The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District

B Hlongwane

11965797

Dissertation submitted in partial fulfilment of the requirements for the degree ***Magister Curationis*** in ***Nursing*** at the North-West University (Potchefstroom Campus)

Supervisor: **Dr SK Coetzee**

Co-Supervisor: **Mrs A Blignaut**

November 2015

It all starts here ™

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

ACKNOWLEDGEMENTS

‘All Glory be to God’ for providing me with the courage, wisdom and guidance to complete my studies. If it was not for His Grace, I would not be where I am today. Great is Thy faithfulness.

Completion of this study would not be possible without the support of loving family, friends and colleagues.

- My supervisor, Prof Siedine Coetzee; you are such an amazing person. Your words of encouragement, the love and never-ending support helped me to reach my dreams. Above all you taught me unspoken lessons. May you be blessed with all the desires of your heart.
- My co-supervisor, Alwiena Blignaut; thank you for the support and patience. May God bless you and help you reach your dreams.
- My colleagues, especially, the GNS Team, for the input, support and encouragement you gave me throughout my studies and during difficult times.
- To the Chief Executive Officers and Managers and participants of the relevant hospitals, I express special gratitude and appreciation for their support.
- Prof. Suria Ellis for assistance in statistical analysis of the research data.
- Dr. Gregory Graham-Smith for language editing.
- Prof Casper Lessing for editing my bibliography.
- Mrs. Susan Van Biljon for the technical editing of my work.
- I would like to express my gratitude and sincere appreciation to my husband, Siphiwe, for your unwavering love, support and encouragement. You have been my rock through this long journey. I love you and may God bless you.

- Thanks to my children, Phumelela, Anelisa and Sibonguthando for your love and support.

- Thanks to my sister, Ntombifuthi Sokhulu and my sister-in-law, Jabu Dlamini, for assisting me with data collection. May God bless you.

- To my family; your love, support and encouragement gave me strength to come this far. Your contribution is appreciated. I love you.

- The author acknowledges the survey instruments, the Nursing stress tool, from Prof Pamela Gray-Toft and James G. Anderson, and the Emotional work tool from Prof. Dieter Zapf.

- The financial assistance of the National Research Fund (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions drawn are those of the author and are not necessarily to be attributed to the NRF.

ABSTRACT

Aim: To describe the relationship between compassion fatigue, emotional work and job stress among nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal, South Africa.

Background: It is evident that compassion fatigue, emotional work and job stress have an impact on the well-being of nurses. However, the influence of emotional work and job stress on the development of compassion fatigue has not been explored.

Method: The study employed a non-experimental, cross-sectional survey design for data collection. All inclusive sampling was applied to the medical and surgical wards (N=44) of the three selected provincial hospitals and all the nurses (N=360; n = 331) working in the selected wards.

Results: Nurses had moderate levels of compassion fatigue, emotional work and job stress. Display of negative and neutral emotions and interaction control were positively correlated with compassion fatigue, while display of positive emotions and emotional control were negatively correlated. Overall job stress was positively correlated with compassion fatigue.

Conclusion: Emotional work and job stress is positively correlated with compassion fatigue, and emotional work is positively correlated with job stress. Nurses require job and personal resources through the creation of positive practice environments, support groups, education and training in order to meet the emotional demands of nursing in a stressful job environment.

KEYWORDS: Compassion fatigue, emotional work, job stress, nurse, South Africa

LIST OF ACRONYMS

AN	Auxiliary Nurse
AIDS	Acquired immune deficiency syndrome
ARP	Accelerated Recovery Programme
COR	Conservation of Resources
DoH	Department of Health
EAP	Employee Assistance Programme
EN	Enrolled nurse
FEWS	Frankfurt Emotional Work Scale
HIV	Human Immunodeficiency Virus
HREC	Human Research Ethics Committee
KZN	KwaZulu-Natal
MBSR	Mindfulness-Based Stress Reduction
N	Population
n	Sample
NSS	Nursing Stress Scale
NWU	North-West University
PERC	Postgraduate Education and Research Committee
RN	Registered Nurse
SANC	South African Nursing Council
SD	Standard deviation

SPSS Statistical Package for Social Sciences

WHO World Health Organization

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1:
OVERVIEW OF THE STUDY

1.1 INTRODUCTION

It is evident that compassion fatigue, emotional work and job stress have an impact on the well-being of nurses. However, the effect of emotional work and job stress on the development of compassion fatigue has not been explored in international literature, and neither has the impact of all these variables on medical-surgical nurses (registered, enrolled and auxiliary nurses) been investigated in the South African context. Therefore, this study aims to describe the relationships between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

1.2 BACKGROUND

Compassion is the ability to put oneself in another's place, and to "feel with" that person (Todaro-Franceschi, 2013:43). It is not only the acknowledgement of another's feelings or suffering, but also embodies the act towards alleviating or ending that suffering (Marcial, Brazina, Diaz, Jaramillo, Marentes & Mazmanian, 2013:18). It is an orientation of mind that recognizes pain and the universality of pain in human experience, and the desire to meet that pain with kindness, empathy, equanimity and patience (Feldman & Kuyken, 2008:143).

Compassion is the most important attribute in a caring profession and is thus fundamental to the profession of nursing (Straughair, 2012:160). According to Gilmore (2012:32), compassion allows nurses and caregivers to find and sustain an emotional balance while holding patient's despair in one hand and their hopefulness in the other. Paradoxically, despite compassion being indispensable to the practice of good nursing, literature abounds on the negative aspects or the cost of caring for the nurse. These include burnout, vicarious traumatisation, secondary traumatic stress and, most recently, compassion fatigue.

The term “compassion fatigue” was first used in the healthcare professional literature by Joinson (1992:112) and referred to the inability of nurses to nurture. Joinson (1992:116) stated that compassion fatigue is a unique form of burnout and affects people in caregiving professions. Figley (2002:1435) later adopted the term in psychology and defined compassion fatigue as *“*a state of tension and preoccupation with the traumatized patients by re-experiencing the traumatic events, avoidance/numbing of reminders or persistent arousal associated with the patient”, using the term as a synonym for secondary traumatic stress. Most recently, Coetzee and Laschinger (2015) defined compassion fatigue as a state of being disengaged from the patient and impotent to meet the patient’s needs, as well as feeling hopeless as a caregiver. In this definition, “disengagement” refers to the inability of the nurse to acknowledge and empathize with a patient or open him/herself up to experience emotions of sorrow, suffering and pain, while impotence is the inability of the nurse to alleviate or remove the patient’s suffering or pain, or support a good death. This inability to connect with and meet the patients’ needs results in a demotivated and unfulfilled caregiver.

The manifestations of compassion fatigue are vast, and symptoms are evident in the physical, emotional, social, spiritual and intellectual domains (Coetzee & Klopper, 2010:241). Physical symptoms include loss of strength, becoming ill more often, weariness, somatic complaints, sleep disturbances, loss of appetite, headaches, reduced output, diminished performance, loss of endurance and increased physical complaints (Joinson, 1992:119; Marcial *et al*., 2013:18; Coetzee & Klopper, 2010:241; Bush, 2009:25; Harr, 2013:74). Emotional symptoms include helplessness, anxiety, fear, sadness, guilt, powerlessness, feeling emotionally drained, resentment towards others, becoming impatient, moody, withdrawn, depressed, lacking in enthusiasm and self-esteem, desensitization, irritability, anger, being emotionally overwhelmed, and exhibiting signs of diminished ability (Figley, 1995:12; Coetzee & Klopper, 2010:241; Marcial *et al*., 2013:18; Bush, 2009:25; Harr, 2013:73). Socially, symptoms include a sense of isolation from their supporters, career burnout and an inability to help and share in the suffering of patients (Figley, 1995:12; Coetzee & Klopper, 2010:241; Marcial *et al*., 2013:18). The intellectual symptoms include reduced concentration span, poor job performance, being prone to accidents, mental fatigue, confusion,

diminished attention span, boredom and memory loss (Coetzee & Klopper, 2010:241; Figley, 1995:12; Marcial *et al*., 2013:18; Bush, 2009:25; Harr, 2013:74). Spiritual symptoms include a lack of spiritual awareness (Coetzee & Klopper, 2010:241). The presence of these manifestations will lead to a positive diagnosis of compassion fatigue.

The possibility of developing compassion fatigue among nurses is very high, since the risk factors include contact with patients, demands on the self and stress (Coetzee & Klopper, 2010: 241). The emotional connection that nurses have with patients could therefore serve as the primary cause of compassion fatigue (Coetzee & Klopper, 2010:237; Dunn, 2009:41; Bush, 2009:26; Austin, Goble, Leier & Byrne, 2009:196; Figley, 2002:1434). However, contrary evidence shows that nurses' happiness, ability to flourish and contentment arises from their deep connection with patients (Todaro-Franceschi, 2013:43) and also from job satisfaction (Graber & Mitcham, 2004; Burtson & Stichler, 2010), as well as decreased stress and lower levels of burnout (Burtson & Stichler, 2010). The answer may therefore lie in the type of connection and the performance of emotional work. Emotional work is defined as "the emotional regulation required of the employees in the display of organisationally desired emotions" (Zapf & Holz, 2006:1).

Most organisations develop guidelines on expressions of emotion by their employees. Healthcare professions are one such example, since healthcare professionals such as nurses are guided by certain norms regarding the expression of emotions (Lazányi, 2010:150). In such professions, the management of emotions is considered a central part of the work ethic (Zapf, Mertini, Seifert, Vogt, Isic, Fischbach & Meyer, 1999:372). This phenomenon was first described as "emotional labour" by Hochschild (1983:7) and involved the suppression of feelings for the benefit of others. Later, Morris and Feldman (1996:987) defined emotional labour as the "effort, planning, and control needed to express organizationally desired emotions during interpersonal transactions". Zapf *et al*. (1999:371) later built on this work and coined the term "emotional work". Where emotional labour focuses on the societal and economical aspects of labour, emotional work focuses on person-related work (face-to-face or voice-to-voice)

and the use of emotions in jobs to influence people's attitudes and behaviours (Zapf *et al*.,1999:373).

The theory of emotional work deals with emotions which employees actually feel, versus the emotions employees pretend to feel (emotion-rule dissonance), in order to display emotions that meet job requirements (emotional dissonance and emotional deviance) (Holman *et al*. 2009:331). Nurses as carers are often expected to suppress their true emotions during face-to face interactions with patients, and required to display appropriate feelings as commensurate with their professional ethos (Briner, 1995). Such emotional work is known to increase emotional exhaustion, depersonalisation and long-term stress effects (Zapf *et al*., 1999:372). This dissonance between personal emotions and desirable professional emotions might impede nurses' ability to connect deeply with patients, thus triggering compassion fatigue.

However, it is not only emotional work that might cause compassion fatigue. Coetzee and Klopper (2010:241) also identify stress as an antecedent to developing compassion fatigue. Stress in nursing is an issue of concern, since it results in negative outcomes for the individual nurse, patient care and the organization. Stress is defined as an internal cue in the physical, social, or psychological environment that threatens the equilibrium of an individual (Gray-Toft & Anderson 1981:12). According to Lazarus and Folkman (1984:19), stress is the emotional and physical response an individual experiences when there is a perceived imbalance between demand and resources at a time when coping is important. In this study, job stress in particular will be studied.

Job stress is defined as the harmful physical and emotional responses that occur when the demands of the job exceeds the capabilities and resources of the employee (Yoon & Kim, 2013:169). Similarly, AbuAlRub, (2004:75) states that job-related stress involves any work situation perceived by the participant as threatening because of the mismatch between the situation's demands and the individual's coping abilities. In nursing, job-specific stressors include unpleasant and unsafe working conditions; lack of resources; heavy workload and unreasonable deadlines; inadequate control over work duties; lack of reward and recognition for good performance; job pressures interfering with personal and

family life; suffering and dying of patients; lack of staff support; conflict with physicians, other nurses and supervisors, and inability to use skills and talents to the fullest extent at work (Pillay, 2009; Klopper, Coetzee, Pretorius, & Bester, 2012; Coetzee *et al*., 2013; Harr, 2013).

This study will focus on the following job stressors: death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses and workload as measured by the nursing stress scale (Gray-Toft & Anderson, 1981). The emphasis of this study will therefore be on the relationship between compassion fatigue, emotional work and job stress.

1.3. PROBLEM STATEMENT

Nurses are in close contact with patients who are sick, experiencing trauma and in pain. During the course of caring, nurses show compassion by acknowledging patients' feelings or suffering, and acting towards alleviating or ending that suffering. Compassion is supposed to be beneficial to both the nurse and patient, but literature abounds on the negative effects that caring and compassion have on the well-being of the nurse. Compassion fatigue results when the nurse is unable to show compassion to the patient and feels hopeless and unfulfilled as a result.

Research has shown that the main antecedents for developing compassion fatigue are connection with the patient, demands on the self and stress. Nurses, by their very profession, are expected to connect with patients, but also at the same time to manage their emotions to conform to job requirements, societal expectations and their professional ethos.

Furthermore, nurses in South Africa function under severe job stress, where the demands of the job often exceed the capabilities and/or resources of the nurse, as well as the nurse's coping abilities. Such stress has an effect on the patient and organizational goals and particularly on nurse outcomes, specifically in the development of compassion fatigue.

Based on the above argument, the research questions for the study are as follows:

What is the prevalence of emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in public hospitals in eThekwini district, KwaZulu-Natal?

What is the relationship between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in public hospitals in eThekwini district, KwaZulu-Natal?

1.4. AIMS AND OBJECTIVES OF THE STUDY

The aim of the study is to describe the relationship between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal. In order to achieve this aim, the following objectives are set:

To describe the prevalence of emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses in public hospitals in eThekwini district, KwaZulu-Natal.

To explore the relationship between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in public hospitals in eThekwini district, KwaZulu-Natal.

1.5. HYPOTHESES

In this study, the researcher will examine the relationship between emotional work, job stress and compassion fatigue. Based on the above statements, the following hypotheses were formulated:

Ho1: There is no relationship between emotional work and compassion fatigue in professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

Ho2: There is no relationship between job stress and compassion fatigue in professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

H03: There is no relationship between emotional work and job stress among professional nurses, enrolled nurses and enrolled nursing assistants working in public hospitals in the eThekwini district, KwaZulu-Natal.

1.6. RESEARCHER'S ASSUMPTIONS

Assumptions are the principles or statements that are believed to be true without proof or verification (Grove, Burns & Gray, 2013:41; Polit & Beck 2008:14). According to Alligood (2010:143), assumptions are past experiences that provide a frame of reference for expected outcomes. These assumptions influence the research study. Assumptions are also known as paradigms. Paradigms act as lenses to view and interpret reality, thus giving rise to a particular world view (paradigmatic perspective). Burns and Grove (2009:712) also describe a paradigm as a particular way of viewing a phenomenon in the world. Polit and Beck (2008:13) state that a paradigm for human inquiry is often characterised in terms of the ways in which people respond to basic philosophical questions.

The researcher's assumptions consist of (i) meta-theoretical assumptions that express the researcher's personal view concerning human beings (nurses), the environment, health and nursing, (ii) theoretical assumptions and (iii) methodological assumptions as they apply to the study.

1.6.1. Meta-theoretical assumptions

Meta-theoretical assumptions reveal the researcher's view about the world. Meta-theoretical assumptions are regarded as the assumptions or beliefs of the researcher and influence the research study. These assumptions are non-epistemic in nature and therefore cannot be tested on the foundation of empirical research data (Burns & Grove, 2009:40; Polit & Beck, 2012:720).

The researcher subscribes to the Judeo-Christian philosophy and believes that God the Almighty is the Creator of all things, including human beings. The researcher believes that human beings were created with a purpose and have a God-given calling to fulfil while on earth. As followers of Christ, human beings

need to love, compassionately care and serve others, as Christ would, as well as loving and caring for themselves. From this perspective, the researcher views human beings (nurses), the environment, health and nursing as follows:

1.6.1.1. Human being (Nurse)

The researcher views a nurse as a professional, enrolled and/or auxiliary nurse that has a God-given calling to serve in the nursing profession and to provide good quality compassionate care to patients on a daily basis. Compassion fatigue makes it difficult for the nurse to connect with and/or meet the needs of his/her patient, causing the nurse to feel hopeless and unfulfilled as a caregiver.

1.6.1.2. The environment

The researcher views the environment as the physical, psychological and social aspects of the practice environment. International and national research has proven that a positive practice environment improves nurse outcomes, quality of care and patient safety (Aiken, *et al*., 2012; Coetzee *et al*., 2012). In this study, the practice environment refers to the medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal. In this practice environment, nurses experience many job stresses and demands on their resources in the physical, psychological and social arena of the practice environment, such as death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, workload (Gray-Toft & Anderson, 1981) and emotional work (Zapf *et al*., 1999:372) which leads to poor nurse outcomes such as compassion fatigue.

1.6.1.3. Health

Health is viewed as the state of wellness with the absence of illnesses. Wellness includes the physical, emotional, psychological, spiritual and social well-being of the nurse. A healthy nurse is one who is able to provide good quality compassionate care to her/his patients and who experiences the satisfaction of compassionate feelings, while an unhealthy nurse is one who is unable to connect with his/her patients or meet the patients' needs, experiencing compassion fatigue as a result. The nurse has to apply self-care and self-love.

1.6.1.4 Nursing

The researcher views nursing as the science and art of caring for patients, families and the community. The researcher supports the definition of nursing by the South African Nursing Council which states that nursing is a caring profession practised by a person registered with the South African Nursing Council which supports, cares for and treats a healthcare user to achieve or maintain health and, where this is not possible, cares for a health user so that he or she lives in comfort and with dignity until death (Nursing Act, 2005). In this study, nursing focuses on the rendering of good quality compassionate care to patients amidst job stresses and high demands on the nurse's personal resources.

1.6.2. Theoretical assumptions

Theoretical assumptions include theoretical frameworks and definitions used in the study. A theoretical framework is the abstract, logical structure of meaning that will guide the development of a study and enable the researcher to link the findings to the body of nursing knowledge (Grove *et al*., 2013:41). The study framework can be expressed as a model or diagram of relationships that provide a basis for a study and may also be developed inductively from clinical observation (Grove *et al*., 2013:41).

The theoretical model subscribed to in this study is Karasek's (1979) Job Demands-Control Model (see Figure 1.1)

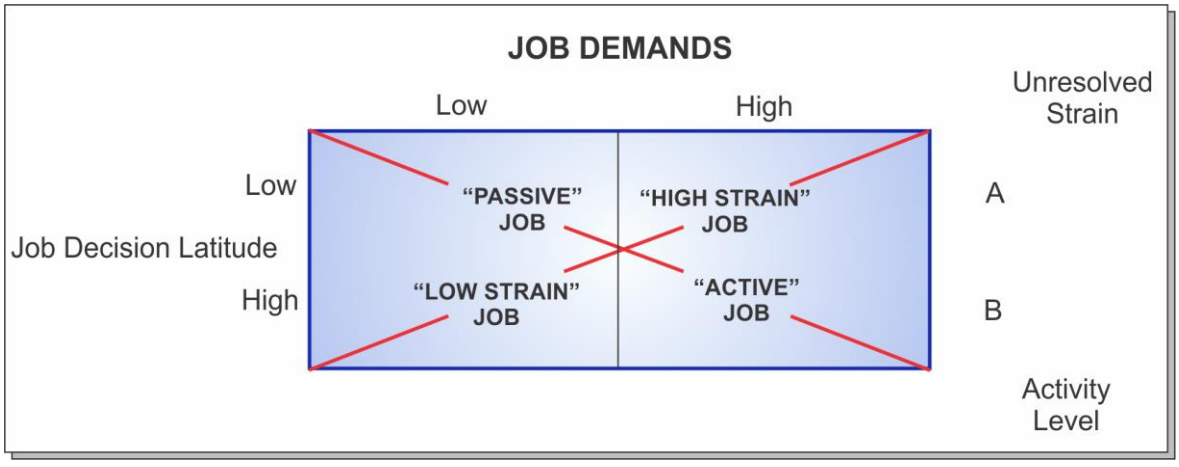


Figure 1.1: Job Demands-Control Model (Karasek, 1979)

This model postulates that the joint effect of **job demands** and **job decision latitude** produce either high or low levels of job strain which have a direct impact on employee and organizational outcomes (Karasek, 1979; Karasek & Theorell, 1990). Job demands are psychological stressors in the practice environment (Karasek, 1979). Job decision latitude is described as the degree of control or range of decision-making freedom available to the nurse who faces the job demands (Karasek, 1979; Wong & Laschinger, 2015). In this study, there is no job decision latitude with regard to job stress, but emotion control and interaction control may involve job decision latitude that moderates between emotional work and the development of compassion fatigue (Zapf *et al*., 1999:372).

Job strain is described as having high job demands and low job decision latitude (Karasek, 1979; Wong & Laschinger, 2015). Therefore, the model proposes that the more job demands (job stress and emotional work) to which the nurse is exposed, and the less decision-making freedom (emotional and interaction control) the nurse has available to deal with emotional work, the more job strain (compassion fatigue) the nurse will experience. The proposed model is graphically presented as follows:

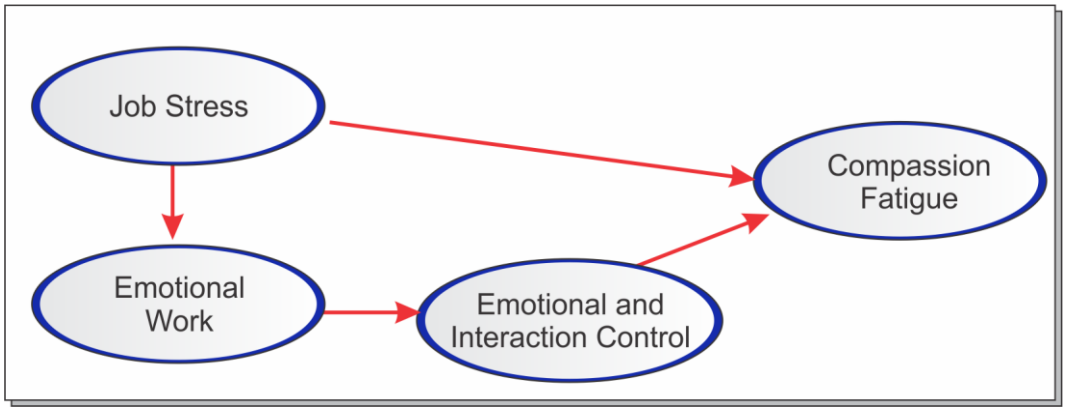


Figure 1.2: Proposed model for the study

1.6.3. Definition of concepts

The main variables in this study include compassion fatigue, emotional work, job stress, professional nurse, enrolled nurse and auxiliary nurse. These variables will be discussed in the section that follows:

1.6.3.1. Compassion fatigue

Compassion fatigue is a state of being disengaged from the patient and impotent to meet the patient's needs, as well as feeling hopeless as a caregiver (Coetzee & Laschinger, 2015).

1.6.3.2. Emotional work

Emotional work is the emotional regulation required of employees in the display of organisationally desired emotions and refers to the quality of interactions between employees and clients (Zapf *et al*., 1999:371).

1.6.3.3. Job stress

Job stress is defined as the harmful physical and emotional responses that occur when the demands of the job exceed the capabilities and resources of the employee (Gray-Toft & Anderson, 1981:12; Yoon & Kim, 2013:169).

1.6.3.4. Registered nurse

A registered nurse refers to a person who is qualified and competent to independently practise comprehensive nursing in the manner and to the level prescribed, and who is capable of assuming responsibility and accountability for this practice. A registered nurse must have received education and training in an accredited nursing school, after being registered as a student with the Council and having successfully completed the course of study, as well as having met the requirements of the accredited programme (Nursing Act, 2005: Act No. 33 of 2005).

1.6.3.5. Enrolled nurse

An enrolled nurse is a person educated to practise basic nursing in a manner and to the level prescribed by the Nursing Act. An enrolled nurse must have received education and training in an accredited nursing school, after being enrolled as a pupil nurse with the Council and having successfully completed the course of study, as well as having met the requirements of the accredited programme (Nursing Act, 2005: Act No 33 of 2005).

1.6.3.6. Auxiliary nurse

An auxiliary nurse is a person educated to provide elementary nursing care in the manner and to the level prescribed by the Nursing Act. An auxiliary nurse must have received education and training in an accredited nursing school, after being enrolled as a pupil nursing auxiliary with the Council and having successfully completed the course of study, as well as having met the requirements of the accredited programme (Nursing Act, 2005: Act No 33 of 2005).

1.6.3.7. Nurse

In this study a nurse refers to a registered nurse (see 1.6.3.4), an enrolled nurse (see 1.6.3.5) and an auxiliary nurse (see 1.6.3.6).

1.6.4. Methodological assumptions

A research model for nursing developed by Botes (1995) guided the research process in this study. Methodological assumptions are the research decisions that are taken within the framework of the determinants for research (Botes, 1995:7). According to Mouton and Marais (1994:23), methodological assumptions refer to what the researcher thinks good research ought to be. These methodological assumptions reflect the researcher's views of the nature and structure of science in the discipline (Botes, 1995:10). The model describes three orders of nursing activities. These are: nursing practice, nursing theory and the paradigmatic perspective. These orders are separately described, but are interrelated during the research process.

The first order in the research model is nursing practice. The first order describes the empirical reality or what happens in practice. Nursing research problems are derived from nursing practice and solutions may be recommended. This order constitutes pre-scientific knowledge and thus influences practice (Botes, 1995:6). In this study, the problem has been identified in the nursing practice that nurses experience many job stresses and demands on their resources in the physical, psychological and social arena of the practice environment, such as death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, workload (Gray-Toft & Anderson, 1981) and emotional work (Zapf *et al*, 1999:372), which leads to poor nurse outcomes such as compassion fatigue.

The second order in the research model is nursing research and development of theory. This implies that the researcher identifies nursing problems as they are, explores and describes the problem and suggests recommendations. In this study, the researcher aims to describe the relationships between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, Kwazulu-Natal. The third order in the research model is the researcher's paradigmatic assumption which has been discussed in detail in section 1.6.1.

1.7. RESEARCH DESIGN AND METHODS

1.7.1. Research design

A quantitative (Burns & Grove, 2013), correlational, cross-sectional survey (Babbie & Mouton, 2001; Brink, Van der Walt & Van Rensburg, 2012) design was used in this study with explorative, descriptive and contextual strategies (Brink, Van der Walt & Van Rensburg, 2012).

1.7.2. Methods

According to Klopper (2008:69), the research method includes a discussion of the population, sample, data collection, data analysis and rigour of the study. These issues are briefly outlined in Table 1.1.

