The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue

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PREFACE

Report Outline

This report was written according to the guideline for submitting a dissertation in article format as guided by the North West University Manual for Master's and Doctoral Studies (April 2016) (NWU, 2016:22). As per guidelines, one manuscript was written and prepared according to the guidelines of the prospective journal where the article will be submitted namely Elsevier: International Journal for African Studies. This format will unavoidably cause repetition in the manuscript.

The following structure will be followed:

Chapter 1: Overview of the study

Chapter 2: Literature study

Chapter 3: Article Manuscript. The title of the manuscript is: **The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue**

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

The researcher, Jan Dirk Visagie Holtzhausen, student number 23753358, conducted the research and wrote the manuscript. This was supervised and guided to comply to sound research methodology and ethical research by Prof. Siedine Knobloch Coetzee.

Referencing was done using the NWU Harvard style according to the North West University Reference Guide (2012), except for Section 3: Article Manuscript which was referenced according to the American Psychological Association, version 6 in compliance with the author guidelines of the above-mentioned academic journal.

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ABSTRACT

Background: International and national research has established that a positive practice environment is associated with better nurse, patient and organisational outcomes. Although similar findings have been identified among new graduate nurses internationally, the practice environment of the community service nurses (CSNs) in South Africa has not been explored before. It is also well established that psychological capital (PsyCap) is correlated with positive nurse outcomes, also among new graduate nurses, and research conducted outside of the nursing discipline has shown that PsyCap predicts personal accomplishment and subjective well-being, and moderates negative outcomes. However, the influence of the practice environment on subjective well-being (SWB) and compassion fatigue has not been explored in the nursing discipline, and neither has the mediating effect of PsyCap among these variables.

Aim: To test a model on the relationship between the practice environment and SWB, compassion fatigue and PsyCap, and the mediating effect of PsyCap among these variables.

Method: This study applied a cross-sectional survey design. An all-inclusive sampling was applied to the population (N=284; n=60) that included all CSNs who completed a comprehensive nursing program and studied in any of the four higher education institutions in the North West province, and commenced their community service year in 2016. Demographics and the results of scales were presented with descriptive statistics. The reliability of the instruments was established by Cronbach's alpha, and validity through confirmatory factor analysis. The hypotheses of the study, and the relationships between demographics and the study variables were tested utilizing inferential statistics. The model was tested using structural equation modelling (SEM).

Results: A response rate of 21% was obtained. Results showed that CSNs experience the practice environment as favourable except for staffing and resource adequacy. Their perspectives of the practice environment were however significantly influenced by the presence and acceptability of an orientation program. CSNs had an average satisfaction with life, and greater levels of positive affect. Choice of placement for the community service year was significantly linked to satisfaction with life. CSNs experience compassion stress, which was linked to staffing and resource adequacy. PsyCap, specifically hope, was correlated with more positive perceptions of the practice environment, positive affect and decreased levels of compassion fatigue. However, the only paths In the model that were significant at the 10% level were those between the practice environment and PsyCap, and between PsyCap and subjective well-being, indicating that PsyCap acts as a mediator between the practice

environment and subjective well-being, but not the paths between practice environment and compassion fatigue. The percentage of the total effect that is mediated is 86.6%.

Conclusions: Aspects of the practice environment influence aspects of both subjective well-being and compassion fatigue in CSNs. PsyCap acts as a mediator between the practice environment and subjective well-being but not between the practice environment and compassion fatigue.

Key terms: Community service nurse; compassion fatigue; practice environment; psychological capital; subjective well-being

OPSOMMING

Agtergrond: Internasionale en nasionale navorsing het bevestig dat 'n positiewe praktykomgewing geassosieer word met beter verpleegkundige, pasiënt en organisasie uitkomste. Alhoewel soortgelyke bevindings internasionaal gedoen is onder nuwe gegradueerde verpleegkundiges, is die praktykomgewing van die gemeenskapsdiensverpleegkundiges in Suid-Afrika nie al voorheen ondersoek nie. Dit is ook goed bevestig dat psigologiese kapitaal verwant is met positiewe verpleegkundige uitkomste, asook onder nuwe gegradueerde verpleegkundiges, en navorsing wat buite die verplegingsdissipline uitgevoer is, het getoon dat psigologiese kapitaal persoonlike prestasie en subjektiewe welstand voorspel en modereer negatiewe uitkomste. Die invloed van die praktykomgewing op subjektiewe welstand en medelyemoegheid is egter nog nie in die verpleegdissipline ondersoek nie, en het ook nie die bemiddelende effek van psigologiese kapitaal onder hierdie veranderlikes nie.

Doel: Om 'n model te toets van die verhoudinge tussen praktykomgewing en subjektiewe welstand, medelyemoegheid en psigologiese kapitaal, en die bemiddelende effek van psigologiese kapitaal onder hierdie veranderlikes.

Metode: Hierdie studie het 'n gebruik gemaak van 'n deursnitoorsig ontwerp. 'n Alomvattende steekproefneming is toegepas op die bevolking (N = 284; n = 60) wat alle gemeenskapsdiensverpleegkundiges ingesluit het wat 'n omvattende verpleegprogram voltooi het en in enige van die vier hoër onderwysinstellings in die Noordwes provinsie gestudeer het en hul gemeenskapsdiens begin het in 2016. Demografie en die resultate van skale is aangebied met beskrywende statistiek. Die betroubaarheid van die instrumente is vasgestel deur Cronbach se alfa, en geldigheid deur middel van bevestigende faktorontleding. Die hipoteses van die studie en die verhoudings tussen demografie en die studieveranderlikes is getoets met behulp van inferensiële statistiek. Die model is getoets met behulp van strukturele vergelyking modellering.

Resultate: 'n Reaksietempo van 21% is verkry. Uitslae het getoon dat gemeenskapsdiensverpleegkundiges die praktykomgewing as gunstig ervaar behalwe vir personeel- en hulpbrontoereikendheid. Hul perspektiewe van die praktykomgewing is egter beduidend beïnvloed deur die teenwoordigheid en aanvaarbaarheid van 'n oriënteringsprogram. Gemeenskapsdiensverpleegkundiges het 'n gemiddelde tevredenheid met die lewe gehad, en groter vlakke van positiewe affek getoon. Keuse van plasing vir die gemeenskapsdiensjaar was aansienlik gekoppel aan tevredenheid met die lewe. Gemeenskapsdiensverpleegkundiges ervaar medelyestres, wat verband hou met personeel- en hulpbrontoereikendheid. Psigologiese kapitaal, spesifiek hoop, is gekorreleer met meer positiewe persepsies van die

praktykomgewing, positiewe affek en verminderde vlakke van medelyemoegheid. Die enigste paaie in die model wat beduidend op die 10% -vlak was, was dié tussen die praktykomgewing en psigologiese kapitaal, en tussen psigologiese kapitaal en subjektiewe welstand, wat aandui dat psigologiese kapitaal optree as 'n bemiddelaar tussen die praktykomgewing en subjektiewe welstand, maar nie die paaie tussen praktykomgewing en medelyemoegheid nie. Die persentasie van die totale effek wat bemiddel word is 86.6%.

Gevolgtrekkings: Aspekte van die praktykomgewing beïnvloed aspekte van beide subjektiewe welstand en medelyemoegheid in gemeenskapsdiensverpleegkundiges. Psigologiese kapitaal dien as 'n bemiddelaar tussen die praktykomgewing en subjektiewe welstand, maar nie tussen die praktykomgewing en medelyemoegheid nie.

Sleutelterme: Gemeenskapsdiensverpleegkundige; praktykomgewing; subjektiewe welstand; medelyemoeghied

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LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
CEO	Chief executive officer
CFI	Comparative fit index
CMIN	Chi-square
CPI	Compassion practice instrument
CSN	Community service nurse
DF	Degrees of freedom
DoH	Department of Health
HIV/AIDS	Human immunodeficiency virus/Acquired immunodeficiency syndrome
HREC	Human Research Ethics Committee
ICU	Intensive care unit
NWDoH	North West Department of Health
NWP	North West Province
NWU	North West University
PANAS	Positive and negative affect survey
PCQ	Psychological capital questionnaire
PES-NWI	Practice environment scale of the nurse work index
PsyCap	Psychological capital
PTSD	Post-traumatic stress disorder
RMSEA	Root mean square error of approximation
RN	Registered nurse
SANC	South African Nursing Council
SCS	Statistical Consultation Services
SEM	Structural equation modelling
SMS	Short message service
SPSS	Statistical Package for the Social Sciences
SWB	Subjective well-being
SWLS	Satisfaction with life scale
TB	Tuberculosis
WHO	World Health Organization

CHAPTER 1 OVERVIEW OF THE STUDY

1.1 Introduction

It is compulsory for anyone who has completed a comprehensive program in nursing and midwifery to first complete a 12-month period of community service before registration will be granted as an independent practitioner (Geyer, 2013:115-116). Section 40(1) of the Nursing Act (33 of 2005) states that "A person who is a citizen of South Africa intending to register for the first time to practice a profession in a prescribed category must perform remunerated community service for a period of one year at a public health facility". A new graduate nurse with a baccalaureate degree or diploma is referred to as a community service nurse (CSN). In international usage, a CSN with less than one year's working experience is referred to as a new graduate nurse or new diplomate nurse.

Research on CSNs' experiences of the community service year is widely divergent in its findings. Some studies report positive outcomes such as a positive attitude towards the community service year (Govender *et al.*, 2015) and growth in both personal and professional dimensions (Du Plessis & Seekoe, 2013). At the other end of the spectrum, studies have reported reality shock experienced by CSNs (Roziers *et al.*, 2014), limited human and material resources, a high nurse-to-patient ratio, lack of support (Ndaba, 2013) and poor acceptance by other nurses (Govender *et al.*, 2015).

Research both internationally (Zhang *et al.*, 2013; Aiken *et al.*, 2013) and nationally (Coetzee *et al.,* 2013; Klopper *et al.*, 2012) has shown that nurses who work in hospitals with a positive practice environment are less likely to report poor nurse outcomes such as burnout, job dissatisfaction or turnover intent. However, the practice environment as it is experienced by CSNs has not been explored in the South African context. Nor have there been any studies in the international literature on influence of the practice environment on subjective well-being (SWB) and compassion fatigue, or on the mediating effect of psychological capital (PsyCap) on the development of compassion fatigue. This research study accordingly proposes to look at how the practice environment influences compassion fatigue and SWB of a CSN.

1.2 Background and rationale for the study

This section considers definitions of concepts such as *practice environment, subjective well-being, compassion fatigue*, and *psychological capital.*

Lake (2002:178) defines the nursing practice environment as "the organizational characteristics of a work setting that facilitates or constrains professional nursing practice." These organizational characteristics include nurse participation in hospital affairs, nursing foundations for quality of care; nurse manager ability, leadership and support of nurses, staffing and resource adequacy, and collegial nurse–physician relations (Lake, 2002). Positive fulfilment of these characteristics would create an ideal nursing practice environment (Lake, 2002).

Lake (2002) explains further that nurse participation in hospital affairs is manifested in nurses having the opportunity to be involved in both hospital and nursing affairs, nurses having the opportunity to advance professionally, and nurses having an influential nurse executive with whom they can communicate openly. Staffing and resources adequacy in the practice environment means having enough nurses and resources available to render quality patient care and to liaise with other nurses on any patient challenges (Lake, 2002). Quality of care in nursing is evidenced in implementation of nursing interventions such as comprehensive nursing care plans in order to render quality, on-going nursing care (Lake, 2002). Lake (2002) adds that the ability of a manager is exemplified by excellent leadership capabilities, dealing with conflict between nurses and physicians, supporting nurses when mistakes are made and praising nurses for their accomplishments. The fundamental element in collegial nurse–physician relationships is teamwork among nurses and physicians (Lake, 2002).

A systematic review by Lambrou *et al.* (2014) of how nurses perceive their practice environment noted that a poor practice environment had a significantly negative effect on job satisfaction, burnout and intention to leave, while a positive practice environment strongly influenced nurses' perceptions of quality of care. Similar findings have been identified among new graduate nurses internationally; in particular, it has been found among this population that a supportive practice environment is predictive of better job satisfaction and job retention (Jackson, 2016; Laschinger *et al.,* 2016). In this population a supportive practice environment is also seen as predictive of good quality patient care (Laschinger *et al.*, 2016).

1.2.1 Subjective well-being

Subjective well-being (SWB) is the hedonic perspective of well-being and comprises life satisfaction together with positive and negative affect (Wissing *et al.,* 2014). It has also been defined as a person's judgement of life satisfaction incorporated with his/her emotional response (Albuquerque *et al.,* 2011; Deci & Ryan, 2006; Diener, 2000; Diener *et al.,* 1999). Life

satisfaction is seen as a cognitive and global evaluation of the quality of a person's life as a whole (Pavot & Diener, 1993). To unpack this, life satisfaction is associated with social, occupational, mental and physical health outcomes (Pavot & Diener, 2008). Furthermore, life satisfaction includes contentment with life and is also associated with quality of life (Diener, 2000).

Watson and Clark (1994) distinguish between two possible categories of affect according to which all emotional experiences may be classified: positive affect and negative affect. Positive affect relates to those experiences which are pleasurable and induce enthusiasm (Watson & Clark, 1984). High negative affect is "epitomized by subjective distress and unpleasurable engagement and low negative affect by the absence of these feelings" (Crawford & Henry, 2004:246).

Happiness score, which is a measure of positive affect, is 5.8 for South Africa, compared to the internationally ranked highest happiness score of 8.5 for Costa Rica and lowest happiness score of 2.6 for Togo (Veenhoven, 2012). Global research has shown that factors that influence SWB include age, gender, marital status, employment, income level, and educational level. According to Sun *et al.* (2015), SWB initially decreases as age increases and then plateaus at ages 55 to 64. Some researchers contend, however, that this association is marginal and that SWB is not significantly related to age (Mahadea & Ramroop, 2015; Wissing *et al.*, 2014). There seems to be a general consensus worldwide that gender does not significantly influence SWB (Sun *et al.,* 2015:846; Mahadea & Ramroop, 2015; Wissing *et al.,* 2014). SWB does, however, tend to be higher in married persons than in unmarried or divorced persons (Sun *et al.,* 2015; Cacioppo & Freberg, 2013). Employment points towards higher SWB (Mahadea & Ramroop, 2015) than for those who are unemployed (Van der Meer, 2012:23). Additionally, a higher income level may influence SWB positively (Sun *et al.*, 2015; Mahadea & Ramroop, 2015), but if a person's basic needs are met, then higher income has little effect on SWB (Cox, 2012). Similarly, a higher educational level infers a higher level of SWB (which, curiously, decreases with postgraduate status). Furthermore, admiration from neighbours, colleagues and classmates seems to increase SWB (Anderson *et al.,* 2012). A person with a high level of SWB may experience health and longevity (Diener & Chan, 2011:2).

1.2.2 Compassion fatigue

Sinclair, McClement, *et al.* (2016:193) state that compassion is "a virtuous response that seeks to address the suffering and needs of a person through relational understanding and action". According to Coetzee and Laschinger (2017), compassion is firstly "acknowledging and empathizing with a person" and secondly "acting towards alleviating or removing a person's suffering, sorrow or pain." When all compassion is exhausted for a nurse, and he or she is no longer able to connect with or meet a patient's needs, this can be termed compassion fatigue. The term was first defined by Joinsen (1992), according to whom it was a form of burnout among emergency care nurses. Subsequently, a number of concept analyses have been conducted to promote the concept of compassion fatigue. Coetzee and Klopper (2010:237) define compassion fatigue as "a state where the compassionate energy that is expended by nurses has surpassed their restorative processes, with recovery power being lost." According to Lynch and Lobo (2012), compassion fatigue results when caregivers are constantly exposed to the patient's pain while also suffering from personal pain. Lynch and Lobo (2012:2128) describe compassion fatigue as physical, psychological, spiritual and social exhaustion of an empathetic caregiver. Fu and Chen (2011) describe compassion fatigue as a mere fluctuation of mood by health care providers due to chronic exposure to stress. According to Jenkins and Warren (2012), compassion fatigue is a progressive process that a nurse experiences after prolonged engagement with a patient and affects nurses mentally, physically, spiritually and emotionally. Coetzee and Laschinger (2017) have since identified three distinct attributes of compassion fatigue: disengagement, impotence and unfulfillment. Disengagement they characterize as an absence of acknowledgement and empathizing with a patient, in which the nurse "withdraws from patients' suffering, sorrow or pain, and isolates her/himself from the patient" (Coetzee & Laschinger, 2017:8). As a result of disengagement, impotence evolves to the point where the nurse is no longer motivated to act on the patient's needs (Coetzee & Laschinger, 2017). The nurse, then, is unfulfilled and fails to render care to fullest of his/her potential (Coetzee & Laschinger, 2017).

Primary antecedents of compassion fatigue include lack of resources (Coetzee & Laschinger, 2017), lack of meaningful recognition from self, the patient and their family (Coetzee & Laschinger, 2017; Kelly *et al.*, 2015), personal distress (Coetzee & Laschinger, 2017; Drury *et al.,* 2014; Jenkins & Warren, 2012) and disregard of stress symptoms and personal emotional needs (Bush, 2009). Moreover, poor support from nurse managers (Hunsaker *et al.*, 2015:192; Sacco *et al.,* 2015) or from nurses with more work experience creates risk of compassion

fatigue (Kelly *et al.*, 2015; Sacco *et al.,* 2015). Furthermore, compassion fatigue is related to demographics such as age, level of education, unit where employed, and gender (Sacco *et al.*, 2015).

Compassion fatigue in the nursing realm is a problematic reality. It has been found that prevalence of compassion fatigue may be as high as 40% among nurses in the intensive care unit (ICU) setting, with prevalence of burnout as high as 70.1% (Van Mol *et al.*, 2015). Hooper *et al.* (2010) claim that 86% of emergency department nurses in the United States suffer from high levels of compassion fatigue, and 20% of Australian registered and enrolled nurses in tertiary institutions have elevated levels of compassion fatigue (Drury *et al.,* 2014).

1.2.3 Psychological capital

Psychological capital (PsyCap) is defined by Luthans, Youssef, *et al.* (2007:3) as "an individual's positive psychological state of development". Furthermore, PsyCap is more profound than "what you know" and "who you know"; it extends also to "who you are" and "what you can become". To elaborate on this, PsyCap can be seen as an intrinsic potential that flows from an individual's psychological resources rather than an extrinsic potential that relies on individual knowledge. PsyCap is characterized by self-efficacy, optimism, hope and resilience (Luthans, Youssef, *et al.*, 2007). Self-efficacy is a person's ability to "mobilise the motivation, cognitive resources or courses of action needed to successfully execute a specific task within a given context" (Stajkovic & Luthans, 1998:66). Wissing *et al.* (2014) note that optimism is an appraisal of what is reachable in a particular situation. Hope is not only the ability to reach towards a goal, but also the ability to find pathways to reach the goal (Luthans, Youssef, *et al.*, 2007; Snyder *et al.*, 1991). Resilience is the "positive psychological capacity to rebound, to 'bounce back' from adversity, uncertainty, conflict, failure or even positive change, progress and increased responsibility" (Luthans, 2002:702).

Research has indicated that PsyCap increases job-embeddedness and performance of nurses (Sun *et al.,* 2011:75). This finding has been confirmed in a more recent study and in a new graduate nurse population (Boamah & Laschinger, 2014). PsyCap has also been found to serve as a protective mechanism against job dissatisfaction in both new graduate nurses and their seniors (Laschinger & Fida, 2014; Stam *et al.*, 2013). Studies have also found that PsyCap protects mental well-being and enhances physical well-being of all nurses (Laschinger & Fida, 2014; Laschinger & Grau, 2012).

