ICU wards have differing prognoses, and while some patients die, others have more realistic chances of survival and cure.

Hospice nurses were significantly less fearful of the dead than nursing students. This supports the findings that specify that continuous and long term death exposure is less anxiety-provoking than short term or intermittent exposure (Brockopp et al., 1991), and that there is no difference between death anxiety in hospice and ICU hospital nurses (Bené & Foxall, 1991; Carr & Merriman, 1995). Both professional groups had significantly lower levels of fear for the death of significant others and fear of conscious death. This confirms findings that younger participants experience more death anxiety, as measured by the MFODS (Neimeyer & Moore, 1994). This study did not encompass a detailed investigation of age as a dependent variable, so it is not possible to verify or contradict the curvilinear trends concerning age and death anxiety, which show that the young (18-26 years) have high death anxiety, the middle aged (35-50 years) are most anxious, and the elderly (above 60 years) are least anxious (Wong et al., 1994). The results of this study do, however, add to the body of evidence that shows that death anxiety decreases with age (Boyle & Carter, 1998; Costantini et al., 1997; DePaola et al., 1994; Gow & Williams, 1977; Mahabeer, 1980; Rasmussen & Brems, 1996). This attests to the possibility that age provides more opportunities, not only for death exposure, but also for the development of maturity and self actualization, both of which have been found to mitigate against existential anxiety (Frankl, in Wong et al., 1994).

Despite having experienced the most patient deaths, hospice nurses were significantly less emotionally exhausted than nursing students. They were also found to experience less depersonalization than ICU nurses as well as nursing students. This contradicts indications that there is no difference in burnout between ward types (De Marcato et al., 1995; Duquette et al., 1994; Hillhouse & Adler, 1997). It also contradicts research findings citing that hospice nurses suffer from higher levels of emotional exhaustion than ICU nurses (Hare & Pratt, 1989), and that the frequency of burnout increases with age (Harris, 1989;

Maslach & Jackson, 1981; Bennett et al., 1991; Duquette et al., 1994). The findings of the current research concur with those indicating that ICU nurses have higher burnout rates than hospice nurses (Mallett, Price, Jurs & Slenker, 1991). The fact that no significant differences were found between ICU nurses and students decrease the likelihood that exposure alone accounts for differences in burnout rates. Interestingly, none of the students were married or had children and less than half of the ICU nurses had children, but most of the hospice nurses did have children. This corresponds with studies which have shown that single, childless nurses experience their work as more stressful (Ngwezi, 1997) and suffer more frequently from burnout (Maslach & Jackson, 1981; Maslach, 1982; Govender, 1995) than those who are married or have children. This lends tentative support to the philosophy that connectedness with other people in meaningful way helps to resolve existential anxiety (Frankl, in Sue et al., 1994; Jones, 1998).

This research demonstrated certain limitations. There were many variables which, while not specifically investigated, could be important to consider in attempting to explain the reasons for group differences. Some of these include age, language, cohabitation status, nursing qualification, professional status, years of nursing experience, type of previous nursing experience, duration in current work setting, quality of death education and environmental support. Recommendations include further research with a larger sample (closer to n=180) in order to assess whether there are interaction effects between death exposure, death attitude, death anxiety and burnout, which could be useful in interpreting differences between the groups. Repeat studies may also be useful, because longitudinal design, as opposed to cross-sectional design, has been recommended as a more appropriate mechanism for investigating burnout (Bennett et al., 1994) and death anxiety (Neimeyer, 1994, 1998). Further research investigating the connections between attitudes and practices is recommended in order to ascertain whether nurses' perceptions and experiences have direct effects on their behaviour and the quality of care provided to patients (Barbour, 1994). The sample included very few black participants, who all came from the hospice group, indicating the need for further studies aimed at investigating the experiences of black South African nurses (Govender, 1995; Mtalane, 1990; Ngwezi, 1997; Wagenaar, 1990).

The research findings suggest that attention should be paid to preparing student nurses for dealing with the devitalizing aspects of nursing the dying. Ascertaining how best to prepare them adequately is a difficult task, in the light of the confusion that exists in the literature about the need for and the value of death education (Boyle & Carter, 1998; Combs, 1981; Daley & Lennard, 1991; Durlak, 1994; Herring, Wilson-Barnett & Ball, 1995; Kastenbaum & Schmitz-Scherzer, 1987; Lev, 1986; MacDonald, 1993; Rapin & Weber, 1991; Samaroo, 1996). Some research findings report positive results, for example, reduced death anxiety and reduced avoidance behaviours towards dying patients (Lev, 1986). Others have

observed iatrogenic effects, in that participants' death concerns have been intensified rather than reduced (Knight & Eifenbein, 1993), particularly when didactic, rather than experiential techniques were used (Maglio & Robinson, 1994). Others have concluded that death education has no significant impact (Coleman, 1993; Hayslip, Galt & Pinder, 1994; Keith, 1997; Peace & Vincent, 1988). Knight and Eifenbein (1993) found that thanatology education resulted in higher death anxiety in some participants, and lower death anxiety in others, particularly those who reported that death had more meaning. Research on death anxiety in nurses has demonstrated that didactic methods are the least successful in decreasing death anxiety, compared to experiential exercises involving role playing and visualization techniques (Boyle & Carter, 1998; Durlak, 1994; Vargo & Batsel, 1984) and desensitization and relaxation techniques (White, Gilner, Handel & Napol, 1984). Experiential death education involving vicarious exposure or simulated situations, with opportunities to "practice" responses, are regarded as most effective in improving death attitudes (Klonoff & Ewers, 1990), reducing death anxiety (Spall & Johnson, 1997) and burnout (Bond, Rhodes, Philips, Foy & Bond, 1991), and methods utilizing patient's narratives of their experiences have found to be more meaningful in terms of changed practices (Marshall & O'Keefe, 1995). In the light of the literature findings, and the assumptions gleaned from the results of this study, it seems that death education programmes which simulate exposure to patient deaths, in combination with institutional supportive procedures which allow nursing students to express, examine, and assimilate their ideas and feelings about death, are likely to be most effective.

In order to provide the appropriate form of support to nurses who work with the dying, it is necessary to focus on death competency, and to investigate which factors they regard as vitalizing and devitalizing (Athlin et al., 1993; Barbour, 1995a; Hawthorne, 1995; Rasmussen et al., 1995, 1997). Although further research is necessary to ascertain these details in this population, the findings of this study seem to suggest tentative support for the qualitative findings regarding the quest to successfully resolve existential anxiety in order to protect the psychological well-being of high-mortality nurses and the recipients of their care, and to maximize institutional efficiency and economy. In sum, the qualities which have been reported to safeguard and revitalize such nurses represent the basic tenets of existentialist philosophies. These include, for example, optimism, focusing on growth, transformation and transcendence, finding meaning, and generating a sense of purposefulness and connectedness with others, which is partially contingent on the willingness to scrutinize and assimilate one's own existential conflicts and anxieties (Athlin et al., 1993; Barnard, 1995; Bennett & Kelaher, 1993; Farber, 1994; Firestone, 1994; Saunders & Valente, 1994; Rasmussen et al., 1995, 1997).



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