AIM OF STUDY	POPULATION AND SAMPLING	DATA COLLECTION	DATA ANALYSIS	VALIDITY AND RELIABILITY
To describe the relationships between compassion fatigue, emotional work and job stress among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, Kwazulu-Natal.	Multi-level sampling was applied in this study. **Province:** The Kwa-ZuluNatal province was purposively selected due to recent news reports regarding hospital staff lacking compassion (Sapa, 2015). **District:** The eThekwini district was purposively selected as this province has the highest number of public hospitals. **Hospitals:** The category of hospitals in the district is as follows: N=1 tertiary hospital, N=7 regional hospitals, and N=5 district hospitals.	See 1.7.3	Data was analysed using SPSS Statistics Version 21. The following analyses will be conducted: • Descriptive statistics (frequency, mean, standard deviation) • Inferential statistics (Correlations, effect sizes, statistical significance)	**Compassion Practice Instrument** (Coetzee & Laschinger, 2015). Satisfactory reliabilities, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) was conducted showing good construct validity. **Frankfurt Emotional Work Scales (FEWS)** (Zapf *et al.,* 1999): satisfactory reliability and good construct validity.

	For this study the n=1 tertiary hospital was purposively selected, and n=2 regional hospitals were randomly selected, by using the fishbowl method. • *Inclusion criteria:* Tertiary and regional public hospitals with medical and surgical wards. • *Exclusion criteria:* All private hospitals, district public hospitals and specialist public hospitals. **Wards:** All-inclusive sampling of medical and surgical wards in the selected hospitals was conducted (N = 44; n = 44). • *Inclusion criteria:* All medical and surgical wards in the selected hospitals. • *Exclusion criteria:* All speciality wards i.e. ICU, paediatrics, NICU.			**The Nursing Stress Scale (NSS)** (Gray-Toft and Anderson, 1981). Reliability for the entire scale was 0.89, and the instrument had construct validity.

	Participants: All-inclusive sampling of nurses (N=360; n = 331) working in medical and surgical wards was conducted. • *Inclusion criteria:* All professional nurses, enrolled nurses and enrolled nursing assistants. working day and night shift in the two weeks of data collection. • *Exclusion criteria*: Nursing students. The multi-level sampling method was conducted in consultation with the statistical consultant.			

1.7.3. Data Collection

After ethical permission was granted by all the ethical committees, good-will consent was sought from the hospital nurse managers (gatekeepers) of each participating hospital. The researcher made an appointment with the hospital nurse manager and explained the research project. The researcher provided the nurse manager with the ethical clearance certificates and discussed the proposed data collection plan. The research asked the nurse managers' permission to access the unit manager, the night duty supervisor and nurses in the ward, and allowed the nurse manager to make changes to the proposed data collection plan as best suited to the routine of the wards and the nursing personnel in the selected hospital.

After receiving authorization from the participating hospitals and goodwill consent from the hospital nurse manager, the researcher entered each medical-surgical ward of the selected hospitals. Goodwill consent was sought from the unit manager of each ward as well as the night supervisor. Where the unit manager or night supervisor agreed that the ward could participate in the research study, she was requested to select a mediator in the ward. The mediator was someone who did not meet the inclusion criteria and was not a direct supervisor of the possible participants, preferably the ward clerk.

The researcher then asked the unit manager or night supervisor whether she could speak to the nurses in the ward, and if it was the preference of the unit manager or night supervisor for the researcher to speak to the nurses as a large group, in smaller groups or on an individual basis. Depending on the preference of the manager, the researcher, accompanied by the mediator, made contact with each nurse in the ward. The researcher briefly explained the project and provided each nurse with an informed consent form (please see enclosed informed consent form). The researcher requested that each nurse read the informed consent form and decided whether or not they would like to participate. The researcher explained that nurses who were willing to participate in the study should please return the informed consent form to the mediator on the following day. This recruitment process took a maximum of 10 minutes per participant/group to complete, so as to ensure minimum interruption to the duties of the nurses. The

mediator returned to the ward the next day and collected the informed consent forms from those nurses who were willing to participate in the study, and provided them with surveys enclosed in an unsealed envelope. The mediator explained that participants had 7 days to complete the survey, and that they should do so anonymously, seal their surveys in the envelope provided and post the envelope in the sealed plastic sleeve with a post-split that was placed in each ward, preferably in the tea-room. This process of obtaining consent took a maximum of 5 minutes per participant to complete, so as to ensure minimum interruption to the duties of the nurses. The researcher was present at this interaction and available to answer any questions the nurses might have had.

1.8. ETHICAL CONSIDERATIONS

Ethical permission was granted from the North-West University Postgraduate Education and Research Committee (PERC), the North-West University Human Research Ethics Committee (HREC) - NWU-00048-15-A1), the Kwazulu-Natal Provincial Department of Health Research Committee, the eThekwini District ethics committee, the Deputy Director of Nursing and the Chief Executive Officer of the selected hospitals. Further permission was obtained from the hospital nurse manager and unit managers of the wards where participants worked.

The ethical considerations for this research study are aligned with the ethical principles provided by the Department of Health (DoH, 2015).

Table 1.2 Ethical considerations

Ethical principle	**Application to study:**
Risk-benefit ratio	There is minimal risk associated with a survey design. The risk is linked to possible boredom that the participant may experience in completing the survey and also the inconvenience of allotting time to complete the survey. The researcher aimed to alleviate that risk, by ensuring that the variables explored (compassion fatigue, emotional work and job stress) could be related to by the participants; by using validated tools and by ensuring that it took no longer than 40 minutes to complete the survey, as tested by the researcher and volunteers.

	There is little direct benefit to the individual participants. The results will be presented to each hospital, which will enable the participants to gain knowledge about the variables and the levels of compassion fatigue, emotional work and job stress experienced by nurses in each participating hospital. Recommendations for the individual nurse will be presented, so that nurses who feel that they experience any of these variables can apply self-help techniques or seek professional help.
Informed consent	All participants were provided with applicable information regarding the research project prior to providing informed consent. Individual consent letters were also provided to each participant to sign.
Privacy and confidentiality	The survey was coded enabling the researcher to identify the ward and hospital in which the survey was completed. This allowed data to be nested within a ward in the analysis of data. The hospital and ward codes were kept separate from the data on a password protected computer that only the researcher had access to. Data was reported in aggregate and none of the hospitals were mentioned by name. The individual participant completed an informed consent form, which was also signed by the mediator and researcher. Thereafter these forms were sealed in an envelope and stored in a locked filing cabinet in the researcher's office. The surveys were completed anonymously, sealed in the provided envelope and posted in the sealed plastic sleeve with a post-split that was placed in each ward. The data was sent via DHL to the statistical consultation services who captured the data. Thereafter the data was stored in a locked filing cabinet in the office of the researcher.

1.9. CLASSIFICATION OF CHAPTERS

This research study is presented in an article format and Chapter 3 is an article presented as a separate unit. This will unavoidably result in some repetition within the dissertation. Classification of chapters is as follows:

Chapter 1: Overview of the study

Chapter 2: Literature Review

Chapter 3: Research Article: The relationship between compassion fatigue, emotional work and job stress among nurses: A cross-sectional study.

Chapter 4: Evaluation of the study, limitations and recommendations for the nursing practice, nursing research, nursing education and policy.

1.10. SUMMARY

The brief overview of the research study is included in this chapter. The introduction to the topic, background of the study, problem statement, aims and objectives were provided in this section. An overview of the design, methods and ethical considerations were included. A comprehensive review of literature will be discussed in detail in Chapter 2**.**

CHAPTER 2:
LITERATURE REVIEW

2.1. INTRODUCTION

A literature review is an organized written presentation of what has been published on a topic by scholars and includes a presentation of research conducted in the selected field of study (Burns & Grove, 2009:92). It provides researchers with an overview of existing evidence and contributes to the argument for the new study (Polit & Beck, 2012:95).

This chapter consists of a comprehensive review of the literature related to compassion, compassion fatigue, emotional work and job stress.

2.2. SEARCH STRATEGY

A subject librarian was consulted with regard to the literature review strategy. The following databases were used: EbscoHost, Science Direct, ProQuest, Scopus, Sabinet, PubMed and Google Scholar. The following key words were used to conduct the literature search: compassion, compassion fatigue, emotion work, job stress and nursing.

2.3. DISCUSSION OF THE ELEMENTS UNDERPINNING THE STUDY

2.3.1. Compassion

Compassion can be regarded as the sensitive response to individual's needs and suffering with an urge to help (Crawford, Gilbert, Gilbert & Gale, 2011:42). It positions the mind to recognise pain in humans and meet that pain with care, humanity, warmth, love, empathy, equanimity and patience (Buchanan-Barker & Barker, 2004:18;Day, 2015:342;). Todaro-Franceschi (2013:43) posits that

compassion is the ability to feel with the person. Furthermore, compassion fosters a desire to relieve distress and suffering (McConnell, 2015:96), acting towards alleviating or ending that suffering (Marcial *et al*., 2013:18) while temporarily putting one's own needs aside in order to help (Armstrong, 2010:9). Nursing is linked with caring and compassion (Circenisa & Millerea, 2011:2042; Day, 2015:343; Hooper, Craig, Janvrin, Wetsel & Reimels, 2010:420; Horsburgh & Ross, 2013:1124): therefore, nurses are required to possess the compassionate skills necessary to care for patients.

2.3.1.1. The importance of compassion in nursing

Compassion is the foundation of the nursing profession, being an essential value and key element in providing excellent care (Hooper *et al.*, 2010:420; McConnell, 2015:96; Schantz, 2007:48; Straughair, 2012:160; Sawbridge & Hewison, 2015:194). Compassion, empathy and concern are the values that are assumed to attract people to nursing (Melvin, 2012:606; Van der Cingel, 2009:126; Wentzel & Brysiewicz, 2014:95). Demonstrating compassion to patients entails implementing good listening skills; being friendly, available, approachable, helpful and informative; offering them advice; and protecting their dignity (Proctor, 2007:11). Not only does compassion ensure beneficial care for the patient, but it is also beneficial and fulfilling for the nurse (Martins, Nicholas, Shaheen, Jones & Norris, 2013:1).

2.3.1.2. The benefits of compassion

While they render care, compassion enhances the lives of nurses personally and professionally (Smart, English, James, Wilson, Daratha, Childers & Magera, 2014:3) by boosting their self-confidence and helping them to connect with patients on a deeper level (Todaro-Franceschi, 2013:43). Furthermore, compassion gives nurses a sense of being resourceful, in power, satisfied, complete and happy (Bush, 2009:43; Gilmore, 2012:32; Todaro-Franceschi, 2013:43), thus promoting job satisfaction (Wentzel & Brysiewicz, 2014:95). Compassion is a significant source of pleasure and is beneficial to mental well-being (Dewaar, 2013:50) for a nurse and patient, as it fosters the need to help

vulnerable patients and promote their well-being (Kagan, 2014:69). Compassion also promotes happiness, human flourishing and contentment resulting from a deep connection with patients (Todaro-Franceschi, 2013:43). This brings about a high level of patient satisfaction (Hooper *et al.*, 2010:421).

Although compassion and empathic engagement are important contributors to nurses' job satisfaction, they pose a risk for negative emotional and physical outcomes (McSteen, 2010:19). To elaborate, experience of compassion is beneficial, unless it evolves into compassion fatigue which is hazardous to one's health (Austin, Goble, Leier & Byrne, 2009:199).

2.3.1.3. The negative consequences of compassion

The same aspiration that draws nurses to provide compassionate care and meet the needs of patients, viz. compassion, empathy and concern (Melvin, 2012:606; Van der Cingel, 2009:126; Wentzel & Brysiewicz, 2014:95), is what can also cause compassion fatigue, burnout, vicarious traumatisation and secondary traumatic stress (Gilmore, 2012:32). A nurse who experiences compassion fatigue might exhibit multiple symptoms such as decreased self-esteem, apathy, difficulty concentrating, preoccupation with trauma, perfectionism, rigidity or, in extreme cases, thoughts of self-harm or harming, anxiety, guilt, anger, fear and sadness (Harr 2013:73; Sheppard, 2015:57). There may be signs of tiredness, apathy and lack of motivation before the working day begins, lack of enjoyment in leisure activities, compulsive acts such as over-drinking, over-eating and over-spending from the nurse (Gilmore, 2012:32). Furthermore, at home, the affected nurse may have sleeping problems such as insomnia and bad dreams, as well as experiencing a loss of interest in social events and sexual activity (Potter, Deshields, Berger, Clarke, Olsen & Chen, 2013:181).

2.3.2. Compassion fatigue

Compassion fatigue in nurses develops when empathy and compassion have eroded during the process of rendering patient care. Various factors contribute to the development of compassion fatigue. The history of compassion fatigue, the

definition, the antecedents, the outcomes of compassion fatigue on the nurses, the patients and organization as well as the prevention is discussed in the following paragraphs.

2.3.2.1. The history of the concept compassion fatigue

The term “compassion fatigue” was first used in the healthcare professional literature by Joinson (1992:112) while investigating the nature of burnout in nurses in an emergency department. The author described nurses as having lost the “ability to nurture” (Joinson, 1992:116). Although research suggests that there is only a limited amount of literature on compassion fatigue (Ray, Wong, White & Heaslip, 2013:256), researchers have formulated several definitions for this syndrome.

Lynch and Lobo (2012:2125) posit that compassion fatigue occurs when a care-giving relationship founded on empathy potentially results in a deep psychological response to stress that progresses to physical, psychological, spiritual and social exhaustion in nurses. Fu and Chen (2011:99) focus on the psychological aspect of compassion fatigue by defining it as the complex mood swings experienced by nurses due to cumulative stress which intensifies over time. However, the authors include other domains affected by compassion fatigue in suggesting that attributes of compassion fatigue involve accumulated patient and family suffering as well as leaving the nurse unable to release the accrued stresses efficiently, resulting in negative effects on physical, psychological and spiritual health. Jenkins and Warren (2012:30) elaborate on this condition by stating that compassion fatigue is a natural consequence of caring between two people, namely between the traumatized patient and the nurse affected by the patient’s traumatic experience.

Coetzee and Klopper (2010:237) conducted a concept analysis on compassion fatigue within the nursing practice perspective so as to enable nurses to identify with, and manage the phenomenon appropriately. The authors described compassion fatigue as the final extent of a progressive and cumulative process that is caused by prolonged, continuous, and intense contact with patients, the expenditure of self and exposure to stress. Compassion fatigue is a state where the compassionate energy required from the nurse practitioner has surpassed

his/her restorative processes, with recovery power being lost. This evolves from a state of compassion discomfort which, if not effaced through adequate rest, leads to compassion stress that exceeds the nurse practitioner's endurance limits (Coetzee & Klopper, 2010:237).

Owen and Wanzer (2014:8) also attempted to synthesize a definition from a systematic review on definitions of compassion fatigue. Compassion fatigue was consequently deemed an occupational hazard within the healthcare team marked by empathy, a sense of helplessness, fear, loss of purpose, and the inability to recognize one's own needs that causes psychological distress. Owen and Wanzer (2014:8), although agreeing with Coetzee and Klopper (2010:237) with regard to compassion fatigue being a result of caring for patients, focus on symptoms of compassion fatigue, whereas Coetzee and Klopper (2010:237) provide a wider definition of this condition, leaving room for the plethora of symptoms involved with this syndrome.

2.3.2.2. Definition of compassion fatigue

Combining the abovementioned clarifications on the term “compassion fatigue”, it may be defined as the final extent of a progressive and cumulative process that is caused by prolonged, continuous and intense contact with patients, the expenditure of self and exposure to stress (Coetzee & Laschinger, 2015). It is a state of being disengaged from the patient and impotent to meet the patient’s needs, as well as feeling hopeless as a caregiver due to the compassionate energy expended by the nurse practitioner having surpassed his/her restorative processes, with recovery power being lost (Coetzee & Laschinger, 2015). In this definition, disengagement refers to the inability of the nurse to acknowledge and empathize with a patient or open him/herself up to experience emotions of sorrow, suffering and pain; while impotence is the inability of the nurse to alleviate or remove the patients’ suffering or pain, or to support a good death (Coetzee & Laschinger, 2015).

2.3.2.3. The antecedents of compassion fatigue

The literature reveals that risk factors linked to compassion fatigue include stressors relating to working as a healthcare provider (Abendroth & Flannery, 2006:347; Showalter 2010:240). These factors are categorized into personal, patient-related and organizational factors.

Personal factors include: being a young employee who is still relatively new to the career (Aycock & Boyle, 2009:188), demands on the self and exposure to stress (Coetzee & Klopper, 2010:239), all of which could result in compassion fatigue. Long-standing unresolved trauma histories, exposure to repeated losses, intensity of work, difficult family dynamics, as well as life demands, lack of support and lack of self-care (Abendroth & Flannery, 2006:347, 351-352; Harr, 2013:73; Maytum, Heiman, & Garwick, 2004:174; Radley & Figley, 2007:207,209; Showalter, 2010:240) are the risk factors. Furthermore, investing sympathy in others, ignoring stress symptoms and personal emotional needs over time (Fu & Chen, 2011) add to the risk.

Patient-related factors include: having to meet patients' needs, chronic exposure to traumatized clients (Bush, 2009:26; Coetzee & Klopper, 2010:239; Hall 2004:8-9; Sabo, 2006:140; Showalter, 2010:239) and giving high levels of energy and compassion to patients without seeing them getting better (Gilmore, 2012:32). Furthermore, issues with patients and their families (Peters, Cant, Sellick, O'Connor, Lee & Burney, 2012:561) can exacerbate compassion fatigue.

Organizational factors include: role changes and a lack of challenge, a sense of unreasonable or unclear expectations or demands (Maytum, Heiman, & Garwick, 2004:175-176), challenging environments, uncompetitive remuneration, poor working conditions, a lack of resources to work effectively, limited career development or educational opportunities, an inimical organizational climate and role uncertainty, workload, and fulfilling stringent organizational and self-expectations (Coetzee & Klopper, 2010:239; Hall, 2004:8-9; Klopper *et al*., 2012:163,686). All these job demands exceed nurses' capabilities and resources (Breier, Wildschut & Mgqolozana, 2009:1).

Attention should be paid to these precursors of compassion fatigue, as this condition can be very costly to the organization as it is linked with negative outcomes for the nurses (both personally and professionally) and affects the quality of patient care (Schroeter, 2014:37; Van den Berg, Bester, Janse-van Rensburg-Bonthuyzen, Engebrecht, Hlophe, Summerton, Smit, Du Plooy & Van Rensburg, 2006:2).

2.3.3. The outcomes of compassion fatigue

2.3.3.1. Nurse outcomes

Compassion fatigue may result in multiple negative outcomes for nurses. The consequences of compassion fatigue documented in literature include the physical, emotional, intellectual, social and spiritual domains.

Physical consequences of compassion fatigue may include profound physical exhaustion (Marcial *et al*., 2013:18; Showalter, 2014:240) which could be further aggravated by nightmares (Potter *et al.*, 2013:181) and insomnia (Aycock & Boyle, 2009:185; Potter *et al*., 2013:181). This, in turn, could contribute to reduced resistance to infection (Aycork & Boyle, 2009:185) resulting in frequent illnesses and aggravation of existing physical ailments (Aycock & Boyle, 2009:185; Melvin, 2012:607), including somatic disorders such as headaches, gastrointestinal distress, hypertension, head, back or muscle aches or general weakness and dizziness (Aycork & Boyle, 2009:185). Absenteeism could result from these illnesses, a finding supported by Sheppard (2014:57) and Aycork and Boyle (2009:185), Moreover, compassion fatigue could also lead to changes in appetite, a decline in work performance, avoidance of overwhelming tasks (Harr, 2013:74) and being prone to accidents (Marcial *et al*., 2013:18).

Emotional outcomes flowing from compassion fatigue might include: breakdown and the desire to resign from the job (Coetzee & Klopper, 2010:239), self-doubt (Showalter, 2014:240; Schroeter, 2014:37), hopelessness regarding positive change (Austin *et al.*, 2009:195), low morale (Sheppard,2014:57), feelings of negativity, anger and irritability (Austin *et al*., 2009:196; Marcial *et al*., 2013:18;

Aycork & Boyle, 2009:185), impotence, meaninglessness and isolation (Austin *et al*., 2009:196, Marcial *et al*., 2013:18), depression, emotional exhaustion and acute emotional pain (Showalter, 2014:240; Marcial *et al*., 2013:18), apathy, rigidity, thoughts of self-harm or harming others (Harr, 2013:73; Coetzee & Klopper 2010:239; Aycork & Boyle, 2009:185), depressed mood and feeling trapped (Circenisa & Millerea, 2011:2042), sense of helplessness (Figley, 2002:1436; Marcial *et al*., 2013:18), low motivation (Harr, 2013:74), depersonalization (Najjar, 2009:273), burnout (Coetzee & Klopper, 2010:239), feelings of low personal accomplishment and being critical of others (Aycock & Boyle, 2009:185).

Social effects of compassion fatigue might include: failure to maintain professional and personal relationships and diminished capacity to enjoy life (Harr, 2013:74; Schroeter, 2014:37; Showalter, 2014:240), interpersonal conflict, decreased self-esteem and mistrust (Harr, 2013:73), loss of interest in social events (Potter *et al*., 2013:181), decreased intimacy, loneliness and isolation (Harr, 2013:74), alcohol abuse or overindulgence (Aycock & Boyle, 2009:185; Circenisa & Millerea, 2011:2042), impersonal or stereotyped communications, sarcasm, cynicism (Aycock & Boyle, 2009:185), unresponsiveness, hardheartedness and indifference towards patients (Coetzee & Klopper, 2010:239), and a loss of interest in sexual activity (Potter *et al.*, 2013:181).

Intellectual consequences of compassion fatigue could include disarrangement (Coetzee, 2010:239), difficulty concentrating (Harr, 2013:73), mental fatigue (Marcial *et al*., 2013:18), confusion (Figley, 2002:1436), lack of competency, lack of professionalism, pessimism, inefficacy, psychological distress and burnout (Harr, 2013:74; Coetzee & Klopper, 2010:239).

Spiritual effects include: spiritual exhaustion (Sheppard, 2014:57; Showalter, 2014:240) lack of spiritual awareness, poor judgment and disinterest in introspection (Coetzee & Klopper, 2010:239), uncertainty concerning value systems or beliefs, becoming angry or bitter at God, and withdrawing from fellowship (Aycock & Boyle, 2009:185), all of which have negative effects on cognitive schemas and an individual's belief system (Harr, 2013:73).

2.3.3.2. Patient outcomes

Compassion fatigue involves an erosion of empathy or disengagement on the part of nurses in the course of rendering care to patients (Austin *et al*., 2009:196; Figley, 2002:1436; Showalter, 2010:239). Subsequently, this erosion might result in an insensitivity and indifference towards patients (Austin *et al*., 2009:196: Harr, 2013:74) as nurses attempt to shield and distance themselves from the suffering of patients and families (Austin *et al*., 2009:196). The outcome of this is deteriorating patient care (Klopper *et al*., 2012:163,686), decreased patient satisfaction (Potter *et al.*,2013:180), less time spent with patients, medication errors, poor record-keeping and patient depersonalization (Aycock & Boyle, 2009:185).

2.3.3.3. Organizational outcomes

Compassion fatigue has significant implications for healthcare organizations because of its association with nurse retention and turnover, patient satisfaction, patient safety and efforts to maintain a competent and caring nursing staff (Potter *et al*., 2010:56). Compassion fatigue could well result in the development of stress-related symptoms and a decreased level of job satisfaction and motivation among the health personnel (Branch. 2013:8; Harr, 2013:64; Hayes, Bonner & Pryor, 2010:804) which in turn might be followed by impaired job performance, absenteeism and a higher turnover rate among nurses (Boyle, 2011:3; Harr, 2013:64; Hayes, Bonner & Pryor, 2010:804; Hooper *et al*., 2010:420; Sheppard, 2014:57; Showalter, 2014:240). Not only could staff shortages be a consequence of the high nurse turnover rate, but it could also lead to poor patient outcomes (Crary, 2013:74; Hayes, Bonner & Pryor, 2010:804) which could cause increased financial expenditure for the organization, especially due to litigation (Hayes, Bonner & Pryor, 2010:804). Due to these outcomes, the importance of education regarding symptoms, prevention and treatment of compassion fatigue are reiterated (Hooper *et al.,* 2010:421; Potter *et al.,* 2013:180).

2.3.4. Preventing compassion fatigue

Compassion fatigue is a potential threat in any helping profession and no one is immune from this condition (Boyle, 2011:3). However, self-awareness, early detection and early intervention might help to prevent its progression (Maiden, 2014:38). Hospitals need to implement effective programs to prepare healthcare staff to better recognize, prevent and manage compassion fatigue (Figley, 2002:1438). Literature on strategies and intervention to assist nurses with the syndrome is still limited (Potter *et al*., 2013:180-181).

Compassion fatigue can be prevented and treated if diagnosed early and managed properly (Abendroth & Flannery, 2006:355; Figley, 2002:1436). However, if not dealt with in its initial phases, it can permanently change caregivers' ability to render compassionate care (Boyle, 2011:2). The management of compassion fatigue must be multidimensional and should include prevention, assessment and consequence minimization (Aycork & Boyle, 2009:190).

Awareness is key to the prevention and overcoming of compassion fatigue, and should be consistent with the person's needs, limits, emotions and resources (Schroeter, 2014:37; Wentzel & Brysiewicz, 2014:96). Nurses need to be knowledgeable about the symptoms of compassion fatigue, as well as warning signs and prevention (Boyle, 2011:6; Hooper *et al*., 2010:421). Furthermore, boundaries should be set that allow nurses to show compassion without becoming overwhelmed, and this requires awareness of the risk of compassion fatigue (MacLaughlin & Frandsen, 2010:51).

Compassion fatigue may be aggravated by the lack of self-care from nurses (Abendroth & Flannery, 2006:347). Self-care is the most important gift a nurse can give herself to recharge depleted energy (Figley, 2002:1438). Furthermore, self-care helps nurses to identify the best healing tools to preserve resources, help them identify what is important in life and assist them to live in a way that reflects this daily (Figley, 2002:1437). In addition, it aids them in living a balanced life, allowing their professional life to enhance their social life, while not compromising their well-being (Maytum, Heiman, & Garwick, 2004:177).

Important aspects of self-care are learning to refuse to offer help if unaffordable, and balancing social and professional lives (Showalter, 2010:241; MacLaughlin & Frandsen, 2010:51). More self-care strategies could include taking adequate time off to recharge with enjoyable activities, exercising, getting enough sleep, eating healthily, having a sense of humour, accepting support from friends and colleagues as well as spiritual support, storytelling, keeping a journal, music therapy, meditation, and team outdoor activities away from the workplace (Alkema, Linton & Davies, 2008:105; Gilmore 2012:32; Wetzel & Brysiewicz, 2014:96). These strategies might enhance compassion satisfaction and decrease compassion fatigue.

Apart from these self-care strategies, Aycock and Boyle (2008:186), Wetzel and Brysiewicz (2014:96) and Yoder (2010:96) suggest that nurses should also accept care from others in the form of employee assistance programs (EAP), pastoral care, collegial support, support groups, and staff wellness programs, including staff health screening. Moreover, adequate staffing, role models, preceptors and mentors, specialized retreats to address the psychological toll, and educational programs might equip nurses with the knowledge and skills required to overcome the risk of compassion fatigue. The use of informal debriefing with colleagues in the management of stressful situations helps in the management of compassion fatigue (Yoder, 2010:195). Four models suggested by Wetzel and Brysiewicz (2014:96) are assumed to be beneficial in the management of compassion fatigue and are presented as examples of effective interventions.