1.3 Relationship between variables

This section considers the relationships between practice environment and SWB, practice environment and compassion fatigue, practice environment and PsyCap, PsyCap and SWB and lastly PsyCap and compassion fatigue. These relationships are illustrated in Figure 1-1.
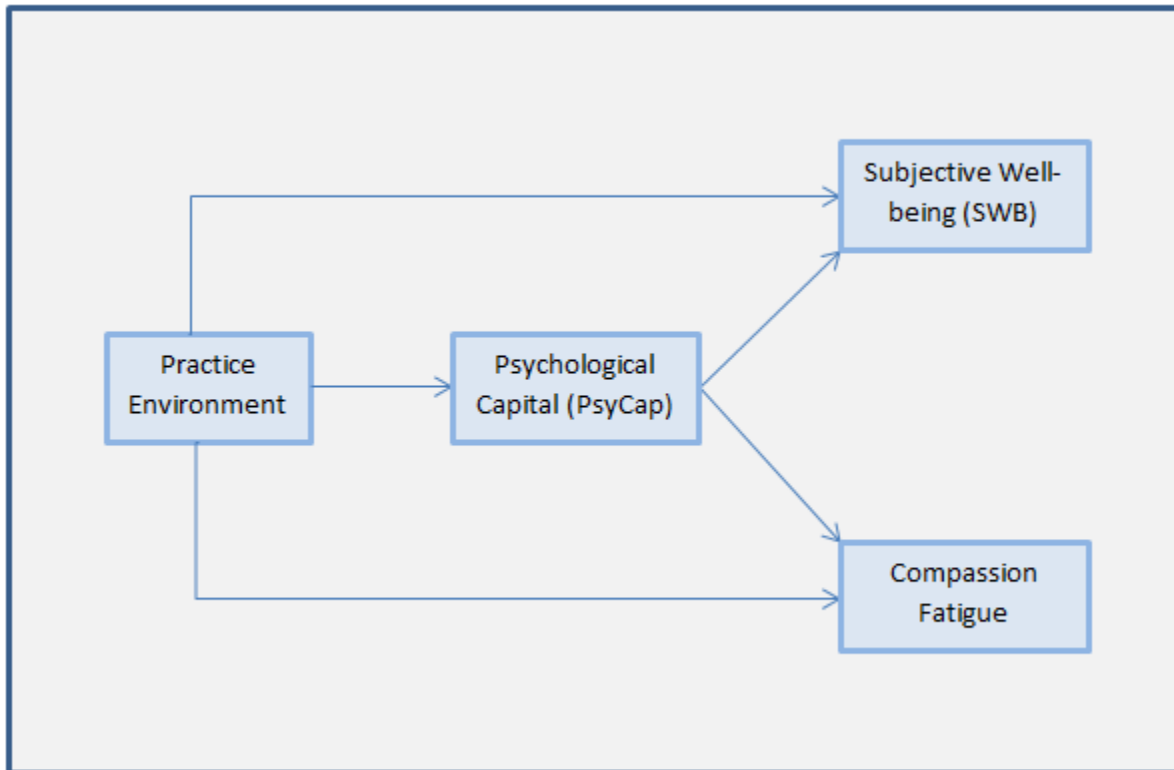
Figure 1-1: Proposed model

1.3.1 The relationship between the practice environment and subjective well-being

According to Nemcek and James (2007), one aspect of SWB that the practice environment may affect is life satisfaction. In addition, nurses tend to commit themselves to a positive practice environment, and this commitment is significantly related to the nurse's life satisfaction (Vanaki & Vagharseyyedin, 2009). A relationship clearly exists between practice environment and life satisfaction. However, little is known about the relationship between the practice environment and affect (positive and negative), which is the other component of SWB. It is therefore predicted that a positive practice environment may positively influence SWB (Ha1).

1.3.2 The relationship between the practice environment and compassion fatigue

Little is said in literature about the relationship between the practice environment and compassion fatigue. A systematic review conducted by Van Mol *et al.* (2015) found that compassion fatigue, secondary traumatic stress and burnout were prevalent in ICUs worldwide, and that many interventions were focused on improving the practice environment. Although no research could be found that linked the practice environment to compassion fatigue specifically, a number of studies link positive practice environment with decreased levels of burnout among nurses (Sanders *et al.*, 2016; Lacher *et al.*, 2015; Coetzee *et al.*, 2013; Wang *et al.*, 2013; Aiken *et al.,* 2013, 2012; Liu *et al.*, 2012). It can therefore be predicted that there will be a negative relationship between a positive practice environment and compassion fatigue (Ha2).

1.3.3 The relationship between the practice environment and psychological capital

Little research has been done on the relationship between the nursing practice environment and PsyCap. One study among Australian nurses found that managerial support (a subscale of the practice environment) accounted for just under a third of nurses' level of PsyCap (Brunetto *et al.,* 2016). For this reason, it can be hypothesized that there is a positive relationship between a positive practice environment and PsyCap (Ha3).

1.3.4 The relationship between psychological capital and subjective well-being

It is well established that PsyCap influences positive and negative emotions (Afzal *et al.*, 2014) and predicts personal accomplishment (Krok, 2015) and SWB (Culbertson *et al.*, 2010). In both nursing and non-nursing students, resilience, which is a facet of PsyCap, impacts SWB (Zhao *et al.*, 2016; Bajaj & Pande, 2016); however the relationship between PsyCap and SWB in nurses has not yet been explored. Therefore it can be predicted that there is a positive relationship between PsyCap and SWB (Ha4).

1.3.5 The relationship between psychological capital and compassion fatigue

Bao and Taliaferro (2015) found moderate to strong negative correlation of PsyCap to compassion fatigue and suggested that improving PsyCap might be a good intervention for preventing compassion fatigue. Multiple studies have found that intrapersonal resources such as PsyCap are a protective mediator against burnout (Laschinger & Fida, 2014; Ding *et al.*, 2015; Wang, Chang, *et al.,* 2012; Bao & Taliaferro, 2015), as was also observed in the new graduate nurse population (Laschinger & Grau, 2012). For this reason, it can be predicted that

PsyCap would mediate the effect between the practice environment and the development of compassion fatigue (Ha5).

1.4 Problem statement

International and national research has established that a positive practice environment is associated with better nurse outcomes (lower levels of burnout, increased job satisfaction and retention) (Aiken *et al.*, 2013; Coetzee *et al.*, 2013; You *et al.*, 2013) and patient outcomes (improved quality of care and patient safety) (Coetzee *et al.*, 2013; Aiken *et al.,* 2013; 2012; You *et al.*, 2013). Similar findings have been identified among new graduate nurses internationally (Jackson, 2016; Laschinger *et al.*, 2016); the practice environment of CSNs has not, however, previously been explored in the South African context.

It is also well established that PsyCap is correlated with positive outcomes (job-embeddedness, job performance, job satisfaction, mental and physical well-being) among nurses and new graduate nurses (Boamah & Laschinger, 2014; Laschinger & Fida, 2014; Stam *et al.*, 2013; Laschinger & Grau, 2012), and research conducted outside of the nursing discipline has shown that PsyCap predicts personal accomplishment and SWB, and moderates negative outcomes (Afzal *et al.*, 2016; Krok, 2015; Culbertson *et al.*, 2010). However, according to best knowledge of the researcher, the influence of the practice environment on SWB, specifically on affect and compassion fatigue, has not been explored in the nursing discipline or elsewhere, and neither has the mediating effect of PsyCap on the development of SWB and compassion fatigue in the nursing discipline.

From this problem statement the following research questions arise:

- What is the influence of the practice environment on subjective well-being in community service nurses who studied at higher education institutions in North West province?

- What is the influence of the practice environment on compassion fatigue in community service nurses who studied at higher education institutions in North West province?

- What is the influence of the practice environment on psychological capital in community service nurses who studied at higher education institutions in North West province?

- How does psychological capital mediate the effect of the practice environment on both subjective well-being and compassion fatigue?

1.5   Research aims and objectives

The aim of this study was:

- To test a model on the relationship between the practice environment and subjective well-being, compassion fatigue and psychological capital, and the mediating effect of psychological capital among these variables on a sample of community service nurses who studied at higher education institutions in North West province.

The following objectives were identified:

- To describe the influence of the practice environment on subjective well-being in community service nurses who had studied at higher education institutions in North West province.

- To describe the influence of the practice environment on compassion fatigue in community service nurses who had studied at higher education institutions in North West province.

- To describe the influence of the practice environment on psychological capital in community service nurses who studied at higher education institutions in North West province.

- To describe how psychological capital mediates the effect of the practice environment on both subjective well-being and compassion fatigue.

1.6   Hypotheses

Ha1 - There is a positive relationship between a positive practice environment and the subjective well-being of community service nurses who studied at higher education institutions in North West province.

Ha2 - There is a negative relationship between a positive practice environment and the development of compassion fatigue in community service nurses who studied at higher education institutions in North West province.

Ha3 - There is a positive relationship between a positive practice environment and the psychological capital of community service nurses who studied at higher education institutions in North West province.

Ha4 - Psychological capital moderates the positive relationship between practice environment and subjective well-being.

Ha5 - Psychological capital moderates the negative relationship between practice environment and compassion fatigue.

1.7   Research design

This study applied a cross-sectional survey design in pursuit of its aims and objectives.

A cross-sectional research design is "appropriate for describing phenomena at a fixed point" (Polit & Beck, 2010:162). In other words, all information on the topic is gathered from the population during a set period in time to enable the researcher to describe the relationships between the variables at that set point in time (Brink *et al.*, 2015:101). This design is appropriate for this study as the relationship between the practice environment and SWB and compassion fatigue, and the meditating effect of PsyCap among these variables on a sample of CSNs who studied at higher education institutions in NWP will be studied at one set point in time.

A survey research design is appropriate to test a model that shows expected relationships among these variables (Glasow, 2005:1). Surveys are an effective data-gathering instrument that enables the researcher to gather data from a widely dispersed sample in exploratory, descriptive and explanatory research (Botma & Greeff, 2010:133-134). Thus, a survey design was appropriate for use in this study since each variable was measured with a validated instrument and individually explored, and relationships between the variables were described. Also, although the sample of community service nurses all studied at higher education institutions in the same province (NWP), they may have a CSN position in any province of South Africa and the population was thus widely dispersed.

1.8   Method

In the next section, the method of the study will be described with regard to the population, sampling method and sample, data collection, data analysis, and ethical considerations.

1.8.1   Population

The population (N) includes all CSNs who completed a comprehensive nursing program and studied in any of the four higher education institutions in North West province (NWP) accredited

by the South African Nursing Council (SANC) to educate nurses. According to the North West Department of Health, the number of CSNs who commenced their community service year in 2016 was 284. NWP was purposively selected as the site to conduct this study, since no other study has been conducted using CSNs of this province as population.

1.8.2   Sampling method and sample

An all-inclusive sampling method was used in this study (n=284).

The sample inclusion criteria included:

- All CSNs who completed their higher education in 2015 at any higher education institution in NWP.

- All CSNs who commenced their community service year in 2016.

The sample exclusion criteria included:

- All CSNs who completed their comprehensive program in any higher education institution that is not in NWP, even if they completed their community service year in NWP.

1.8.3   Data collection

Ethical approval was sought from the INSINQ Scientific Committee, the Health Research Ethics Committee (HREC) of North West University (NWU) (Potchefstroom Campus) and the North West Department of Health (see Appendices C and D). The Deputy Director of Nursing Education of the North West Department of Health, who is responsible for the placement of students in the NWP, served as an advisor on the project. The advisor made the contact details of the CSNs available to an independent mediator of the study in the form of cellphone numbers with no personal identification linked to the cellphone number (*i.e.* name, surname or area of placement). These cellphone numbers were not available to the researchers at any stage.

A computerized short message service (SMS) was sent by the independent mediator to each participant, inviting the participant to take part in the research project. This SMS contained the title of the project, the institutional details, the contact details of the researcher and an http:// link to route the participant to Survey Monkey which served as the survey administration tool. When a participant followed the link, the informed consent form denied access to the actual surveys until the participant clicked on either the "accept" or "decline" options on the informed consent

form. Clicking on the "accept" option allowed the participant to continue to complete the surveys, while clicking on the "decline" option exited the site.

The survey consisted of five instruments: the Practice Environment Scale of the Nurse Work Index – Revised (PES-NWI) (Lake, 2002); Positive and Negative Affect (PANAS) (Watson *et al.*, 1988); Satisfaction with Life Scale (SWLS) (Diener *et al.*, 1985); the Compassion Practice Instrument (CPI) (Coetzee & Laschinger, 2017); and Psychological Capital Questionnaire (PCQ) (Luthans, Avolio, *et al.*, 2007). Also collected were demographic data. See Table 1-1 for a summary of the instruments. See Appendix E for the complete survey.

Table 1-1: Summary of the instruments

Concept	Focus	Instrument	Range of instrument	Time (min.) to fill out	Reliability and validity
Practice environment	Nurse practice environment	PES-NWI (Lake, 2002)	1 = Strongly disagree 2 = Somewhat disagree 3 = Somewhat agree 4 = Strongly agree	5 - 15	Validity: Exploratory and confirmatory factor analysis conducted with good construct validity (Klopper et al., 2012) Reliability: α=.86 Nurse manager ability, leadership and support; α=.89 Collegial nurse–physician relations; α=.79 Nurse participation in hospital affairs; α=.65 Nurse foundations for quality of care; α=.77 Staffing and resource adequacy (Klopper et al., 2012)
Positive and Negative Affect	SWB: Positive and Negative Affect	PANAS (Watson et al.,1988)	1 = Very Slightly or Not at All 2 = A Little 3 = Moderately 4 = Quite a Bit 5 = Extremely	5	Convergent and discriminant validity proven. (Watson et al., 1988). Positive Affective Score - α=0.86-0.90 Negative Affective Score - α=0.84-0.87 (Watson et al.,1988) The PANAS has been proven to be reliable and valid in the South African context (Du Plessis & Guse, 2016)
Life Satisfaction	SWB: Life Satisfaction	SWLS (Diener et al.,1985)	1 = Strongly disagree 2 = Disagree 3 = Slightly disagree 4 = Neither agree nor disagree 5 = Slightly agree 6 = Agree 7 = Strongly agree	1	Validity proved by: Diener et al. (1985). On a South African Population α= 0.92 (Westaway et al., 2003) The SWLS is a valid and reliable measure for life satisfaction in the South African context (Wissing et al., 2014:23)
Compassion Fatigue	Compassion Fatigue	CPI (Coetzee & Laschinger, 2017)	1 = Strongly disagree 2 = Disagree 3 = Somewhat disagree 4 = Somewhat agree 5 = Agree 6 = Strongly agree	5-10	Validity: Measures of goodness of fit for the three-subscale model yielded a chi-square (CMIN) and degrees of freedom (DF) value of 3.976 which is acceptable. A relatively unacceptable comparative fit index of 0.770 was obtained, while an acceptable root mean square error of approximation value 0.95 with a 90% confidence interval of [0.085; 0.105] was obtained (Hlongwane, 2016). Reliability: The overall Cronbach's scale was 0.60 and alphas for each subscale ranged from 0.70 to 0.75 (Hlongwane, 2016)
Psychological Capital	PsyCap	PCQ (Luthans et al., 2007)	1 = Strongly disagree 2 = Disagree 3 = Slightly disagree 4 = Neither agree nor disagree 5 = Slightly agree 6 = Agree 7 = Strongly agree	5	Reliability and internal and external validity on a South African population established (Görgens-Ekermans & Herbert, 2013). α= 0.91 (Laschinger & Nosko, 2013)

Khamisa et al. (2014:4) showed that reminders to South African nurse participants in quantitative studies increased response rates by up to 10%. For this reason, the mediator sent a

reminder SMS via computerized SMS services to the participants on day 3 and 7 post initial invitation. No form of remuneration, incentive or lucky draw option was provided in this round.

Since the initial rounds of SMS messages did not generate a good response rate – to such a degree that data could not be sufficiently analysed – the researcher applied to the HREC for an amendment to the data collection procedure to include a second and third round of data collection.

The second round of data collection, followed exactly the same procedure as the first round of data collection. This time, however, participants had the chance of being entered into a lucky draw to win a Samsung Galaxy Note 10.1. The SMS stated that CSNs who had already completed the survey were requested not to complete the survey again and instead to contact the principal investigator via email for instructions on how to be entered into the lucky draw.

Since the incentivised second round still failed to generate an adequate response rate, ethical clearance was sought and granted to conduct a third round of data collection which followed a different procedure. All tertiary hospitals in the NWP were targeted, as these are the main areas of placement for CSNs.

The researcher requested goodwill consent from the relevant chief executive officers (CEOs) to conduct the surveys on-site in structured interview format in a private room in the selected hospital, with the nurse managers also being requested to serve as mediators in obtaining the consent. However, this data collection procedure too was unsuccessful. The researcher applied for goodwill consent from the CEOs of the selected hospitals on 1 December 2016, but after repeated follow-up the goodwill consent was not received, and CSNs completed their community service year on 31 December 2016. Data was collected in a 6-week period.

Survey Monkey electronically captured the data obtained from the research, following which the Statistical Consultation Services (SCS), NWU (Potchefstroom Campus) accessed it to analyse the data.

1.8.4 Data analysis

The SCS of NWU, Potchefstroom Campus, were consulted for data analysis. Data was analysed using the computer software programmes Statistical Package of the Social Sciences (SPSS) Version 23 (SPSS Inc, 2016) and AMOS Version 23 (2016). Demographics and the results of scales were presented with descriptive statistics (means, frequencies, percentages

and standard deviations). Reliability of the instruments was established by Cronbach's alpha, and validity through confirmatory factor analysis. In addition, the hypotheses of the study, and the relationships between demographics and the study variables were tested using inferential statistics (Spearman's rank-order correlations, cross-tabs, effect sizes, t-tests and Analysis of Variances (ANOVAs)). The model in Figure 1.1 was tested using structural equation modelling SEM.

1.8.5   Reliability and validity

A summary of the reliability and validity of the instruments is provided in Table 1-1.

1.8.6   Ethical considerations

The researcher sought to comply with sound ethical principles, inclusive of respect, scientific merit and integrity, distributive justice, and beneficence (Department of Health, 2015a:2), in all aspects of the study.

1.8.6.1   Permission and informed consent

A computerized SMS was sent to each participant by a mediator independent of the study, inviting them to participate in the research project. This SMS contained the title of the project, the institutional details, the contact details of the researcher and an http:// link to route the participant to Survey Monkey which served as the survey administration tool. When each participant followed the link, the informed consent form (see Appendix B) blocked access until the participant clicked on "accept" to continue and complete the survey. In cases where a participant clicked on "decline", the survey did not open and the participant exited the site. This enforced autonomy of the participant. Permission to use the instruments was sought by the developers of the surveys.

This same procedure was followed to obtain informed consent from participants in the second round of the data collection process. However, it was explicitly stated in the informed consent form that if someone had already participated in the study they were requested not to participate again, but could contact the principal investigator via email for instructions on how to be entered into the lucky draw. In the unrealized third data collection attempt, the researcher would have accompanied a mediator (nurse manager) to explain the research project to each CSN and answer any possible questions. Potential participants would have been provided with a hard copy of the informed consent form, which they could have read at a time and place convenient

to them. They would have been requested to submit the informed consent form 24 hours later to the nurse manager. The informed consent form would have been signed in the office of the nurse manager so that privacy would be preserved. The nurse manager would then have confirmed that the participant understood his/her rights, and would have had to co-sign the document with the CSN. Once the informed consent form had been signed, the researcher would then have made an appointment with the participant to complete the survey in a semi-structured interview format.

1.8.6.2 Anonymity and confidentiality

Anonymity was guaranteed by a quadruple barrier method: (i) The NWDoH advisor (who gave CSNs contact information to a mediator independent of the study) provided only the cellphone numbers of the CSNs, with no personal identification (name, surname or area of placement) linked to the cellphone number. (ii) This was reinforced by using Survey Monkey as a remote access point for completing the survey. (iii) The Survey Monkey option chosen for the research was the option where internet protocol addresses of participants are not shared with the researcher/s. (iv) No information that could identify the participant was requested at any point in the surveys.

Participants from the first and second attempted data collections had the option to enter the lucky draw by emailing their name, surname and cellphone number to the principal investigator. There was, however, no link between the survey data and the contact information of the participant.

Confidentiality was assured in that only a mediator independent of the study had access to the cell phone numbers of the population. These cell phone numbers were not be linked to any personal identification (name, surname or area of placement), and neither the researcher nor the principal investigator had access to the cell phone numbers at any stage. These numbers were stored on the password-protected computer of the mediator.

1.8.6.3 Justification of research study

Numerous studies have been conducted on CSNs' experiences and perceptions of community service and their competence levels. This is the first study that explored the influence of the practice environment on SWB and compassion fatigue and the mediating effect of PsyCap on

the development of compassion fatigue in CSNs who had studied at higher education institutions in NWP.