2.3.4.1. The Accelerated Recovery Program (ARP).

The (ARP) focuses on mental health and trauma workers, helping them to address as well as to resolve symptoms of compassion fatigue and also assisting with self-examining stressors and identifying the risk or presence of compassion fatigue (Gentry, Baranowsky & Dunning, 1997:124-126; Wetzel & Brysiewicz, 2014:96).

2.3.4.2. The Stress-reduction model of Mindfulness-Based Stress Reduction (MBSR).

This model teaches nurses to deal with stress, pain and the demands of everyday life, thereby assisting them to respond successfully when confronted with stress (Kabat-Zinn, 1990; Wetzel & Brysiewicz, 2014:96). It combines meditation, yoga, and mindfulness to assist in reducing stress, as well as to promote coping skills and improve empathy in healthcare workers (Kabat-Zinn, 1990; Wetzel & Brysiewicz, 2014:96).

2.3.4.3. The Academy of Traumatology/ Green Cross.

This program provides standards of self-care, offering guidelines to aid in improving one's own physical and emotional health (Wetzel & Brysiewicz, 2014:96). These standards include ethical principles, respect for dignity and health, human practice of self-care, standards for establishing and maintaining wellness, commitment to self-care, personal and professional inventory of self-care practices, effective methods of self-awareness and self-assessment, and development of a prevention plan (Wetzel & Brysiewicz, 2014:96).

2.3.4.4. The Creative Compassion Model.

This model attempts to seek what contributes to compassion satisfaction and uncover the positive concepts of work. It revises previous models that focused on the negative effects and seeks to look at positive achievements (Wetzel & Brysiewicz, 2014:96). The cornerstone of this model is the creation of compassion satisfaction, which is the ability to receive fulfilment from caring while remaining positive by overcoming adverse emotional exposures encountered in the work environment (Wetzel & Brysiewicz, 2014:96).

2.4. EMOTIONAL WORK

Emotions are sets of natural occurrences such as facial expressions, bodily changes, behavioural changes, motivation and cognitive appraisal (Brink, 2012:12). Emotions form the foundation of our daily social lives and are an

essential part of the nursing profession (Brink 2012:12). Most of the daily activities are sifted through emotions such as the way we perceive things, our thoughts and the decisions we make. According to Freshwater and Stickley (2004:93), emotions are seen as being essential to the development of effective and meaningful relationships with patients and as motivating one's decisions and actions. Nurses regard emotions as a key part of their job that helps them to understand what to do (Smith & Gray, 2001:232). Compassion is an emotion and an altruistic virtue that involves concern for the good of the other person, an imaginative awareness of the other's suffering and a desire to act in order to relieve that suffering (Pask, 2003:170). Emotional work implies the regulation and management of emotions as per the requirement from the employer (Hochschild, 1983:7). The history of emotional work, the definition and emotional work and nursing are discussed in the following paragraphs:

2.4.1. The history of emotional work

Emotional work has been studied among multiple job categories such as flight attendants, hospitality staff, salespeople, military staff, debt collecting agencies and healthcare professionals (Morris & Feldman, 1997:263). Emotional work has traditionally been identified with women's work and the role of the mother in the family, as based on the life of Florence Nightingale (Gray & Smith, 2008:254). The term "emotional labour" was first coined by Hochschild in her book *The Managed Heart* (Hochschild, 1983:7). Hochschild was the first to develop and refine the concept of emotional labour in her study of flight attendants (Huynh, Alderson & Thompson, 2008:197). In her book, Hochschild found that employees are often paid for controlling their feelings and emotional expressions, particularly when they interact with customers: this phenomenon is known as "emotional labour" (Hochschild, 1983:7). Hochschild further defined emotional labour as the effort of workers to manage their feelings so as to create a publicly acceptable facial or bodily display (Hochschild, 1983:7). Hochschild used the term "emotional labour", since this involves the induction or suppression of feeling in order to sustain an outward appearance (Hochschild 1983:7). Emotional labour was further defined as the act of displaying appropriate emotion by conforming to a display rule (Ashforth & Humphrey, 1993:90). Feeling rules are used in emotional

conversations to determine which feelings are right and wrong and whether to engage in emotional labour or not (Hochschild, 1983:18). Hochschild identified two strategies by which individuals manage their emotional displays, viz. surface acting and deep acting. In surface, emotional expressions are regulated and, in deep acting, feelings are deliberately altered so as to express the desired emotion (Hochschild, 1983: 33). Hochschild (1983:33) further noted two basic surface acting strategies. The first strategy is masking or covering up felt emotions thatconflicts with the feeling rules governing the interaction, therefore suppressing and disguising what is felt. The second strategy is pretending to feel what is not felt (Hochschild, 1983:33).

Hochschild (1983:153) revealed that emotional labourer's experience a dimension of work that is seldom recognized, rarely honoured and almost never taken into account by employers as a source of job stress. To this end, workers struggle to manage the relationship between their personal emotional lives and the demands of their jobs. Specific emotional responses are largely invisible because emotional labour has not yet been acknowledged as a significant issue (Hochschild, 1983:153). The jobs that require the regulation of emotions have three characteristics: 1) they involve voice or facial contact; 2) they require the worker to produce an emotional state or reaction in the customer; and 3) they provide the employer with an opportunity to control the emotional activities of the employee (Smith, 1992:7).

Hochschild (1983:9) confirmed that management of organizationally-sanctioned emotions to customers and clients as a form of "labour" could be very unpleasant for employees and might have a negative influence on employees' well-being. She further explained that repeated emotional displays would strain employees and lead to isolation and exhaustion. Thus, Hochschild also linked emotional work with job stress and burnout (Hochschild 1983:9).

Although Hochschild (1983) focused on emotional labour as placing pressure on an employee to display and suppress emotion, others such as England and Farkas (1986:91) have focused on the effect that emotional labour is designed to have on others. England and Farkas (1986:91) later defined emotional labour as the effort made to understand others, to have empathy with their situation and to

feel their feelings as part of one's own. This definition diverted focus from viewing emotional work as the effort to display the required emotions by the employee, concentrating instead on the feelings of the patient or client.

Emotional labour and emotional work are two constructs that are used interchangeably in emotional labour theory (Jonker, 2012:40). Emotional labour is the exchange value of work which is sold for a wage, whereas emotion work or emotion management refers to the private context where they have use value (Hochschild, 1983:7). The term "emotional work" is preferred in relation to emotional labour, since emotional labour refers more to societal and economic aspects, whereas emotional work refers to the psychological processes of the employees (Jonker, 2012:40). Emotional labour is conceptualized in two main ways, firstly as job-focused, which denotes the level of job demands in an occupation, and secondly as employee-focused, which denotes employee processes or experiences of managing emotions and expressions to meet work demands (Brotheridge & Grandey, 2002:18). For this study, the term "emotional work" will be adopted.

2.4.2. Definition of emotional work

Emotional work is the emotional regulation required of employees in the display of organisationally desired emotions (Zapf *et al.*, 1999:371) and refers to the quality of interactions between employees and clients (Zapf, 2002:237). Brotheridge and Lee (2003:367) define emotional work as the behavioural response to variations in the frequency, variety, intensity and duration of service interactions. Furthermore, emotional work includes the effort, planning and control needed to express organizationally desired emotions during interpersonal transactions (Morris & Feldman, 1999:987; Ashford & Humphrey, 1993:90) and may involve enhancing, faking or suppressing emotions so as to modify emotional expression (Grandey, 2000:93).

Emotional regulation includes the requirement to display positive emotions, to display and handle negative emotions, to cultivate neutral emotions, the requirement to be sensitive and to consider clients' emotions and the need to show sympathy (Zapf *et al*., 1999:375-376, 392). Positive emotion is the

frequency at which the participant is required to display pleasant emotions such as friendliness or kindness towards the client in his/her job (Zapf *et al*., 1999:388-389). Negative emotion implies the frequency at which the participant is required by the job to display unpleasant emotions such as strictness or anger if the rules are not followed by clients (Zapf *et al*., 1999:388-389). Display of neutral emotions refers to the frequency at which the participant is required to display neither positive nor negative emotions to clients (Zapf *et al*., 1999:388-389). A demand for sensitivity is linked with the importance in the job to know how clients are feeling at that moment (Zapf *et al*., 1999:388-389). Emotional sympathy refers to the frequency at which the participant has to express sympathy towards the client (Zapf *et al*., 1999:388-389).

Emotion control indicates occasions when the participant can decide for him/herself regarding the emotions to display towards clients, while interaction control refers to the times when the job allows the participant to end the conversation if considered to be appropriate (Zapf *et al*., 1999:388-389). When the decision regarding which emotion to display is dictated by the organization, emotional dissonance could ensue. Zapf (2002:240) explains that, in persons-related jobs, certain emotions are expressed to influence other people's attitudes and behaviours, usually by influencing their moods and emotions. Most organizational institutions develop guidelines on expressions of emotions by employees (Zapf & Holz, 2006:2). Employees are expected to exhibit certain feelings while at work, such as expressing only cheerfulness when interacting with customers, and to suppress irritation when dealing with uncooperative clients (Chou, Hecker & Martin, 2012:502).

2.4.3. Emotional work and nursing

Emotional work has received significant attention in the past years due to its relevance to healthcare professions (De Jonge, Le Blanc, Peeters & Noordam, 2007:1461). It is also a significant phenomenon and an integral part of the role of nursing; hence, nurses are guided by certain norms to display organizationally desired emotions while caring for patients (Chou, Hecker & Martin, 2012:502; Lazányi, 2010:150). As nursing is emotionally demanding (Diefendorff, Erickson,

Dahling & Grandey, 2011:182), many researchers have investigated the role of emotional work in nursing and revealed diverse findings and definitions (Gray & Smith, 2006:254; Gray, 2009:168; Schmidt & Diestel 2014:1450; Smith, 1992:7; Smith & Gray 2001:236; Yang & Chang, 2007:880).

In nursing, emotional work is defined as a process through which nurses adopt a work persona to express their autonomous, deeply or superficially felt emotions during patient encounters (Huynh, Alderson & Thompson, 2008:201). Nurses are required to express a higher degree of emotional work when interacting with the patients on a daily basis compared to other professional and technical staff with similar jobs (Hochschild, 1983:153; Yang & Chang, 2008:80). During the process of caring, nurses perform emotional work when they have to regulate their experience and expression of emotions in order to meet the organizational rules of displaying and hiding certain emotions (Schmidt & Diestel, 2014:1451). Nurses often experience negative emotions such as disgust, irritation and anger, the expression of which would not be conducive to patient care (Mann & Cowburn, 2005:306). Therefore, they are expected to suppress negative feelings towards patients (Chou, Hecker & Martin, 2012:503). Suppression of negative emotions is accomplished through surface acting, in the case where nurses pretend to feel the expected emotion, or deep acting, in the case where they change their inner feelings in order to feel the desired emotions (Chou, Hecker & Martin, 2012:503). According to Chou, Hecker and Martin, (2012:503) nurses are expected to display a genuine caring demeanour, empathy for patients and an understanding of their pain. Emotional work has both negative and positive implications for nurses and organizations (Zapf, 2002:264).

2.4.4. Positive outcomes of emotional work

Emotional work entails a relationship between the carer and the cared for and can be viewed as a commodity to be taken into consideration in caring work (Henderson, 2001:36). Drawing upon the work of Smith and Gray (2001), emotional work is regarded as part and parcel of the nurses' daily routine and helps to build nurse-patient trust by making patients feel loved (Smith & Gray, 2001:232). Emotional work sustains a caring environment between nurses and

their patients and this gives nurses space to engage with, reflect upon and manage their own and others' emotions, which greatly improves practice and the standard of patient-centered care (Gray, 2009:173).

Emotional work also informs interpersonal relationships and sustains the quality of nurse-patient care and is potentially of great therapeutic value (Gray, 2008:175). Furthermore, emotional work is a vital component of caring for patients and supporting and facilitating best nursing practice (Gray, 2008:175). Emotional labour is reported to make nurse and patient contact easier and create an almost invisible bond that the nurse cultivates with the patient (Smith & Gray, 2001:232). Emotional work literature confirms that display rules shape employee emotional displays in ways that enable the attainment of organizational goals (Diefendorff *et al*., 2011:170). Emotional work makes interactions more predictable and avoids embarrassing interpersonal problems that might otherwise disrupt interactions (Ashforth & Humphery, 1993:94). Grandey (2000:95) posits that as much as regulation of emotions is beneficial to the organization, this can be detrimental to the employee.

2.4.5. Negative outcomes of emotional work

Hochschild (1983:9) maintains that emotional work is a special form of human exploitation that affects employees' personalities and causes psychological ill-health. Emotional work is a risk factor for job dissatisfaction (Pisaniello, Winefield & Delfabbro, 2012:590). Intense or continuous emotional work can be stressful and exhausting (McQueen, 2004:104). Hence, frequent emotional displays would overtax employees and lead to alienation/depersonalization and emotional exhaustion (Zapf, 2002:258).

Emotional dissonance refers to the frequency at which the participant has to display emotions that do not agree with the participant's true feelings (Zapf *et al.,* 1999:388). Furthermore, emotional dissonance is seen as a stressor that is related to the social environment, job demand and is an emotion regulation problem (Zapf *et al*., 1999:388; Zapf *et al*., 2001:530). Emotional dissonance is also associated with emotional exhaustion and job dissatisfaction (Zapf, 2002:264). Emotional dissonance could result in personal and job-related

maladjustment such as poor self-esteem, depression, cynicism and alienation from work (Ashforth & Humphery, 1993:97). Emotional work in the form of regulation is a risk factor for job dissatisfaction, whereas suppressing negative emotions is a risk factor for patient-related burnout (Pisaniello, Winefield & Delfabbro, 2012:589).

2.5. JOB STRESS

Gray-Toft and Anderson (1981:12) define stress as an internal cue in the physical, social or psychological environment that threatens the balance of an individual. It is a universal human and animal phenomenon resulting in an intense and distressing experience that influences behaviour (Lazarus 1966:2). Furthermore, stress is the emotional and physical response that an individual experiences when there is a perceived imbalance between demand and resources at a time when coping is important (Lazarus & Folkman, 1984:19). Abrahams (2008:11) agrees that stress is both a psychological and physical situation which originates in particular social settings.

Stress is perceived differently by each individual, as stressful events are person-environment connections, whereby stress is dependent on the meaning of the stimulus to the individual (Lazarus & Folkman, 1984:19; McVicar, 2003:640). The person-environment transactions are mediated by the individual's appraisal of the stressor, and the coping resources available to the person (Lazarus & Folkman, 1984:19; McVicar, 2003:640).

Job stress is any work situation is perceived as threatening due to the incongruity between the situation's demands and the individual's coping abilities (AbuAlRub, 2004:75). The condition arises from people interacting with their jobs, resulting in changes that force them to deviate from their normal functioning (Rollinson, 2005:270). Due to the ever-changing nature of a nurse's day, nursing is viewed as a stressful profession, due both to the nature of the job and the environments in which they work (Riahi, 2011:721).

2.5.1. Job stress in nursing

Nurses form part of the health team and represent the largest category of healthcare providers, providing up to 80% of direct patient care (WHO, 2008a). Therefore, the health and work ability of nurses plays a major role in determining the quality of care provided (Knezevic, Milosevic, Golubic, Belosevic, Russo & Mustajbegovic, 2009:147). For this reason, the well-being of nurses and healthy working environments are essential for promoting quality care. The well-being of nurses could be enhanced by reducing job stress. However, nursing is, by definition, a stressful and demanding profession (Chang, Daly, Hancock, Bidewell, Johnson, Lambert & Lambert, 2006:30; McGrath, Reid & Boore, 2003:555; Peters *et al*., 2012:561; and Riahi, 2011:721). Some of the daily routine nursing tasks are unexciting, frightening, unrewarding, unpleasant, disgusting and humiliating (McGrath, Reid & Boore, 2003:555). These encounters have been frequently identified (Mackintosh, 2007:983) as introducing stress, and sometimes such stress can be devastating and threatening to the effectiveness of the nurse (Craig & Sprang, 2010:319; Mackintosh, 2007:983).

Nurses are confronted with stressful situations on a daily basis when they execute their duties to patients and families (Craig & Sprang, 2010:319; Mackintosh, 2007:983). Nursing job-stress is aggravated when nurses feel that they receive little support from supervisors and colleagues and little control over work demands and pressures (WHO, 2005).

Stress is evident in the nursing profession globally (Suresh, Matthews & Coyne, 2012:771) and acknowledged as a worldwide epidemic (Collins, 2006:310) that affects nurses personally and professionally (Peters *et al*., 2012:561). This finding is consistent with those of the study conducted by Glazer and Gyurak (2008:63) on perceived sources of job stress among nurses from Hungary, Israel, Italy, the United Kingdom and the United States of America, which confirmed that stress in nursing is a global concern and that workload is ranked as topping the list of ten measured sources of work-related stress among nurses. The list of ten stressors further includes resources, leadership, lack of staff and co-workers. In terms of culture-specific stressors (i.e., stressors that made the top 10 list in one or two countries) death and dying are particularly salient in Hungary and Israel, as is

inadequate communication and psychological strain (Glazer & Gyurak 2008:63). Further exploring causes of job-stress in nursing, Gray-Toft and Anderson (1981:15-17) identified major sources of stress; i.e. the physical, psychological and social environment of the hospital.

Physical environment sources of job-stress include having to deal with stressful situations caused by workload, inadequate staffing, problems with staff scheduling and insufficient time to complete nursing tasks (Gray-Toft & Anderson, 1981:15-17).

Psychological environment sources of job-stress include the death and dying of patients, unpreparedness to meet patients' and families' emotional needs, as well as indecision regarding treatment of patients (Gray-Toft & Anderson, 1981:15-17).

Lastly, social environment sources of job-stress include conflicts and criticism from doctors, and conflict with other colleagues and supervisors (Gray-Toft & Anderson, 1981:15-17).

Literature suggests that job stress in nurses is alive and thriving in South Africa and other Sub-Saharan countries (Moola, Ehlers & Hattingh, 2008; Joubert, 2009:6; Nabirye, Brown, Pryor & Maples, 2011:761). The long-standing political and economic factors of these countries impose financial strain in the provision of healthy working environments for nurses, better living conditions and quality healthcare for patients. The situation is made worse by the increasing number of HIV/AIDS patients and other chronic illnesses, as well as increased workloads, resulting in higher levels of job stress among nurses in these countries (Nabirye *et al*., 2011:761). This is supported by the findings of studies conducted among nurses in South Africa (Joubert, 2009:6), Zimbabwe (Zebron & Matura, 2014:42), Kenya, Tanzania and Uganda (Van der Doef, Mbazzi & Verhoeven, 2012:1763; Nabirye *et al.*, 2011:762), and Malawi (Maluwa, Andre, Ndebele & Chilemba, 2012:196-197), which suggest that poor work conditions, shortage of staff leading to higher patient to nurse ratios, workload, lack of resources, material, equipment and medicine, as well as low staffing are the chief sources of job stress among nurses in Sub-Saharan Africa.

South Africa as a developing country (Joubert, 2009:7), previously affected by fragmented health services and the inequalities of apartheid, and still a young democracy, is undergoing changes that affect the economic, social and political climate (Naledi, Barron & Schneider, 2011:17-18; Coetzee *et al.*, 2010:163). The situation is exacerbated by economic migrants and political refugees from other neighbouring countries putting more strain on health services (Joubert, 2009:6). Furthermore, South African health services are faced with challenges including, but not limited to, a shortage of nurses. One of the causes of the nursing shortage is the migration of South African nurses to more developed countries (Breier, Wildschut & Mgqolozana, 2009:vii). Factors associated with migration of nurses include poor working conditions, low salaries, lack of posts and workload in public hospitals. These burdens are caused by the increase in the HIV/AIDS pandemic and tuberculosis, attrition during and after training of nurses, a lack of workplace security, problems in relationships with management and low morale in the workplace (Naledi, Barron & Schneider, 2011:18; Breier, Wildschut & Mgqolozana, 2009:vii; Matsoso & Strachan, 2011:52). This was confirmed by the South African Presidency which admitted that the HIV and AIDS epidemic remains a serious problem and has added a burden to the healthcare system, particularly to nurses who need to give extra care to very sick patients. The president stressed the impact of staff shortages as a cause of heavy workloads, long working hours with sometimes difficult and irritable patients which eventually drain nurses physically and emotionally (Zuma, 2011:4). The result is high patient-to-nurse ratios and poor quality care provided to patients (Joubert, 2009:6). More causes of job-stress include unchallenging jobs, nurses having to do non-nursing tasks, poor communication between staff and subordinates and barriers to staff development (Lephoko, Bezuidenhout & Roos, 2006:29).

Job stress and its association with job dissatisfaction, burnout among nurses, shortage of nurses, qualitative and quantitative workload, practice environment, patient satisfaction and safety has been well documented in research studies conducted in various provinces in South Africa. These include studies on perceptions of staff shortages as a predisposing factor for stress among professional orthopaedic nurses at a public hospital (Bolo & Yako, 2013), practice environments, well-being, perceived quality of care and patient safety in private

and public hospitals in South Africa (Coetzee *et al*., 2012), critical care nurses' perceptions of stress and stress-related situations in the workplace (Moola, Ehlers & Hattingh, 2008), as well as practice environments, job satisfaction and burnout of critical care nurses in South Africa (Klopper *et al.,* 2012). Further stressors are organisational climate as a cause of job dissatisfaction among nursing staff in selected hospitals within the Mpumalanga Province (Lephoko, Bezuidenhout & Roos, 2006), occupational stress of professional nurses in South Africa (Van der Colff & Rothmann, 2014), and work-related stress, burnout, job satisfaction and general health of nurses (Khamisa, Oldenburg, Peltzer & Ilic, 2015). The findings from these studies are consistent with literature from countries outside the African continent which report that these variables are contributing to job stress among nurses. Though staff shortages were identified as a major cause of stress among nurses, other risk factors that contribute to job stress should not be forgotten (Van der Colff & Rothmann 2014:383).

2.5.2. The risk factors and manifestations of job stress

Job stress is one of the most important workplace health risks for employees (Trivellas, Reklitis & Platis, 2013:718; Knezevic *et al.,* 2009:147) and a subject of concern, as it results in negative outcomes for the nurse, patient care and the organization (Chang *et al*., 2006:30). The risk factors contributing to job stress as documented in literature include excessive work load (Gray-Toft and Anderson, 1981:15; McVicar, 2003:633; Chou, Hecker & Martin, 2012:503; Bolo & Yako, 2013:67; van der Colff & Rothmann 2014:375; Chang *et al*., 2005:63; Banovcinova & Baslova, 2014:253), staff shortages (Barnes, 2006; Bolo & Yako, 2013:67; Knezevic *et al*., 2011:151; Chou, Hecker & Martin, 2012:503; Van der Colff & Rothmann 2014:375; Gandi *et al*., 2011:191; and Banovcinova & Baslova, 2014:253), low salaries (Knezevic *et al*., 2011:151), absenteeism (Chou, Hecker & Martin, 2012:503; Donnelly, 2014:746), nursing sick and dying patients (Gray-Toft and Anderson, 1981:15), a stressful work environment (Burke, 2013:535), unsafe workplaces (Barnes, 2006:19), lack of staff support from colleagues and management (Chang *et al*., 2006:31; Banovcinova & Baslova, 2014:253), lack of autonomy and feedback at work, use of sophisticated technologies, decreased possibility of advancement, conflict with other colleagues, patients and families

(Banovcinova & Baslova, 2014:253; Neville & Cole, 2013:348), redeployment to work in other areas (Donnelly, 2014:748) and job demands (Van Ruysseveldt, Proost & Verboon, 2011:207).

2.5.3. The consequences of job stress

2.5.3.1. Nurses

Nurses work under difficult and stressful situations (Mackintosh, 2007: 983), resulting in decreased efficiency, long-term health problems, burnout and exhaustion. Job stress exhibits symptoms ranging from early emotional involvement to latter physical symptoms which affect caring behaviour, family life and the personal wellbeing of a nurse (Barnes, 2006:20).

Emotional/behavioural signs of stress include the following: emotional fatigue, apathy, depression, vague feelings of anxiety, irritability, crying spells, uncontrolled anger, grief, rage, agitation, suicidal or homicidal tendencies, carelessness, over-reaction to minor events (Barnes, 2006:20), mood and sleep disturbance and a short temper (Gibbens, 2007:26).

Physical signs could include frequent headaches, colds, muscle aches, stomach ulcers, loss of sex drive, asthma, an inability to perform one's job, heart conditions, muscle tremors, frequent accidents (Barnes, 2006:20), backache, migraine, weight fluctuations, dizziness, allergies and skin conditions (Gibbens, 2007:26).

Furthermore social symptoms such as boredom, lowered self-esteem/self-confidence, withdrawal from others, marital discord, abuse of alcohol, nicotine derivatives or recreational drugs, an inability to manage one's personal life, withdrawal, careers ending prematurely (Barnes, 2006:20), job dissatisfaction (Donnelly, 2014:746), mistrust of others, low morale, anxiety, anger, blaming others (Harr, 2013:74; Gibbens, 2007:27) and unaccommodating behaviour could result.

Lastly, intellectual symptoms of job-stress could include rigid thinking, memory deficits, paranoia (Barnes, 2006:20), poor decision-making, difficulty in thinking logically (Donovan, 2008:970) and poor concentration (Gibbens, 2007:26).

Work-related stress is seen as a grave health and safety issue that impacts on productivity, well-being, morals and legal issues (Collins, 2006:316; Faibane *et al*., 2013:2615).

2.5.3.2. Patients

Nielsen *et al.,* (2013:504) revealed that job stress is a risk factor for patient care. Nurses deal daily with sources of stress and this results in decreased levels of quality and quantity of care received by patients (Riahi, 2011:727; Marcial *et al*., 2013:19; Donnelly, 2014:746), diminished empathy for patients (Harr, 2013:74), and increased costs of healthcare (Riahi, 2011:727).

2.5.3.3. Organization

Nurses lose passion which results in low productivity, poor performance and poor quality of care, as well as increased accidents (Marcial *et al*., 2013:19; Banovcinova & Baslova, 2014:253). Furthermore, nurses feel less committed to work and engage in unhealthy practices such as excessive alcohol or drug consumption (Donovan, 2008:970). High levels of job-stress might also lead to high staff turnover, reduced work performance, patient/client complaints, poor time-keeping, as well as nurses leaving the nursing profession (Gibbens, 2007:27). Lastly, job-stress might simply cause nurses to avoid certain tasks that seem overwhelming (Harr, 2013:74).

In the view of the above findings, the motivation behind the current study is to find out if there is a relationship between emotional work, job stress and compassion fatigue among nurses in KwaZulu-Natal Durban Metro public hospitals. There is a need to further explore these variables in the whole province of KwaZulu-Natal, since this is the first research study to explore the relationship between emotional work, job stress and compassion fatigue.

2.6. SUMMARY

A literature review was conducted to clearly define the concepts of compassion fatigue, emotional work and job stress, as well as to describe the relationship between these variables.

In conclusion and drawing from the above discussion, the relationship between compassion fatigue, emotional work and job stress is evident. Emotional work is a stressor that is linked to emotional exhaustion, alienation from work, depression, poor self-esteem, job dissatisfaction, burnout and cynicism. In addition, emotional work continues to be regarded as vital to nurses and an integral part of the culture of care (Smith & Gray, 2001:236). These manifestations are also linked with causes of compassion fatigue and job stress. Inevitably, nurses could fall victim to compassion fatigue and job stress which, in turn, could lead to increased illness, absenteeism, loss of productivity and an increased risk of errors in a society that is already experiencing a severe staff shortage (Abendroth 2005:2; Alkema, Linton & Davies, 2007:102; Farquharson, Bell, Johnston, Jones, Schofield, Allan, Ricketts, Morrison & Johnston, 2013:2327). Understanding the onset of compassion fatigue, emotional work theory and management of job stress by neophyte nurses through education and training could reduce negative outcomes for nurses, patients and the organization. The research study emphasises a dire need for exploring compassion fatigue, emotional work and job stress in a formal and systemic manner so that the subject can be included in the nursing curriculum. Additionally, it can be concluded that more research is needed on compassion fatigue, emotional work and job stress among nurses working in public hospitals in the whole of South Africa, and on a comparison of these variables between public and private hospitals.

In the next chapter, an article, as prepared for the *Journal of Nursing Managemen,t* is presented. This article includes a shortened version of the literature review, the study aims, method, results and conclusion.

Chapter 3: Article

PREAMBLE I

ARTICLE AUTHOR GUIDELINES: JOURNAL OF NURSING MANAGEMENT

Journal of Nursing Management

Journal of Nursing Management

Edited By: Professor John Daly

Impact Factor: 1.5

ISI Journal Citation Reports © Ranking: 2014: 17/108 (Nursing (Social Science)); 19/110 (Nursing (Science)); 74/185 (Management)

Online ISSN: 1365-2834

Author Guidelines

Aims and Scope

The *Journal of Nursing Management* is an international forum which informs and advances the discipline of nursing management and leadership. The Journal encourages scholarly debate and critical analysis resulting in a rich source of evidence which underpins and illuminates the practice of management, innovation and leadership in nursing and health care. It publishes current issues and developments in practice in the form of research papers, in-depth commentaries and analyses.

The complex and rapidly changing nature of global health care is constantly generating new challenges and questions. The *Journal of Nursing Management* welcomes papers from researches, academics, practitioners, managers, and policy makers from a range of countries and backgrounds which examine these

issues and contribute to the body of knowledge in international nursing management and leadership worldwide.

The *Journal of Nursing Management* aims to:

- Inform practitioners and researchers in nursing management and leadership
- Explore and debate current issues in nursing management and leadership
- Assess the evidence for current practice
- Develop best practice in nursing management and leadership
- Examine the impact of policy developments
- Address issues in governance, quality and safety.

Essential requirements for papers

Before peer review, all manuscripts are screened by the editors for their suitability for publication in the journal on the basis that they fall within the Journal's Aims and Scope, and meet the following essential criteria:

- The issue is considered in an international context
- The implications of nursing management and patient outcomes are clear
- The paper adds to the knowledge base in the field
- The paper is written in clear, fluent and simple English
- Collected data should not be more than two years old on submission and there should be no secondary analysis of existing data.

Please read the instructions below carefully for details on the submission of manuscripts, the journal's requirements and standards as well as information concerning the procedure after a manuscript has been accepted for publication in the *Journal of Nursing Management*. Authors are encouraged to visit Author Services for further information on the preparation and submission of articles and figures.

Ethical Guidelines

The *Journal of Nursing Management* adheres to the below ethical guidelines for publication and research.

Authorship and Acknowledgements

Authorship: Authors submitting a paper do so on the understanding that the manuscript has been read and approved by all authors and that all authors agree to the submission of the manuscript to the Journal. ALL named authors must have made an active contribution to the conception and design and/or analysis and interpretation of the data and/or the drafting of the paper and ALL must have critically reviewed its content and have approved the final version submitted for publication. Participation solely in the acquisition of funding or the collection of data does not justify authorship.

Journal of Nursing Management adheres to the definition of authorship set up by The International Committee of Medical Journal Editors (ICMJE). According to the ICMJE authorship criteria should be based on 1) substantial contributions to conception and design of, or acquisition of data or analysis and interpretation of data, 2) drafting the article or revising it critically for important intellectual content and 3) final approval of the version to be published. Authors should meet conditions 1, 2 and 3.

It is a requirement that all authors have been accredited as appropriate upon submission of the manuscript. Contributors who do not qualify as authors should be mentioned under Acknowledgements.

Acknowledgements: Under Acknowledgements please specify contributors to the article other than the authors accredited. Please also include specifications of the source of funding for the study and any potential conflict of interests if appropriate. **Suppliers** of materials should be named and their location (town, state/county, country) included.

Ethical Approvals

Where a submission reports on the collection of research data involving human subjects, it must be accompanied by an explicit statement in the Materials and Methods section identifying how informed consent was obtained and a declaration that, where appropriate, the study has been approved by the appropriate Research Ethics Committee (UK) or Human Subjects Review board (US and elsewhere). Editors reserve the right to reject papers if there is doubt as to whether appropriate procedures have been used.

Conflict of Interest and Source of Funding

Conflict of Interest: Authors are required to disclose any possible conflict of interest. These include financial conflicts (for example patent ownership, stock ownership, consultancies, speaker’s fee). Authors should note that referees are

asked to advise the Editor of any conflict of interest capable of influencing the author's judgment.

The Journal of Nursing Management requires that sources of institutional, private and corporate financial support for the work within the manuscript must be fully acknowledged, and any potential conflicts of interest noted. As of 1st March 2007, this information will be a requirement for all manuscripts submitted to the Journal and will be published in a highlighted box on the title page of the article. Please include this information under the separate headings of 'Source of Funding' and 'Conflict of Interest' at the end of your manuscript.

Source of Funding: Authors are required to specify the source of funding for their research when submitting a paper. **Suppliers** of materials should be named and their location (town, state/county, country) included. The information will be disclosed in the Acknowledgements section of the published article.

Appeal of Decision

The decision on a paper is final and cannot be appealed.

Permissions

If all or parts of previously published illustrations are used, permission must be obtained from the copyright holder concerned. It is the author's responsibility to obtain these permissions in writing.

Copyright Assignment

If your paper is accepted, the author identified as the formal corresponding author for the paper will receive an email prompting them to login into Author Services; where via the Wiley Author Licensing Service (WALS) they will be able to complete the license agreement on behalf of all authors on the paper.

For authors signing the Copyright Transfer Agreement
If the OnlineOpen option is not selected, the corresponding author will be presented with the Copyright Transfer Agreement (CTA) to sign. The terms and conditions of the CTA can be previewed in the samples associated with the Copyright FAQs below:
CTA Terms and Conditions
http://authorservices.wiley.com/bauthor/faqs_copyright.asp

For authors choosing OnlineOpen
If the OnlineOpen option is selected the corresponding author will have a choice of the following Creative Commons License Open Access Agreements (OAA):

Creative Commons Attribution License OAA
Creative Commons Attribution Non-Commercial License OAA
Creative Commons Attribution Non-Commercial -NoDerivs License OAA

To preview the terms and conditions of these open access agreements please visit the Copyright FAQs hosted on Wiley Author Services http://authorservices.wiley.com/bauthor/faqs_copyright.asp and visit http://www.wileyopenaccess.com/details/content/12f25db4c87/Copyright--License.html.
If you select the OnlineOpen option and your research is funded by The Wellcome Trust and members of the Research Councils UK (RCUK) you will be given the opportunity to publish your article under a CC-BY license supporting you in complying with Wellcome Trust and Research Councils UK requirements. For more information on this policy and the Journal's compliant self-archiving policy please visit: http://www.wiley.com/go/funderstatement.

Online Open

Online Open is available to authors of primary research articles who wish to make their article available to non-subscribers on publication, or whose funding agency requires grantees to archive the final version of their article. With OnlineOpen, the author, the author's funding agency, or the author's institution pays a fee to ensure that the article is made available to non-subscribers upon publication via Wiley Online Library, as well as deposited in the funding agency's preferred archive.

For the full list of terms and conditions, and the order form, see http://olabout.wiley.com/WileyCDA/Section/id-406241.html.

Any authors wishing to send their paper OnlineOpen will be required to complete the payment form available from our website at: https://authorservices.wiley.com/bauthor/onlineopen_order.asp.

Prior to acceptance there is no requirement to inform an Editorial Office that you intend to publish your paper OnlineOpen if you do not wish to. All OnlineOpen articles are treated in the same way as any other article. They go through the journal's standard peer-review process and will be accepted or rejected based on their own merit.

For questions concerning copyright, please visit our copyright FAQs

SUBMISSION OF MANUSCRIPTS

Manuscripts should be submitted electronically via the online submission site: http://mc.manuscriptcentral.com/jnm. The use of an online submission and peer review site enables immediate distribution of manuscripts and consequentially speeds up the review process. It also allows authors to track the status of their own manuscripts. Complete instructions for submitting a paper are available online and below. Further assistance can be obtained from Robert Huston at the Editorial Office. Please email: jnmedoffice@wiley.com.

Getting Started

Launch your web browser (supported browsers include Internet Explorer 6 or higher, Netscape 7.0, 7.1, or 7.2, Safari 1.2.4, or Firefox 1.0.4) and go to the journal's online submission site: http://mc.manuscriptcentral.com/jnm.

· Log-in or click the 'Create Account' option if you are a first-time user.

- If you are creating a new account.
- After clicking on 'Create Account', enter your name and e-mail information and click 'Next'. (Your e-mail information is very important).
- Enter your institution and address information as appropriate, and then click 'Next'.
- Enter a user ID and password of your choice (we recommend using your e-mail address as your user ID), then select your area of expertise. Click 'Finish'.

- If you have an account, but have forgotten your log in details, go to 'Password Help' and enter your e-mail address. The system will send you an automatic user ID and a new temporary password.

- Log-in and select 'Author Centre'.

Submitting Your Manuscript

- After you have logged in, click the 'Submit a new Manuscript' link in the menu bar.
- Enter data and answer questions as appropriate. You may copy and paste directly from your manuscript and you may upload your pre-prepared covering letter.
- Click the 'Next' button on each screen to save your work and advance to the next screen.
- You are required to upload your files.
- Click on the 'Browse' button and locate the file on your computer.
- Select the designation of each file in the drop-down menu next to the Browse

button.
- When you have selected all files you wish to upload, click the ‘Upload Files’ button.
- Review your submission (in HTML and PDF format) before sending to the Journal. Click the 'Submit' button when you are finished reviewing.

Manuscript Files Accepted

Manuscripts should be uploaded as Word documents or Rich Text Format (.rft) files (not write-protected) plus separate figure files. GIF, JPEG, PICT or Bitmap files are acceptable for submission, but only high-resolution TIF or EPS files are suitable for printing. The files will be automatically converted to HTML and PDF on upload and will be used for the review process. Figure tags should be included in the file. Manuscripts should be formatted as described in the Author Guidelines below.

Blinded Review

The Journal of Nursing Management uses double-blinded review. The names of the reviewers will thus not be disclosed to the author submitting a paper and the name(s) of the author(s) will not be disclosed to the reviewers.

To allow double-blinded review, please submit (upload) your main manuscript and title page as separate files.

Please upload:

- Your manuscript without title page under the file designation 'Main document'.
- Figure files under the file designation 'Figures'.
- The title page, Acknowledgements and Conflict of Interest Statement where applicable, should be uploaded under the file designation 'Title page'.

All documents uploaded under the file designation 'Title page' will not be viewable in the HTML and PDF format you are asked to review at the end of the submission process. The files viewable in the HTML and PDF format are the files available to the reviewer in the review process.

Suspension of Submission

Mid-way in the Submission Process You may suspend a submission at any phase before clicking the 'Submit' button and save it to submit later. The manuscript can then be located under 'Unsubmitted Manuscripts' and you can click on 'Continue Submission' to continue your submission when you choose to.

E-mail Confirmation of Submission

After submission you will receive an e-mail to confirm receipt of your manuscript. If you do not receive the confirmation e-mail after 24 hours, please check your e-mail address carefully in the system. If the e-mail address is correct please contact your IT department. The error may be caused by spam filtering software on your e-mail server. Also, the e-mails should be received if the IT department adds our e-mail server (uranus.scholarone.com) to their whitelist.

Manuscript Status

You can access Manuscript Central any time to check your 'Author Centre' for the status of your manuscript. The Journal will inform you by e-mail once a decision has been made.

Submission of Revised Manuscripts

When resubmitting an article following initial review, please list the points raised by the reviewers and identify how you have addressed each of these (with reference, where appropriate, to the page number(s) in the text). If you disagree with a point raised by a referee, please provide a detailed explanation for this. The Editor will reconsider your manuscript in the light of your comments and modifications and refer the work back to the original referees, or to additional referees, as appropriate. Please resubmit your paper on ScholarOne Manuscripts.

Revised manuscripts must be uploaded within 2 months of authors being notified of conditional acceptance pending satisfactory revision. Locate your manuscript under 'Manuscripts with Decisions' and click on 'Submit a Revision' to submit your revised manuscript. Please remember to delete any old files uploaded when you upload your revised manuscript. Please also remember to upload your manuscript document separate from your title page.

TYPES OF MANUSCRIPTS ACCEPTED

Original Research Studies: These report on the progress and/or outcomes of original research into current management practice (maximum 5,000 words, including the abstract and references). Figures and Tables should be limited to a combined total of six. Any additional material will be published online only.

Review Articles: These summarize, analyse and evaluate published material on an important topic whilst offering new theories, syntheses or ideas (maximum 5,000 words, including the abstract and references). Figures and Tables should be

limited to a combined total of six. Any additional material will be published online only.

Commentaries: These offer well argued, thought provoking personal comments on current nursing management issues (maximum 3,000 words, including the abstract and references).

Editorials: These provide expert opinion or critical review of a topical issue (1-2,000 words), including references.

Letters: These offer a well-argued response to issues raised by recently published papers in the *Journal of Nursing Management* (2-500 words).

MANUSCRIPT FORMAT AND STRUCTURE

Format

Language: The language of publication is English. Authors for whom English is a second language must have their manuscript professionally edited by an English speaking person before submission to ensure the English is of high quality. It is preferred that manuscripts are professionally edited. Visit our site to learn about the options. Please note that using the Wiley English Language Editing Service does not guarantee that your paper will be accepted by this journal.

Use of the first person: The use of 'I' or 'my' is quite acceptable when drawing on personal experience or describing personal action (Webb 1992). Alternatively, objective terms should be used (e.g., The interviews were conducted …). The use of 'the author' or 'the writer' in place of the first person is strongly discouraged.

Abbreviations: higher education institutions (HEIs), **but** Centre for Alternative Technology (CAT).

Scientific Names:

· Complete scientific names (genus and species) should be cited in full when mentioned first. Standard abbreviation style followed for subsequent citations.

· Full generic names should be used in titles, beginning of paragraph and sentence (there should be no abbreviations in such instances).

· Latin names should be in italic.

Illustrations

On final submission of an accepted manuscript. Computer-generated artwork should be saved in EPS or TIFF format, ensuring that the appropriate resolution is used. Our electronic artwork information pages are available at http://authorservices.wiley.com/bauthor/illustration.asp . These contain full details and should be read carefully to ensure that your figures comply with our requirements.

Structure

All manuscripts submitted to Journal of Nursing Management should include:

Title Page: A *Title Page* **must** be submitted as part of the submission process and should contain the following:

- Manuscript title
- Word count (including abstract and references)
- Authors' names, professional and academic qualifications, positions and places of work.
- Corresponding author address, and telephone and fax numbers and email address
- Acknowledgements: Under Acknowledgements, please specify contributors to the article other than the authors accredited. Please also include specification of the source of funding for the study and any potential conflict of interests if appropriate. Please limit this to 50 words.

Abstract: All research, review and commentary articles must include a structured abstract of 200 words. This provides a simple way of ensuring adequate detail is provided about the contents of the study or article (what, when, why, how and so-what?).

For *research articles* please use the following headings in your structured abstract:

Aim(s) - what was the purpose of the study?
Background - why was this study important?
Method(s) - a brief description of the method(s) used, including size and nature of sample
Results - what were the main findings?
Conclusion(s) - what are the main conclusions and implications for practice?
Implications for Nursing Management - What are the implications for nurse managers and/or nursing management? And what does this add to current knowledge?

For *review* and *commentary articles* please use the following headings in your structured abstract:

Aim(s) - what is the purpose of the article?
Background - why is the article important at this time?
Evaluation - what types of information were used and/or how were these analysed or evaluated?
Key issue(s) - what were the most important issues to emerge from the analysis?
Conclusion(s) - what are the main conclusions and implications for practice?
Implications for Nursing Management - What are the implications of the article for nurse managers and/or nursing management? And what does this article add to current knowledge?

Main text: The main body of the article should follow the structure of the abstract, and include all the same headings, including the Implication for Nursing Management, which is particularly important and should cover the unique contribution of the article to the existing knowledge base and how this could impact on nursing management and patient outcomes.

Please use published articles in the *Journal of Nursing Management* as exemplars (e.g., Bishop M. 2013).

Please add up to 5 keywords after the abstract.

References: Authors should prefer using references that are scholarly articles, of high quality and less than 5 years old. References that are older than 10 years are acceptable only if these are pioneering, or supporting classic works, for example, development of a theory, method or an instrument. Text references should follow the Harvard system, i.e., they should be placed in the text in parenthesis with author name(s) and year of publication e.g., (Hofmeyer 2013). Where there are three or more authors, the first author's name followed by '*et al*' will suffice e.g., (Havens *et al*. 2013). Where two or more citations are given at the same time, these should be placed in chronological order. Happell *et al*. (2013) Nurse and stress: recognizing causes and seeking solutions. *Journal of Nursing Management* 21, 638-647, Sparks A. M. (2011) Psychological empowerment and job satisfaction between Baby Boomer and Generation X nurses. *Journal of Nursing Management* 20, 451-460.

Detailed references should list authors (surnames and initials), date of publication, title of article, name of journal or book, volume, number of edition, editors, publisher and place of publication (if the reference is to a book) and the first and last page numbers, e.g.,

Abdelhadi N. & Drach-Zahavy A. (2012) Promoting patient care: work engagement as a mediator between ward service climate and patient-centred care. *Journal of*

Advanced Nursing 68 (6), 1276-1287

Hakanen J. & Roodt G. (2010 Using the job demands-resources model to predict engagement: analysing a conceptual model. In *Work Engagement: A Handbook of Essential Theory and Research* (A. Bakker & M. Leiter eds), pp. 85-101. Psychology Press, New York, NY.

The editor and publisher recommend that citation of online published papers and other material should be done via a DOI (digital object identifier), which all reputable online published material should have - see www.doi.org/ for more information. If an author cites anything which does not have a DOI they run the risk of the cited material not being traceable.

Tables, Figures and Figure Legends

Figures, tables, legends, acknowledgements and references should be placed at the end of the submission. All figures and tables should be referred to in the text and their approximate positions indicated in bold (e.g., insert Figure 1 about here).

It is essential that approval for the reproduction or modification of figures published elsewhere is sought and obtained from the publishers and authors prior to submission.

Supporting Information

Supporting Information can be a useful way for an author to include important but ancillary information with the online version of an article. Examples of Supporting Information include additional tables, data sets, figures, movie files, audio clips, 3D structures, and other related nonessential multimedia files. Supporting Information should be cited within the article text, and a descriptive legend should be included. It is published as supplied by the author, and a proof is not made available prior to publication; for these reasons, authors should provide any Supporting Information in the desired final format.
For further information on recommended file types and requirements for submission, please visit: http://authorservices.wiley.com/bauthor/suppinfo.asp

Appendices

Appendices will be published as online only supplementary material and linked to the online version of the article.

Preparation of Electronic Figures for Publication

Although low quality images are adequate for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented programmes. Scans (TIFF only) should have a resolution of at least 300 dpi (halftone) or 600 to 1200 dpi (line drawings) in relation to the reproduction size (see below). Please submit the data for figures in black and white or submit a Colour Work Agreement Form (see Colour Charges below). EPS files should be saved with fonts embedded (and with a TIFF preview if possible).

For scanned images, the scanning resolution (at final image size) should be as follows to ensure good reproduction: line art: >600 dpi; halftones (including gel photographs): >300 dpi; figures containing both halftone and line images: >600 dpi.

Further information can be obtained at Wiley-Blackwell's guidelines for figures: http://authorservices.wiley.com/bauthor/illustration.asp .

Permissions: If all or parts of previously published illustrations are used, permission must be obtained from the copyright holder concerned. It is the author's responsibility to obtain these in writing and provide copies to the Publisher.

Colour Charges: It is the policy of *Journal of Nursing Management* for authors to pay the full cost for the reproduction of their colour artwork. Therefore, please note that if there is colour artwork in your manuscript when it is accepted for publication, Wiley-Blackwell require you to complete and return a Colour Work Agreement Form to the address below before your paper can be published. Any article received by Wiley-Blackwell with colour work will not be published until the form has been returned to:

Customer Services (OPI)
John Wiley & Sons Ltd, European Distribution Centre
New Era Estate
Oldlands Way,
Bognor Regis
West Sussex
PO22 9NQ

Optimizing Your Abstract for Search Engines

Many students and researchers looking for information online will use search engines such as Google, Yahoo or similar. By optimizing your article for search engines, you will increase the chance of someone finding it. This in turn will make

it more likely to be viewed and/or cited in another work. We have compiled these guidelines to enable you to maximize the web-friendliness of the most public part of your article.

AFTER ACCEPTANCE

Upon acceptance of a paper for publication, the manuscript will be forwarded to the Production Editor who is responsible for the production of the journal.

Proof Corrections

The corresponding author will receive an e-mail alert containing a link to a website. A working e-mail address must therefore be provided for the corresponding author. The proof can be downloaded as a PDF (portable document format) file from this site.

Acrobat Reader will be required in order to read this file. This software can be downloaded (free of charge) from the following website: www.adobe.com/products/acrobat/readstep2.html . This will enable the file to be opened, read on screen, and printed out in order for any corrections to be added. Further instructions will be sent with the proof. Hard copy proofs will be posted if no e-mail address is available; in your absence, please arrange for a colleague to access your e-mail to retrieve the proofs.

Proofs must be returned to the Production Editor within **three days** of receipt.

As changes to proofs are costly, we ask that you only correct typesetting errors. Excessive changes made by the author in the proofs, excluding typesetting errors, will be charged separately. Other than in exceptional circumstances, all illustrations are retained by the publisher. Please note that the author is responsible for all statements made in their work, including changes made by the copy editor.

Early View (Publication Prior to Print)

The Journal of Nursing Management is covered by Wiley-Blackwell's Early View service. Early View articles are complete full-text articles published online in advance of their publication in a printed issue. Early View articles are complete and final. They have been fully reviewed, revised and edited for publication, and the authors' final corrections have been incorporated. Because they are in final form, no changes can be made after online publication. The nature of Early View articles means that they do not yet have volume, issue or page numbers, so Early View articles cannot be cited in the traditional way. They are therefore given a

Digital Object Identifier (DOI), which allows the article to be cited and tracked before it is allocated to an issue. After print publication, the DOI remains valid and can continue to be used to cite and access the article.

Author Services

Online production tracking is available for your article once it is accepted by registering with Wiley-Blackwell's Author Services.

PREAMBLE II

COVER LETTER TO THE EDITOR-IN-CHIEF OF JOURNAL OF NURSING MANAGEMENT

North-West University

Potchefstroom Campus

School of Nursing Science

Private Bag x6001

Potchefstroom

South Africa

2520

14 November 2015

Editor-in-Chief

Journal of Nursing Management

RE: ARTICLE FOR SUBMISSION

The authors hereby submit the article “The relationship between compassion fatigue, emotional work and job stress among nurses: A cross-sectional study”.

This article has not been published or submitted for publication elsewhere. The content of the article was approved by the contributing authors. Ethical approval was granted by the North-West University (Certificate no: NWU-00048-15-A1). Participants in this study gave voluntary informed consent for the research and data was collected anonymously. No conflict of interest is present in this study.

Thank you for your consideration of the submitted article.

Yours sincerely

_____

B.S. Hlongwane

The relationship between compassion fatigue, emotional work, and job stress among nurses: A cross-sectional study.

BAJABULILE S. HLONGWANE (B Cur, RN, RM)
Masters Student, School of Nursing Science, North-West University (Potchefstroom Campus), South Africa.

*SIEDINE K. COETZEE (PhD, RN, RM)
Associate Professor, School of Nursing Science, North-West University (Potchefstroom Campus), South Africa.

ALWIENA J. BLIGNAUT (M Cur, RN, RM)
Lecturer, School of Nursing Science, North-West University (Potchefstroom Campus), South Africa.

SURIA M. ELLIS (Pr Sci Nat)
Head: Statistical Consultation Services, Northwest University (Potchefstroom Campus) South Africa.
Address: North-West University
11 Hoffman Street
Potchefstroom
2531
South Africa

*Corresponding Author: Prof. Siedine K. Coetzee
Private Bag X6001
North-West University (Potchefstroom)
School of Nursing Science
Potchefstroom
2531
South Africa
Tel: +27 018 299 1879
Email: Siedine.Knobloch@nwu.ac.za

Wordcount: 4 659

Abstract

Aim: To describe the relationship between emotional work, job stress and compassion fatigue among nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal, South Africa.

Background: It is evident that compassion fatigue, emotional work and job stress have an impact on the well-being of nurses. However, the influence of emotional work and job stress on the development of compassion fatigue has not been explored.

Method: The study employed a non-experimental, cross-sectional survey design for data collection. All inclusive sampling was applied to the medical and surgical wards (N=44) of the three selected provincial hospitals and all the nurses (N=360; n = 331) working in the selected wards.

Results: Display of negative and neutral emotions and interaction control were positively related to compassion fatigue, while display of positive emotions and emotional control were negatively related. Overall job stress was positively related to compassion fatigue.

Conclusion: Emotional work and job stress is positively related to compassion fatigue, and emotional work is positively related to job-induced stress.

Implications for Nursing Management: Nurses require job and personal resources through the provision of positive practice environments, support groups, education and training in order to meet the emotional demands of nursing in a stressful job environment.