1.8.6.4   Respect for research participants

Participants were fairly selected and treated. The research study made use of an all-inclusive sampling method that included the entire population in the study. No persons were included or excluded to the benefit of the researchers.

1.8.6.5   Benefit-risk ratio analysis

Direct benefit to the participants included the opportunity to enter a lucky draw and win a Samsung Galaxy Note 10.1. Among the indirect benefits, this study will be beneficial to future CSNs, hospital management, nursing schools and policy makers as it will provide information on CSNs' perception of the practice environment, their PsyCap and their experience of SWB and compassion fatigue, and on how the practice environment and PsyCap influence the development of SWB and compassion fatigue.

There was minimal risk associated with this study. One possible risk was that the CSNs might get bored completing the survey. To overcome this risk the researcher made sure that the topic was relevant and interesting, and that the surveys were short, validated, easy to understand and quick to complete. A different risk was that in completing this survey CSNs might become aware that they were working in an unfavourable practice environment or that they had symptoms of negative affect or compassion fatigue. In this event, CSNs were encouraged to contact the researcher who would have arranged for necessary counselling and debriefing.

The study was therefore classified as having minimal risk, and the benefits outweighed the risk.

1.8.6.6   Reimbursement of study participants

Participants were not paid to take part in the study and there were no costs involved for participation in the study. However, each participant had the option to enter a lucky draw for a Samsung Galaxy Note 10.1 on completion of the survey. The draw took place at the dissemination of results presentation, and the prize was sent via courier post.

1.8.6.7 Data management

Raw data was obtained from Survey Monkey by the SCS of NWU. Raw data was saved on password-protected computers of the SCS. Aggregate data was provided to the researchers, and the documents were password-protected. Aggregate data are stored on a password-protected computer in the office of the principal investigator and will be kept for five years, after which it will be permanently deleted.

1.8.6.8 Dissemination of research results

The research results were presented to the NWDoH and an article was written. The CSNs were invited to the presentation via SMS and were also given an http link to the PowerPoint presentation and article should they be unable to attend the presentation.

Costs pertaining to the research (statistical analysis, technical, language editing and the Samsung Galaxy Note 10.1) were paid from research funds of the supervisor, and all other miscellaneous expenses were paid from the student's postgraduate bursary and personal funds.

1.9 Summarized outline of the study

Chapter 1: Overview of the study.

Chapter 2: Literature study.

Chapter 3: Article Manuscript. The title of the manuscript is: The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue.

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

1.10 Conclusion

In this chapter introduced the study and provided background to the study, followed by a description of what is currently known about the relationships between the study variables. A problem statement was then provided, followed by research questions, research aims and objectives and hypotheses. The research design was outlined, along with the research method (which incorporated the population, sample, sampling method, data collection, data analysis,

reliability and validity of the instruments and ethical considerations), followed by an outline of the rest of the manuscript.

Chapter 2 discusses the literature review on information that was researched in relation to the study purpose.

CHAPTER 2 LITERATURE STUDY

2.1 Introduction

In Chapter 1 an overview was given of each variable in question, along with what is already known in regard to relationships between these variables. This revealed research gaps that led to a problem statement, research questions, aim and objectives. To this end, a model was presented, and in order to study the model, a research design, method, rigour and ethical considerations of the study were offered. This chapter serves as a literature review for the study.

The purpose of this literature review is to give a background of each variable in its particular field of science to provide an understanding each variable from a theoretical point of view. Current knowledge in relation to each variable will be discussed and the research gap will be highlighted so that the reader is in a position to assess the contribution being made by current study to the scientific body of knowledge.

The topic of this study – the influence of the practice environment on community service nurses' subjective well-being and compassion fatigue – was selected by the researcher because existing studies on the practice environment of professional nurses do not extend to exploration of the practice environment as experienced by CSNs in the South African context nor to exploration of the link between the practice environment and SWB, compassion fatigue and PsyCap.

2.2 Search strategy

The literature review was undertaken through diligent perusal of an extensive set of books, theses, and dissertations, and searches using Google, Google Scholar and the "Onesearch" function of the NWU library, which gives access to databases including EBSCOHost (Academic Search Premier, CINAHL, ERIC, Health Source: Nursing/Academic Edition, MasterFile Premier, MEDLINE, Pre-CINAHL, PsychINFO, SociNDEX with Full Text, Humanities International Complete, Academic Search Complete and Education Research Complete), ScienceDirect, SAePublications, Google Scholar and PubMed Central.

A subject librarian was consulted to assist in identifying a broad combination of keywords to search the literature on the topic. The following English keywords were combined in varying

sequence and searched in the categories of "All". (Newly Graduate Nurs* OR Novice Nurs* OR "Community Service Nurs*" OR "Compulsory Community Service Nurse") AND ("Practice Environment" OR "Work Environment") AND ("Subjective Well-being" OR "Positive Affect" OR "Negative Affect" OR "Life Satisfaction") AND ("Compassion Fatigue" OR "Burnout" OR "Secondary Traumatic Stress" OR "Secondary Traumatic Stress Syndrome") AND ("PsyCap" OR "Psychological Capital")

2.3   The practice environment

2.3.1   Introduction

Lake (2002:178) defines the nursing practice environment as "the organizational characteristics of a work setting that facilitates or constrains professional nursing practice." These organizational characteristics can be listed as follows: nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership and support of nurses; staffing and resource adequacy; and collegial nurse–physician relations (Lake, 2002:181). See also Figure 2-1. Positive fulfilment of these characteristics and interaction between them would create an ideal nursing practice environment (Lake, 2002:184).

Figure 2-1: The five subscales of the nursing practice environment

The nursing practice environment has long been cited as "one of the most demanding across all types of work settings" (Al-Mahmoud, 2013:2096). Nurse outcomes are therefore put in jeopardy by this demanding work setting. International research (AbuAlRub *et al.*, 2016:3; Leineweber *et al.,* 2016:59; Wang *et al.*, 2015; Zhang *et al.*, 2013; Lacher *et al.*, 2015:462; Lambrou *et al.*, 2014; Aiken *et al.*, 2013; Choi *et al.*, 2012; Patrician *et al.,* 2010), and national research (Klopper *et al.,* 2012; Coetzee *et al.*, 2013) has shown that nurses who work in hospitals with a positive practice environment are less likely to report poor nurse outcomes such as burnout, job dissatisfaction and turnover intent.

Furthermore, an improved practice environment has been associated with improved patient satisfaction, improved patient outcomes as perceived by nurses (quality of care and patient safety), and actual patient outcomes (mortality, failure to resuscitate, infections, falls *etc.*) (Cho & Sloane *et al.*, 2015 :539; Coetzee *et al.*, 2013; You *et al.,* 2013; Aiken *et al.,* 2012, 2013).

2.3.2 Measuring the nursing practice environment

In order to measure the nursing practice environment, Lake (2002) developed the PES-NWI which originated from research focused on Magnet hospitals, termed as such for their ability to attract and retain nursing personnel.

In response to a national shortage of nurses in the United States during the 1980s, the American Academy of Nursing conducted a study to investigate why some hospitals were nonetheless able to attract and retain nurses (Middleton *et al.*, 2008). Initially, 41 hospitals were identified and designated as Magnet hospitals in view of their supportive work environments (McClure *et al.*, 1983). Kramer and Hafner (1989) used the identified characteristics of these hospitals to develop the Nurse Work Index that measured the organizational traits of these hospitals. In the 1990s, as the Magnet hospital movement matured, the American Nurses Credentialing Center developed a recognition program for formally accreditation of Magnet organizations, and in 1994 the first Magnet hospital was accredited (American Nurses Credentialing Center, 2011). Magnet hospital accreditation was based on 14 "Forces of Magnetism": quality of nursing leadership, organizational structure, management style, personnel policies and programs, professional models of care, quality of care, quality improvement, consultation and resources, autonomy, community and the hospital, nurses as teachers, image of nursing, interdisciplinary relationships, and professional development (Morgan, 2007). Although the Nurse Work Index was derived from the characteristics of the first Magnet hospitals, Lake saw the need to develop a practice environment scale from the Nurse Work Index that would be a "parsimonious, psychometrically sound scale with empirically derived subscales" (Lake, 2002:177). The PES-NWI thus came into being on the foundation of the Nurse Work Index.

2.3.3 The South African nurse practice environment

The South African nurse practice environment is unique in that there are two main sectors: the private sector and the public sector. In the private sector, patients are financially liable (aided by medical insurance) for the medical care received; in the public sector the financial liability rests either with government or (according to an income scale) with the patient (Western Cape Government, 2016). Compared to the private sector, the public sector is overburdened, understaffed and ill-equipped (Van Rensburg, 2014:3). There is a maldistribution of healthcare professionals between the public and private sector, leading to poor health outcomes and poor

quality of care (Department of Health, 2015b:15; Coetzee *et al.,* 2013:170; Van Rensburg, 2014; Department of Health, 2005:5). Approximately half the professional nurses in South Africa practice in the public sector (Cullinan, 2015), caring for 84% of the population (South Africa, 2016a). Further undermining the strength of the public sector is the constant migration of health professionals to more developed countries and to the private sector (Van Rensburg, 2014:26). The public sector is further burdened by South Africa's quadruple burden of disease: (i) HIV/AIDS (human immunodeficiency virus / acquired immunodeficiency syndrome) and TB (tuberculosis), (ii) maternal and child mortality, (iii) non-communicable diseases, and (iv) injury, violence and trauma (South Africa, 2016a). In the drain on the public sector, HIV/AIDS and TB give rise to the highest mortality, most prevalent among those who are poor and unable to afford medical insurance (Wabiri & Taffa, 2013). In contrast, the private sector consumes two thirds of the South African health expenditures (Younger, 2016), diagnoses and refers conditions quicker than the public sector (Butler et al., 2015) and has readily available preventive health measures (McAnerney *et al.*, 2015). To combat the difficulties faced by the public sector, Mayosi and Benatar (2014) suggest that resource-allocation policies should be improved and an appropriate balance of health care professionals should be trained.

Maphosa (2016:32) notes that "South Africa is desperately short of nurses, who are the backbone of our health system." Nurses experience this shortage in the practice environment and report that staffing inadequacy is a patent reality (Zander *et al.,* 2013:216-217). Among nurses in the public sector there is a high level of dissatisfaction with staff nurse ratios (Pillay, 2009) and this affects quality of care, patient safety and nurse workforce outcomes (Coetzee *et al.,* 2013; Pillay, 2009).

As for resources in the South African public sector, South African President Jacob Zuma has drawn attention to a critical shortage (South Africa, 2016b). Total expenditure on health of the South African gross domestic product in 2013 was a mere 8.9% (WHO, 2015). In 2016, Minister Aaron Motsoaledi announced (South Africa, 2016a) that R38,563 billion of budget for the year 2016-2017 was allocated to the health sector. The current estimated population for South Africa 55.9 million (Statistics South Africa, 2016b); this yields a budgetary figure of R689.85 available for health care for each South African. To put this in context, approximately 12.5 % of all South Africans were infected by HIV as of September 2016 (Statistics South Africa, 2016b). All South Africans infected with HIV/AIDS have access to antiretroviral treatment (ARV) regardless of their cluster of differentiation 4 (CD4) count (South Africa, 2016a). Cost for the first-line regime for ARVs (Efavirenz 600mg, Tenofovir 300mg and Emtricitabine 200mg) (Department of Health,

2017) as a fixed dose combination runs at ± R1540 ZAR per person per year (Department of Health, 2017). This is the cost just for ARV drugs; it excludes all other expenses: medication, salaries, maintenance, running costs, etc. South Africa is thus self-evidently under-budgeted for the health care needs of its ever-growing population.

2.4   Community service year

In instituting the compulsory community service year for a wide range of health professionals, the national Department of Health seeks to promote "equitable distribution" of health services to the population (Hatcher *et al*., 2014:1-2). The community service year was first implemented in 1998 for medical doctors. The purpose was firstly to improve access to quality healthcare for all South Africans, and secondly to develop the corps of professional practitioners (South Africa, 2006). More recently the community service year has been extended to an additional 10 health care professions: dentistry, pharmacy, clinical psychology, dietetics, environmental health, occupational health, physiotherapy, radiography, speech, language and hearing therapy, and professional nurses (Geyer, 2013:4).

Anyone who has completed a comprehensive program in nursing and midwifery must first complete a 12-month period of community service before independent practitioner registration will be granted (Geyer, 2013:115-116). According to Section 40(1) of the Nursing Act (33 of 2005), "A person who is a citizen of South Africa intending to register for the first time to practice a profession in a prescribed category must perform remunerated community service for a period of one year at a public health facility". This means that CSNs are not allowed to perform locum work with remuneration outside of their community service contract as they are not yet recognized as registered nurses (RNs). Moreover, regulation 765 of the Nursing Act (33 of 2005) requires that the community service placement be in the public sector and decrees that the Minister of Health makes the final decision on the health facility where the applicant's community service is to take place.

2.4.1   The practice environment of Community Service Nurses

The researcher is aware of nine studies that have been conducted on CSNs in South Africa, of which seven are qualitative studies. General experiences and perceptions in regard to community service have been explored by Govender *et al*. (2015) and Kgole *et al*. (2013), experiences of community service in a specific discipline (midwifery) by Ndaba (2013) and Du Plessis and Seekoe (2013), experiences and support by Tsotetsi (2012), and experiences of

roles and responsibilities by Govender *et al.* (2017). Also researched have been CSN competence and preparedness (Snell & Daniels, 2014; Roziers *et al.,* 2014) and needs in regard to supervision of the CSN (Shezi, 2014).

Research results establish that there is a need for guidance and supervision (Masango & Chiliza, 2015:132; Shezi, 2014; Hlosana-Lunyawo & Yako, 2013; Kgole *et al.,* 2013) and also that there is a lack of understanding in regard to the objectives of the compulsory community service policy (Govender *et al.,* 2017). Orientation programmes for CSNs are limited and defective (Govender *et al.*, 2015; Hlosana-Lunyawo & Yako, 2013; Kgole *et al.,* 2013), and CSNs have to cope with poor resource allocation (human and material) (Ndaba, 2013; Kgole *et al.,* 2013) and low remuneration (Kgole *et al.,* 2013). Although CSNs perceive themselves to be competent (Snell, & Daniels, 2014), they face complex and ambiguous situations (Du Plessis & Seekoe, 2013) and reality shock (Roziers *et al.,* 2014; Ndaba, 2013).

Among new graduate nurses internationally, it has been found that a supportive practice environment is predictive of better job satisfaction and lower intention to leave (Jackson, 2016:138; Laschinger *et al.,* 2016:1; Numminen *et al.,* 2015:452-453). Moreover, there is a strong correlation between the quality of the practice environment and the nurse's perceived competence level (Numminen *et al.,* 2015:451), especially if the new graduate nurses are guided by a nursing model of care (Kajander-Unkuri *et al.,* 2014:798). Concerning patient outcomes, new graduate nurses perceive a supportive practice environment as being predictive of good quality patient care (Laschinger *et al.,* 2016:1). According to the researcher's best knowledge, no studies have yet been done linking the practice environment and the South African new graduate nurse (CSN).

2.5 The Subscales of the practice Environment

The five subscales or organizational characteristics of the nursing practice environment are discussed in more detail below.

2.5.1 Nurse participation in hospital affairs

According to Lake (2002:181), nurse participation in hospital affairs is manifested in nurses having the opportunity to be involved in both hospital and nursing affairs, nurses having the opportunity to advance professionally, and nurses having an influential nurse executive with whom they can communicate openly.

Nurse participation in hospital affairs is indicative of the participatory role and value status of nurses in the broad hospital context. It is measured by quantitatively assessing the following indicators in respect of nursing staff: involvement in governance of the hospital, participation in policy decisions, opportunity to serve on both hospital and nursing departmental committees, opportunity for advancement, presence of nurse administrators who listen and respond to employee concerns and consult with staff on daily problems and procedures, a highly visible and accessible director, and a chief nursing executive who is equal in power and authority to other top level hospital executives (Lake, 2002:181-182).

Literature in the field of psychology (Maslow, 1943; Bergh & Theron, 2012; Deci & Ryan, 1995) confirms the importance of nurses' "participation in hospital affairs". Maslow (1943) identified the need for an individual to feel secure, to belong, and to feel needed, appreciated and esteemed. If these needs are fulfilled, the individual feels empowered and is able to become self-actualized (Redknap *et al.*, 2015:268). Bergh and Theron (2012:132) note that "Finding meaning involves decision-making". Deci and Ryan (1995) define "true self-esteem" as being a result of people acting to satisfy autonomy, competence and relatedness (Wissing *et al.,* 2014:180). The "nurse participation in hospital affairs" subscale of the nursing practice environment is derived from these essentials.

Nurses are not sufficiently included in organizational and departmental decision-making (Aiken *et al.*, 2013:151). This not only creates a negative practice environment for nurses, but may also be disadvantageous to patient outcomes. Participation in hospital affairs allows nurses to develop and implement solutions to issues they face on a daily basis in their respective units (Van Bogaert *et al.,* 2014:1124). Since nurses spend more time with patients than do any other health care providers (Ignataviciu & Workman, 2016:91), they are expected to develop and implement solutions that stem from a motivation to achieve good patient outcomes (Geyer 2013:219). It is therefore crucially important that nurses be empowered to participate in decision-making in regard to both hospital and nursing affairs

Lake (2002) refers to opportunity for advancement as part of the subscale "nurse participation in hospital affairs". Research among RNs in both Europe and South Africa has reported dissatisfaction in this regard (Aiken *et al.*, 2013:151; Klopper *et al.,* 2012:693). Sojane *et al.* (2016) found that 40.1% of medical-surgical nurses and 35.7% of ICU nurses expressed dissatisfaction regarding opportunity for advancement. Stam *et al.* (2013:196) found that

structural empowerment (which includes opportunity for advancement and development of skills and knowledge) is largely predictive of new graduate nurse job satisfaction.

The third leg of "nurse participation in hospital affairs" is an open, supportive and communicative relationship with the nurse executive (Lake, 2002:181). This kind of relationship can be achieved when the leadership style of nurse managers is transformational, transactional (Manning, 2016) and authentic (Regan *et al.,* 2015). Nurse management with these leadership styles is interactive, builds relationship and obtains both formal and informal consensus on topics that result in productive work outputs, job satisfaction, development of the team (Bach & Ellis, 2011:30), work engagement and improved organizational outcomes (Manning, 2016). With this comes the need for highly visible management which listens to employee concerns and fulfills a mediator role with top management of the facility (Tangirala & Ramanujam, 2012). One way in which managers can be more visible is to be more immersed in clinical nursing; this results in nurses having better decision-making skills (Van Bogaert, Kowalski, *et al.*, 2013:1675; Walker *et al.*, 2013:294) and better work engagement (Holland *et al.*, 2016).

In conclusion, where nurse participation in hospital affairs is reinforced by a sense of security, relatedness, and belonging, by nurses feeling needed, appreciated and esteemed, by nurses being self-actualized, autonomous and competent, this produces positive nurse outcomes, patient outcomes and organizational outcomes.

2.5.2   Nursing foundations for quality of care

Foundations for quality of care in nursing focus on the fundamentals that will ensure a high standard of patient care and emphasise a pervasive nursing philosophy with a nursing rather than medical model of care. This is measured by quantitatively assessing the following factors: use of nursing diagnosis, nursing care that is based on a nursing model rather than a medical model, written, up-to-date nursing care plans for all patients, continuity of care, nursing that pervades the patient care environment, quality assurance programs, a preceptor program for newly hired nurses, in-service/continuing education programs, and working with nurses who are clinically competent (Lake, 2002:181-182).

To render quality care nurses need to work according to a nursing model. Rosa (2014:81) reiterates Florence Nightingale's maxim that nursing is separate from medicine. The nursing model cares for a patient holistically, while the medical model focuses on the patient's disease and treatment thereof (Auerbach *et al.*, 2013). "Both policy involvement and nurse/physician

relationships influence the extent to which a nursing model of care (in contrast to a medical model) is emphasized in the delivery of nursing care" (Roche *et al.*, 2015:6). In South Africa, it has been found that the biomedical model not only "disempower[s] nurses and den[ies] them recognition but, together with institutional disregard for the need for self-care, also reproduces a system that is inherently unable to provide humane healthcare" (Joyner *et al.,* 2014). Nurses who work with a nursing model significantly reduce incidence of medication errors and adverse intravenous outcomes, as well as bringing about lower pain scores among patients (Fernandez *et al.*, 2012).