Keywords: Compassion fatigue, emotional work, job stress, nurse, South Africa

Word Count:: 215 words

1. Introduction

It is evident that compassion fatigue, emotional work and job stress have an impact on the well-being of nurses. However the influence of emotional work and job stress on the development of compassion fatigue has not been explored in international literature, and neither has the impact of all these variables on medical-surgical nurses (registered, enrolled and auxiliary nurses) been analysed in the South African context. Therefore, this study aims to describe the relationships between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

2. Background

Compassion is the ability to put oneself in another's place, and to "*feel with*" that person (Todaro-Franceschi 2013). It not only involves the acknowledgement of another's feelings or suffering, but the act towards alleviating or ending that suffering (Marcial *et al*. 2013). It is an orientation of mind that recognises pain and the universality of pain in human experience, and the desire to meet that pain with kindness, empathy, equanimity and patience (Feldman & Kuyken 2008).

Compassion is the most important attribute in a caring profession and is thus fundamental to the profession of nursing (Straughair 2012). According to Gilmore (2012), compassion allows nurses and caregivers to hold and sustain themselves in emotional balance while holding patient's despair in one hand and their hopefulness in the other. Paradoxically, despite compassion being indispensible to the practice of good nursing, literature abounds on the negative aspects or the cost of caring for the nurse. These include burnout, vicarious traumatisation, secondary traumatic stress and, most recently, compassion fatigue.

The term "compassion fatigue" was first used in the healthcare professional literature by Joinson (1992) as reflecting the inability of nurses to nurture. Joinson (1992) states that compassion fatigue is a unique form of burnout and affects people in caregiving professions. Figley (2002) later adopted the term in psychology and defined compassion fatigue as "a state of tension and

preoccupation with the traumatized patients by re-experiencing the traumatic events, avoidance/numbing of reminders or persistent arousal associated with the patient", using the term as a synonym for secondary traumatic stress. Most recently, Coetzee and Laschinger (2015) defined compassion fatigue as a state of being disengaged from the patient and impotent in terms of being able to meet the patient's needs, as well as feeling hopeless as a caregiver. In this definition, "disengagement" refers to the inability of the nurse to acknowledge and empathize with a patient or open him/herself up to experience emotions of sorrow, suffering and pain, while "impotence" is the inability of the nurse to alleviate or remove the patient's suffering or pain or to support a good death. This inability to connect with and meet the patient's needs results in a hopeless and unfulfilled caregiver.

The manifestations of compassion fatigue are vast and symptoms are evident in the physical, emotional, social, spiritual and intellectual domains (Coetzee & Klopper 2010). Physical symptoms include loss of strength, getting ill more often, weariness, somatic complaints, sleep disturbances, loss of appetite, headaches, reduced output, diminished performance, loss of endurance, increased physical complaints (Joinson 1992; Marcial *et al*. 2013; Coetzee & Klopper 2010; Bush 2009; Harr 2013). Emotional symptoms include helplessness, anxiety, fear, sadness, guilt, powerlessness, feeling emotionally drained and overwhelmed, showing resentment toward others, becoming impatient, moody, withdrawn, depressed, experiencing decreased levels of enthusiasm and self-esteem, desensitization, irritability, anger and diminished ability (Figley 1995; Coetzee & Klopper 2010; Marcial *et al*. 2013; Bush 2009; Harr 2013). Social, symptoms include a sense of isolation from their supporters, career burnout and an inability to help and share in the suffering of patients (Figley 1995; Coetzee & Klopper 2010; Marcial *et al*. 2013). The intellectual symptoms include a reduced concentration span, poor job performance, being prone to accidents, mental fatigue, confusion, weakening attention, boredom and memory loss (Coetzee & Klopper 2010; Figley 1995; Marcial *et al*. 2013; Bush 2009; Harr 2013). Spiritual symptoms include a lack of spiritual awareness (Coetzee & Klopper 2010). The presence of these manifestations will lead to a positive diagnosis of compassion fatigue.

The possibility of developing compassion fatigue among nurses is very high, since risk factors include contact with patients, self-expenditure and stress (Coetzee & Klopper 2010). The emotional connection that nurses have with patients could therefore serve as the primary cause of compassion fatigue (Coetzee & Klopper 2010; Dunn 2009; Bush 2009; Austin *et al*. 2009; Figley 2002). However, contrary evidence shows that happiness, human flourishing or contentment arises from a deep connection with patients (Todaro-Franceschi 2013). The answer could therefore lie in the type of connection and the performance of emotional work. Emotional work is defined as "the emotional regulation required of the employees in the display of organisationally desired emotions" (Zapf & Holz, 2006: 1).

Most organisations develop guidelines on expressions of emotion by their employees. Healthcare professions are one example, since healthcare professionals such as nurses are guided by certain norms regarding the expression of emotions (Lazányi 2010). In such professions, managing emotions is considered a central part of work (Zapf *et al*. 1999). This phenomenon was first coined as "emotional labour" by Hochschild (1983) and described as the suppression of feelings for the benefit of others. Later, Morris and Feldman (1996) defined emotional labour as the "effort, planning, and control needed to express organizationally desired emotions during interpersonal transactions". Zapf *et al*. (1999) later built on this work and coined the term "emotional work". Where emotional labour focuses on the societal and economical aspects of labour, emotional work focuses on person-related work (face-to-face or voice-to-voice) and the use of emotions in jobs to influence people's attitudes and behaviours (Zapf *et al*, 1999).

The theory of emotional work deals with emotions which employees actually feel versus the emotions employees pretend to feel (emotion-rule dissonance), in order to display emotions that meet job requirements (emotional dissonance and emotional deviance) (Holman *et al*. 2009). Nurses as carers are often expected to suppress their true emotions during face-to face interactions with patients, and required to display appropriate emotions that are required by their professional ethos (Briner 1995). Emotional work is known to increase emotional exhaustion, depersonalisation and long-term stress effects (Zapf 1999). This dissonance

between personal emotions and desirable professional emotions might impede nurses' ability to connect deeply with patients, thus triggering compassion fatigue.

However, it is not only emotional work that could cause compassion fatigue. Coetzee and Klopper (2010) also identified stress as an antecedent to developing compassion fatigue. Stress in nursing is an issue of concern since it results in negative outcomes for the individual nurse, patient care and the organisation. Stress is defined as an internal cue in the physical, social or psychological environment that threatens the equilibrium of an individual (Gray-Toft & Anderson 1981a). According to Lazarus and Folkman (1984), stress is the emotional and physical response an individual experiences when there is a perceived imbalance between demand and resources at a time when coping is important. In this study, job stress in particular will be studied.

Job stress is defined as embodying the harmful physical and emotional responses that occur when the demands of the job exceed the capabilities and resources of the employee (Yoon & Kim 2013). Similarly, AbuAlRub (2004) states that job-related stress is where any work situation is perceived by the participant as threatening because of the mismatch between the situation's demands and the individual's coping abilities. In nursing, job-specific stressors include unpleasant and unsafe working conditions; lack of resources; workload and unreasonable deadlines; inadequate control over or input given to work duties; lack of rewards and recognition for good performance; job pressures interfering with personal and family life; suffering and dying of patients; lack of staff support; conflict with physicians, other nurses and supervisors, and an inability to use skills and talents to the fullest extent at work (Pillay; Klopper *et al*. 2012; Coetzee *et al*. 2013; Harr 2013).

In this study, the following job stressors will be focused upon: death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses and workload as measured by the nursing stress scale (Toft & Anderson 1981). The focus of this study will therefore be on the relationship between compassion fatigue, emotional work and job stress.

3. The study

3.1. Aim

The aim of the study is to describe the relationship between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal, South Africa.

3.2. Research design

The study employed a non-experimental, cross-sectional survey design for data collection.

3.3. Research site and sample

The research was conducted in 2015 in the eThekwini district of KwaZulu-Natal, South Africa, and multi-level sampling was used. The KwaZulu-Natal province was purposively selected due to recent news reports regarding uncompassionate hospital staff (Sapa 2015). EThekwini district was purposively selected as this district has the highest number of public sector hospitals. The public sector comprises government-funded healthcare institutions which provide free healthcare to the impoverished population and is responsible for the healthcare needs of 80% of the South African population (Klopper *et al*. 2012).

The public sector healthcare service is divided into 4 levels according to the service provided by that facility, and a structured referral system is followed. Level 1 consists of primary healthcare clinics and community healthcare centres. Level 2 consists of district hospitals. Level 3 comprises provincial hospitals and level 4 includes the central hospitals which are also known as tertiary hospitals (DoH-Referral System 2014).

The category of hospitals in the sub-district is as follows: N=1 tertiary hospitals, N=7 regional hospitals and N=5 district hospitals. For the purposes of this study, the tertiary hospital was selected, as well as a random selection of two regional hospitals.

All-inclusive sampling was applied to the medical and surgical wards (N=44) of the selected hospitals and to all the nurses, including both the day and night duty (registered, enrolled and auxiliary nurses) (N=360) working in the selected medical and surgical wards. The final sample consisted of 331 usable questionnaires providing a response rate of 91.9%.

3.4. Research instruments

Four questionnaires were used in this study namely, the Demographic Questionnaire, the Compassion Practice Instrument, the Frankfurt Emotional Work Scale 5.0 (FEWS) and the Nursing Stress Scale (NSS). The Demographic Questionnaire was designed by the researcher to obtain demographic information such as age, gender, nursing rank, highest qualification, marital status, employment status, nursing as first career choice and satisfaction with nursing career. Compassion fatigue was measured by the Compassion Practice Instrument (Coetzee *et al*. 2015). This instrument measures compassion fatigue and compassion satisfaction. The compassion satisfaction questionnaire includes 15 items, divided into three subscales: disengagement (5 items), impotence (4 items) and hopelessness (6 items). The items are rated on a seven-point rating scale, with 1 indicating “never” and 6 indicating “always”. Higher scores indicate higher levels of compassion fatigue. The overall Cronbach’s alpha was 0.60 and alphas for each subscale ranged from 0.70 to 0.75.

Emotional work was measured by the Frankfurt Emotion Work Scale 5.0 [FEWS] (Zapf *et al*. 1999). This tool includes 72 items which are divided into eight subscales: display of positive emotions (9 items), display of negative emotions (8 items), display of neutral emotions (4 items), demands for sensitivity (4 items), sympathy (7 items), emotional control (4 items), interaction control (4 items) and emotional dissonance (5 items). The items are rated on a five-point scale, with 1 indicating either “exactly like that of A” or “very rarely” and 5 indicating “exactly like that of B” or “very often”. Higher scores indicate higher levels of emotional work. The scores of all subscales of emotional work were measured individually. The overall Cronbach’s scale was 0.63 and alphas for each subscale ranged from 0.53 to 0.81.

Job stress was measured by the Nursing Stress Scale [NSS] (Professor Gray-Toft & Anderson 1981). The questionnaire includes 40 items, divided into seven subscales: workload (6 items), death and dying (7 items), inadequate preparation (3 items), lack of support (3 items), uncertainty concerning treatment (5 items), conflict with physicians (5 items), and conflict with other nurses (5 items). The score for each item is based on the frequency with which these situations are assessed as stressful. The tool uses a four-point scale ranging from "never" (1) to "very frequently" (4). Higher scores indicate higher levels of job stress. The overall Cronbach's alpha was 0.91 and alphas for each subscale ranged from 0.56 to 0.70.

3.5. Data collection

Ethical clearance was received from the North-West University Human Research Ethics Committee [HREC] (NWU-00048-15-A1), the KwaZulu-Natal Provincial Department of Health Research Committee, the eThekwini District Ethics Committee and from the hospital management of the selected hospitals. Data was collected in August 2015. Appointments were made with hospital nurse managers, unit manager and the night duty supervisor of each medical and surgical ward to explain the purpose, benefits and risks of the research project. The unit manager and night duty supervisor then selected a mediator (someone who did not meet the inclusion criteria, and was not a direct supervisor of the possible participants, preferably the ward clerk) to assist with data collection in each ward. The participants were informed both orally and in writing of the study's purpose, benefits and risks. Participants were given 24 hours to decide if they would like to participate in the study and, if they agreed to participate, the mediator provided them with an unsealed envelope that contained the questionnaire. The participants were given 7 days to complete the survey and were asked to place the completed questionnaire back in the envelopes and seal them. Sealed envelopes were placed in a sealed box with a post-split at the nurses' station and were collected by the researcher after one week. Participants received no remuneration for participating in the study.

3.6. Data analysis

Statistical analyses were conducted using the SPSS 22 software (SPSS Inc., Chicago, IL, USA) and AMOS 22.0 (SPSS Inc.). Surveys that had sections of data missing were not included in the study, however surveys that had a few questions missing in a section were included in the study and the missing data left blank for items, Descriptive statistics, confirmatory factor analysis, reliability, ANOVA, Spearman's rank order correlations and effect sizes were used to analyse the data. The absolute indices calculated to test the confirmatory factor analysis model were as follows: chi-square, chi-square/df, the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). Non-significant values of chi-square ($P>0.05$) and chi-squared/df between 1 and 2 are required to indicate that the hypothesized model fits the data. The CFI should be larger than 0.90, and the RMSEA value smaller than 0.05 to indicate a good fit (Mueller, 1996; Blunch, 2008).

4. Results

4.1. Demographics

Among the 331 nurses who returned completed questionnaires, 293 were females (89.6%) and 34 male (10.4%). Their ages ranged from 25 – 48 years, with an average of 36.5 years. The majority of the nurse participants were registered nurses (42.2%), followed by enrolled nurses (38.5%) and auxiliary nurses (19.3%). Registered nurse participants had worked 10.7 years on average, enrolled nurses 6.3 years and auxiliary nurses 4.9 years. Other demographic data are presented in Table 1.

Table 1 : Participant's Demographics (n=331)

Frequencies		n	%
Gender	Male	34	10.4
	Female	293	89.6
Nursing category	Registered nurse	127	42.2
	Enrolled nurse	116	38.5
	Auxiliary nurse	58	19.3
Highest qualification	Certificate	36	11.3
	2 Year diploma	119	37.3
	4 Year diploma	96	30.1
	4 Year undergraduate degree	12	3.8
	Post basic diploma	44	13.8
	Post basic degree	11	3.4
	Masters degree	1	.3
Marital status	Single	199	60.9
	Married	110	33.6
	Separated	2	0.6
	Widowed	11	3.4
	Divorced	5	1.5
Full time employed	Yes	311	95.1
	No	16	4.9
First career choice	Yes	206	63.4
	No	119	36.6
Satisfaction with nursing career	very dissatisfied	8	4.5
	slightly dissatisfied	8	4.5
	moderately satisfied	90	50.6
	very satisfied	72	40.4
Descriptives	**n**	**Mean**	**SD**
Age	289	36.5	11.2
Years worked as a Registered nurse	152	10.7	10.4
Years worked as an Enrolled nurse	134	6.3	5.8
Years worked as an Auxiliary nurse	58	4.9	3.2

4.2. Confirmatory Factor Analysis

Confirmatory factor analysis was conducted on the three questionnaires. All items in the compassion fatigue scale, except for 1, had statistically significant standardised regression weights above 0.220, indicating that items loaded significantly on the theoretical factors. Considering the correlation co-efficients, the disengaged and hopeless subscales were statistically significant and strongly correlated with each other. Measures of goodness of fit for the three-subscale model yielded a CMIN/DF value of 3.976 which is acceptable. A relatively unacceptable CFI of 0.770 was obtained, while an acceptable RMSEA value 0.95 with a 90% confidence interval of [0.085; 0.105] was obtained. Confirmatory factor analysis was applied to the eight subscales of emotional work. Except for one item, all items had statistically significant standardised regression weights above 0.268, indicating that items loaded significantly on the theoretical factors. Considering the correlation co-efficients, most subscales were statistically significant and strongly correlated with each other. Measures of goodness of fit for the eight-subscale model yielded a CMIN/DF value of 2.651 which is acceptable. A relatively unacceptable CFI of 0.675 was obtained, while an acceptable RMSEA value 0.071 with a 90% confidence interval of [0.067; 0.074] was obtained. Confirmatory factor analysis was performed on the seven subscales of job stress. All items had statistically significant standardised regression weights above 0.335, indicating that items loaded significantly on the theoretical factors. Considering the correlation co-efficients, all subscales were statistically significant and strongly correlated with each other. Measures of goodness of fit for the eight-subscale model yielded a CMIN/DF value of 3.071 which is acceptable. A relatively unacceptable CFI of 0.734 was obtained, while an acceptable RMSEA value 0.079 with a 90% confidence interval of [0.074; 0.084] was obtained.

4.3. Descriptive statistics

The descriptive statistics for the study variables and the Cronbach's reliability coefficient are presented in Table 2. Overall, nurses experienced compassion fatigue sometimes (>3.0). Among the three dimensions, the experience of impotence was the highest (mean = 3.83, SD 1.58), while hopelessness was the lowest (mean = 2.52, SD 1.13). The score of emotional work showed that nurses

experienced moderate levels of emotional work, slightly above average (>4.0). As for the eight dimensions, demands for sensitivity were the highest (mean = 3.88; SD = 0.88) and display of negative emotions was the lowest (mean = 1.92; SD = 0.75). With regard to job stress, nurses occasionally experienced job stress (>3.0). As for the seven dimensions, the experience of uncertainty concerning treatment was highest (mean = 2.34; SD 0.69) and workload the lowest (mean = 2.13; SD 0.64).

Table 2 : Study variables and the Cronbach's alpha coefficients for study instruments (n=331)

Variable	Score Range	Mean	SD	Cronbach's Alpha
Emotional Work				
Display of Positive Emotions	1 - 5	3.79	0.63	0.81
Display of Negative Emotions	1 - 5	1.92	0.75	0.80
Display of Neutral Emotions	1 - 5	2.98	0.87	0.62
Demands for Sensitivity	1 - 5	3.88	0.88	0.60
Sympathy	1 - 5	3.55	0.61	0.54
Emotion control	1 - 5	3.05	0.91	0.53
Interaction control	1 - 5	2.90	0.81	0.53
Emotional Dissonance	1 - 5	3.22	1.00	0.71
Nursing Stress Scale				
Workload	1 - 5	2.13	0.64	0.67
Uncertainty concerning treatment	1 - 5	2.34	0.69	0.70
Death and Dying	1 - 5	2.22	0.55	0.67
Conflict with Physicians	1 - 5	2.24	0.61	0.61
Inadequate preparation	1 - 5	2.23	0.70	0.56
Lack of Support	1 - 5	2.17	0.72	0.56
Conflict with other nurses	1 - 5	2.25	0.66	0.65
Compassion Fatigue				
Disengagement	1 - 6	2.64	1.12	0.70
Impotence	1 - 6	3.83	1.58	0.71
Hopelessness	1 - 6	2.52	1.13	0.75

4.4. Correlations between emotional work, job stress and compassion fatigue.

In general, the dimensions of compassion fatigue, emotional work and job stress correlate with each other. The highest statistically significant positive correlations between disengagement and emotional work are display of negative emotions ($r = 0.336$, $P < 0.01$), display of neutral emotions ($r = 0.187$, $P < 0.01$) and interaction control ($r = 0.155$, $P < 0.01$). In this case, display of positive emotions has a statistically significant negative correlation ($r = -0.137$, $P < 0.01$) with disengagement. The highest positive correlations between disengagement and job stress are workload ($r = 0.239$, $P < 0.01$), death and dying ($r = 0.209$, $P < 0.01$) and conflict with other nurses ($r = 0.188$, $P < 0.01$). The only statistically significant correlations between impotence and emotional work are a positive correlation with display of negative emotions ($r = 0.207$, $P < 0.01$) and a statistically significant negative correlation with emotional control ($r = -0.158$, $P < 0.01$).

The highest statistically significant positive correlation with hopelessness and emotional work was the display of negative emotions ($r = 0.379$, $P < 0.01$), interaction control ($r = 0.206$, $P < 0.01$) and manifestation of neutral emotions ($r = 0.192$, $P < 0.01$), although emotional control had a statistically negative correlation ($r = -0.207$, $P < 0.01$) with hopelessness. The highest positive correlations between hopelessness and job stress were death and dying ($r = 0.294$, $P < 0.01$), uncertainty about treatment ($r = 0.261$, $P < 0.01$) and inadequate preparation ($r = 0.188$, $P < 0.01$).

Display of positive emotions, demands for sensitivity and emotional control had no correlation with job stress. Display of negative emotions had the highest statistically significant positive correlation with job stress with regard to workload ($r = 0.200$, $P < 0.01$), conflict with other nurses ($r = 0.197$, $P < 0.01$) and death and dying ($r = 0.194$, $P < 0.01$). Display of neutral emotions had the highest statistically significant positive correlation with job stress in regard to conflict with other nurses ($r = 0.222$, $P < 0.01$), death and dying ($r = 0.195$, $P < 0.01$) and inadequate preparation ($r = 0.183$, $P < 0.05$). Sympathy had the highest statistically significant positive correlation with job stress in regard to conflict with

physicians ($r = 0.150$, $P < 0.01$), death and dying ($r = 0.109$, $P < 0.05$) and workload ($r = 0.109$, $P < 0.05$). Interaction control had the highest statistically significant positive correlation with job stress in regard to conflict with other nurses ($r = 0.169$, $P < 0.01$), death and dying ($r = 0.139$, $P < 0.05$) and workload ($r = 0.138$, $P < 0.01$). Finally, emotional dissonance had the highest statistically significant positive correlation with job stress in regard to conflict with other nurses ($r = 0.235$, $P < 0.01$), workload ($r = 0.196$, $P < 0.05$) and inadequate preparation ($r = 0.156$, $P < 0.05$).

Table 3: Correlation between all dimensions of the three variables (n=331)

Variable	Disengagement	Impotence	Hopelessness	Death and dying	Conflict with physician	Inadequate preparation	Lack of support	Conflict with other nurses	Workload	Uncertainty concerning treatment
Positive emotions	-.137*	-.076	-.032	.064	.079	.127*	.017	.027	.070	.020
Negative emotions	.336**	.207**	.379**	.194**	.128*	.134*	.148**	.197**	.200**	.193**
Neutral emotions	.187**	.037	.192**	.195**	.100	.183**	.073	.222**	.160**	.086
Sensitivity	-.092	.047	-.076	.071	.096	.032	.030	.005	.005	.013
Sympathy	.007	-.004	.041	.109*	.150**	.114*	.094	.036	.109*	.053
Emotional control	-.075	-.158**	-.207**	.054	.010	.020	-.010	.032	-.010	-.022
Interaction control	.155**	-.005	.206**	.139*	.124*	.142*	-.046	.169**	.138*	.093
Emotional dissonance	.102	.090	.167**	.155**	.167**	.156**	.094	.235**	.196**	.120*
Death and dying	.209**	.106	.294**							
Conflict with physician	.170**	.049	.219**							
Inadequate preparation	.155**	.051	.258**							
Lack of support	.154**	.023	.213**							
Conflict with other nurses	.188**	-.026	.227**							
Workload	.239**	-.015	.255**							
Uncertainty concerning treatment	.170**	-.011	.261**							

**P <0.01 (two-tailed test) *P <0.05 (two-tailed test)

4.5 Associations between nurse rank and emotional work, job stress and compassion fatigue.

Only emotional dissonance displays significant differences between the variables and the rank of the nurse (p=0.021), where ANs have a practical significantly lower level of emotional dissonance than both RNs and ENs (d=0.40 and d=0.33 respectively).

5. Discussion

Nurses in this study experience moderate levels of compassion fatigue, emotional work and job stress. With regard to compassion fatigue, the experience of impotence or the inability to connect with and meet the patients' needs (Coetzee & Laschinger 2015) was experienced the most. Demand for sensitivity, which implies the importance to the job of knowing how the patients are feeling at a paricular moment (Zapf *et al*. 1999) was the component that caused the most emotional work for nurses in this study. Interestingly, when all job stresses were listed, workload caused the least stress to nurses, while uncertainty with treatment caused the most stress, followed by conflict with other nurses and inadequate preparation. Uncertainty about treatment and inadequate preparation are related to clinical practice uncertainty and defined as "A dynamic state in which there is a perception of being unable to assign probabilities for outcomes that prompts a discomforting, uneasy sensation that may be affected through cognitive, emotive, or behavioural reactions or by the passage of time and changes in the perception of circumstances and is mediated by feelings of confidence and control" (Penrod 2001). Cranley *et al*. (2012) further researched uncertainty in nursing practice and found that it was a common occurrence that required support for nurses to be able to acknowledge and manage uncertainty. However, it is evident from this study that although nurses need to support each other, conflict amongst nurses or horizontal incivility abounds. Workplace incivility has been linked to various detrimental outcomes for organisations, nurses and patients. Poor nurse outcomes include decreased mental health, organisational commitment, turnover intention, job stress, somatic symptoms and emotional exhaustion (Laschinger *et al*.2014).

When looking at correlations, emotional work in the form of display of negative and neutral emotions and interaction control were positively related to compassion fatigue. Display of negative emotion implies the frequency with which the nurse is required by the job to display unpleasant emotions such as strictness or anger if rules are not followed by clients (Zapf *et al*. 1999), while display of neutral emotions refers to the frequency with which the participant is required to display neither positive nor negative emotions to clients (Zapf *et al*. 1999). Interaction control refers to the times when the job allows the nurse to end the conversation if considered appropriate (Zapf *et al*. 1999). The display of these emotional work components serves as a barrier to connecting with and meeting the needs of patients, and as a facilitator for compassion fatigue.

As expected, the display of positive emotions and emotion control negatively influenced compassion fatigue. Nurses often experience negative emotions such as disgust, irritation and anger, the expression of which would not be conducive to patient care (Mann & Cowburn 2005) Therefore, they are expected to suppress their negative feelings towards patients (Chou *et al*. 2012). Suppression of negative emotions is achieved through surface acting, in the case where nurses pretend to feel the expected emotion, or deep acting, in the case where they change their inner feelings in order to feel the desired emotions (Chou *et al*. 2012). The display of positive emotions, whether through surface or deep acting, has positive outcomes for the patient and nurse (Gray 2009). Emotion control indicates the occasions when the nurse can decide for him/herself on the emotions to display towards clients. This empowers the nurse (Zapf *et al*. 1999).

Overall job stress, especially workload, death and dying and conflict with other nurses, was positively related to compassion fatigue. This is in line with several large inter-continental studies that showed that each additional patient per nurse was associated with increased reports of dissatisfaction and emotional exhaustion (Aiken *et al*, 2010, Coetzee *et al*, 2012, Nantsupawat *et al*. 2015). Research on death and dying also shows that healthcare professionals, even while still students, become desensitised to patients, particularly to dying patients and their families and require support groups (Kuczewski *et al*. 2014). Again, horizontal incivility makes an appearance, with many studies showing the negative consequences of incivility on nurse outcomes (Leiter *et al*.2015).

Previous research in South Africa showed that there was a link between emotional work and the sector and province in which the nurse worked, as well as the qualifications and age of the nurse (Jonker, 2012). This research further shows a difference between the nurse's rank and the display of emotional work with regard to emotional dissonance. Emotional dissonance refers to the frequency at which the participant has to display emotions that do not agree with the participant's true feelings, but rather with those prescribed by the organization (Zapf *et al*. 1999; Rafaeli & Sutton 1987). Interestingly, RNs and ENs experienced higher levels of emotional dissonance than ANs. This may be due to the fact that ANs conduct basic bedside care, while RNs and ENs have to implement treatment regimes and provide a higher level of care.