Another facet of providing quality of care in nursing is to promote interventions such as a comprehensive nursing care plans (Lake, 2002:182). In South Africa, the scope of practice of a professional nurse/CSN includes "provision of nursing care plans, their implementation and evaluation thereof and recording of the course of the health problem" (Nursing Act 50 of 1978). Nursing care plans serve as a platform and departure point for implementation of best-evidence practice in nursing which results in better patient outcomes by predicting shorter recovery period and fewer complications (Gulanick & Myers, 2014:13).

Quality of care is also improved when nursing is evaluated by a quality assurance program (Aghaei-Hashjin *et al.,* 2015). These quality assurance programs ensure that care adheres to specific standards and monitors and enhances service implementation (Bradshaw *et al.,* 2014).

Furthermore, quality nursing can be rendered when new nurses are mentored when they first step into practice. This is especially needed for the new graduate nurse (Kgole *et al.*, 2013; Teoh *et al.*, 2013). International research has shown that transition programs positively affect staff retention and job satisfaction (Missen *et al.,* 2014; D'ambra & Andrews, 2013). CSNs in South Africa have raised concerns in relation to the limited orientation and support they receive when they enter practice (Govender *et al.,* 2015). CSNs have deemed their induction programs to be inappropriate (Hlosana-Lunyawo & Yako, 2013) and have expressed a desperate need for facilitating programmes and clinical supervision (Shezi, 2014).

Lastly, quality in nursing is also fostered by continued professional education programmes (Siegl *et al.,* 2014). "As the health care industry shifts focus to keep up with changes in technology, economics, demographics and culture, the nursing profession must respond accordingly" (James & Francis, 2011:131). For this reason, nurses should be continually educated to stay on par with continuous change in the health care industry. This will enable

nurses to render skilful, knowledgeable and competent nursing care to patients. In essence, continuing professional development is advantageous for the patient (Health Professions Council of South Africa, 2008:3) and also for the nurse because job satisfaction is raised (Kendall-Raynor, 2012; Banning & Stafford, 2008).

2.5.3   Staffing and resources adequacy

"Staffing and resources adequacy" in the practice environment means having enough nurses and resources available to render quality patient care and liaise with other nurses on any patient challenges (Lake, 2002:182). This is measured quantitatively by assessing the following factors: whether enough staff is available to get the work done, whether enough registered nurses are available to provide quality patient care, whether there are adequate support services that enable nurses to spend time with patients, and lastly whether there is enough time and opportunity to discuss patient care problems with other nurses (Lake, 2002:181-182).

The critical shortage of nurses internationally is well substantiated in literature (Aboshaiqah, 2016; Keyko *et al.*, 2016:143; McKechnie, 2016:1; Kurth *et al.*, 2016:344; Johnson *et al.*, 2016; Carter, 2015:230; Comiskey *et al.*, 2015:647-648; Toh *et al.*, 2012; Yun *et al.,* 2010). The World Health Organization (WHO) calls this shortage a "human resources health crisis" (WHO, 2013:34), and in 2006 estimated that "620,000 nurses and midwives are needed in sub-Saharan Africa alone, a region with 11% of the global population, 24% of overall disease burden, 67% of global HIV disease, 3% of all health care workers, and less than 1% of global health expenditures" (WHO, 2006).

It is well established in research literature that higher staffing ratios mean fewer patient adverse events and also result in fewer negative outcomes for nurses (Fuentelsaz-Gallego *et al.,* 2013:275). As for patient outcomes, studies in South Korea found that with each additional patient per nurse added to the nurse's workload, the patient mortality increased by 5% (Cho, Chin, *et al.*, 2015:539). A systematic review by Stalpers *et al.* (2015:831) suggested that an increase in the number of staff reduces the odds of patient falls. Similarly, in South Africa, Coetzee *et al.* (2013:170) found that nurse-to-patient ratio is associated with quality of care in the South African public sector.

Research on nurse outcomes found that an increase in staff improves staff moral (Anzai *et al.,* 2013:176), reduces burnout and intent to leave, increases job satisfaction (Toh *et al.,* 2012;

Aiken *et al.*, 2011:363) and reduces physical and psychological exhaustion (Cho, Chin, *et al.,* 2015:80).

2.5.4   Collegial nurse–physician relations

The environment in which a patient is cared for is a major determinant for the quality of the healthcare provided (Eales, 2016:37; Shen *et al.,* 2010). Within this healthcare environment, physicians and nurses make up the largest groups of personell (Siedlecki & Hixson, 2015). For the sake of patient outcomes it is crucially important for nurses and physicians to maintain a healthy professional relationship. Collegial nurse–physician relations are characterized by a positive working relationship between the nurse and the doctor. This is measured by quantitatively assessing whether there is teamwork between nurses and doctors, whether physicians and nurses have good relationships, and whether there is functional collaboration (joint practice) between nurses and physicians (Lake, 2002:181-182).

The Institute of Medicine (2011) states that better nurse–physician relationships is one of four key priorities. Firstly, nurses perceive the nurse–physician relationship as more important than do physicians (Amsalu *et al.,* 2014; Sleem *et al.*, 2011; Hughes & Fitzpatrick, 2010). Secondly, it seems that physicians do not understand the scope of practice of a nurse (Robinson *et al.*, 2010), which is important since a full partnership can only be achieved when two professions recognize each other's contribution to healthcare (Boev & Xia, 2015). Thirdly, a patriarchic barrier exists between nurses and physicians (Johnson & Kring, 2012:44); this may lead to an unbalanced multidisciplinary approach to patient well-being. Lastly, nurses and physicians barely communicate verbally (Lancaster *et al.,* 2015:280), which is crucial because collaboration is impossible without excellent communication.

The relationship between the physician and nurse is also injured by physician–nurse incivility. Nurses have even reported threats of violence, physical violence, sexual harassment and bullying by physicians (Park *et al.*, 2014:91). In contrast, a good nurse–physician relationship will promote collaborative decision-making (Van Bogaert, Kowalski, *et al.*, 2013:1675; Siedlecki & Hixson, 2015) and may also be associated with reduced levels of burnout for the nurse (Van Bogaert, Clarke, *et al.,* 2013:363). It has also been posited that poor nurse–physician relationships positively correlate with nurse turnover and intent to leave (Galletta *et al.,* 2012).

Negative patient outcomes may result from poor nurse–physician relationships (Johnson & Kring, 2012:343) such as nosocomial infections (Van Bogaert, Timmermans, *et al.*, 2014:1127;

Boev & Xia, 2015), medication errors (Van Bogaert, Timmermans, *et al.*, 2014:1127), nurses' efficiency, accuracy, safety, outcomes of quality patient care (Rosenstein & Naylor, 2012), delaying of patient care (Hughes & Fitzpatrick, 2010:625), poor patient satisfaction (Johnson & Kring, 2012:343) and increased mortality (Hughes & Fitzpatrick, 2010:625).

2.5.5 Leadership and support of nurses

Nurse manager ability, leadership and support for nurses, relates to the critical role of the nurse manager and the key qualities which the role requires. This is measured by quantitatively assessing the following factors: whether the head nurse is a good manager and leader; whether the head nurse/supervisor backs up the nursing staff in decision-making (even if the conflict is with a physician); whether supervisors use mistakes as opportunities for learning rather than criticism; whether supervisory staff is supportive of the nurses; and whether praise and recognition is offered for a job well done (Lake, 2002:181-182)

Traditionally, leadership in nursing implied sacrifice such as that as examplified in the lives of St. Fabiola, Florence Nightingale and Mary Seacole (Geyer 2013:215). Today, Lake (2002:182) notes that nurse manager ability, leadership and support for nurses is exemplified by excellent leadership capabilities, dealing with conflict between nurses and physicians, supporting nurses when mistakes are made and praising nurses for their accomplishments. According to Duffield *et al.* (2011), positive or negative ambiance of a ward hinges on having a nursing manager who is perceived to be a good leader, is visible, consults with staff, and provides praise and recognition and flexible work schedules.

A study among RNs in Europe found that nurses' relationship with management was problematic (Aiken *et al.*, 2013:151). Between a quarter and a third of nurses thought that management actions did not suggest that patient safety was a priority (Aiken *et al.*, 2013:151). In instances where bullying was highly prevalent, the relationship between nurses and their managers posed a risk to patients and risk of adverse events (Laschinger, 2014:287).

Effective leadership has a substantial indirect effect on the nursing practice environment (Redknap *et al.,* 2015:266); leaders in a workplace thus play a huge role in creating positive work environments (Laschinger *et al.*, 2011). The benefits that nurses experience from effective leadership include increased job satisfaction (Sojane *et al.,* 2016:9; Balsanelli & Cunha, 2014 Wong & Laschinger, 2012), a healthy ethical climate (Huang *et al.,* 2012:522), collegial collaboration (nurse–nurse and nurse–physician) (Dyess & Parker, 2012:622), enhanced

decision-making (Walker *et al.,* 2013), and lower levels of burnout (Van Bogaert, Clarke, *et al.,* 2013:363).

Patients also benefit when there is good nursing management and leadership among nurses. There is a clear connection between supportive leadership and positive patient safety outcomes and satisfaction (Wong, 2015). Good leadership from the nurse in charge leads staff to comply with rules to prevent patient injuries, thus being predictive of patient safety and also preventing infections (Wong, 2015; Agnew & Flin, 2014; Goeschel, 2011). Furthermore, research has shown a decrease in mortality (Kliger *et al.*, 2015) and lower levels of medication errors (Wong, 2015) in units where nurses perceive the leadership to be better. By at large, good nursing management and leadership abilities are closely connected to patient quality care (Anzai *et al.,* 2013:176; Hinno *et al.,* 2011:139).

2.6   Subjective well-being

Both SWB and PsyCap are positive psychological constructs. The researcher has therefore decided (for better flow in the literature study) to group SWB and PsyCap together. Compassion fatigue will therefore be discussed first, then SWB, then PsyCap.

2.7   Compassion Fatigue

2.7.1   Background to compassion in nursing

"Historically, developing the 'compassionate character' was the impetus for care, and gave the nursing profession its ethos" (Bradshaw, 2013). Nursing as a profession is thus undoubtedly synonymous with compassion (Geraghty *et al.,* 2016:836; Curtis, 2015:95; Harris & Griffin, 2015; Ward *et al.*, 2012; Hooper *et al.*, 2010:420; Coetzee & Klopper, 2010:235; Sabo, 2006:137).

Compassion comes from the Latin word *compassionem*, which literally means "to suffer together" (Online Etymology Dictionary, 2016). Sinclair, Norris, *et al.* (2016) assessed literature on compassion and found that it is understood by scholars as a feeling, attitude, or trait associated with a response to suffering. Others concur that compassion is a combination of skills that includes listening, confronting, involvement, helping, presence, understanding and communicating (Bramley & Matiti, 2014; Van der Cingel, 2011).

A concept analysis of compassion revealed the following definitions/attributes for the term:

> Compassion impels and empowers people to not only acknowledge, but also act towards alleviating or removing another's suffering or pain. (Schantz, 2007:51)

> A dimension of caring, sympathetic consciousness of another's distress, sensitivity to the pain and brokenness of another, a spiritual connection with another person, attempting to comfort or alleviate the suffering and a demonstration of the fruits of the Holy Spirit" (love, joy, peace, longsuffering, gentleness, goodness, faith, meekness and temperance). (Burnell, 2009:321)

Sinclair, McClement, *et al.* (2016:193-203) conducted a qualitative study to investigate palliative cancer patients' understanding and experiences of compassion. Analysis yielded seven categories, each containing distinct themes and subthemes. Based on this, a compassion model was proposed in which compassion is empirically defined as

> A virtuous response that seeks to address the suffering and needs
> of a person through relational understanding and action.

Taking this further, Coetzee and Laschinger (2017:7) remark that compassion in nursing is firstly, "acknowledging and empathizing with a person", and secondly, "acting towards alleviating or removing a person's suffering, sorrow or pain". For a nurse to "acknowledge and empathize" with a patient, the nurse needs to have good communication skills. Peplau (1997) theorizes that excellent communication between nurse and patient nurtures the nurse–patient relationship which is essential to health. In this relationship, empathy is one of the most important attributes (McCarthy & Aquino-Russell, 2009). Without this connectedness, nurses will not be able to alleviate patient's suffering, sorrow or pain (Coetzee & Laschinger, 2017:7).

2.7.2 Compassion fatigue – Compassion satisfaction

When all compassion is exhausted for a nurse, this can be termed compassion fatigue. This term was first defined by Joinsen (1992:119), who stated that compassion fatigue was a form of burnout among emergency care nurses. Subsequently, a number of concept analyses have been conducted to promote the concept of compassion fatigue, in which it has been variously defined in the following ways:

- "A state where the compassionate energy that is expended by nurses has surpassed their restorative processes, with recovery power being lost" (Coetzee & Klopper, 2010:237).

- Compassion fatigue results when caregivers are constantly exposed to the patient's pain while also suffering from personal pain and is the physical, psychological, spiritual and social exhaustion of an empathetic caregiver (Lynch & Lobo, 2012:2128).

- A mere fluctuation of mood by health care providers due to chronic exposure to stress (Fu & Chen, 2011).

- A progressive process a nurse experiences after prolonged engagement with a patient and affects nurses mentally, physically, spiritually and emotionally (Jenkins & Warren, 2012).

Coetzee and Laschinger (2017:7-8) clarify the two concepts compassion fatigue and compassion satisfaction, as illustrated in Figure 2-2.
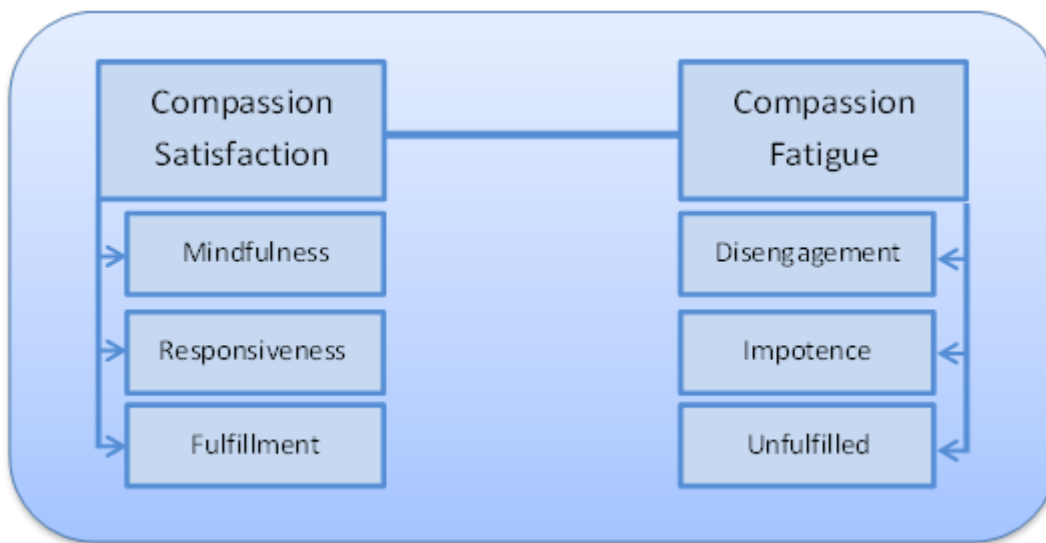
Figure 2-2: Compassion Satisfaction - Compassion Fatigue

Compassion fatigue has three distinct attributes: disengagement, impotence and unfulfillment (Coetzee & Laschinger, 2017:7-8). Coetzee and Laschinger (2017:8) characterize disengagement as the inability to acknowledge and empathize with a patient. Consequently, the nurse "withdraws from patient's suffering, sorrow or pain, and isolates her/himself from the patient" (Coetzee & Laschinger, 2017:8). As a result of disengagement, the nurse is led to feel impotent and this results in the nurse becoming demotivated towards acting on the patient's needs (Coetzee & Laschinger, 2017:8-9). In this case, the nurse is unfulfilled and does not give

care to his/her fullest potential, since "no meaning or satisfaction can be derived from care giving." (Coetzee & Laschinger, 2017:9).

Compassion satisfaction, on the other hand, is described by Coetzee and Laschinger (2017:8) as mindfulness, responsiveness and fulfilment, and is the converse of compassion fatigue. Mindfulness is achieved in the step towards compassion, which is "acknowledging and empathizing with the patient". Next comes responsiveness, in removing the patient's suffering, sorrow or pain. Lastly, fulfillment is the self-satisfaction a nurse gains from caring for the patient.

2.7.3   The antecedents of compassion fatigue

The mere fact that nurses spend more time with patients than is the case with any other health profession (Ignataviciu & Workman, 2016:91) and are thus more exposed to patient's pain, suffering and trauma, makes nurses more vulnerable to work-related stress such as compassion fatigue (Sorenson *et al.,* 2016:462; Abendroth, 2011; Coetzee & Klopper, 2010:239). Literature presents many specific antecedents that increase the risk of developing compassion fatigue, such as the area of specialty in which the nurse works, oncology departments (Yu *et al.,* 2016; Perry, 2010; Aycock & Boyle, 2009), paediatric units (Meyer *et al.,* 2015), neonatal units (Beck & Gable, 2012), military nursing (Owen & Wanzer, 2014), working with clients with HIV/AIDS (Coles, 2015:102), hospice and palliative care units (Pereira *et al.,* 2011), and trauma units (Wentzel & Brysiewicz, 2014; Hunsaker *et al.*, 2015).

Other primary antecedents of compassion fatigue are lack of resources (Coetzee & Laschinger, 2017:16), poor administrative leadership (Hunsaker *et al.*, 2015; Mason *et al.,* 2014; Rohan & Bausch, 2009), lack of meaningful recognition from self, the patient and their family (Coetzee & Laschinger, 2017:16; Kelly *et al.,* 2015:526), experience of death (Abendroth & Flannery, 2006), personal distress (Coetzee & Laschinger, 2017:16; Drury *et al.,* 2014; Jenkins & Warren, 2012) and disregard of stress symptoms and personal emotional needs (Bush, 2009:26). Moreover, poor nurse manager support (Hunsaker *et al.*, 2015:192; Sacco *et al.,* 2015:39-40), nurses with more work experience, and length of nurses' shifts (Yoder, 2010) are risk factors for compassion fatigue (Kelly *et al.*, 2015:525; Sacco *et al.*, 2015:39-40). Furthermore, compassion fatigue is related to demographics such as age, level of education, unit of employment, gender (Sacco *et al.,* 2015:39-40) and income level (Circenis & Millere, 2011). International studies have also shown that novice nurses may be predisposed to developing compassion fatigue (Meyer *et al.*, 2015; Michalec *et al.*, 2013:319).

2.7.4 The consequences of compassion fatigue

Nurses who suffer from compassion fatigue have reduced holistic health (Potter *et al.*, 2010). Physical health consequences include increased incidence of headaches and gastrointestinal ailments and insomnia, compromised immunity, somatization, fatigue, emotional exhaustion and hypochondria (Huggard, 2016; Harris & Griffin, 2015:83; Mathieu, 2012; Potter *et al.*, 2013:181; Portnoy, 2011:48). Psychological health consequences include apathy, depression, irritability, addiction behaviour, substance abuse, detachment from patients and loss of interest in social events, relations and sex (Harris & Griffin, 2015:83; Dasan *et al.,* 2014; Potter *et al.*, 2013:181; Mathieu, 2012; Gilmore, 2012:32; Portnoy, 2011:48; Mathieu, 2008:51-61). It has also been reported that health care professionals display irritability towards patients and colleagues, disorder behaviour, increased likelihood of errors, decrease in discernment and decreased standards of care and turnover intent as a result of compassion fatigue (Harris & Griffin, 2015:83; Dasan *et al.,* 2014; Mathieu, 2012; Lombardo & Eyre, 2011; Portnoy, 2011:48; Coetzee & Klopper, 2010; Mathieu, 2008:51-61).

Patients admitted to the care of nurses who suffer from compassion fatigue are also disadvantaged. Compassion fatigue is manifested in actions that prevent the development and sustainment of caring relationships with patients or family members (Coetzee & Klopper, 2010). Compassion and patient satisfaction are directly proportional; thus when no more compassion is shown, patients are dissatisfied (Sorenson *et al.*, 2016:421; Galbraith, 1995). When compassion fatigue develops, it comes at the cost of empathy and patient engagement (Våga *et al.*, 2013; Showalter, 2010:239). Patient engagement is manifested in nurse–patient interaction and is important because it gives patients hope, meaning in life and self-transcendence (Haugan *et al.*, 2013). In a systematic review by Lelorain *et al.* (2012), several studies found that patients reported greater psychological well-being when treated by empathic oncology nurses (Mack *et al.,* 2009).

2.7.5 Alleviating compassion fatigue

The first step in combating compassion fatigue is to acknowledge its existence (Boyle, 2011). A literature review covering the period 2005–2015 on the topic of compassion fatigue revealed that self-care activities are the most significant preventive measure health care professionals could take to protect themselves from developing compassion fatigue (Sorenson *et al.,* 2016:462). Examples of possible self-care activities are stress management, interpersonal

relations, spiritual growth, nutrition, responsibility and physical activity (Harris & Griffin, 2015; Neville & Cole, 2013:353-354). Compassion fatigue can be alleviated by nurse education (Flarity *et al.,* 2013; Boyle, 2011), professional training (Weidlich & Ugarriza, 2015; Michalec *et al.,* 2013; Potter *et al.,* 2013; Berger & Gelkopf, 2011), wellness programs (Aycock & Boyle, 2009) and programs to build resilience (Wentzel & Brysiewicz, 2014; Potter *et al.*, 2013). Compassion fatigue may also be alleviated by on-site counselling sessions (Boyle, 2011), spiritual support (Aycock and Boyle, 2009) and debriefing sessions following a traumatic experience (Keene *et al.,* 2010:188-189). In addition, work engagement may combat compassion fatigue and may promote compassion satisfaction (Mason *et al.*, 2014).

2.7.6   Measuring compassion fatigue

A few instruments exist that measure compassion fatigue. The first of these is the Compassion Fatigue Self-Test (Figley & Stamm, 1996; Figley, 1995), which is a 40-item self-report measure. Similarly, the Compassion Fatigue Scale is a 30-item measure in which compassion fatigue and burnout are included as subscales (Gentry *et al.* 2002). This led to subsequent development of the Compassion Fatigue Scale – Short Form (Adams *et al.,* 2006; Adams *et al.*, 2007) with burnout and secondary trauma as subscales. Again, this subscale, with the addition of compassion satisfaction, evolved into the ProQOL. This is a 30-item self-report measure with three 10-item subscales: compassion satisfaction, burnout and secondary traumatic stress (Stamm, 2010). Most recently, Coetzee and Laschinger (2017) developed the 19-item Compassion Practice Instrument with four subscales: impotence, being unfulfilled, disengagement and compassion satisfaction. This study employed the latter scale to measure compassion fatigue.

The scale proved to have a good validity with measures of goodness of fit for the three-subscale model, and yielded a minimum discrepancy, divided by its degrees of freedom (CMIN/DF) value of 3.976 which is acceptable. Also obtained were a relatively unacceptable comparative fit index of 0.770, and an acceptable root mean square error of approximation (RMSEA) value of 0.95 with a 90% confidence interval of [0.085; 0.105] (Hlongwane, 2016). The instrument's reliability shows an overall Cronbach's scale of 0.60 and alphas for each subscale ranging from 0.70 to 0.75 (Hlongwane, 2016).

2.7.7 South African studies on compassion fatigue

Several studies have looked at compassion fatigue in South Africa. Nkosi (2002:11) studied compassion fatigue in a South African trauma unit and found that use of coping mechanisms such as escape, self-control, acceptance and confronting was associated with higher levels of compassion fatigue. In addition, the study concluded that the impact of trauma unit work should be carefully monitored in view of the high incidence of compassion fatigue in these units. Another study conducted in South Africa among nurses who are exposed to maternal and perinatal deaths reported a 67% prevalence of compassion fatigue (Mashego *et al.,* 2016). Yet another study found that South African medical-surgical nurses had moderate levels of compassion fatigue (Hlongwane, 2016). The study also found that emotional work and job stress were correlated with compassion fatigue (Hlongwane, 2016). Lastly, a study among South African nursing students showed that this population had high risk of developing compassion fatigue (Mason & Nel, 2012).

2.7.8 New nurse graduates studies on compassion fatigue

No studies have been done on new graduate nurses (or CSNs) in the South African context. Internationally, the researcher found only two studies that link compassion fatigue to a novice nurse population. It has been found that stress exposure predisposes novice nurses to compassion fatigue (Meyer *et al.*, 2015). Stress exposure can be mediated by group adhesion and this reduces negative nurse outcomes (poor job satisfaction, high intention to leave and burnout) (Li *et al.*, 2014).

2.8 Background to well-being

The WHO established a definition for health in 1946, not amended since 1948, which states that "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 2003). Psychologists in that era had evidently already grasped this concept before World War II, as they "were charged with a three-pronged mission: healing mental illness, helping healthy people become happier and more productive and actualizing human potential" (Luthans, Youssef, *et al.,* 2007:8-9). World War II affected the well-being and health of the Western world to such an extent (Kesternich *et al.*, 2014) that psychologists lost their charge to the devotion of human psychological strength (Luthans, Youssef, et al*.,* 2007:8-9) and focused instead on mental illnesses: diagnosing errors and biases that lead to bad decision-making, and repairing psychological damage (Keyes & Haidt,

2003:1; Seligman & Csikszentmihalyi, 2000:5). Martin Seligman, on becoming president of the American Psychology Association in 1998, commented that "The most important thing, the most general thing I learned, was that psychology was half-baked, literally half-baked. We had baked the part about mental illness […]. The other side's unbaked, the side of strength, the side of what we're good at" (Seligman, 1999). Essentially, Seligman challenged psychologists to study what makes people happy: scientifically known as Positive Psychology (Seligman, 2010). In counterpart to the Diagnostic and Statistical Manual of Mental Disorders, more commonly known as the DSM, Seligman worked with Christopher Peterson to create the Character Strengths and Virtues (Peterson & Seligman, 2004:3).

Better understanding of wellness, the illness/wellness continuum which had already developed in 1972 by John Travis (Fair, 2011:9), is illustrated in Figure 2-3.
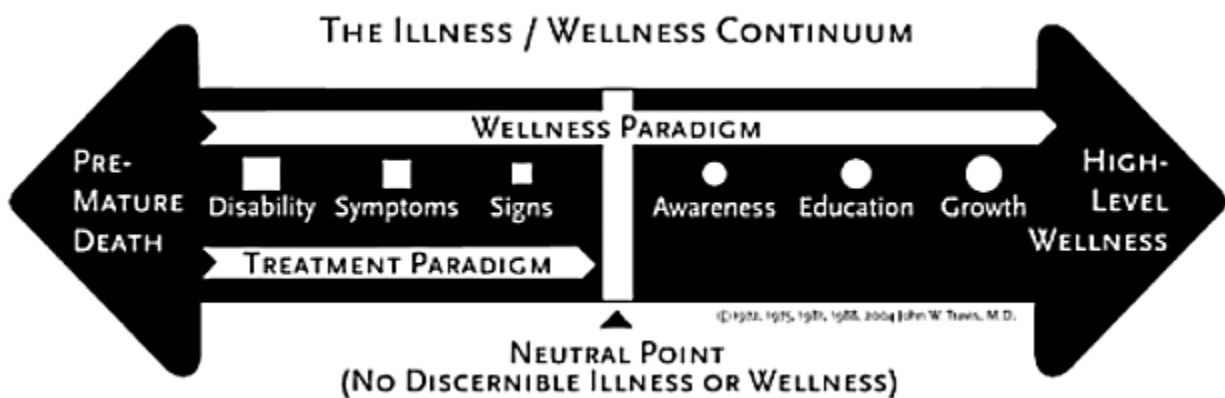
Figure 2-3: Illness/Wellness Continuum (Travis & Ryan, 2004:xviii)

The illness/well-being continuum involves a neutral point where a person is neither ill nor well and two opposing sides extending from the neutral point. Starting at the neutral point and moving toward the negative end of the continuum, a person may start showing signs of illness which is followed by symptoms, disability and ultimately death, whereas someone moving toward the positive end of the continuum may start to show signs of awareness, followed by education, growth and ultimately a high level of well-being. Thus, all the stages to the negative side of the neutral point indicate degrees of illness whereas all the stages to the positive side of the neutral point indicate degrees of wellness (Berman & Kozier, 2015).

2.9   Subjective well-being

Figure 2-4 indicates where SWB fits into the bigger picture of well-being.

```
Ilness        Wellness
                 |
   ┌─────────────┼─────────────┐
Physical   Psychological   Emotional
                               |
                      ┌────────┴────────┐
                 Eudeumonic          Hedonic
                                        |
                                   Subjective
                                   well-being
```
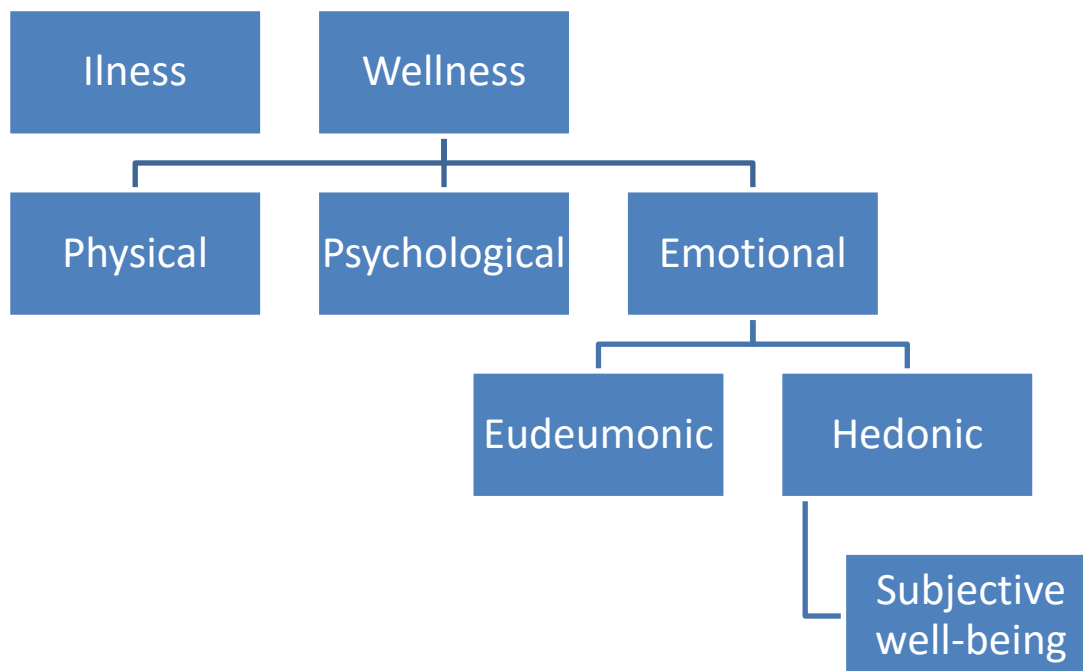
Figure 2-4: Subjective well-being in the well-being context

2.9.1   Hedonia and Eudaimonia

There are two main classifications of perspective on well-being: hedonia and eudaimonia. In regard to these concepts, Wissing *et al.* (2014:9) note that "Both feeling good and functioning well can be pathways towards well-being, and experiencing them together contributes to flourishing in life".

Hedonia takes its origin from the ancient Greek philosopher Aristippus, who first represented hedonia as absence of suffering and maximization of pleasure (Wissing *et al.,* 2014:21; Tatarkiewicz, 1976:317). Currently, positive psychologists define hedonia as the degree to which a person evaluates their life as satisfying (Disabato *et al.*, 2016); hedonia is thus goes beyond mere physical signs, with a strong emphasis on both positive and negative emotional states (Kahneman *et al.,* 1999:40). In other words, the hedonic perspective focuses on happiness, pleasure, enjoyment, satisfaction and comfort (Wissing *et al.,* 2014:7; 21). Pleasure

refers to a wide range of human experiences such as having sex and eating food, which are physical signs, and feeling excitement from new experiences, which is a psychological sign (Disabato *et al.,* 2016). The concept of SWB is derived from the hedonic perspective and will be discussed in more detail in the next section.

Eudaimonia extends beyond the pleasure-driven happiness of hedonia towards personal growth (Disabato *et al.*, 2016) and stems from Aristotle's philosophy in the *Nicomachean Ethics* (Seligman, 2010; Mastin, 2008). It refers to a person's "meaning, purposes for life expression of potential and being involved with something larger that the self" (Wissing *et al.,* 2014:7). Expression of eudaimonia requires that further self-actualization, as described by Maslow (1943), must first be fulfilled (Disabato *et al.,* 2016). Disabato *et al.* (2016) thus summarize eudaimonia as meaning-oriented happiness, the search for meaning in life, having gratitude and loneliness, aspiring curiosity and engagement, and displaying hope and growth.

The concept of SWB clearly has theoretical roots within the well-being framework (Garssen *et al.,* 2016:141). SWB as invoked for the purpose of this study is further elaborated in the next section.

2.9.2   The construct of subjective well-being

Subjective well-being has attracted substantial attention in social science and positive psychology research arenas in the past few decades (Jovanović, 2015:45; Li et al., 2015:1243; Diener et al., 1999). It is seen as an exciting topic (Jovanović, 2015:45), especially since there is much controversy concerning SWB and its structure (Jovanović, 2015:45, 49; Binder & Ward, 2013; Busseri & Sadava, 2010:306).

In Diener's (1984) original formulation of SWB there are three primary components: life satisfaction (LS), positive affect (PA) and negative affect (NA). This view of the construct features repeatedly in recent literature (Soukiazis & Ramos, 2015; Jovanović, 2015; Marisa, 2015; Li et al., 2015; Wissing et al., 2014:21; Binder & Ward, 2013:361; Luhmann, Hawkley, et al., 2012; Luhmann, Hofmann, et al., 2012; Busseri & Sadava, 2010; Diener et al., 2008). SWB is similarly defined as a person's judgement of life satisfaction incorporated with his/her emotional response (Diener et al., 1999:276; Diener, 2000:34; Albuquerque et al., 2011; Deci & Ryan, 2006:1-2).

In addition, SWB is a state in which a person feels and believes his or her life is going well (Diener et al., 2008:39). In other words, SWB can be seen as a combination of a person's affect and cognitive subjective evaluation of well-being (Cummins, 2010:9; 2016:62), where affect may be a more dominant influence (Cummins, 2016:62). Affective well-being refers to a person's experience of positive and negative affect, whereas cognitive well-being refers to a person's evaluation of life, also known as life satisfaction (Hajek & König, 2016).

Watson and Clark (1994) state that affect has two dimensions according to which all emotional experiences could be classified: positive affect and negative affect. Positive affect relates to experiences which are pleasurable and induce enthusiasm (Watson & Clark, 1984:265). High negative affect is "epitomized by subjective distress and unpleasurable engagement and low negative affect by the absence of these feelings" (Crawford & Henry, 2004:246). Life satisfaction is seen as a cognitive and global evaluation of the quality of a person's life as a whole (Pavot & Diener, 1993:164-165; Diener et al., 2008). To unpack this, life satisfaction is associated with social, occupational, mental and physical health subjective well-being has attracted substantial attention in social science and positive psychology research arenas in the past few decades (Jovanović, 2015:45; Li *et al.,* 2015:1243; Diener *et al.*, 1999). It is seen as an exciting topic (Jovanović, 2015:45), especially since there is much controversy concerning SWB and its structure (Jovanović, 2015:45, 49; Binder & Ward, 2013; Busseri & Sadava, 2010:306).

2.9.3   Measuring subjective well-being

Measuring SWB is mostly done by using two instruments to measure each subscale: affect (positive and negative) and satisfaction with life. For the purpose of this study, the Positive and Negative Affect Schedule was chosen to measure affect (positive and negative) and the Satisfaction with Life Scale was chosen to measure satisfaction with life. The Positive and Negative Affect Schedule was developed by Watson *et al.* (1988) and has 20 items, half the items measuring positive affect and the other half measuring negative affect. The scale has been validated in the South African context (Du Plessis & Guse, 2016). As for reliability, the 10 items determining positive affect and 10 items determining negative affect have a Chronbach alpha of $\alpha=0.86$-0.90 and $\alpha=0.84$-0.87, respectively (Watson *et al.*,1988). Convergent and discriminant validity for this instrument has also been proven (Watson *et al.,* 1988). For measuring satisfaction with life, the Satisfaction with Life Scale (Diener *et al.*, 1985) is the instrument most widely used globally (Wissing *et al.*, 2014:23). The 5-item scale has been used in many South African studies (Patel *et al.*, 2009; Keyes *et al.*, 2008; Temane & Wissing, 2006).

The Satisfaction with Life Scale has a proven reliability of α=0.92 on a South African population (Westaway *et al.,* 2003). Validity for this scale has also been proven Diener *et al.* (1985).

2.9.4 Influences of subjective well-being

Lyubomirsky *et al.* (2005) theorize that SWB is influenced by three main factors: set point, circumstantial or contextual factors, and intentional activity. Set point is a central value of happiness in a person's range (Lyubomirsky *et al.,* 2005:116), and may be seen as a neutral point. These authors also explain that the set point is stable over time and resistant against influence and control. The circumstantial or contextual factors are social, demographic and environmental (including geographical) factors which certainly have an influence on a person's life satisfaction and affect (Soukiazis & Ramos, 2015:1377). Lastly, the intention variable refers to the actions people engage in in their lives.

Cummins (2010; 2016:66) suggests a SWB hemostasis theory in which the core proposition is that a "homeostatic system of SWB maintains SWB within the set point range provided that life events are not strong enough to defeat homeostasis" (Franklin, 2013:10). It is further proposed that when homeostasis fails due to the overwhelming nature of a negative challenge (Cummins, 2010:15, 2016:64) it may reduce SWB (Franklin, 2013:10). Thus, strong environmental circumstances (e.g. low resources and very strong challenge) may strain the well-being from its set point and defeat homeostasis (Cummins, 2016:67). Where these environmental circumstances are not that strong, responses of psychological buffers surface in order to return well-being to its optimal state (Cummins, 2010:6-8).

Global research has indicated certain factors that influence SWB, such as age, gender, marital status, employment, income level and educational level. According to Sun *et al.* (2015:839) SWB decreases as age increases and then plateaus at ages 55 to 64. Some researchers nonetheless regard this association as marginal and conclude that age does not significantly relate to SWB (Mahadea & Ramroop, 2015:251; Wissing *et al.*, 2014:25). There seems to be general consensus worldwide that gender does not significantly influence SWB (Sun *et al.*, 2015:846; Mahadea & Ramroop, 2015:251; Wissing *et al.*, 2014:25). SWB does, however, tend to be higher in married persons than unmarried or divorced persons (Sun *et al.*, 2015:839; Cacioppo & Freberg, 2013:654). Employment points towards higher SWB (Mahadea & Ramroop, 2015:256) than for those who are unemployed (Van der Meer, 2012:23). Additionally, a higher income level may influence SWB positively (Sun *et al.,* 2015:846; Mahadea &

Ramroop, 2015:256), but if a person's basic needs are met then a higher income has little effect on SWB (Cox, 2012:104). Similarly, a higher educational level infers a higher level of SWB (which curiously decreases with postgraduate status). Furthermore, admiration from neighbours, colleagues and classmates seems to increase SWB (Anderson *et al.,* 2012). A person with a high level of SWB may experience health and longevity (Diener & Chan, 2011:2).

As far as the researcher has been able to determine, no studies have been conducted linking nurses and SWB in the South African context, nor has any study been conducted linking new graduate nurses or CSNs to SWB.

2.10 Psychological Capital

The Positive Psychology movement serves as an important precedent of positivity to the workplace and expressed in the form of Psychological Capital (PsyCap) (Luthans, Youssef, *et al.*, 2007:10).

> PsyCap is an individual's positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and when necessary redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success. (Luthans, Youssef, *et al.,* 2007:3)

PsyCap is said to be "state-like" in that it is open to development and changeable (Luthans *et al.,* 2006). Also, PsyCap is a higher order construct on an individual level (Luthans, Avolio, *et al.,* 2007:543). In other words, PsyCap is "an individual's positive psychological state of development" (Luthans, Youssef, *et al.*, 2007:3).