6. Limitations

Limitations of this study include its reliance on cross-sectional data which limits the ability to assert a causal link between emotional work and job stress on compassion fatigue. Furthermore, this research relied on self-report measures which could lead to common method variance (Podsakoff & Organ 1986) and social desirability biases and poses a possibility of response set tendencies. Finally, the questionnaires were only administered in one language (English), although there are 11 official languages in South Africa. Although nursing is conducted in the English language in South Africa, there may have been differences in the understanding and interpretation of terms.

7. Conclusion

The findings of this study is in line with previous similar studies exploring emotional work, different kinds of job stress and its impact on nurse outcomes; (Näring & van Droffelaar 2007; Liu *et al*. 2012; Karimi *et al*. 2014), and the findings indicate that emotional work and job stress is positively related to compassion fatigue, and emotional work is positively related to job-induced stress.

8. Implications for nursing management

The most important implication for nursing management is that nurses require support from management and colleagues with regard to the experience of compassion fatigue, emotional work and job stress, and this requires a zero tolerance of incivility in the workplace. To this effect, nurses require job and personal resources through the provision of positive practice environments, support groups, education and training in order to meet the emotional demands of nursing in a stressful job environment.

9. Authorship

All authors contributed to study design and implementation and interpretation of findings for this manuscript. Hlongwane, Ellis and Coetzee were responsible for the data analysis of this manuscript. Hlongwane and Coetzee were responsible for the finalization of this manuscript. All authors have approved it.

10. Acknowledgment

No conflict of interest.

11. Source of funding

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at are those of the authors and are not necessarily attributable to the NRF.

12. Ethical approval

The study was approved by the Postgraduate Education and Research Committee (PERC), the North-West University Human Research Ethics Committee (HREC) - NWU-00048-15-A1), the Provincial Department of Health Research Committee, the eThekwini District Ethics Committee and the hospital management of the selected hospitals.

CHAPTER 4:
EVALUATION OF THE STUDY, LIMITATIONS, AND RECOMMENDATIONS FOR PRACTICE, EDUCATION, RESEARCH AND POLICY

This chapter provides an evaluation of the study, discusses its limitations, and offers recommendations for practice, education, research and policy based on the findings.

4.1. EVALUATION OF THE STUDY

This study was performed in fulfillment of the requirements for the degree, Magister Curationis in Nursing. Involvement of the researcher in the study conveyed a deeper understanding of, and confidence in, the application of the research process.

A need for such a study was acknowledged when the literature revealed that compassion fatigue, emotional work and job stress have an impact on the well-being of nurses. However, the effect of emotional work and job stress on the development of compassion fatigue had not been explored in international literature, and neither had the impact of all these variables on medical-surgical nurses (registered, enrolled and auxiliary nurses) been investigated in the South African context. Therefore, this research aimed to describe the relationships between emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

In order to achieve the aim of this study, the following research objectives were set out: 1) To describe the prevalence of emotional work, job stress and compassion fatigue among professional, enrolled and auxiliary nurses in public hospitals in eThekwini district, KwaZulu-Natal, and 2) To explore the relationship between emotional work, job stress and compassion fatigue among professional, enrolled

and auxiliary nurses working in public hospitals in eThekwini district, KwaZulu-Natal.

In order to achieve these objectives, a non-experimental, cross-sectional survey design for data collection was applied. The research was conducted in the eThekwini district of KwaZulu-Natal, South Africa, and multi-level sampling was used. The Kwa-Zulu Natal province was purposively selected due to recent news reports regarding the uncompassionate hospital staff (Sapa, 2015). EThekwini district was purposively selected as this province has the highest number of public sector hospitals. The categories of hospitals in the sub-district are as follows: N=1 tertiary hospitals, N=7 regional hospitals and N=5 district hospitals. For the purposes of this study, the tertiary hospital was selected, as well as a random selection of two regional hospitals. All-inclusive sampling was applied to the medical and surgical wards (N=44) of the selected hospitals and all the nurses including both day and night duty (registered, enrolled and auxiliary nurses) (N=360) working in the selected medical and surgical wards. The final sample consisted of 331 usable questionnaires giving a response rate of 91.9%. Four questionnaires were used to collect data in this research: the Demographic Questionnaire, the Compassion Practice Instrument, the Frankfurt Emotion Work Scale 5.0 (FEWS) and the Nursing Stress Scale (NSS). All the instruments were reliable.

In order to evaluate whether the objectives were achieved, the research hypotheses must be discussed.

Ho1: There is no relationship between emotional work and compassion fatigue in professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

Ho2: There is no relationship between job stress and compassion fatigue in professional, enrolled and auxiliary nurses working in medical and surgical wards in public hospitals in eThekwini district, KwaZulu-Natal.

H03: There is no relationship between emotional work and job stress among professional nurses, enrolled nurses and enrolled nursing assistants working in public hospitals in the eThekwini district, KwaZulu-Natal.

When reviewing the proposed model for the study (Figure 1.2) and the results of this study (Table 3), it shows that only emotional control moderates between emotional work and the development of compassion fatigue.

The first hypothesis is rejected. The dimensions of compassion fatigue and emotional work were correlated with each other. The highest statistically significant positive correlations between disengagement and emotional work were display of negative emotions ($r = 0.336$, $P < 0.01$), display of neutral emotions ($r = 0.187$, $P < 0.01$) and interaction control ($r = 0.155$, $P < 0.01$). Furthermore, display of positive emotions had a statistically significant negative correlation ($r = -0.137$, $P < 0.01$) with disengagement. The only statistically significant correlations between impotence and emotional work are a positive correlation with display of negative emotions ($r = 0.207$, $P < 0.01$) and a statistically significant negative correlation with emotional control ($r = -0.158$, $P < 0.01$). The highest statistically significant positive correlation with hopelessness and emotion work was display of negative emotions ($r = 0.379$, $P < 0.01$), interaction control ($r = 0.206$, $P < 0.01$) and display of neutral emotions ($r = 0.192$, $P < 0.01$), although emotional control has a statistically negative correlation ($r = -0.207$, $P < 0.01$) with hopelessness. So, too, emotional dissonance had a practical and statistical significant difference, between RNs and ANs (d=0.40; 0=0.021, and ENs and ANs (d=0.33 d=0.021).

The second hypothesis is rejected. The dimensions of compassion fatigue and job stress were correlated with each other. The highest positive correlations between disengagement and job stress are workload ($r = 0.239$, $P < 0.01$), death and dying ($r = 0.209$, $P < 0.01$) and conflict with other nurses ($r = 0.188$, $P < 0.01$). The highest positive correlations between hopelessness and job stress were death and dying ($r = 0.294$, $P < 0.01$), uncertainty about treatment ($r = 0.261$, $P < 0.01$) and inadequate preparation ($r = 0.188$, $P < 0.01$). However, no difference between nurse rank and job stress was experienced.

The third hypothesis is rejected. Display of negative emotions had the highest statistically significant positive correlation with job stress in regard to workload ($r = 0.200$, $P < 0.01$), conflict with other nurses ($r = 0.197$, $P < 0.01$) and death and dying ($r = 0.194$, $P < 0.01$). Display of neutral emotions had the highest statistically significant positive correlation with job stress in regard to conflict with other nurses ($r = 0.222$, $P < 0.01$), death and dying ($r = 0.195$, $P < 0.01$) and inadequate preparation ($r = 0.183$, $P < 0.05$). Sympathy had the highest statistically significant positive correlation with job stress in regard to conflict with physicians ($r = 0.150$, $P < 0.01$), death and dying ($r = 0.109$, $P < 0.05$) and workload ($r = 0.109$, $P < 0.05$). Interaction control had the highest statistically significant positive correlation with job stress in regard to conflict with other nurses ($r = 0.169$, $P < 0.01$), death and dying ($r = 0.139$, $P < 0.05$) and workload ($r = 0.138$, $P < 0.01$). Finally, emotional dissonance had the highest statistically significant positive correlation with job stress in regard to conflict with other nurses ($r = 0.235$, $P < 0.01$), workload ($r = 0.196$, $P < 0.05$) and inadequate preparation ($r = 0.156$, $P < 0.05$).

With regard to the Karasek's (1979) Job Demands-Control Model (see 1.6.2) emotional work and job stress were identified as job demands and contributed to the development of compassion fatigue. However, according to the results, interaction control was not considered a job decision latitude or mediator of compassion fatigue, although emotional control and display of positive emotions were.

4.2. LIMITATIONS

Limitations are restrictions or problems that may decrease the generalizability of the findings of the study (Grove, Burns & Gray, 2013:598). Limitations of this research include its reliance on cross-sectional data, which limits the ability to assert a causal link between emotional work and job stress on compassion fatigue. Furthermore, this research relied on self-report measures, which could lead to common method variance (Podsakoff & Organ, 1986) and social desirability biases, and pose a possibility of response set tendencies. Finally, the questionnaires were only administered in one language (English) although there

are 11 official languages in South Africa. Although nursing is conducted in the English language in South Africa, there may have been differences in the understanding and interpretation of terms.

4.3. RECOMMENDATIONS

Recommendations include notions that emerged from the present study and previous studies in the same area that can provide direction for the future (Grove, Burns & Gray, 2013:599). These notions are directed towards recommendations for practice, education, research and policy.

4.3.1. Recommendations for practice

- Nurse managers and supervisors need to create an environment based on empathetic leadership, where professional, enrolled and auxiliary nurses will feel supported and appreciated.
- There should be zero tolerance for incivility in the workplace, especially among nurse colleagues.
- There should be support groups initiated for nurses, especially with regard to the experience of compassion fatigue, emotional work, death and dying and uncertainty in clinical practice.
- One of the causes of compassion fatigue is the lack of self-care: therefore, nurse managers should develop and promote self-care strategies and emphasize the importance of self-care among nurses.

4.3.2. Recommendations for education

- There should be in-service training for nurses with regard to the identification, management and prevention of compassion fatigue.
- There needs to be in-service training for nurses for dealing with job demands of emotional work, death and dying, uncertainty in clinical practice, incivility and job stress.
- Nursing students should be taught to identify, manage and prevent compassion fatigue and how to deal with job demands of emotional

work, death and dying, uncertainty in clinical practice, incivility and job stress.

- The newly graduated nurse often finds the transition from being a student to a professional, enrolled or auxiliary nurse overwhelming and stressing. Neophytes should therefore be mentored by senior nurses and have a structured orientation program.

4.3.3. Recommendations for future research

- Future studies should be conducted using larger samples and longitudinal research methods to provide data that will be representative of the entire nurse population within public hospitals.
- An in-depth exploration of mediators such as emotional control and display of positive emotions is warranted so as to decrease the effects of emotional work on nurse outcomes.
- Why auxiliary nurses experience less emotional dissonance than other ranks of nurses needs to be explored.
- The compassion fatigue and emotional work questionnaires need further validation studies in the South African context.

4.3.4. Recommendations for policy

- There is a need for the Department of Health (DoH) to develop and implement positive practice environments in the public health sector.
- Hospitals should enact a policy of zero tolerance towards incivility in the workplace among nurses, their supervisors and physicians.
- Hospitals should offer compulsory counseling and group therapy for nurses.

4.6. SUMMARY

The aim of the study, to describe the relationship between compassion fatigue, emotional work and job stress amoung professional, enrolled and auxiliary nurses in public hospitals in eThekwini District, KwaZulu-Natal was achieved. The study was evaluated, its limitations identified and recommendations made for practice,

education, research and policy. The findings of the study will be communicated to the relevant stakeholders.

REFERENCE LIST

Abendroth, M. & Flannery, J. 2006. Predicting the risk of compassion fatigue. *Journal of hospice and palliative nursing*, 8(6):346-356.

AbuAlRub, R.F. 2004. Job stress, job performance, and social support among hospital nurses. *Journal of nursing scholarship,* 36(1):73-78.

Alkema, K., Linton, J.M. & Davies, R. 2008. A study of the relationship between self-care, compassion satisfaction, compassion fatigue and burnout among hospice professionals. *Journal of social work in end-of-life & palliative care*, 4(2):101-119.

Alligood, M.R. 2010. Nursing theory utilization and application. 4th ed. St. Louis, Mo.: Mosby Elsevier.

Armstrong, K. 2010. Twelve steps to a compassionate life. New York: Knopf.

Ashforth, B.E. & Humphrey, R.H. 1993. Emotional labor in service roles: the influence of identity. *Academy of management review*, 18(1):88-115.

Austin, E.J., Dore, T.C.P. & O'Donovan, K.M. 2008. Associations of personality and emotional intelligence with display rule perceptions and emotional labour. *Personality and individual differences,* 44(3):679-688.

Austin, W., Goble, E., Leier, B. & Byrne, P. 2009. Compassion fatigue: the experience of nurses. *Ethics and social welfare*, 3(2):195-214.

Aycock, N. & Boyle, D. 2009. Interventions to manage compassion fatigue in oncology nursing. *Clinical journal of oncology nursing*, 13(2):183-191.

Babbie, E. 2004. The practice of social research. South African edition. Cape Town: Oxford University Press.

Banovcinova, L. & Baslova, M. 2014. Sources of work-related stress and their effect on burnout in midwifery. *Procedia - social and behavioral sciences,* 132:248-254.

Barnes, I. 2006. Workplace stress: stress and coping with stress. *Canadian nursing home*, 17(2):21-26.

Bayaram, N., Ayac, S. & Dursun, S. 2012. Emotional labor and burnout at work: a study from Turkey. (International Congress on Interdisciplinary Business and Social Science 2012.) *Procedia - social and behavioral sciences*, 65:300-305.

Bolo, V. & Yako, E.M. 2013. Perceptions of staff shortage as a predisposing factor for stress among professional orthopaedic nurses at a public hospital in Buffalo City Municipality, Eastern Cape Province, South Africa. *African journal for physical, health education, recreation and dance: emerging issues in nursing science research in South Africa: Supplement* 4(19):60-68.

Botes, A. 1995. A model for research in nursing. Johannesburg: Rand Afrikaans University. (Unpublished.)

Botma, Y., Greeff, M., Mlaudzi, F.M. & Wright, S.C.D. 2010. Researcher in health sciences. Cape Town: Heinemann Pearson Education.

Branch, C. 2013. Compassion fatigue: prevalence among nurses at a Midwest pediatric hospital. St. Louis, Mo.: University of Missouri, St. Louis. (Thesis - PhD.)

Breier, M., Wildschut, A. & Mgqolozana, T. 2009. Nursing in a new era: the profession and education of nurses in South Africa. Pretoria: HSRC Press.

Brink, H., Van der Walt, C. & Van Rensburg, G. 2008. Fundamentals of research methodology for health care professionals. 2nd ed. Cape Town: Juta.

Brink, H., Van der Walt, C. & Van Rensburg, G. 2012. Fundamentals of research methodology for health care professionals. 3rd ed. Cape Town: Juta.

Brink, H.C.E. 2012. Emotional experiences of professional nurses in a critical care unit of a private hospital in Gauteng: a case study. Potchefstroom: North-West University. (Thesis - PhD.)

Brotheridge, C.M. & Grandey, A.A. 2002. Emotional labor and burnout: comparing two perspectives of “people work”. *Journal of vocational behavior,* 60(1):17-39.

Brotheridge, C.M. & Lee, R.T. 2003. Development and validation of the emotional labour scale. *Journal of occupational and organizational psychology*, 76(3):365-379.

Burke, R.J., Konyuncu, M., Durna, U., Cecik, J. & Fiksenbaum, L. 2010. Workload, work satisfactions and psychological wellbeing among nurses in Turkish hospitals. *Industrial relations and human resources journal*, 12(3):41-56.

Burns, N. & Grove, S.K. 2009. Practice of nursing research: appraisal, synthesis, and generation of evidence. 6th ed. St. Louis, Mo.: Saunders/Elsevier.

Bush, N.J. 2009. Compassion fatigue: are you at risk. *Oncology nursing forum, Oncology Nursing Society*, 36(1):24-28.

Chang, E.S., Daly, J., Hancock, K.M., Bidewell, J.W., Johnson, A., Lambert, V.A. & Lambert, C.E. 2006. The relationships among workplace stressors, coping among demographic characteristics and health in Australia. *Journal of professional nursing*, 22(1):30-38.

Chou, H.Y., Hecker, R. & Martin, A. 2012. Predicting nurses well-being from job demands and resources: a cross-sectional study of emotional labour. *Journal of nursing management*, 20(4):502-511.

Circenis, K. & Millere, I. 2011. Compassion fatigue, burnout and contributory factors among nurses in Latvia. *Procedia - social and behavioral sciences,* 30:2042-2046.

Circenisa, K. & Millerea, I. 2011. Compassion fatigue, burnout and contributory factors among nurses in Latvia. *Procedia - social and behavioral sciences*, 30:2042-2046.

Circenisa, K. & Millerea, I. 2011. Compassion fatigue, burnout and contributory factors among nurses in Latvia. *Procedia - social and behavioral sciences*, 30:2042-2046.

Coetzee, S. & Klopper, H.C. 2010. Compassion fatigue within nursing practice: a concept analysis. *Nursing & health sciences*, 12(2):235-243.

Coetzee, S.K. & Laschinger, H.K.L. 2015. Cracking the nut: towards a comprehensive theoretical model of compassion fatigue. *Journal of advanced nursing.* (In press.)

Collins M. 2006. Taking a lead on stress: rank and relationship awareness in the NHS. *Journal of nursing management,* 14(4):310-317.

Craig, C.D. & Sprang, G. 2010. Compassion satisfaction, compassion fatigue, and burnout in a national sample of trauma treatment therapists. *Anxiety, stress, & coping,* 23(3):319-339.

Cranley, L.A., Doran, D.M., Tourangeau, A.E., Kushniruk, A. & Nagle, L. 2012. Recognizing and responding to uncertainty: a grounded theory of nurses' uncertainty. *Worldviews on evidence-based nursing,* 9(3):149-158.

Crary, P. 2013. Beliefs, behaviours, and health of undergraduate nursing students. *Holistic nursing practice*, 27(2):74-88.

Crawford, P., Gilbert, P., Gilbert, J. & Gale, C. 2011. The language of compassion. *Taiwan international ESP journal*, 3(1):1-16.

Crookes, P.A., Davies, S. & Chiarella, M. 2007. Research into practice: essential skills for reading and applying research in nursing and health care. 2nd ed. Edinburgh: Bailliere Tindall.

Cullinan, K. 2006. Hospitals in crisis: special investigation. South Africa. http:// www.healthe.org.za/news/article. Date of access: 29 October 2015.

Day, H. 2015. The meaning of compassion. *British journal of nursing*, 24(6):342-343.

Day, J.R. & Anderson, R.A. 2011. Compassion fatigue: an application of the concept to informal caregivers of family members with dementia. *Nursing research and practice:* 1-10.

De Jonge, J., Le Blanc, P.M., Peeters, M.C.W. & Noordam, H. 2007. Emotional job demands and the role of matching job resources: a cross-sectional survey study among health care workers. *International journal of nursing studies,* 45(10):1460-1469.

Dewar, B. 2013. Cultivating compassionate care. *Nursing standard*, 27(34):48-55.

Diefendorff, J.M., Erickson, R.J., Dahling, J.J. & Grandey, J.J. 2011. Emotional display rules as work unit norms: a multilevel analysis of emotional labor among nurses. *Journal of occupational health psychology,* 16(2):170-186.

Diener, E. & Fujita, F. 1995. Resources, personal strivings, and subjective well-being: a nomothetic and idiographic approach. *Journal of personality and social psychology*, 68(5):926-935.

Donnelly, T. 2014. Stress among nurses working in an acute hospital in Ireland. *British journal of nursing*, 23(13):746-750.

Donovan, R.O., Doody, O. & Lyons, R. 2007. The effect of stress on health and its implications for nursing. *British journal of nursing*, 22(16):969-973.

Dunn, D. 2009. A way of knowing, being, valuing and living with compassion energy: a unitary science and nursing as a caring perspective. *Visions: journal of Rogerian nursing science*, 16(1):40-47.

Elkonin, D. & Van der Vyver, L. 2011. Positive and negative emotional responses to work related trauma of intensive care nurses in private health care facilities. *Health SA Gesondheid*, 16(1):1-8.

EThekwini Municipality. 2011. Draft medium term budget report, 2010/2011 to 2012/2013. Durban: EThekwini Municipality.

Farquharson, B., Allan, J., Johnston, D., Johnston, M., Choudhary, C. & Jones, M. 2012. Stress amongst nurses working in a healthcare telephone-advice service: relationship with job satisfaction, intention to leave, sickness absence, and performance. *Journal of advanced nursing*, 68(7):1624-1635.

Farquharson, B., Bell, C., Johnston, D., Jones, M., Schofield, P., Allan, J., Ricketts, I., Morrison, K. & Johnston, M. 2013. Nursing stress and patient care: real-time investigation of the effect of nursing tasks and demands on psychological stress, physiological stress, and job performance: study protocol. *Journal of advanced nursing,* 69(10):2327-2335.

Feldman, C. & Kuyken W. 2008. Compassion in the landscape of suffering. *Contemporary Buddhism,* 12(1):143-155.

Figley, C. 1995. Compassion fatigue as secondary traumatic stress disorder: an overview. (*In* Figley, C., *ed*. Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized. New York: Brunner/Mazel. p. 1-20.)

Figley, C. 2002. Compassion fatigue: psychotherapists' chronic lack of self care. *Journal of clinical psychology,* 58(41):1433-1441.

Freshwater, D. & Stickley, T. 2004. The heart of the art: emotional intelligence in nurse education. *Nursing inquiry*, 11(2):91-98.

Fu, C. & Chen, H. 2011. Compassion fatigue: a concept analysis. *Journal of nursing,* 58(2):98-103.

Gazer, S. & Gyurak, A. 2008. Sources of occupational stress among nurses in five countries. *International journal of intercultural r*elations, 32(1):49-66.

Gentry, J.E., Baranowsky, A. & Dunning, E. 1997. Accelerated recovery program for compassion fatigue. (Presented at the 13th Annual International Society for Traumatic Stress Studies Conference in Montreal, Quebec, Canada.)

Gibbens, N. 2007. Levels and causes of stress amongst nurses in private hospitals: Gauteng Province. Bloemfontein: University of the Free State. (Thesis - PhD.)

Gilmore, C. 2012. Compassion fatigue: what it is and how to avoid it. *Kai Tiaki: nursing New Zealand,* 18(5):32-40.

Grandey, A. 2000. Emotion regulation in the workplace: a new way to conceptualize emotional labour. *Journal of occupational health psychology*, 5(1):95-110.

Gravetter, F.J. & Forzano, L.-A.B. 2012. Research methods for the behavioral sciences. Belmont, Calif.: Wadsworth Cengage Learning.

Gray, B. 2009. The emotional labour of nursing: defining and managing emotions in nursing work. *Nurse education today*, 29(2):168-175.

Gray, B. 2009. The emotional labour of nursing: defining and managing emotions in nursing work. *Nurse education today*, 29(2):168-175.

Gray, B. & Smith, P. 2008. Emotional labour and the clinical settings of nursing care: the perspectives of nurses in East London. *Nurse education in practice*, 9(4):253-261.

Gray-Toft, P. & Anderson, J.G. 1981. The nursing stress: development of an instrument. *Journal of behavioural assessment,* 3(1):11-23.

Grove, S.K., Burns, N. & Gray, J.R. 2013. The practice of nursing research: appraisal, synthesis, and generation of evidence. St. Louis, Mo.: Elsevier Saunders.

Hall, D. 2004. Work-related stress of registered nurses in a hospital setting. *Journal for nurses in staff development*, 20(1):6-14.

Hamaideh, S.H. & Ammouri, A. 2011. Comparing Jordanian nurses' job stressors in stressful and non-stressful clinical areas. *Contemporary nurse,* 37(2):173-187.

Harr, C. 2013. Promoting workplace health by diminishing the negative impact of compassion fatigue and increasing compassion satisfaction. *Journal of the North American Association of Christians in social work*, 40(1):71-88.

Hayes, B., Bonner, A. & Pryor, J. 2010. Factors contributing to nurse job satisfaction in the acute hospital setting: a review of recent literature. *Journal of nursing management,* 18(7):804-814.

Henderson, A. 2001. Emotional labor and nursing: an under-appreciated aspect of caring work. *Nursing inquiry*, 8(2):130-138.

Hobfoll, S.E. 1988. The ecology of stress. New York: Hemisphere Publications.

Hobfoll, S.E. 1989. Conservation of resources: a new attempt at conceptualizing stress. *American psychologist,* 44(3):513-524.

Hobfoll, S.E. 1998. Stress, culture and community: the psychology and philosophy of stress. London: Plenum Press.

Hochschild, A.R. 1983. The managed heart: commercialisation of human feeling. Berkeley, Calif.: University of California Press.

Hofmann, P.B. 2009. Addressing compassion fatigue: the problem is not new, but it requires more urgent attention. *Healthcare executive*, 24(5):40-42.

Hooper, C., Craig, J., Janvrin, D.R., Wetsel, M.A. & Reimels, E. 2010. Compassion satisfaction, burnout and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialities. *Journal of emergency nursing,* 36(5):420-427.

Horsburgh, D. & Ross, J. 2013. Care and compassion: the experiences of newly qualified staff nurses. *Journal of clinical nursing*, 22(7/8):1124-1132.

Huyhn, T., Alderson, M. & Thompson, M. 2008. Emotional labour underlying caring: an evolutionary concept analysis. *Journal of advanced nursing*, 64(2):195-208.

Joinson C. 1992. Coping with compassion fatigue. *Nursing,* 22(4):116-121.

Jonker, C. 2012. Measurement of emotion work: factor structure and group differences in a care-giving population in South Africa. *Journal of the West East Institute Business and Economics*, 1(1):39-58.

Joubert, P. 2009. Nurse shortage in South Africa: nurse/patient ratios. Report May 2009. Pretoria: Solidarity Research Department. (Addendum 5.1.) http://www. solidarity.co.za Date of access: 9 March 2010.

Kabat-Zinn, J. 1992. Full catastrophe living: using the wisdom of your body and mind to face stress, pain and illness. New York: Bantam Doubleday Dell Publishing Group.

Kagan, S.H. 2014. Compassion. *Geriatric nursing*, 35:69-70. http://dx.doi.org/10.1016/j. gerinurse.2013.11.006. Date of access: 30 May 2015.

Karasek, R.A., Jr. 1979. Job demands, job decision latitude, and mental strain: implications for job redesign. *Administrative science quarterly,* 24(2):285-308.

Karimi, L., Leggat, S.G., Donohue, L., Farrell, G. & Couper, G.E. 2014. Emotional rescue: the role of emotional intelligence and emotional labour on well-being and job-stress among community nurses. *Journal of advanced nursing*, 70(1):176-186.

Kaur, S. & Das, K. 2011. Assessment of stress and burnout among intensive care nurses at a tertiary care hospital. *Journal of mental health and human behaviour*, 16(1):43-48.

Khamisa, N., Oldenburg, B., Peltzer, K. & Ilic, D. 2015. Work related stress, burnout, job satisfaction and general health of nurses. *International journal of environmental research and public health,* 12(1):652-666.

Klopper, H.C. 2008. The qualitative research proposal. *Curationis,* 31(4):62-72.

Klopper, H.C., Coetzee, S.K., Pretorius, R. & Bester, P. 2012. Practice environment, job satisfaction and burnout of critical care nurses in South Africa. *Journal of nursing management*, 20(5):685-695.

Knobloch, S. 2007. Compassion fatigue within the nursing possession: a concept analysis. Potchefstroom: North-West University. (Thesis - PhD.)

Koen, M.P. 2010. Resilience in professional nurses. Potchefstroom: North-West University. (Thesis - PhD.)

Kuczewski, M.G., McCarthy, M.P., Michelfelder, A., Anderson, E.E., Wasson, K. & Hatchett, L. 2014. I will never let that be OK again: student reflections on competent spiritual care for dying patients. *Academic medicine,* 89(1):54-59.

Laschinger, H.K.S., Wong, C.A., Cummings, G.G. & Grau, A.L. 2014. Resonant leadership and workplace empowerment: the value of positive organizational cultures in reducing workplace incivility. *Nursing economics,* 32(1): 5-15, 44.

Lazányi, K. 2010. Emotional labour and its consequences in health-care setting. (*In* Proceedings of FIKUSZ'10 Symposium for Young Researchers, Budapest, Hungary. 15(17):149-156.)

Lazarus, R.S. & Folkman, S. 1984. Stress, appraisal and coping. New York: Springer.

Lee, W., McCarthy Veach, P., MacFarlane, I.M. & LeRoy, B.S. 2014. Who is at risk for compassion fatigue? An investigation of genetic counselor demographics, anxiety, compassion satisfaction, and burnout. *Journal of genetic counselling,* 24(2):358-370.

Leiter, M.P., Peck,E. & Gumuchian, S. 2015. Workplace incivility and its implications for well-being. (*In* Pamela, L., Perrewé, J.R.B., Halbesleben, C.C.R., *eds*. Mistreatment in organizations. Basingstoke: Emerald. p. 107-135.)

Leiter, M.P., Price, L.S. & Laschinger, H.K.S. 2010. Generational differences in distress, attitudes and incivility among nurses. *Journal of nursing management*, 18(8):1-11.

Lephoko, C.S.P., Bezuidenhout, M.C. & Roos, J.H. 2006. Organisational climate as a cause of job dissatisfaction among nursing staff in selected hospitals within the Mpumalanga Province. *Curationis*, 29(4):28-36.

Li, A., Early, S.F., Mahrer, N.E., Klaristenfeld, J.L. & Gold, J.I. 2014. Group cohesion and organizational commitment: protective factors for nurses resident's

job satisfaction, compassion fatigue, compassion satisfaction and burnout. *Journal of professional nursing*, 30(1):89-99.

Liu, K., You, L., Chen, S., Hao, Y., Zhu, Y., Zhang, L. & Aiken, L.H. 2012. The relationship between hospital work environment and nurse outcomes in Guangdong, China: a nurse questionnaire survey. *Journal of clinical nursing*, 21(9/10):1476-1485.

Mackintosh, C. 2007. Protecting the self: a descriptive qualitative exploration of how registered nurses cope with working in surgical areas. *International journal of nursing studies,* 44(6):982-990.

Magalhães, A.M.M., Dall'Agnol, C.M. & Marck, P.B. 2013. Nursing workload and patient safety: a mixed method study with an ecological restorative approach. *Revista latino-americana de enfermagem,* 21:146-154.

Maiden, J. 2014. Compassion fatigue in corrections. *American jails:* 35-38.

Maluwa, V.M., Andre, J., Ndebele, P. & Chilemba, E. 2012. Moral distress in nursing practice in Malawi. *Nursing ethics*, 19(2):196-207.

Mann, S. & Cowburn, J. 2005. Emotional labour and stress within mental health nursing. *Journal of psychiatric and mental health nursing,* 12(2):154-162.

Marcial, L., Brazina, M., Diaz, A., Jaramillo, C., Marentes, G. & Mazmanian, N. 2013. Is this the cost of caring? A student perspective on compassion fatigue. *Dimensions of critical care nursing,* 32(1):18-21.

Maree, K., Creswell, J.W., Ebersohn, L., Eloff, I., Ferreira, E.R., Ivankova, N.V., Jansen, J.D., Nieuwenhuis, J., Pietersen, J., Plano Clark, V.L & Van der Westhuizen, C. 2007. First steps in research. Pretoria: Van Schaik Publishers.

Martins, D., Nicholas, N.A., Shaheen, M., Jones, L. & Norris, K. 2013. The development and evaluation of a compassion scale. *Journal of health care for the poor and underserved*, 24(3):1235-1246.

Matsoso, M.P. & Strachan, B. 2011. Human resources for health for South Africa: HRH Strategy for the Health Sector 2012/13 - 2016/17. *South African health review:* 49-58.

Maytum, J.C., Heiman, M.B. & Garwick, A.W. 2004. Compassion fatigue and burnout in nurses who work with children with chronic conditions and their families. *Journal of pediatric health care,* 18(4):171-179.

McGrath, A., Reid, N. & Boore, J. 2003. Occupational stress in nursing. *International journal of nursing studies,* 4(5):555-565.

McQueen, A. 2004. Emotional intelligence in nursing work. *Journal of advanced nursing,* 47(1):101-108.

McSherry, R., Pearce, P., Grimwood, K. & McSherry, W. 2012. The pivotal role of a nurse managers, leaders, and educators in enabling excellence in nursing care. *Journal of nursing management,* 20(1):7-19.

McSteen, K.L. 2010. Compassion fatigue in oncology nursing: a witness to suffering. *Oncology nurse advisor:* 17-22. http://www.oncologynurseadvisor.com/compassion-fatigue-in-oncology-nursing-awitness- to-suffering/article/179700/ Date of access: 30 May 2015.

Moola, S., Ehlers, V.J. & Hattingh, S.P. 2008. Critical care nurses' perceptions of stress and stress-related situations in the workplace. *Curationis,* 31(2):74-83.

Morris, J.A. & Feldman, D.C. 1996. The dimensions, antecedents and consequences of emotional labour. *Academy of management journal,* 21(4):989-1010.

Morris,J.A. & Feldman., D.C. 1997. Managing emotions in the workplace. *Journal of managerial issues*, 9(3):257-274.

Mouton, J. & Marais, H.C. 1994. Basic concepts in the methodology of social sciences. Pretoria: Human Science Research Council.

Nabirye, R.C., Brown, K.C., Pryor, E.R. & Maples, E.R. 2011. Occupational stress, job satisfaction and job performance among hospital nurses in Kampala, Uganda. *Journal of nursing management*, 19(6):760-768.

Naledi, T., Barron, P. & Schneider, H. 2011. Primary health care in SA since 1994 and implications of the new vision for PHC re-engineering. (*In* Padarath, A. & English, R., *eds*. South African health review 2011. Durban: Health Systems Trust. p. 17-28.)

Näring, G. & Van Droffelaar, A. 2007. Incorporation of emotional labor in the demand- control-support model: the relation with emotional exhaustion and personal accomplishment in nurses. (*In* Ashkanasy, N., Härtel, C. & Zerbe, W.J., *eds*. Research on emotion in organizations, v. 3: Functionality, intentionality and morality. Amsterdam: Elsevier. p. 223-38.)

Neuman, B. 1995. The Neuman systems model. (*In* Neuman, B.M. & Fawcett, J. The Neuman systems model. 3rd ed. Norwalk: Appleton & Lange. p. 3-76.)

Neville, K. & Cole, D.A. 2013. The relationships among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction in nurses practicing in a community medical center. *Journal of nursing administration,* 43(6):348-354.

Pask, E.J. 2003. Moral agency in nursing: seeing value in the work and believing that I make a difference. *Nursing ethics*, 10(2):165-174.

Penrod, J. 2001. Refinement of the concept of uncertainty. *Journal of advanced nursing*, 34(2):238-245.

Perry, B. 2007. Conveying compassion through attention to the ordinary essentials. *Nursing older people*, 21(6):14-21.

Peters, E., MacFarlane, A. & O'Brien-Pallas, L. 2004. Analysis of the moral habitability of the nursing work environment. *Journal of advanced nursing*, 47(4):356-67.

Peters, L., Cant, R., Sellick, K., O'Connor, M., Lee, S. & Burney, S. 2012. Is work stress in palliative care nurses a cause for concern? A literature review. *International journal of palliative nursing,* 18(11):561-567.

Pisaniello, S.L., Winefield, H.R. & Delfabbro, P.H. 2012. The influence of emotional labor and emotional work on the occupational health and wellbeing of South Australian hospital nurses. *Journal of vocational behavior,* 80(3):579-591.

Podsakoff, P.M. & Organ, D.W. 1986. Self-reports in organizational research: problems and prospects. *Journal of management,* 12(4):531-544.

Polit, D.F. & Beck, C.T. 2012. Nursing research: generating and assessing evidence for nursing practice. New York: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Potter, P., Deshields, T., Berger, J.A., Clarke, M., Olsen, S. & Chen, L. 2013. Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology nursing forum*, 40(2):180-187.

Proctor, S. 2007. Can nurses show compassion? *Nursing management*, 14(8):10-11.

Radley, M. & Figley, C. 2007. The social psychology of compassion. *Clinical social work journal,* 35(3):207-214.

Rafaeli, A. & Sutton, R.I. 1987. Expression of emotion as part of the work role. *Academy of management review,* 12(1):23-37.

Rajan, D. 2014. Awareness about impact of work stress: a comparative study among nurses. *Global management review,* 8(4):13-23.

Ray, S.L., Wong, C., White, D. & Heaslip, K. 2013. Compassion satisfaction, compassion fatigue, work life conditions, and burnout among frontline mental health care professionals. *Traumatology*, 19(4):255-267.

Riahi, S. 2011. Role stress amongst nurses at the workplace: concept analysis. *Journal of nursing management*, 19(6):721-731.

Rollinson, D. 2005. Organisational behaviour and analysis: an integrated approach. London: Prentice Hall.

Sabo, B.M. 2006. Compassion fatigue and nursing work: can we accurately capture the consequences of caring work? *International journal of nursing practice*, 12(3):136-142.

Sabo, B.M. 2008. Adverse psychosocial consequences: compassion fatigue, burnout and vicarious traumatization: are nurses provide palliative and haematological cancer care vulnerable? *Indian journal of palliative care,* 14(1):23-29.

Sabo, B.M. 2011. Reflecting on the concept of compassion fatigue. *Online journal of issues in nursing*, 16(1):1-19.

Sawbridge, Y. & Hewison, A. 2015. Compassion costs nothing: the elephant in the room. *Practice nursing*, 26(4):194-197.

Schantz, M.L. 2007. Compassion: a concept analysis. *Nursing forum*, 42(2):48-55.

Schroeter, K. 2014. Compassion fatigue: an unwanted reflection of your reality. *Journal of trauma nursing*, 21(2):37-38.

Searle, C., Human, S. & Mogotlane, S.M. 2009. Professional practice: a Southern African nursing perspective. 5th ed. Sandton: Heinemann.

Selebi, C. & Minnaar, D. 2007. Job satisfaction among nurses in a public hospital in Gauteng. *Curationis*, 30(3):53-61.

Sheppard, K. 2015. Compassion fatigue among registered nurses: connecting theory and research. *Applied nursing research,* 28(1):57-59.

Showalter, S.E. 2010. Compassion fatigue: what is it? Why does it matter? Recognizing the symptoms, acknowledging the impact, developing the tools to prevent compassion fatigue, and strengthen the professional already suffering from the effects. *American journal of hospice and palliative medicine*, 27(4):239-242.

Smart, D., English, A., James, J., Wilson, M., Daratha, K.B., Childers, B. & Magera, C. 2014. Compassion fatigue and satisfaction: a cross-sectional survey among US healthcare workers. *Nursing and health sciences*, 16(1):3-10.

Smith, P. 1992. The emotional labour of nursing. London: Macmillan.

Smith, P. & Gray, B. 2001. Reassessing the concept of emotional labour in student nurse education: role of link lecturers and mentors in a time of change. *Nurse education today,* 21:230-237.

Solidarity Helping Hand. 2010. South Africa has severe shortage of nurses. http:// www.helpinghandfund.co.za/?p=2060. Date of access: 21 October 2015.

South Africa. 2009. Green paper: National strategic planning. http://www.polity.org. za/article/green-paper-national-strategic-planningseptember- Date of access: 21 October 2015.

South Africa. Department of Health. 2014. Referral system: levels of health care. Corporate communication. Pretoria: Department of Health.

South African National AIDS Council. 2011. National strategic plan for HIV, STIs and TB 2012-2016. http://www.hst.org.za/publications/national-strategic-plan-hiv-stis-and-tb-2012-2016. Date of access: 19 October 2015

South African Nursing Council. 2005. Nursing Act No 33 of 2005. Pretoria: Government Printer.

SPSS Statistics. 2013. Version 22 Release 22.0.0. Armonk, N.Y.: IBM.

Straughair, C. 2012. Exploring compassion: implications for contemporary nursing, pt. 1. *British journal of nursing*, 21(3):160-164.

Suresh, P., Matthews, A. & Coyne, I. 2012. Stress and stressors in the clinical environment: a comparative study of fourth-year student nurses and newly qualified general nurses in Ireland. *Journal of clinical nursing*, 22(5/6):770-779.

Terre Blanche, M., Durrheim, K. & Painter, D. 2008. Research in practice: applied methods for the social sciences. Cape Town: University of Cape Town Press.

Thian, J.H.M., Kannusamy, P. & Klainin-Yobas, P. 2013. Stress, positive affectivity, and work engagement among nurses: an integrative literature review. *Singapore nursing journal*, 40(1):24-33.

Todaro-Franceschi, V. 2013. Fatigue and burnout in nursing: enhancing professional quality of life. New York: Springer.

Trivellasa,P., Reklitisa, P. & Platisb, C. 2013. The effect of job related stress on employees' satisfaction: a survey in health care. *Procedia - social and behavioral sciences,* 73:718-726.

Van den Berg, H., Bester, C., Janse-van Rensburg-Bonthuyzen, E., Engebrecht, M., Hlophe, H., Summerton, J., Smit, J., Du Plooy, S. & Van Rensburg, D. 2006. Burnout and compassion fatigue in professional nurses: a study in PHC facilities in

the Free State, with special reference to the antiretroviral treatment programme. Bloemfontein: UOFS. Centre for Health Systems Research and Development.

Van der Cingel, M. 2009. Compassion and professional care: exploring the domain. *Nursing philosophy,* 10(2):124-136.

Van der Colff, J.J. & Rothmann, S. 2009. Occupational stress, sense of coherence, coping, burnout and work engagement of registered nurses in South Africa. *SA journal of industrial psychology*, 35(1):1-10.

Van der Colff, J.J. & Rothmann, S. 2014. Occupational stress of professional nurses in South Africa. *Journal of psychology in Africa,* 24(4):375-384.

Van der Doef, M., Mbazzi, F.B. & Verhoeven, C. 2011. Job conditions, job satisfaction, somatic complaints and burnout among East African nurses. *Journal of clinical nursing*, 21(11/12):1763-1775.

Van der Kleef, G.A. 2009. How emotions regulate social life the emotions as social information (EASI) model. *Current directions in psychological science,* 18(3):184-188.

Van Ruysseveldt, J., Proost, K. & Verboon, P. 2011. The role of work-home interference and workplace learning in the energy-depletion process. *Management revue*, 22(2):151-168.

Van Wyk, A. 2010. The relationship between burnout and the safety and quality of patient care in private critical care units in Gauteng province. Potchefstroom: North-West University. (Thesis - PhD.)

Wetzel, D. & Brysiewicz, P. 2014. The consequence of caring too much: compassion fatigue and trauma nurse. *Journal of emergency nursing*, 40(1):95-97.

Williams, A. 2013. Hochschild (2003): The managed heart: the recognition of emotional labour in public service work. *Nurse education today,* 33(1):5-7.

World Health Organization (WHO). 2010. Reforming the education of physicians, nurses and midwives. Geneva, Switzerland: WHO.

Wu, T., Fox, D.N., Stokes, C. & Adam, C. 2012. Work-related stress and intention to quit in newly graduated nurses. *Nurse education today*, 32:669-674.

Yang, F. & Chang, C. 2007. Emotional labour, job satisfaction and organizational commitment amongst clinical nurses: a questionnaire survey. *International journal of nursing studies,* 45(6):879-887.

Yoder, E. 2010. Compassion fatigue in nurses. *Applied nursing research,* 23(4):191-197.

Yoon, S.L. & Kim, J. 2013. Job-related stress, emotional labor, and depressive symptoms among Korean nurses. *Journal of nursing scholarship,* 45(2):169-176.

Zapf, D. 2002. Emotion work and psychological well-being: a review of literature and some conceptual considerations. *Human resource management review*, 12(2):237-268.

Zapf, D. & Holz, M. 2006. On the positive and negative effects of emotion work in organizations. *European journal of work and organizational psychology,* 15(1):1-28.

Zapf, D., Mertini, H., Seifert, C., Vogt, C., Isic, A., Fischbach, A. & Meyer, K. 1999. Frankfurt Emotion Work Scales-E (FEWS). Frankfurt am Main: Johann Wolfgang Goethe-Universität, Frankfurt am Main. Institut für Psychologie.

Zapf, D., Seifert, C., Schumutte, B., Mertini, H. & Holz, M. 2001. Emotion work and job stressors and their effect on burnout. *Psychology and health*, 16(5):527-545.

Zebron, S. & Mutara, G. 2014. Prevalence of work related stress among health practitioners at Chinhoyi Provincial Hospital. *Journal of biology, agriculture and healthcare*, 4(21):42-50.

Zeidner, M., Hadar, D., Matthews, G. & Roberts, R.D. 2013. Personal factors related to compassion fatigue in health professionals. *Anxiety*, *stress, & coping*, 26(6):595- 609.

Zuma, G.J. 2011. Address by president Zuma at the National Nursing Summit, Sandton Convention Centre, Johannesburg. http://www.kznhealth.gov.za. Date of access: 15 October 2015.

ADDENDUMS

ANNEXURE A: Language Editor Certificate

ANNEXURE B: Statistician Certificate

ANNEXURE C: Permission to use Emotional Work Tool

ANNEXURE D: Permission to use Job stress Tool

ANNEXURE E1: NWU Ethics Certificate

ANNEXURE E2: Permission letter from DoH (Provincial)

ANNEXURE E3: Permission letter from DoH (District)

ANNEXURE E4: Permission letter from Addington Hospital

ANNEXURE E5: Permission letter from Inkosi Albert Hospital

ANNEXURE E6: Permission letter from Prince Mshiyeni Hospital

ANNEXURE F1: Questionnaire

ANNEXURE F2: Informed consent

ANNEXURE A:

LANGUAGE EDITOR CERTIFICATE

UNISA university of south africa

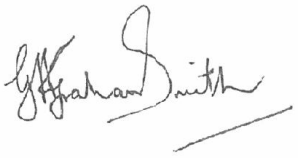
Department of English Studies

08 December 2015

To Whom it May Concern

This is to confirm that I have edited Mrs B. Hlongwane's master's thesis entitled: 'The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District' and am satisfied that the dissertation meets the level of linguistic competence required at this level.

Yours faithfully



Greg Graham-Smith (Dr)

Senior Lecturer: Department of English Studies

Tel.: (012) 429 6572

e-mail: grahagh@unisa.ac.za

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

ANNEXURE B:

STATISTICIAN CERTIFICATE

Please fill this page in where applicable, print it (where information covers more than one page, print double-sided), have it signed and send the original signed hard copy on to the Office of the Director: Research Support (Box 116, PUK, North-West University, Potchefstroom, 2520) by ordinary / internal post.

NWU Ethics Application

Project Head (Title, Initials & Surname)	Project Title (see § 3.1)
Type here	Type here The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District

SN Electron

NWU Ethics Number *(for office use only)*

N	W	U	-						-			-		

Institution — Project Number — Year — Status

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Sec 8b: Statistical Consultation Service (If applicable)

The statistician of the Statistical Consultation Service of the North-West University completes this section (where applicable).

More information

Prior consultation with Statistical Consultation Service can eliminate many problems, simplify and expedite the evaluation and also prevent applications from being returned due to poor project planning and/or statistical justifiability. Where the Project Head has sufficient statistical expertise at his disposal, this is, however, not compulsory.

The HREC relies completely on the professional judgement of the statistician.

Have you ascertained the experimental design of the study and is it statistically justifiable according to your judgement?
(Please mark with **X** *in the appropriate box and provide details)*

Yes	No	Remarks
☐	☐	Type here

Name (Title, Full Names & Surname)	Qualifications
Type here Dr Susanna Maria Ellis (B Sc; Nat)	Type here PhD (Statistics)

Signature

Date: 2015 · 03 · 23 (c c y y · m m · d d)

Remember to save your document regularly as you complete it!

ANNEXURE C:

PERMISSION TO USE EMOTIONAL WORK TOOL

---------- Forwarded message ----------
From: <D.Zapf@psych.uni-frankfurt.de>
Date: Tue, Apr 15, 2014 at 9:38 AM
Subject: Re: Request to use the tool for emotion work and job stress in my research study
To: Bajabulile Hlongwane <bajahlongs@gmail.com>

Hi, attached I send you our emotion work instrument and some papers.

Regards,

Dieter Zapf

_____

Prof. Dr. Dieter Zapf
Work and Organizational Psychology
Institute of Psychology
Scientific Director, Center for Leadership and Behavior in Organizations (CLBO)

Institute of Psychology
Goethe University Frankfurt
PEG, Grüneburgplatz 1, 60323 Frankfurt am Main, Germany
Hauspostfach Abteilung: 63
homepage: http://web.uni-frankfurt.de/fb05/psychologie/Abteil/ABO/index.htm
CLBO website: www.clbo-frankfurt.org

Zitat von Bajabulile Hlongwane <bajahlongs@gmail.com>:
Dear Sir
I am a master's student in Northwest University in South Africa and conducting a study. My topic is Compassion fatigue, emotion work and job stress among nurses working in public hospitals in Durban and would like to use the tool that was developed by you for both construct.

Kindly furnish me with all the relevant information in this regard. I will appreciate your assistance and will be glad to communicate with you the progress and the results of the study.

Regards
Bajabulile Hlongwane
mobile no: +27 834116123
work telephone no: +27 31 3272076

ANNEXURE D:

PERMISSION TO USE JOB STRESS TOOL

PURDUE UNIVERSITY

COLLEGE OF LIBERAL ARTS

April 2014

RE: Nursing Stress Scale

I have enclosed a copy of the Nursing Stress Scale. You have our permission to use the Nursing Stress Scale in your research. Please cite the original source in the Journal of Behavioral Assessment, Vol. 3, No. 1, 1981, pp. 11-23. Please note that six of the items were dropped on the basis of the factor analysis. I have checked the final 34 items that were included on the enclosed copy of the NSS.

Good luck. I would be most interested in receiving a copy of any of the publications that result from the research. Please call me at (765) 494-4703 or send me an email if you have any questions.

Sincerely yours,

James G. Anderson, Ph.D.
Professor of Medical Sociology
Professor of Health Communication
(765) 494-4668
FAX: (765) 496-1476
e-mail: andersonj@.purdue.edu
web.ics.purdue.edu/janders1

ANNEXURE E1: **NWU ETHICS CERTIFICATE**

ANNEXURE E2: **PERMISSION LETTER FROM DOH (PROVINCIAL)**

ANNEXURE E3: **PERMISSION LETTER FROM DOH (DISTRICT)**

ANNEXURE E4: **PERMISSION LETTER FROM ADDINGTON HOSPITAL**

ANNEXURE E5: **PERMISSION LETTER FROM INKOSI ALBERT HOSPITAL**

ANNEXURE E6: **PERMISSION LETTER FROM PRINCE MSHIYENI HOSPITAL**

ANNEXURE F1: **QUESTIONNAIRE**

ANNEXURE F2: **INFORMED CONSENT**

ANNEXURE F3: **DECLARATION**

ANNEXURE E1:

NWU ETHICS CERTIFICATE

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

Private Bag X6001, Potchefstroom
South Africa 2520

Tel: (018) 299-4900
Faks: (018) 299-4910
Web: http://www.nwu.ac.za

Institutional Research Ethics Regulatory Committee
Tel +27 18 299 4849
Email Ethics@nwu.ac.za

ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by the **Health Research Ethics Committee (HREC)**, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: THE RELATIONSHIP BETWEEN COMPASSION FATIGUE, EMOTIONAL WORK AND JOB STRESS AMONG NURSES IN THE ETHEKWINI DISTRICT, KWAZULU-NATAL.

Project Leader: Dr S Knobloch-Coetzee

Ethics number: NWU-00048-15-A1
(Institution – Project Number – Year – Status)
Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Approval date: 2015-07-11 **Expiry date:** 2016-05-31 **Category** N/A

Special conditions of the approval (if any): None

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- *The project leader (principle investigator) must report in the prescribed format to the NWU-IRERC:*
  - *annually (or as otherwise requested) on the progress of the project,*
  - *without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.*
- *The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the NWU-RERC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.*
- *The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC and new approval received before or on the expiry date.*
- *In the interest of ethical responsibility the NWU-IRERC retains the right to:*
  - *request access to any information or data at any time during the course or after completion of the project;*
  - *withdraw or postpone approval if:*
    - *any unethical principles or practices of the project are revealed or suspected,*
    - *it becomes apparent that any relevant information was withheld from the NWU-IRERC or that information has been false or misrepresented,*
    - *the required annual report and reporting of adverse events was not done timely and accurately,*
    - *new institutional rules, national legislation or international conventions deem it necessary.*

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC for any further enquiries or requests for assistance.

Yours sincerely

Linda du Plessis

Digitally signed by Linda du Plessis
DN: cn=Linda du Plessis, o=NWU, ou=Vaal Triangle Campus, email=linda.duplessis@nwu.ac.za, c=ZA
Date: 2015.07.13 13:08:33 +02'00'

Prof Linda du Plessis
Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

ANNEXURE E2:

PERMISSION LETTER FROM DOH (PROVINCIAL)

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Health Research & Knowledge Management sub-component
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 3953189
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

Reference : HRKM 187/15
NHRD: KZ_2015RP8_106
Enquiries : Mr X Xaba
Tel : 033 – 395 2805

Dear Ms B. Hlongwane

Subject: Approval of a Research Proposal

1. The research proposal titled **'The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District'** was reviewed by the KwaZulu-Natal Department of Health.

   The proposal is hereby **approved** for research to be undertaken at Addington, Prince Mshiyeni Memorial, Inkosi Albert Luthuli Central Hospital.