PsyCap is more profound than "what you know" and "who you know", and extends to "who you are" and "what you can become" (Luthans *et al.,* 2006:388). It can be seen as an intrinsic potential that flows out of an individual's psychological resource rather than an extrinsic potential relying on individual knowledge.

The four constructs of PsyCap are set out in Figure 2-5. Each of these constructs will be discussed in more detail in the sections that follow.
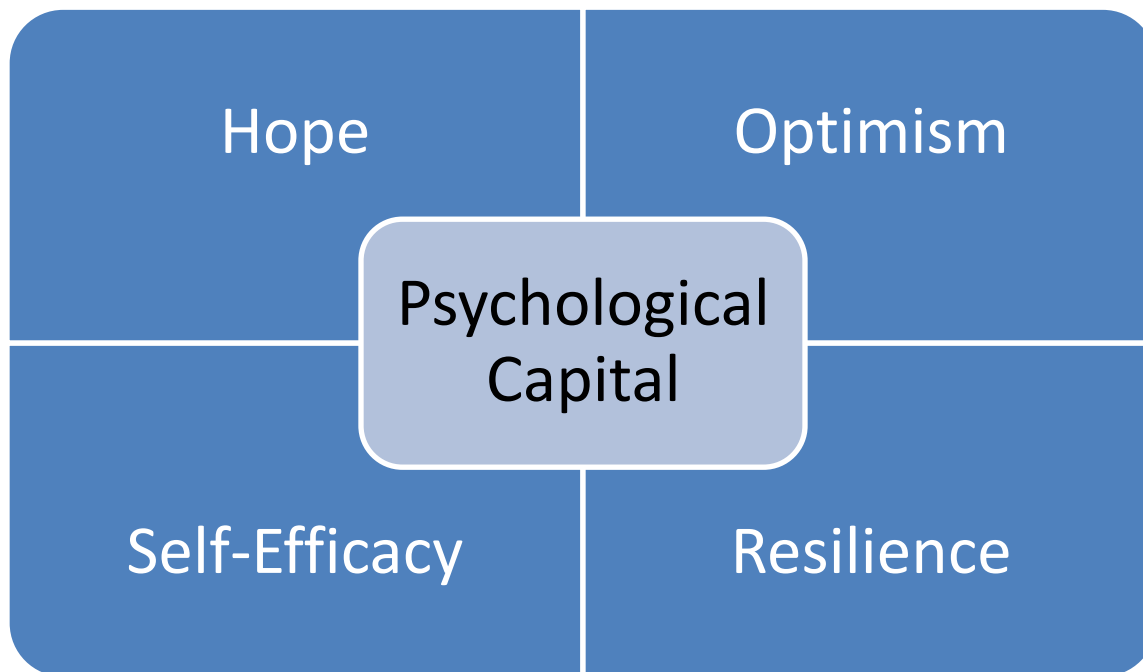
Figure 2-5: The constructs of psychological capital

2.10.1 Hope

In Snyder's (2000) theory of hope, hope is defined as "a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)" (Snyder *et al.*, 1991:570). Stemming from this definition are three main components of hope: i) Goals, ii) Pathways and iii) Agency.

(i)   Goals

According to Wissing *et al.* (2014:129), goals can be reflected as long-term and short-term goals. These goals can play out as "approach goals" or "avoidance goals" (Snyder, 2002:250). Approach goals focus on attaining or moving towards something; conversely, avoidance goals focus on avoiding or moving away from something (Lochbaum & Smith, 2015:51; Lochbaum *et al.,* 2013; Snyder, 2002:250). An example of an, approach goal would be when a person says, "I want to finish a marathon", thereby moving towards the subject; an avoidance goal would be

when a person says, "I want to stop smoking", thereby moving away from the subject Wissing *et al.* (2014:129). Persons with high hope thinking have clearly demarcated goals (Snyder, 2002:251).

(ii)   Pathways

"Goals remain but unanswered calls without the requisite means to reach them" (Snyder, 2002:251). Pathways are the means by which a person will reach the goal in mind. Persons with high hopes have more direction on the pathways to reach their goals, whereas persons with low hopes have zero direction to obtain the goals they have (Snyder, 2002:251). Individuals who have a high hope in life will plan realistic pathways to reach their planned goals (Egan, 2013:287).

(iii)   Agency

"Agency thought – the perceived capacity to use one's pathways to reach desired goals – is the motivational component in hope theory" (Snyder, 2002:251). In other words, agency is the ability to have confidence in the successful execution of pathways to reach the desired goal. It is the positive self-talk of "I know I can!" and the perseverance of "I can try again!" (Wissing *et al.*, 2014:129).

2.10.2 Optimism

Optimism is one of the most talked-about but least understood positive psychology resources (Luthans *et al.,* 2015:114). In 1998, Seligman defined optimism as an "attributional style that explains positive events in terms of personal, permanent, and pervasive causes and negative events in terms of external, temporary, and situation-specific ones" (as cited by: Youssef & Luthans, 2007:778). Later, Seligman (2006:4-5) demarcated optimism as the ability to see a defeat simply as a temporary setback and its causes as confined to that particular scenario. In addition, the author says that optimists believe that defeats are not their fault, but rather caused by bad luck, or other people who brought it on them (Seligman, 2006:4-5). Furthermore, it is said that PsyCap optimism is more than mere expectation of good things happening, and extends to a global positive expectation (Luthans *et al.*, 2015:114; Snyder & Lopez, 2009:304). Set against optimism, the pessimistic viewpoint undermines the impact of success and intensifies failures (Youssef & Luthans, 2007:778).

Although optimism is a personality trait (Carver & Scheier, 2014), a person has the ability to develop optimism (Peterson, 2000:51). The advantage of this is that optimism rarely loses hope and finds innovative, positive ways to face their situation (Ziyae *et al.*, 2015).

2.10.3 Self-efficacy

Bandura's (1986; 2001) social cognitive theory holds that a person can observe an act and then be able to replicate that act. A person is able to replicate the act more exactly if that person has self-efficacy – in other words, if a person is confident that he/she can master the act from close observation. Self-efficacy in PsyCap stems from this theory. Stajkovic and Luthans (1998:66) define workplace self-efficacy as "one's conviction (or confidence) about his or her abilities to mobilize the motivation, cognitive resources, and courses of action needed to successfully execute a specific task within a given context". To bring this together, self-efficacy is a personal resource which allows an individual to be confident that he or she can execute a task successfully.

Self-efficacy plays a role in the way people feel, think, behave and motivate themselves (Costello & Stone, 2012:121). Individuals who possess self-efficacy will set challenging goals for themselves, self-select difficult tasks, have self-motivation, have perseverance in difficult situations and will invest to master a task. As a result of this drive towards difficult tasks/challenges, the self-efficient person will not be prone to failure or despair, or to other peoples' destructive opinions or negative feedback (Bandura & Locke, 2003). Luthans, Youssef, *et al.* (2007:328-329) goes as far as to say that the self-efficient person will not be affected by "self-created challenges such as self-doubt, scepticism, or negative perceptions and attributions".

2.10.4 Resilience

Gordon (1996:63) describes resilience as "the ability to thrive, mature and increase competence in the face of adverse circumstances or obstacles". Masten and Reed define resilience as "a pattern of positive adjustment in the presence of significant individual or environmental threats" (as cited by: Snyder & Lopez, 2009:76). Luthans (2002:702) describes resilience as "the capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility". Uniting these definitions, a resilient individual will bounce back from a negative event while a non-resilient individual will remain "powerless" after the same event (Wissing *et al.*, 2014:123).

According to Coutu (2002:48-50), resilient people have three main attributes. Firstly, they will face the reality and prepare themselves to endure and survive hardship. Secondly, they will search for meaning in hardship in order to grow. Lastly, resilient people will seek for innovative ways to overcome hardships.

2.10.5 The benefits of possessing psychological capital

Psychological capital is a higher order construct that is greater than the sum of the individual parts (Luthans *et al.,* 2015:3). The components of PsyCap act synergistically. "On its own, each construct is correlated to increased desired-behaviours (e.g. job satisfaction) and decreased undesired-behaviours (e.g. intentions to quit) in the workplace" (Coultas, 2015). Nevertheless, when all four components are combined (conceptualized as PsyCap), these relationships become significantly stronger than with each construct or even with partial combinations of the four constructs (Luthans, Avolio, *et al.*, 2007). For example, "Hopeful individuals who possess agency and pathways to achieve their goals will be more motivated and capable of overcoming adversities and thus be more resilient. Efficacious people will be able to transfer and apply their hope, optimism and potential that can grow and be more sustainable over time" (Luthans *et al.,* 2015:30-31).

Harmony of hope, optimism, resilience and self-efficacy in PsyCap leads to multiple benefits. Internationally, it has been found that PsyCap can effectively mediate the effects of burnout on nurses (Ding *et al.,* 2015). PsyCap mediates the effects of workplace bullying and post-traumatic stress disorder (PTSD) in nurses (Laschinger & Nosko, 2013). PsyCap also protects mental well-being and enhances physical well-being of all nurses (Laschinger & Grau, 2012:288; Laschinger & Fida, 2014:25). No research has been done on a national level linking PsyCap and nurses. Among the novice nurse population, PsyCap has been found to serve as a protective mechanism against job dissatisfaction in both new graduate nurses and their seniors (Stam *et al.*, 2013:197; Laschinger & Fida, 2014:25). Since PsyCap has proven mediating capabilities, it can be hypothesized that PsyCap may mediate the effect of the nursing practice environment on the CSN's SWB and/or compassion fatigue.

2.10.6 Psychological capital development

The four constructs of PsyCap are not limited to growth and can thus be developed by interventions. This is done by means of micro-interventions conducted in one- to three-hour training workshops using developmental mechanisms that include "task mastery, modelling, or

vicarious learning, social persuasion and positive feedback, and physiological and/or psychological arousal" (Luthans *et al.*, 2006:390). Wissing *et al.* (2014:228), Luthans *et al.* (2006), Luthans *et al.* (2008) and Dello Russo and Stoykova (2015), suggest ways in which hope, optimism, self-efficacy and resilience can be nurtured. Hope can be developed by, firstly, providing opportunities for learning through intentional focus on solution-based training interventions, and secondly, promoting goal-setting in organizations. Optimism is developed by encouraging the development of realistic attributions at work. Self-efficacy is developed by promoting mastery of a specific task (modelling desired behaviours), by providing positive performance feedback, and by promoting employees' belief of the work-role fit. Lastly, resilience is developed by encouraging positive emotions, maximizing assents and resources, and minimizing risk factors.

2.11 The proposed model and research done on relationship between variables

Despite diligent inquiry into the literature, a research hiatus is still evident. A model has accordingly been proposed in Chapter 1, shown also in Figure 2-6. For critical appraisal of the literature, relationships between variables are now discussed.
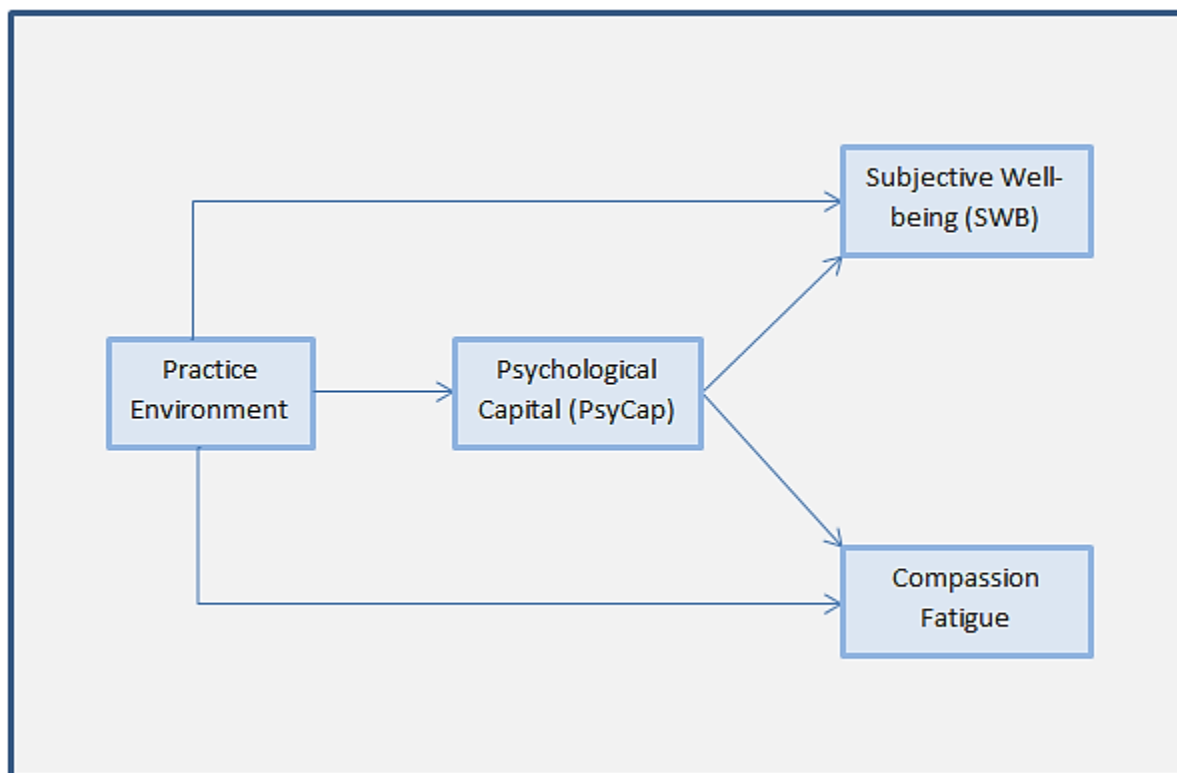
Figure 2-6: The proposed model

2.11.1 Practice environment and subjective well-being

In the very few studies that have been done internationally on the SWB of nurses the findings have been that nurses have low levels of SWB (Oates *et al.*, 2016), that there are correlations between burnout and SWB (Qu & Wang, 2015), and negative associations between job satisfaction and SWB (Gurková *et al.*, 2013). According to the researcher's knowledge, no study has been done that directly links the relationship between the practice environment and SWB. A glimpse of the relationship is seen in one study amongst Chinese healthcare workers which reveals that enhancing employee's skills (one of the attributes of the practice environment namely "nurse participation in hospital affairs") increases SWB (Fan *et al.,* 2014). Although no research has been done on the relationship between the practice environment and SWB, it may be expected that a positive practice environment may positively influence SWB.

2.11.2 Practice environment and compassion fatigue

According to the researcher's best knowledge, there is no research done yet that directly links the practice environment as a whole to compassion fatigue. Sacco *et al.* (2015:41) encourages that this relationship should be further investigated in order to develop interventions for creating better work environments for nurses. In a novice nurse population, the stressors of the work environment predicted lower levels of compassion satisfaction after three months exposure (Meyer *et al.*, 2015). A glimpse of the relationship between the practice environment and compassion fatigue is seen by considering a segment of the subscale "nurse manager ability, leadership and support'. Research has shown that if managers give recognition for a job well done; this recognition is a predictor for compassion satisfaction (Kelly *et al.*, 2015:527). In contrast, poor manager support is a predictor of compassion fatigue (Hunsaker *et al.,* 2015:192). It can therefore be predicted that there will be a negative relationship between a positive practice environment and compassion fatigue.

2.11.3 Practice environment and psychological capital

There exists a clear link between PsyCap and SWB amongst non-nursing populations. PsyCap has been found to serve as a protective factor amongst Chinese rural doctors (Yang *et al.*, 2015). Also, PsyCap has been found to mediate the relationship between social support and SWB (Li *et al.*, 2014). Amongst South African teachers facing challenging work situations, PsyCap has been proven to mediate the relationship between SWB and burnout (Hansen *et al.,* 2015). The only study in nursing that links PsyCap and SWB studied the effects of peer caring

and resilience on SWB and found that PsyCap improves SWB in a student nurse population (Zhao *et al.,* 2016). It can therefore be predicted that PsyCap would moderate the effect between a practice environment and SWB.

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There exists a clear link between PsyCap and SWB amongst non-nursing populations. PsyCap has been found to serve as a protective factor amongst Chinese rural doctors (Yang et al., 2015). Also, PsyCap has been found to mediate the relationship between social support and SWB (Li et al., 2014). Amongst South African teachers facing challenging work situations, PsyCap has been proven to mediate the relationship between SWB and burnout (Hansen et al., 2015). The only study in nursing that links PsyCap and SWB studied the effects of peer caring and resilience on SWB and found that PsyCap improves SWB in a student nurse population (Zhao et al., 2016). It can therefore be predicted that PsyCap would moderate the effect between a practice environment and SWB.

2.11.5 Psychological capital and compassion fatigue

PsyCap research amongst nurses is more widespread than that of SWB, yet still much under-researched. One study amongst nurses working in acute care settings has shown that PsyCap negatively correlated with compassion fatigue and thus improving PsyCap might prevent compassion fatigue (Bao & Taliaferro, 2015:35). This is supported by Hegney *et al.* (2013:516-517) who suggests that cultivating PsyCap will better nurses' capacity to show empathy (Hegney *et al.,* 2013:516-517). Also, a program that focuses on developing resiliency (a subscale reduced compassion fatigue amongst nurses (Weidlich & Ugarriza, 2015:294; Potter *et al.*, 2013:185-186; Drury *et al.,* 2013). The link between PsyCap and compassion fatigue amongst new graduate nurse is still unknown internationally. It can therefore be predicted that PsyCap would moderate the effect between a practice environment and the development of compassion fatigue.

2.12 Conclusion

The purpose of this literature review was to give a background of each variable in its individual field of science and in order to understand each variable from a theoretical point of view. Describing each variable independently was a prerequisite in fulfilment of the aims and objectives of this study. Additionally, current knowledge to each variable was summarized.

Moreover, the model tested is being reviewed with relevant literature. This awarded the reader the opportunity to assess the current study's contribution to the scientific body of knowledge.

CHAPTER 3 ARTICLE MANUSCRIPT

3.1 Chapter 3 Outline

This chapter report was written according to the requirements of the April 2016 North West University *Manual for Master's and Doctoral Studies* on submitting a dissertation in article format (NWU, 2016:22). In terms of these requirements, one manuscript was written and prepared following the guidelines of the prospective journal to which the article will be submitted, namely the Elsevier *International Journal of Africa Nursing Studies*. Please note that there may be some repetition between Chapters 1 and 2, and the manuscript (Chapter 3).

Referencing for this article was done according to the *Publication Manual of the American Psychological Association*, 6th Edition, in compliance with the author guidelines of the above-mentioned academic journal.

Chapter Outline:

Preamble I: Article author guidelines: *International Journal of Africa Nursing Studies*

Preamble II: Cover letter to the editor-in-chief of *International Journal of Africa Nursing Studies*

Preamble III: Article Manuscript for Submission

References List of Article Manuscript

Addendum 1: Tables and Figures

3.2   PREAMBLE I

Article Author Guidelines: International Journal of Africa Nursing Studies

INTERNATIONAL JOURNAL OF AFRICA NURSING SCIENCES

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From: https://www.elsevier.com/journals/international-journal-of-africa-nursing-sciences/2214-1391/guide-for-authors

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3.3   PREAMBLE II

Cover letter to the Editor-in-Chief of the International Journal of Africa Nursing Studies

North-West University

Potchefstroom Campus

School of Nursing Science

Private Bag x6001

Potchefstroom

South Africa

2520

24 April 2017

Editor-in-Chief

International Journal of Africa Nursing Studies

RE: ARTICLE FOR SUBMISSION

The authors hereby submit the article "The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue".

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-00081-16-S1).