2. You are requested to take note of the following:
   a. Make the necessary arrangement with the identified facility before commencing with your research project.
   b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Mr X. Xaba on 033-395 2805.

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 24/07/15

ANNEXURE E3:

PERMISSION LETTER FROM DOH (DISTRICT)

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Postal Address: Private Bag X54318
Durban 4000
Physical Address: 83 King Cetshwayo
Highway, Mayville, Durban 4001
Tel.031 2405455: Fax. 031 2405500
Email:
henry.sunpath@kznhealth.gov.za
www.kznhealth.gov.za
Enquiries: Dr H Sunpath

Date 13 July 2015

Re: Title of research: The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District.

Thanks for submitting the documents in support of the above research

Ethics approval –ethics committee date and approval number:11 July 2015 NWU-00048-15-S1

Letter of permission from Provincial DOH: dated: 27 July 2015

Protocol and methodology for reference – received

Approval is hereby granted to conduct this research in the following health care facilities located in EThekwini district under the provincial and district management teams.

1. Prince Mshiyeni Memorial Hospital
2. Inkosi Albert Central Hospital
3. Addington Hospital

Proposed start date: 11 July 2015

Proposed completion date: 31/05/2016

Please note that all research activities in the health care facility must be conducted in a way that does not interrupt clinical care. This letter serves only to support the project ,however the logistical details are subject to approval by the CEO/Medical Manager /Nursing services manager.

Wishing you success in this important and relevant research.
Yours faithfully
Dr. Henry Sunpath: MBBS; MFam Med; Dip HIV Man,MPH (UKZN)
Chief Technical Advisor –Clinical Governance; **Ethekwini District Health Office**

ANNEXURE E4:

PERMISSION LETTER FROM ADDINGTON HOSPITAL

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

ADDINGTON HOSPITAL
OFFICE OF THE HOSPITAL MANAGER
Postal Address: P.O. Box 977, DURBAN, 4000
Physical Address: 16 Erskine Terrace, South Beach
Tel.: (031) 327-2970, Fax.:(031) 368-3300
Email.: reshma.boodhai@kznhealth.gov.za
www.kznhealth.gov.za

AD/9/2/3/R

Enquiries: Dr M Ndlangisa
Extension: 2970/2568

3rd September 2015

Principal Investigator:
- **Ms B Hlongwane**

PERMISSION TO CONDUCT RESEARCH AT ADDINGTON HOSPITAL: "THE RELATIONSHIP BETWEEN COMPASSION FATIGUE, EMOTIONAL WORK, AND JOB STRESS AMONG NURSES WITHIN THE ETHEKWINI DISTRICT"

I have pleasure in informing you that permission has been granted to you by Addington Hospital Management to conduct the above research.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. Addington Hospital will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to Addington Hospital.

MS HPN ZWANE
ACTING HOSPITAL MANAGER
ADDINGTON HOSPITAL

ANNEXURE E5:

PERMISSION LETTER FROM INKOSI ALBERT HOSPITAL

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Inkosi Albert Luthuli Central Hospital
Ethekwini Health District
Office of the Medical Manager
Private Bag X 03, Mayville, 4058
800 Bellair Road, Mayville, 4058
Tel.: 031 240 1059,
Fax.: 031 240 1050
Email.:ursulanun@ialch.co.za
www.kznhealth.gov.za

21 July 2015

Ms B Hlongwane
Potchefstroom Campus
North-West University

Dear Ms Hlongwane

Re: Approved Research: Ref No: 11965797: The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District.

As per the policy of the Provincial Health Research Committee (PHRC), you are hereby granted permission to conduct the above mentioned research once all relevant documentation has been submitted to PHRC inclusive of Full Ethical Approval.

Kindly note the following.

1. The research should adhere to all policies, procedures, protocols and guidelines of the KwaZulu-Natal Department of Health.
2. Research will only commence once the PHRC has granted approval to the researcher.
3. The researcher must ensure that the Medical Manager is informed before the commencement of the research by means of the approval letter by the chairperson of the PHRC.
4. The Medical Manager expects to be provided feedback on the findings of the research.
5. Kindly submit your research to:

   The Secretariat
   Health Research & Knowledge Management
   330 Langaliballe Street, Pietermaritzburg, 3200
   Private Bag X9501, Pietermaritzburg, 3201
   Tel: 033395-3123, Fax 033394-3782
   Email: hrkm@kznhealth.gov.za

Yours faithfully

.....

Dr M Letebele
Medical Manager

ANNEXURE E6:

PERMISSION LETTER FROM PRINCE MSHIYENI HOSPITAL

health

Department:
Health
PROVINCE OF KWAZULU-NATAL

Enquiry: Dr M AUNG
Ref No: 07/RESH/2105
Date: 11/05/2015

TO: Bajabulile S. Hlongwane

RE: LETTER OF SUPPORT TO CONDUCT RESEARCH AT PMMH

Dear Madam;

I have pleasure to inform you that PMMH has considered your application to conduct research on **"The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District"** in our institution.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. The institution will not provide any resources for this research.
5. You will be expected to provide feedback on you finding to the institution.

Should the following requirements be fulfilled, a Permission/ Approval letter will follow.

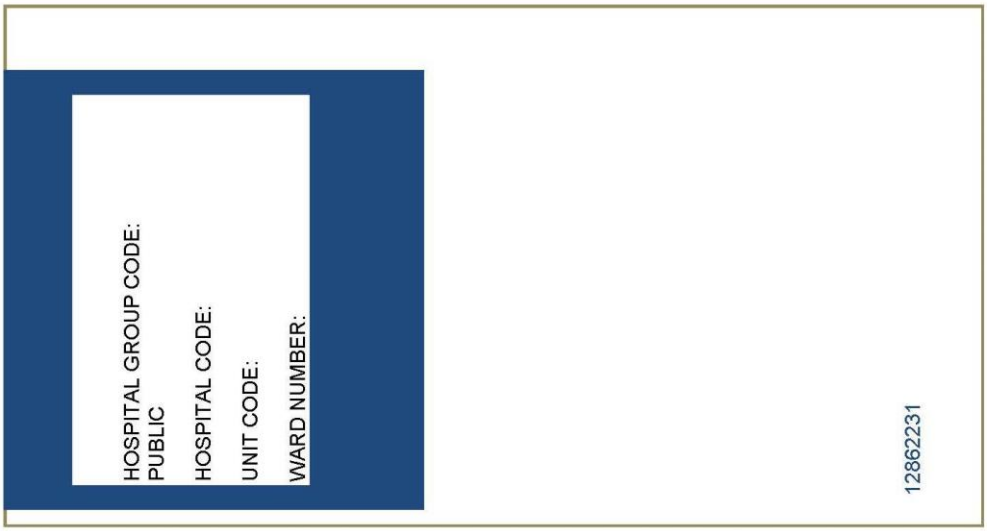
- Full research protocol, including questionnaires and consent forms if applicable.
- Ethical approval from a recognized Ethic committee in South Africa

Thank you.

Dr. M Aung
Senior Manager: Medical & Consultant in Family Medicine
MBBS(Rgn), PGDip in HIV (Natal), DO(SA)
M.Med.Fam.Med (Natal)

ANNEXURE F1:

QUESTIONNAIRE



Section A: Demographic questions

Please tell us a little about yourself and your workplace.

1. What is your gender?

1	2
Male	Female

2. What is your age in years? _____

3. What is your marital status?

1	2	3	4	5
Single	Married	Separated	Widowed	Divorced

4. Do you have a baccalaureate degree in nursing? Yes____ No____

5. How long have you worked as:
   - A registered nurse (years)? _____
   - An enrolled nurse (years)? _____
   - An auxiliary nurse (years)? _____

6. What is your highest qualification?
   - Certificate _____
   - 2 Year diploma _____
   - 4 year diploma _____
   - 4 year under-graduate degree _____
   - Post basic diploma _____
   - Post basic degree _____
   - Master's degree _____
   - Doctoral degree _____

7. Was nursing your first choice of career?

1	2
Yes	No

8. How satisfied are you with your choice of nursing as a career?

1	2	3	4
Very dissatisfied	Slightly dissatisfied	Moderately satisfied	Very satisfied

9. Are you working in this hospital full time?

1	2
Yes	No

10. Please write the name/number of the ward/unit that you work in (e.g. Ward 1A or Ward C): _____

Section B: Compassion Practice Instrument

Please indicate how frequently, if ever, you have experienced these feelings or engaged in these behaviours while working with patients in the last 30 days.

	1	2	3	4	5	6
	Never	Rarely	Some times	Often	Very often	Always

1	I try to get to know patients as a whole (psycho-social-spiritual) person.	1	2	3	4	5	
2	I feel good about the quality of care I provide to patients.	1	2	3	4	5	6
3	I feel energetic.	1	2	3	4	5	6
4	I make a positive difference in the lives of patients.	1	2	3	4	5	6
5	I struggle to connect with patients.	1	2	3	4	5	6
6	I am able to provide the quality of care to patients that I would like to.	1	2	3	4	5	6

7	I have no energy to work with patients.	1	2	3	4	5	6
8	I doubt I make much difference in the lives of patients.	1	2	3	4	5	6
9	I encourage patients to share their thoughts and feelings with me.	1	2	3	4	5	6
10	I am able to meet the needs of patients.	1	2	3	4	5	6

11	I feel well-balanced.	1	2	3	4	5	6
12	Meeting patients' needs gives meaning and purpose to my life.	1	2	3	4	5	6
13	I struggle to open myself up to patients' suffering and sorrow.	1	2	3	4	5	6
14	I am able to meet patients' needs the way I would like to	1	2	3	4	5	6
15	I have nothing more to give patients emotionally.	1	2	3	4	5	6
16	I am unable to see meaning and purpose in caring for patients.	1	2	3	4	5	6
17	I notice when patients are upset, even if they don't say anything.	1	2	3	4	5	6
18	I provide holistic (psycho-social-spiritual) patient care.	1	2	3	4	5	6
19	I look forward to interacting with patients.	1	2	3	4	5	6
20	I feel satisfied when I am able to help patients.	1	2	3	4	5	6
21	I try to shield (protect) myself from patients' suffering and sorrow.	1	2	3	4	5	6
22	I feel that patients deserve better care than I can provide.	1	2	3	4	5	6
23	I feel too tired to interact with patients.	1	2	3	4	5	6
24	Caring for patients provides me with no satisfaction.	1	2	3	4	5	6
25	I am able to experience patients' suffering or sorrow from their perspective.	1	2	3	4	5	6
26	When I see patients in need, I will do almost anything I can to help them	1	2	3	4	5	6
27	Working with patients energizes me.	1	2	3	4	5	6
28	Caring for patients is a rewarding job.	1	2	3	4	5	6
29	I try to limit contact with patients as much as possible.	1	2	3	4	5	6
30	I feel that I should provide better care to patients than I currently do.	1	2	3	4	5	6
31	I am unable to bounce back the way I used to.	1	2	3	4	5	6
32	Caring for patients is a thankless job.	1	2	3	4	5	6
33	I listen attentively when patients tell me their problems.	1	2	3	4	5	6
34	I try to be as involved as possible in the care of patients.	1	2	3	4	5	6
35	I look forward to going to work.	1	2	3	4	5	6
36	I feel like I am a "success" as a caregiver.	1	2	3	4	5	6
37	I distance myself emotionally from patients.	1	2	3	4	5	6
38	I fail to meet patient's needs.	1	2	3	4	5	6
39	I have lost balance in my life.	1	2	3	4	5	6
40	I feel that no matter how hard I try, it's never good enough.	1	2	3	4	5	6
41	I have lots of energy to invest in patients.	1	2	3	4	5	6
42	I am unable to help patients the way I would like to.	1	2	3	4	5	6
43	I do not live up to my expectations of providing patient care.	1	2	3	4	5	6
44	I can identify with patients' feelings.	1	2	3	4	5	6
		1	2	3	4	5	6

Section C: Nursing Stress Scale

Please indicate how often in your present unit you have found the situation to be stressful.

	1	2	3	4
	Never	Occasionally	Frequently	Very frequently

1	Breakdown of computer	1	2	3	4
2	Criticism by a physician	1	2	3	4
3	Performing procedures that patients experience as painful	1	2	3	4
4	Feeling helpless in the case of a patient who fails to improve	1	2	3	4
5	Insufficient opportunities to express my anger and frustration	1	2	3	4
6	Conflict with a supervisor	1	2	3	4
7	An emergency situation involving the life of a patient	1	2	3	4
8	Listening or talking to a patient about his/her approaching death	1	2	3	4
9	Lack of an opportunity to talk openly with other unit personnel about problems on the unit	1	2	3	4
10	The death of a patient	1	2	3	4
11	Conflict with a physician	1	2	3	4
12	Fear of making a mistake in treating a patient	1	2	3	4
13	Lack of an opportunity to share experiences and feelings with other personnel on the unit	1	2	3	4
14	The death of a patient with whom you developed a close relationship	1	2	3	4
15	Physician not being present when a patient dies	1	2	3	4
16	Disagreement concerning the treatment of a patient	1	2	3	4
17	Feeling inadequately prepared to help with the emotional needs of a patient's family	1	2	3	4
18	Lack of an opportunity to express to other personnel on the unit my negative feelings towards patients	1	2	3	4
19	Inadequate information from a physician regarding the medical condition of a patient	1	2	3	4
20	Inadequate preparation for the job I'm expected to do	1	2	3	4
21	Being asked a question by a patient for which I do not have a satisfactory answer	1	2	3	4
22	Making a decision concerning a patient when the physician is unavailable	1	2	3	4
23	Floating to other units that are short-staffed	1	2	3	4
24	Watching a patient suffer	1	2	3	4
25	Difficulty in working with a particular nurse (or nurses) outside the unit	1	2	3	4
26	Having to deal with a particularly demanding, angry or depressed patient	1	2	3	4
27	Feeling inadequately prepared to help with the emotional needs of a patient	1	2	3	4
28	Criticism by a supervisor	1	2	3	4
29	Unpredictable staffing and scheduling	1	2	3	4
30	A physician ordering what appears to be inappropriate treatment for a patient	1	2	3	4
31	Too many non-nursing tasks required, such as clerical work	1	2	3	4
32	Not enough time to provide emotional support to a patient	1	2	3	4

33	Difficulty in working with a particular nurse (or nurses) on the unit	1	2	3	4
34	Not enough time to complete all of my nursing tasks	1	2	3	4
35	The discharge of a patient with whom you developed a close relationship	1	2	3	4
36	A physician not being present in a medical emergency	1	2	3	4
37	Not knowing what a patient or a patient's family ought to be told about the patient's medical condition and its treatment	1	2	3	4
38	Uncertainty regarding the operation and functioning of specialized equipment	1	2	3	4
39	The death of a young patient	1	2	3	4
40	Not enough staff to adequately cover the unit	1	2	3	4

Section D: Emotion Work Scale

This questionnaire deals with specific demands that arise from working with other people. When responding to the questionnaire you should consider that the demands are considered to be independent from a particular employee. That is: Whoever carries out your job would be exposed to the same demands. The questionnaire was developed for several occupations in the service sector, so that some questions might not be applicable to your job. We still ask you to **answer all questions by choosing the answer that holds the most true to your job.**

EK1 to EK4: Jobs entailing contact with patients differ in the strictness of regulations governing how one is to deal with one's own emotions and those of the patients. For each of the following questions, please mark the answer which best describes your job.

EK1 Person A was given specific instructions **from an outside source** on when to display certain emotions towards the patient.

Person B can **decide for himself / herself** if and when to display Emotions towards the patient.

Which of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

EK2 How often can you **decide for yourself** on as to which emotions to Display towards the patient?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EK3 In contact with patients, how often is it necessary that you have to display your emotions in a **very particular way** in order to fulfil the company's demands?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EK4 Person A has **strict instructions from the company** on how to deal with his/her own feelings and those of the patients.

Person B has **hardly any instructions from the company** on how to deal with either his/her own feelings nor those of the patients

Which one of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

E1 to E12: In order to meet the demands and expectations about how to deal with patients, it is often necessary to display very specific feelings towards the patients. For each of the feelings listed in the following table, please mark how often you are required to display them when working with patients.

	very rarely / never	**rarely** (about once a week)	**some-times** (about once a day)	**often** (several times a day)	**very often** (several times an hour)
E 1 fondness / liking	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 2 joy / being happy for somebody	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 3 gratitude	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 4 friendliness	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 5 enthusiasm	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 6 To be moved/dismay	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 7 anger	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 8 disappointment	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 9 hope	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 10 sympathy	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 11 aggression	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5
E 12 neutrality / impartiality	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5

EP(1-5), EP(1-7), EW(1-4): The following questions deal with the quality of emotions (positive, negative, neutral) that you display when interacting with a patient.

EP1 How often in your job do you have to display **pleasant emotions** towards patients (i.e. friendliness or kindness)?

very rarely / never ( ) 1
rarely (once a week) ( ) 2
sometimes (once a day) ( ) 3
often (several times a day) ( ) 4
very often (several times an hour) ( ) 5

EW1 How often are you required to display **neither positive nor negative emotions** towards patients (i.e. showing impartiality)?

very rarely / never ( ) 1
rarely (once a week) ( ) 2
sometimes (once a day) ( ) 3
often (several times a day) ( ) 4
very often (several times an hour) ( ) 5

EV1 How often in your job do you have to display **unpleasant emotions** towards patients (i.e. strictness or anger if rules are not followed)?

very rarely / never ( ) 1
rarely (once a week) ( ) 2
sometimes (once a day) ( ) 3
often (several times a day) ( ) 4
very often (several times an hour) ( ) 5

EP2 How often in your job do you have to put patients in a **positive mood** (i.e. pleasing somebody)?

very rarely / never ( ) 1
rarely (once a week) ( ) 2
sometimes (once a day) ( ) 3
often (several times a day) ( ) 4
very often (several times an hour) ( ) 5

EW2 How often in your job do you have to put patients in a **neutral / impartial mood**?

very rarely / never ( ) 1
rarely (once a week) ( ) 2
sometimes (once a day) ( ) 3
often (several times a day) ( ) 4
very often (several times an hour) ( ) 5

EV2 How often in your job do you have to put patients in a **negative mood** (i.e. unsettle / alarm)?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EP3 How often in your job do you have to display, according to the situation, **differing positive emotions** towards patients (i.e. friendliness and enthusiasm and hope etc.)?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EV3 How often in your job do you have to display, according to the situation, **differing negative emotions** towards patients (i.e. anger and disappointment and strictness etc.)?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EP4 Person A has to display –if any- only very **superficial positive feelings** towards patients (i.e. superficial friendliness).

Person B must, in addition, also display **intensive positive feelings** towards patients (i.e. kindness).

Which one of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

EW3 In Person A's job, it is generally important to **avoid the expression of intensive negative or positive emotions** towards patients.

In Person B's job, the expression of intensive feelings generally **does not need to be avoided.**

Which one of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

EV4 Person A has to display –if any- only very **superficial negative feelings** towards patients (i.e. superficial strictness).

Person B must, in addition, also display **intensive negative feelings** towards patients (i.e. strong anger).

Which one of these two jobs most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

EP5 How often do **you yourself** have to **come across as being in a positive mood** when dealing with patients (i.e. cheerful)?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EW4 How often do **you yourself** have to **come across as being neutral and impartial** when dealing with patients?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EV5 How often do **you yourself** have to **come across as being in a negative mood** when dealing with patients (i.e. angry)?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EV6 Person A expresses mainly **positive or neutral** feelings towards patients.

Person B expresses **positive and negative** feelings towards patients.

Which one of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

EV7 How often in your job do you have to act very stern and **strict** towards patients (i.e. when certain rules are not followed)?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EA (1-4), ES (1-4), ED (1-5) and EH (1-4): Jobs entailing contact with patients differ in the extent to which one needs to consider the feelings of the patients as well as in how strongly one should control one's own feelings. For each of the following questions, please mark the answer which best describes your job.

EA1 How often do you have to show **understanding** towards patients?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EA2 How often do you have to express **sympathy** towards patients?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EA3 In Person A's job, it is **important to sympathize** with the present feelings of patients in order to handle the tasks of the job successfully (i.e. feel happiness or anger with the patient).

In Person B's job, tasks can be handled successfully **regardless of whether or not one sympathizes** with the feelings of patients.

Which one of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

Person B can end conversations with patients at his/her own discretion.

Which of these two jobs is most similar to yours?

exactly like that of A	( ) 1
similar to that of A	( ) 2
in between A and B	( ) 3
similar to that of B	( ) 4
exactly like that of B	( ) 5

EH3 How often **can you yourself decide** upon the amount of time you devote to a patient, independent of the patients' needs?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

EH4 How often are you assigned **specific deadlines by the company** for your involvement with patients?

very rarely / never	( ) 1
rarely (once a week)	( ) 2
sometimes (once a day)	( ) 3
often (several times a day)	( ) 4
very often (several times an hour)	( ) 5

Thank you very much for completing the questionnaire!

EU2 How many hours on average do you work **per day**?

ANNEXURE F2:

INFORMED CONSENT

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Health Research Ethics Committee
Faculty of Health Sciences
NORTH-WEST University
(Potchefstroom Campus)
2015 -06- 24
HREC Stamp

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR NURSES IN MEDICAL AND SURGICAL WARDS IN PUBLIC HOSPITALS

TITLE OF THE RESEARCH PROJECT: **The relationship between compassion fatigue, emotional work and job stress among nurses in the eThekwini District, Kwazulu-Natal.**

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATOR: Dr Siedine Knobloch Coetzee

ADDRESS: 11 Hoffman Street, Potchefstroom, 2531

CONTACT NUMBER: 018 299 1879

You are being invited to take part in a research project for the degree Magister Curationis in Nursing at the Potchefstroom Campus of the North-West University. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of the project that is not clearly understood. It is very important that you are satisfied and clearly understand what this research entails and how you could be involved. Your participation is **entirely voluntary** and you are free to decline to participate and if you agree to participate you are allowed to withdraw at any point during the project. If you refuse to participate, this will not affect you negatively in any way whatsoever.

This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00048-15-S1)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki ad the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records.

What is this research study all about?

This study will be conducted in the public hospitals of the eThekwini district in KwaZulu-Natal among professional nurses, enrolled nurses and enrolled nursing assistants. All participants from the medical and surgical wards in the selected hospitals will be eligible to participate. The research study will be conducted by a Masters student, that has received training in research, and she will be supervised by two experienced researchers. Questionnaires will be used to collect data from the participants.

The objectives of this research are:

- To describe the prevalence of compassion fatigue, emotional work and job stress among professional nurses, enrolled nurses and enrolled nursing assistants working in public hospitals in the eThekwini district, KwaZulu-Natal.
- To explore the relationship between compassion fatigue, emotional work and job stress among professional nurses, enrolled nurses and enrolled nursing assistants working in public hospitals in the eThekwini district, KwaZulu-Natal.
- To develop recommendations for the management of the hospital, the charge nurse of the ward and the nurses regarding the prevention of compassion fatigue.

Why have you been invited to participate?

You have been invited to participate in the study because you meet the following inclusion criteria:

Inclusion criteria: All professional nurses, enrolled nurses and enrolled nursing assistants working in medical and surgical wards in the randomly selected tertiary and regional public hospitals in the eThekwini district, KwaZulu-Natal.

Exclusion criteria: Nursing students.

What will your responsibilities be?

Should you agree to participate which should be on voluntary basis, you will be requested to complete the questionnaire. The questionnaire should take approximately 40 minutes of your time. As a participant, you will remain anonymous when taking part in this research.

Will you benefit from taking part in this research?

- As a participant you will gain knowledge about compassion fatigue, emotional work and job stress.
- You will receive a presentation about the levels of compassion fatigue, emotional work and job stress experienced by nurses in your hospital, and be presented with recommendations to avoid or reduce compassion fatigue.
- There will be indirect benefits for the participating hospitals, as the researcher will present the findings to the hospital management and provide them with a report of the levels of compassion fatigue, emotional work and job stress experienced by nurses in each respective hospital. Furthermore recommendations will be made which will assist the hospital management in improving nurse outcomes

- There will be indirect benefit to the researchers and the research community at large, with the addition of unique information regarding the antecedents of compassion fatigue.

Are there risks involved in your taking part in this research?

- The risk is linked to possible boredom that you may experience in completing the survey and also the inconvenience of allotting time to complete the survey.
  The researcher aimed to alleviate this risk, by ensuring that the variables explored (compassion fatigue, emotional work and job stress) can be related to; by using validated tools and by ensuring that it takes no longer than 40 minutes to complete the survey, as tested by the researcher and volunteers.

What will happen in the unlikely event of some form of discomfort occurring as a direct result of your taking part in this research study?

- You will be referred for counselling at the nearest staff support services.

Who will have access to the data and what will happen to the data?

- Anonymity will be ensured by not recording your name on the questionnaire and sealing your completed questionnaire in an enclosed envelope. The researcher will ensure that there is no link between the organization and the research data that will be used in the study. Reporting of findings will be anonymous. Data will be kept safe and secure by keeping hard copies of the questionnaire in locked cupboards in the researcher's office and electronic data will be kept on a password protected computer. Data will be stored for five years and thereafter destroyed by shredding.

Will you be paid to take part in this study and are there any costs involved?

No, you will not be paid to take part in the study and there will be no costs involved.

Is there anything else that you should know or do?

- You can contact B.S. Hlongwane (The Researcher) at 0834116123 / 031 327 2076 or Dr. S. Coetzee (Supervisor) at 018 299 1879 if you have any further queries or encounter any problems.
- You can contact the Health Research Ethics Committee via Mrs Carolien van Zyl at 018 299 2089; carolien.vanzyl@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

How will you know about the findings?

- The findings of the research will be presented to your hospital on a pre-arranged date.

ANNEXURES A – F

Declaration by participant

By signing below, I ..... agree to take part in a research study entitled: **The relationship between compassion fatigue, emotional work, and job stress among nurses in the eThekwini District, Kwazulu-Natal.**

I declare that:

- I have read this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (place) ..... on (date) ..... 20....

....

Signature of participant **Signature of witness**

Declaration by person obtaining consent

I (name) ..... declare that:

- I explained the information in this document to .....
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (place) ..... on (date) ..... 20....

....

Signature of person obtaining consent **Signature of witness**

Declaration by researcher

I Bajabulile S. Hlongwane declare that:

- I explained the information in this document to .....
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at Durban..... on (date) ..... 20....

.....

Signature of researcher **Signature of witness**

ANNEXURE F3:

DECLARATION

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

DECLARATION

I, Bajabulile Severina Hlongwane, student number 11965797, declare that:

- **The relationship between compassion fatigue, emotional work, and job stress among nurses within the eThekwini District. A cross-sectional study,** is my original work and all sources used have been acknowledged by means of complete reference.
- This study has been approved by the Research Ethics Committee (humans), Health Science Faculty, North-West University (Potchefstroom Campus), ethics number is NWU-00048-15-A1.
- The whole study complies with the research ethical standards of the NWU (Potchefstroom Campus).

Hlongwane
Bajabulile Severina Hlongwane

Date: 11 - 12 - 2015