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

_____

JDV Holtzhausen

3.4 PREAMBLE III

Article manuscript for submission

Title Page

Title: The Influence of the Practice Environment on Community Service Nurses' Subjective Well-Being and Compassion Fatigue

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Abstract

The aim of this study was to test a model on the relationship between the practice environment and compassion fatigue, subjective well-being and psychological capital (PsyCap), and on the mediating effect of PsyCap among these variables on an all-inclusive sample of community service nurses who studied at higher education institutions in North West province. A cross-sectional design was employed in which self-report questionnaires were used to collect data (N=284; n=60). Results showed that community service nurses experience the practice environment as favourable except for staffing and resource adequacy. Their perspectives of the practice environment were however significantly affected by the inclusion and acceptability of an orientation program. Community service nurses had an average satisfaction with life, and higher levels of positive affect. Choice of placement for the community service year was significantly linked to satisfaction with life. Community service nurses experience compassion stress, which was linked to staffing and resource adequacy. Psycap, specifically hope, was correlated with more positive perceptions of the practice environment, positive affect, and decreased levels of compassion fatigue. In the model, however, only the paths between the practice environment and PsyCap, and PsyCap and subjective well-being were significant at the 10% level, indicating that PsyCap acts as a mediator between practice environment and subjective well-being but not between the practice environment and compassion fatigue. The percentage of the total effect that is mediated is 86.6%.

Keywords

Community service nurse; compassion fatigue; practice environment; psychological capital; South Africa, subjective well-being

Introduction

In South Africa, all persons who have completed a comprehensive program in nursing and midwifery must then complete a 12-month period of remunerated community service before registration is granted as an independent practitioner (Geyer, 2013). A new graduate with a diploma or bachelor degree in nursing is referred to in South Africa as a community service nurse (CSN); internationally, such a person with less than one year's working experience would be referred to as a new graduate nurse or new diplomate nurse (Goldstein, D'Alessandro, Sussmam, & Brown, 2015).

Research done on CSNs' experiences of the community service year has shown that although CSNs perceive themselves to be competent (Snell & Daniels, 2014), there is a reality shock when they first enter practice (Roziers, Kyriacos, & Ramugondo, 2014; Ndaba, 2013) and encounter the numerous complex and ambiguous situations that confront them (Du Plessis & Seekoe, 2013), including poor allocation of resources, both human and material (Ndaba, 2013; Kgole, Mamogobo & Thopola, 2013). Furthermore, there is limited guidance and supervision (Masango & Chiliza, 2015; Shezi, 2014, Hlosana-Lunyawo & Yako, 2013; Kgole et al., 2013), with poor or insufficient orientation programs for CSN's (Govender, Brysiewicz & Bhengu, 2015; Hlosana-Lunyawo & Yako, 2013; Kgole et al., 2013). However, some CSNs also express a positive attitude towards the community service year (Govender et al., 2015), stating that it is a time of personal and professional growth and development (du Plessis & Seekoe, 2013).

Research both internationally (Zhang et al., 2013; Aiken, Sloane, Bruyneel, Van den Heede, & Sermeus, 2013) and nationally (Coetzee, Klopper, Ellis & Aiken, 2013; Klopper, Coetzee, Pretorius, Bester, 2012) has shown that nurses who work in hospitals with a positive practice environment are less likely to report poor nurse outcomes, such as burnout, job dissatisfaction and turnover intent. However, the practice environment as experienced by CSNs has not been explored in the South African context. Nor have there been any studies in the international literature on influence of the practice environment on subjective well-being (SWB) and compassion fatigue, or on the mediating effect of psychological capital (PsyCap) on the development of compassion fatigue in nurses.

Background

Lake (2002, p. 178) defines the practice environment as "the organizational characteristics of a work setting that facilitates or constrains professional nursing practice". These organizational characteristics entail nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership and support of nurses; staffing and resource adequacy and collegial nurse–physician relations (Lake, 2002). Positive fulfilment of these characteristics would create an ideal nursing practice environment (Lake, 2002).

There is extensive literature linking positive practice environments with improved nurse, patient and organization outcomes (Zhang et al., 2013; Aiken et al., 2013; Lambrou, Merkouris, Middleton & Papastavrou, 2014; Coetzee et al., 2013; Klopper et al., 2012). Positive practice environments have also been explored internationally among new graduate nurses, with similar findings that include improved nurse outcomes (Jackson, 2016; Laschinger, Zhu & Read, 2016) and improved perceptions of quality patient care (Laschinger et al., 2016).

Both SWB and PsyCap are positive psychological constructs. To ensure flow in the literature, the researcher has therefore decided group SWB and PsyCap together. Compassion fatigue will therefore be discussed first, then SWB, then PsyCap.

According to Sinclair, Raffin-Bouchal, Venturato, Mijovic-Kondejewski, and Smith-MacDonald, (2017, p.10) compassion fatigue (CF) is "an acute onset of physical and emotional responses that culminate in a decrease of compassionate feelings towards others because of an individual's occupation." Coetzee and Laschinger (2017) have identified three distinct attributes of CF: disengagement, impotence and being unfulfilled. They characterize disengagement as the inability to acknowledge and empathize with a patient. The nurse consequently "withdraws from patient's suffering, sorrow or pain, and isolates her/himself from the patient" (Coetzee & Laschinger, 2017, p. 8). As a result of disengagement, impotence evolves to the point where the nurse is no longer motivated to meet the patient's needs (Coetzee & Laschinger, 2017). The nurse, then, is thus unfulfilled and fails to render care to the fullest of his/her potential since "no meaning or satisfaction can be derived from care giving" (Coetzee & Laschinger, 2017, p. 9).

CF in the nursing realm is a problematic reality. In a systematic review among intensive care nurses it has been found that prevalence of CF may be as high as 40% (Van Mol, Kompanje, Bakker & Nijkamp, 2014). Hooper, Craig, Janvrin, Wetsel, and Reimels (2010) claim that 86% of emergency department nurses in the United States suffer from high levels of CF. In tertiary hospitals in Australia, 20% of registered and enrolled nurses experience CF (Drury, Craigie, Francis, Aoun & Hegney, 2014). In South Africa, Hlongwane (2016) found that medical-surgical nurses in public hospitals experienced moderate levels of CF. No studies could be found that explored the incidence of CF among CSNs or new graduate nurses.

SWB is the hedonic perspective of well-being and comprises life satisfaction together with positive and negative affect (Wissing, Potgieter, Guse, Khumalo & Nel, 2014). It is similarly defined as a person's judgement of life satisfaction incorporated with with his/her emotional response (Albuquerque, de Lima, Figueiredo & Matos, 2011; Deci & Ryan, 2006 Diener, 2000; Diener, Suh, Lucas & Smith, 1999).

According to Nemcek and James (2007), the practice environment can affect life satisfaction, which is an aspect of SWB. In addition, nurses tend to commit themselves to a positive practice environment, and this commitment is significantly related to the nurse's life satisfaction (Vanaki & Vagharseyyedin, 2009). A relationship clearly exists between the practice environment and life satisfaction. Little is known, however, about the relationship between the practice environment and affect (positive and negative), which is the other component of SWB. No studies could be found that explored SWB among CSNs or new graduate nurses.

PsyCap is defined by Luthans, Youssef and Avolio (2007, p. 3) as "an individual's positive psychological state of development". Furthermore, PsyCap is more profound than "what you know" and "who you know", and extends to "who you are" and "what you can become". PsyCap is characterized by self-efficacy, optimism, hope and resilience (Luthans, Youssef & Avolio, 2007).

Research has revealed that PsyCap increases job-embeddedness and performance of nurses (Sun et al., 2011, p. 75) and this finding has been confirmed in a more recent study among new graduate nurses (Boamah & Laschinger, 2014). PsyCap has also been found to serve as a protective mechanism against job dissatisfaction in both new graduate nurses and their seniors (Laschinger & Fida, 2014; Stam,

Laschinger, Regan & Wong, 2013), as well as enhancing mental and physical well-being of all nurses (Laschinger & Fida, 2014; Laschinger & Grau, 2012).

It is well established that PsyCap influences positive and negative emotions (Afzal, Malik & Atta 2014) and predicts personal accomplishment (Krok, 2015) and SWB (Culbertson, Fullagar & Mills, 2010). In both nursing and non-nursing students, resilience, which is a facet of PsyCap, affects SWB (Zhao, Guo, Suhonen & Leino-Kilpi, 2016; Bajaj & Pande, 2016), but the relationship between PsyCap and SWB in nurses has not yet been explored. Bao and Taliaferro (2015) found that PsyCap was moderately to strongly negatively correlated with CF, and suggested that improving PsyCap might be a good intervention for preventing CF. Multiple studies have found that intrapersonal resources, such as PsyCap, are a protective mediator against burnout (Bao & Taliaferro, 2015; Ding et al., 2015; Laschinger & Fida, 2014; Wang, Liu & Wang, 2012) and this was also observed in the new graduate nurses population (Laschinger & Grau, 2012).

Although a number of studies have been conducted on the practice environment of nurses, it still appears that (i) the practice environment as experienced by the CSNs has not been explored in the South African context, and (ii) neither the influence of the practice environment on SWB, CF and PsyCap nor the influence of PsyCap on SWB and CF among nurses have been explored in international literature. This research study accordingly aims to test a model on the relationship between, on one hand, the practice environment and CF, SWB and PsyCap and, on the other, the mediating effect of PsyCap among these variables, on a sample of community service nurses who studied at higher education institutions in North West province (See Figure 1).

PREFERRED PLACEMENT OF FIGURE 1

Method

Design

For this study, a cross-sectional design was employed in which self-report questionnaires were used to collect data.

Setting and sample

The study was conducted in North West province, South Africa. The researchers purposively chose this province because it is a rural province and no study had previously been conducted on CSNs in this province. All CSNs who completed their training in 2015 at any higher education institution in North West province and who began their community service year in 2016 were invited to participate in the study. The sample consisted of 284 CSNs, of which 60 CSNs participated in the study, with a response rate of 21.1%.

Instrumentation

The survey consisted of five instruments and a demographics section. The practice environment was measured using the Practice Environment Scale of the Nurse Work Index – Revised (PES-NWI) (Lake, 2002). The PES-NWI consists of 32 items measuring nurse participation in hospital affairs, nursing foundations for quality of care, nurse manager ability, leadership and support of nurses, staffing and resource adequacy, and collegial nurse–physician relations, and employs a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree). A mean of 2.5 and above is considered to be indicative of a positive practice environment. The PES-NWI has been proven to be reliable and valid in the South African context (Klopper et al., 2012).

The Positive and Negative Affect Scale (PANAS) (Watson, Clark & Tellegen, 1988) consists of two subscales, positive affect and negative affect, with each subscale having 10 items to describe various moods. Each mood is measured using a 5-point Likert scale ranging from very slightly or not at all (1) to very much (6). The scores are tallied for each subscale, and range between 10 and 50; higher scores indicate a higher incidence of that emotion, while lower scores indicate a lower incidence. The PANAS has been proven to be reliable and valid in the South African context (Du Plessis & Guse, 2016).

The Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen & Griffin, 1985) is a 5-item instrument used to evaluate life satisfaction of individuals. The degree of life satisfaction is measured on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). The scores are tallied and a total score of 5 to 9 indicates extremely dissatisfied, 10 to 14 indicates dissatisfied, 15 to 19 indicates slightly below average, 20 to 24 indicates average life satisfaction, 25 to 29 indicates satisfied and 30 to 35

indicates highly satisfied. The SWLS is a valid and reliable measure for life satisfaction in the South African context (Wissing et al., 2014, p.23).

Compassion fatigue is measured by the Compassion Practice Instrument (CPI) (Coetzee & Laschinger, 2017). The CPI consists of 19 items measuring disengagement, impotence, and being unfulfilled, and employs a 6-point scale from never (1) to always (6). A mean of 0 to 2 is indicative of compassion distress, a mean of 2 to 4 is indicative of compassion stress, and a mean of 4 to 6 is indicative of compassion fatigue. The internal consistency reliability of the CPI in the South African context was a Cronbach's alpha of 0.60 for the entire scale, and 0.70 to 0.75 for the individual subscales (Hlongwane, 2016). Exploratory and confirmatory factor analysis revealed good construct validity (Hlongwane, 2016).

The Psychological Capital Questionnaire (PCQ) (Luthans, Avolio, Avey & Norman, 2007) measures an individual's psychological capital. It is a 24-item scale with four subscales, self-efficacy, optimism, hope, and resilience, and employs a 6-point scale from strongly disagree (1) to strongly agree (6). The mean of the four subscales is calculated from all the items in that subscale. The overall PsyCap score is calculated by taking the mean of all items in the questionnaire. Higher means indicate higher levels of the specific subscale or (in the case of the overall mean) of PsyCap. The reliability, internal and external validity of the questionnaire on a South African population has been established (Görgens-Ekermans & Herbert, 2013).

Data collection

Ethical clearance was granted by the North West University (Potchefstroom Campus) (NWU-00081-16-S1) and the North West Department of Health. The Deputy Director of Nursing Education in the North West Department of Health, who is the person responsible for the placement of students in NWP, served as an advisor on the project. The advisor made the contact details of the CSNs available to a mediator independent of the study in the form of cellphone numbers with no personal identification linked to the cellphone number (i.e. name, surname or area of placement). The mediator sent short message service (SMS) invitations to all participants containing a uniform resource locator (URL) link to the survey on Survey Monkey. Invitations were sent on days 1, 3 and 7. As this round of invitations did not yield a viable response rate, the researchers applied for an amendment to the ethics application to conduct a second round of invitations with addition of an incentive, which was optional entry in a lucky draw to win a

Samsung Galaxy Note 10.1. The second round of invitations was again sent out by an independent

mediator of the study as per the previous round. Data was collected within a 6-week (June-December

2016) period.

Data Analysis

Data was analysed using the computer software programs SPSS Version 23 (SPSS Inc, 2016) and

AMOS Version 23 (AMOS Inc, 2016). Demographics and the results of the scales were presented with

descriptive statistics (means, frequencies, percentages and standard deviations). The reliability of the

instruments was established by Cronbach's alpha, and validity through confirmatory factor analysis. In

addition, the hypotheses of the study and the relationships between demographics and the study

variables were tested utilising inferential statistics (Spearman's rank-order correlations, cross-tabs, effect

sizes, t-tests and ANOVAs). Effect sizes were reported according to Cohen (1988), in which (a) small

effect: $r = 0.2$, (b) medium effect: $r = 0.5$ and (c) large effect: $r = 0.8$. The model (Figure 1) was tested

using structural equation modelling (SEM). In general, the literature suggests that a sample of about 100

to 200 subjects provides sufficient statistical power to conduct the confirmatory factor analysis (CFA) and

SEM (Hoyle, 1995) – although in this case, the sample was much smaller, so that statistical significance

was considered on a 10% level. Fit indices that were reported on included the chi-square, chi-square/df,

comparative fit index (CFI) and root mean square error of approximation (RMSEA).

Results

Demographics

The demographics for the CSNs who completed the surveys are illustrated in Table 1.

PREFERRED PLACEMENT OF TABLE 1

The majority of the participants were female (61.7%), on average 23 years of age (SD = 5.42), and

indicated that nursing was their first career of choice (77%) and that they were somewhat prepared to

manage their work as a nurse as a result of their education. Although most of the participants (80%) had

received orientation, 86.6% of these did not feel that it had sufficiently met their needs. Orientation lasted

an average of 1.65 weeks (SD = 2.64) with 2.13 mentors (SD = 2.52) assigned to CSNs during orientation.

With regard to their working environment, most (56.7%) were not placed in their first choice for the community service year, and the majority (40%) indicated working in a primary health care setting. Short-staffing affected 41.7% of CSNs in daily meeting their patients' needs; on average, CSNs were responsible for 31.35 patients per day, and 78.3% of CSNs reported working more than 40 hours per week. CSNs reported being absent for an average of 1.83 days and the most common reason for absenteeism was physical illness.

Confirmatory factor analysis

CFA was performed on all five questionnaires. The PES-NWI yielded significant standardized regression weights of 24 and above on all items, indicating that items loaded significantly on the theoretical factors. The subscales were statistically significantly correlated with each other, except for collegial physician relationship and nurse ability leadership and support of nurses. Measures of goodness of fit yielded an acceptable CMIN/DF value of 1.790, an unacceptable CFI of 0.58, and an acceptable RMSEA of 0.098 with a 90% confidence interval [0.087; 0.108].

The SWLS yielded significant standardized regression weights of 0.48 and above on all items. Measures of goodness fit yielded an acceptable CMIN/DF value of 3.087, a relatively acceptable CFI of 0.86, and an unacceptable RMSEA of 0.159 with a 90% confidence interval [0.073; 0.252].

The PANAS yielded significant standardized regression weights of 0.22 and above on all items. Measures of goodness of fit yielded an acceptable CMIN/DF value of 1.94, an unacceptable of CFI of 0.67 and a relatively unacceptable RMSEA of 0.106 with a 90% confidence interval [0.089; 0.124].

The CPI yielded significant standardized regression weights of 0.27 and above on all items. The subscales were statistically significantly correlated with each other, except for impotence and unfulfilled. Measures of goodness of fit yielded an acceptable CMIN/DF value of 1.15, an acceptable of CFI of 0.94 and an acceptable RMSEA of 0.043 with a 90% confidence interval [0.000; 0.082].

The PCQ yielded significant standardized regression weights of 0.26 and above on all items. The subscales were statistically significantly correlated with each other. Measures of goodness of fit yielded an acceptable CMIN/DF value of 2.04, an unacceptable of CFI of 0.63 and a relatively unacceptable RMSEA of 0.112 with a 90% confidence interval [0.096; 0.128].

Descriptive statistics

Table 2 presents descriptive statistics and Cronbach's reliability for each subscale of the study's variables.

PREFERRED PLACEMENT OF TABLE 2

CSNs perceive the characteristics of the practice environment to be favourable, as all subscales have a mean above 2.5, except for staffing and resource adequacy (M = 2.23; SD 0.72). CSNs state that they have an average level of satisfaction with life (M = 4.98; SD 1.14), with higher levels of positive affect (M = 3.91; SD 0.80). Concerning CF, CSNs experience overall compassion stress. CSNs report high levels of PsyCap.

Correlations between variables: practice environment, compassion fatigue, psychological capital and subjective well-being

Correlations between the practice environment, SWB, CF and PsyCap are presented in Table 3.

PREFERRED PLACEMENT OF TABLE 3

There is a medium statistically significant positive correlation between positive affect and nurse foundations of quality of care (r = 0.427; p = 0.003) and nurse participation in hospital affairs (r = 0.341; p = 0.003).

There is a medium statistically significant negative correlation between staffing and resource adequacy and impotence (r = −0.351; p = 0.013).

There is a medium statistically significant positive correlation between hope and nurse participation in hospital affairs (r = 0.385; p = 0.010) and nurse foundations of quality of care (r = 0.319; p = 0.035).

There is a medium statistically significant positive correlation between efficacy (r = 0.437; p = 0.003), hope (r = 0.619; 0.000) and positive affect.

There is a medium statistically significant positive correlation between hope (r = 0.441; p = 0.003) and satisfaction with life.

There is a medium statistically significant negative correlation between hope (r = −0.413; p = 0.005) and impotence.

Correlations between variables and demographics

There is a medium statistically significant positive correlation between age and positive affect (r = 0.647; p = 0.000), efficacy (r = 0.350; p = 0.020), and hope (r = 0.367; p = 0.014), and a small statistically significant negative correlation between age and disengaged (r = −0.303; p = 0.034) and impotent (r = −0.293; p = 0.041).

There is a medium statistically significant positive correlation between the duration in weeks of the orientation and quality of care (r = 0.351; p = 0.009) and nurse participation in hospital affairs (r = 0.367; p = 0.006), and a small statistically significant positive correlation with management, leadership and support of nurses (r = 0.332; p = 0.013).

There is a medium statistically significant negative correlation between orientation having met the CSNs expectations and quality of care (r = −0.444; p = 0.001), and a small statistically significant negative correlation with management, leadership and support of nurses (r = −0.318; p = 0.018) and nurses participation in hospital affairs (r = –0.302; p = 0.025).

There is a medium statistically significant negative correlation between choice of community service year placement and satisfaction with life (r = −0.395; p = 0.007).

There is a medium statistically significant negative correlation between staff shortage affecting CSNs' ability to meet patients' needs and staffing and resource adequacy (r = −0.529; p = 0.000) and management, leadership and support of nurses (r = −0.368; p = 0.006), and a small statistically significant

negative correlation between quality of care (r = −0.305; p = 0.023) and nurse participation in hospital affairs (r = −0.307; p = 0.023).

There is a small statistically significant negative correlation between CSN absenteeism and quality of care (r = −0.325; p = 0.016).

Associations between variables and demographics

There was a large practically and statistically significant difference between gender and perception of staffing and resource adequacy (d=0.58; p=0.029), male respondents viewing this more positively. Likewise, there was a large practically and statistically significant difference between receiving orientation and perceptions of management, leadership and support of nurses (d=1.05; p= 0.002); quality of care (d=0.57; p= 0.038) and nurse participation in hospital affairs (d=0.51; p= 0.040).

Structural equation model

As a final step in the analysis of the data, SEM was applied to test the hypothetical model (Figure 1). The goodness-of-fit measures for model 1 (Figure 2) were CMIN/DF=1.519, CFI=0.813 and RMSEA=0.094 with 90% confidence interval of [0.059; 0.125], indicating an acceptable fit. The only paths that were significant at the 10% level were those between the practice environment and PsyCap, and between PsyCap and SWB, indicating that PsyCap acts as a mediator between the practice environment and SWB but not between the practice environment and compassion fatigue. The percentage of the total effect that is mediated is 86.6%.

PREFERRED PLACEMENT OF FIGURE 2

Discussion

Although most CSNs indicated that they received some form of orientation on entering their community service year, almost all of these respondents indicated that it had not met their needs. This is similar to the findings of Govender et al., (2015), Hlosana-Lunyawo and Yako, (2013), and Kgole et al. (2013). Whether or not the CSN had received orientation, the duration of the orientation, and whether or not the orientation had met the CSN's needs, were each correlated with respondents' perceptions of the practice

environment, especially quality of care, nurse manager ability, leadership and support of nurses, and nurse participation in hospital affairs.

Interestingly, most CSNs were not placed in their first choice of healthcare facility, and this, understandably, had a significant impact on their satisfaction with life. Although it is understandable that not all CSNs can be placed in their first choice of healthcare facility, for equitable distribution the process could possibly be adjusted to give CSNs a more realistic idea of the placement options and procedures.

Most CSNs indicated that their education only somewhat prepared them for their career as a nurse. This may be interpreted, in light of previous research conducted, as indicating that CSNs feel competent to do their work (Snell, & Daniels, 2014), although they face a reality shock when they enter practice (Ndaba, 2013 ; Roziers et al. 2014), and encounter numerous complex and ambiguous situations (Du Plessis & Seekoe, 2013).

CSNs indicated that the practice environment had inadequate staffing and resources, which was also highlighted as a major problem by other studies among CSNs (Ndaba, 2013; Kgole et al. 2013). Staffing and resource adequacy affected quality of care and ability to meet patient needs, as well as nurse outcomes with regard to compassion fatigue. Research has linked staff shortages or increased staff-to-patient ratio with negative patient outcomes such as an increase in mortality (Cho et al., 2015), the likelihood of an inpatient dying within 30 days of admission (Aiken et al., 2014), not surviving in-hospital cardiac arrest (McHugh et al., 2016), having urinary tract or surgical-site infection (Cimiotti, Aiken, Sloane, & Wu, 2012), and decreased patient satisfaction (Ausserhofer et al., 2013). This also has a direct impact on nurse outcomes, such as higher levels of job dissatisfaction and burnout (You et al., 2013).

Quality of care and nurse participation in hospital affairs had the greatest impact on SWB (positive affect) and PsyCap (Hope), indicating that nurses had better outcomes if the healthcare facility was driven by a nursing philosophy and nurses were afforded the opportunity to be involved in both hospital and nursing affairs. In a systematic review, Lambrou et al. (2014) found that the two characteristics of the practice environment that had the most influence on nurse outcomes were nurse manager ability, leadership and support of nurses, and nurse participation in hospital affairs. Likewise, Kutney-Lee et al. (2016) found

that hospitals which provided nurses with greater levels of engagement were less likely to report unfavourable job outcomes and poor ratings of quality of care and patient safety.

PsyCap did have an effect of SWB, specifically efficacy and hope on satisfaction with life, as well as on CF, specifically hope on impotence. Research among nurses has linked self-efficacy to increased confidence and assertiveness (Thompson & George, 2016), critical appraisal of the clinical practice (Lau, Willetts, Hood, & Cross, 2014), and better clinical communication (Zhu, Chen, Shi, Liang & Liu, 2016). Miller (2007) argues that hope is a central construct in nursing, helping nurses to cope with illness and death, while Madan and Pakenham (2015) state that hope is a stress buffer in the care of sick patient.

Limitations

The chief limitation to this study was a poor response rate. Although the researchers applied for an amendment to the ethics committee and implemented a second round of incentivised data collection, the response rate remained poor, which limits generalisation of these findings. The SWLS, PANAS and PsyCap scales had relatively unacceptable fit indices, although all the subscales were reliable except for the unfulfilled subscale of the CPI. These instruments had however been used previously in the South African context and had proved valid and reliable.

Implications of research

Health care facilities should provide CSNs with a structured orientation program, and it would be advisable for the Department of Health (DoH) to develop a single, common, structured orientation programme for all CSNs. The DoH should also provide CSNs with a placement list that indicates exactly how many students must be placed in that year together with the number of placements available at each health care facility, so that the CSNs have a realistic idea of the placement process. At the healthcare facilities and nursing units, staffing and resource adequacy should be addressed and CSNs should be given the opportunity to be involved in patient, nursing and organization affairs, as this improves nurse and patient outcomes. Likewise, mentoring, debriefing, self-enrichment courses and training will enhance PsyCap, which is directly beneficial to CSNs and indirectly beneficial to patient outcomes.

Conclusion

The CSNs experience the practice environment as favourable except for staffing and resource adequacy. Their perspectives of the practice environment were however significantly affected by the inclusion and acceptability of an orientation program. CSNs had an average satisfaction with life, and higher levels of positive affect. Choice of placement for the community service year was significantly linked to satisfaction with life. CSNs experience compassion stress, which was linked to staffing and resource adequacy. Psycap, specifically hope, was correlated with more positive perceptions of the practice environment, positive affect, and decreased levels of compassion fatigue. In the model, however, only the paths between the practice environment and PsyCap, and PsyCap and SWB were significant at the 10% level, indicating that PsyCap acts as a mediator between PE and SWB but not between PE and CF. The percentage of the total effect that is mediated is 86.6%.

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3.5   ADDENDUM 1: TABLES AND FIGURES

Table 1: Participants Demographics (n=60)

Frequencies		n	%
Gender:	Male	23	38.3
	Female	37	61.7
Nursing was my first choice as career:	Yes	42	77.0
	No	18	30.0
Did you receive any kind of orientation?	Yes	48	80.0
	No	12	20.0
Did your orientation meet your needs?	Completely	8	13.3
	Somewhat	32	53.3
	Not at all	20	33.3
Was your current community service year placement?	1st Choice	23	43.3
	2nd Choice	9	15.0
	3rd Choice	7	11.7
	4th Choice	7	11.7
	5th Choice	6	10.0
	6th Choice	5	8.3
My immediate supervisor is:	A registered nurse	56	93.3
	Other	4	6.7
Speciality area of your current unit:	Med-surgery	6	10.0
	Critical care	2	3.3

	Maternal-Child	9	15.0
	Mental Health	4	6.7
	Primary Health Care	24	40
	Other	15	25
In the last month, how often has short staffing affected your ability to meet your patients/clients' needs?	Never	6	10.0
	Once or twice a month	12	20.0
	Weekly	8	13.3
	Several times a week	9	15.0
	Daily	25	41.7
Average hours worked per week?	Less than 20 hours	1	1.7
	20-39 hours	12	20.0
	Over 40 hours	47	78.3
In the past 6 months, what is the most common reason you missed work?	Physical Illness	31	51.7
	Injury (work related)	23	5.0
	Family Situation	36	10.0
	Mental Health day	24	6.7
	Other	16	26.6
Descriptive Data	**n**	**Mean**	**SD**
Age (in years):	60	23.00	5.42

How many weeks did your orientation last?	60	1.65	2.64
How many mentors did you have during orientation?	60	2.13	2.52
How many patients were assigned to you?	60	31.35	18.13
In the past 6 months, how many times have you missed work due to illness/disability?	60	1.83	2.00
As a result of my education I am well prepared to manage my work as a nurse.	60	4.23	1.33
Date of Graduation (Majority):	60	December 2015 and March 2016	
Date of Hire (Majority):	60	January 2016	

Table 2: Study Variable and Cronbach Alpha coefficients for the study instruments (n= 60)

Variable	Score Range	Mean	SD	Cronbach Alpha
Practice Environment				
Staffing and Resource Adequacy	1 - 4	2.23	0.72	0.66
Collegial Nurse-Physician Relations	1 - 4	2.84	0.57	0.83
Nurse Ability, Leadership and Support of nurses	1 - 4	2.60	0.80	0.82
Nurse Foundations of Quality of Care	1 - 4	2.79	0.57	0.79
Nurse Participation of Hospital Affairs	1 - 4	2.54	0.60	0.78
Subjective Well-being				
SWLS	1 - 7	4.98	1.14	0.79
Positive Affect	1 - 5	3.91	0.80	0.91
Negative Affect	1 - 5	2.10	0.75	0.84
Compassion Fatigue				
Disengaged	1 – 6	2.40	1.10	0.81
Impotent	1 – 6	2.49	1.07	0.83
Unfulfilled	1 – 6	2.26	0.90	0.46
Psychological Capital				
Efficacy	1 – 6	5.75	1.17	0.88
Hope	1 – 6	5.83	0.95	0.83
Resiliency	1 – 6	5.96	0.81	0.60

| Optimism | 1 – 6 | 5.15 | 0.87 | 0.72 |
| | | | | |

Table 3: Correlations between variables

Variables	Positive Affect	Negative Affect	Satisfaction with Life	Disengaged	Impotent	Hopeless	Efficacy	Hope	Resiliency	Optimism
Staffing and Resource Adequacy	0.144	-0.187	0.107	0.235	-.351*[*]	0.091	0.121	0.255	-0.144	0.17
Collegial nurse-physician relations	0.085	0.086	-0.112	0.17	0.178	-0.132	0.007	0.07	0.241	-0.02
Nurse ability, leadership and support	-0.044	-0.071	-0.188	0.129	0.013	0.12	-0.043	0.105	-0.03	0.065
Nurse foundations of quality of care	.427**[**]	-0.054	-0.067	-0.048	-0.08	-0.09	0.151	.319*[*]	-0.2	0.241
Nurse participations of hospital affairs	.341*[*]	-0.076	-0.048	0.121	-0.104	-0.01	0.109	.385**[*]	-0.124	0.121
Efficacy	.437*[***]	-0.138	0.234	0.007	-0.136	-0.025	1	.727**[**]	0.178	.356*[*]
Hope	.619**[**]	-0.288	.441**[**]	0.103	-.413**[*]	-0.163	.727**[**]	1	0.223	.426**[**]

Variables	Positive Affect	Negative Affect	Satisfaction with Life	Disengaged	Impotent	Hopeless	Efficacy	Hope	Resiliency	Optimism
Resiliency	0.109	-0.131	0.02	0.054	0.038	0.003	0.178	0.223	1	0.218
Optimism	0.243	-0.202	0.201	-0.291	-0.275	0.04	.356*[*]	.426**[*]	0.218	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).
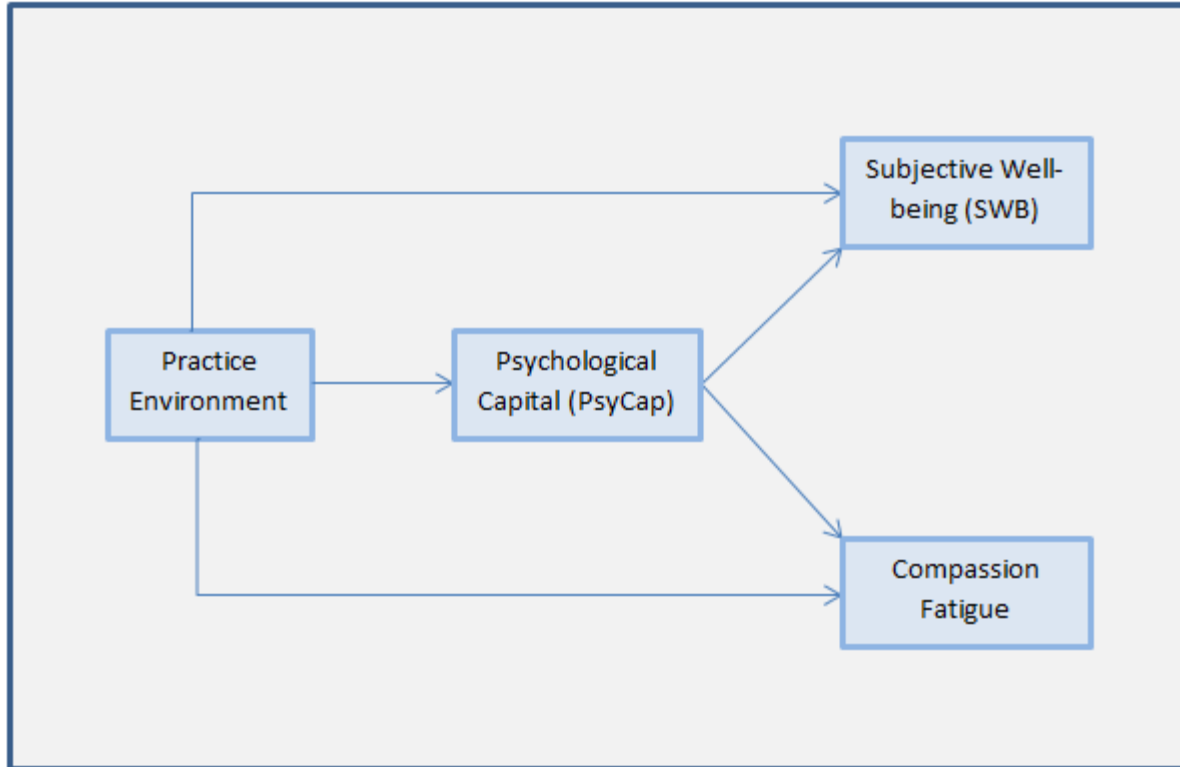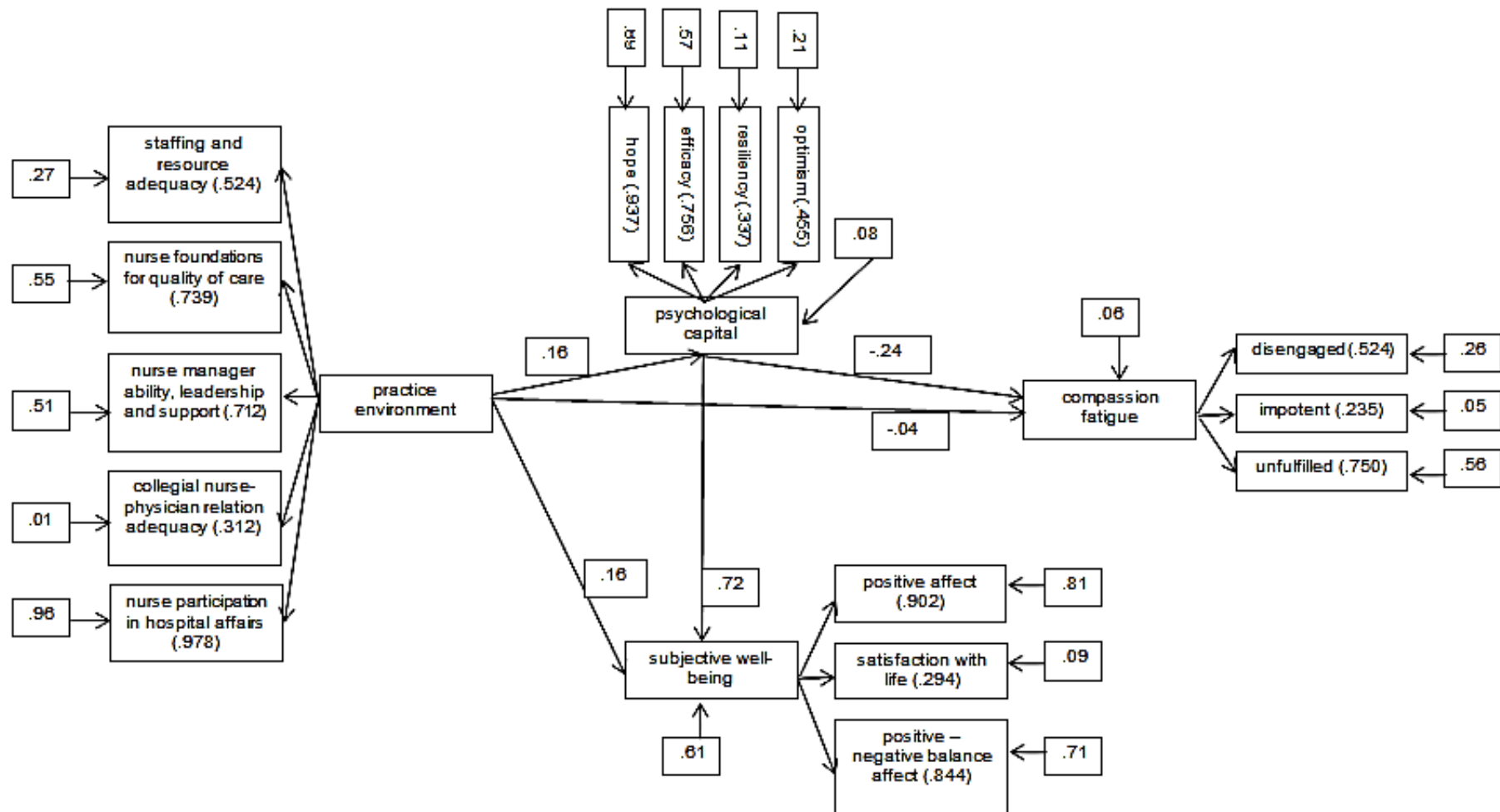
Figure 1: Hypothetical Model

Figure 2: The goodness-of-fit measures for hypothetical model

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

4.1 Introduction

In this chapter, the study is evaluated, limitations of the study are highlighted and recommendations are given for nursing practice, research, nursing education and policy.

4.2 Evaluation of the study

The study was conducted by the researcher in partial fulfillment of the requirements for the degree Magister Curationis in Nursing Science. In undertaking the study the researcher acquired a deepened understanding both of the research process and, more specifically, of the relationship between the practice environment and subjective well-being, compassion fatigue and psychological capital, and also of the mediating effect of psychological capital among these variables among community service nurses who had studied at higher education institutions in NWP.

International and national research has established that the a positive practice environment is associated with better nurse outcomes (lower levels of burnout, increased job satisfaction and retention) (Aiken *et al.*, 2013; Coetzee *et al.*, 2013; You *et al.*, 2013) and patient outcomes (improved quality of care and patient safety) (Aiken *et al.,* 2012; 2013; Coetzee *et al.*, 2013; You *et al.*, 2013). Similar findings have been identified among new graduate nurses internationally (Jackson, 2016; Laschinger *et al.*, 2016), but the practice environment of CSNs has not previously been explored in the South African context.

It is also well established that PsyCap is correlated with positive outcomes (job-embeddedness, job performance, job satisfaction, mental and physical well-being) among new graduate nurses and other nurses (Stam *et al.*, 2013; Laschinger & Fida, 2014; Laschinger & Grau, 2012, Boamah & Laschinger, 2014), and research conducted outside of the nursing discipline has shown that PsyCap predicts personal accomplishment and SWB, and moderates negative outcomes (Afzal *et al.*, 2014; Krok, 2015; Culbertson *et al.*, 2010).

Although a number of studies have been conducted on the practice environment of registered nurses there has not been any exploration, so far as the researcher has been able to ascertain, either of the influence of the practice environment on SWB, specifically on affect and compassion fatigue, in the nursing discipline or elsewhere, nor of the moderating

effect of PsyCap on the development of SWB and compassion fatigue in the nursing discipline. This gap in the body of knowledge gave rise to the following objectives for the research study:

- To describe the influence of the practice environment on subjective well-being in community service nurses who had studied at higher education institutions in North West province.

- To describe the influence of the practice environment on compassion fatigue in community service nurses who had studied at higher education institutions in North West province.

- To describe the influence of the practice environment on psychological capital in community service nurses who studied at higher education institutions in North West province.

- To describe how psychological capital mediates the effect of the practice environment on both subjective well-being and compassion fatigue.

To this end, a model was also presented along with hypotheses in seeking to meet the research objectives (see Figure 4-1)
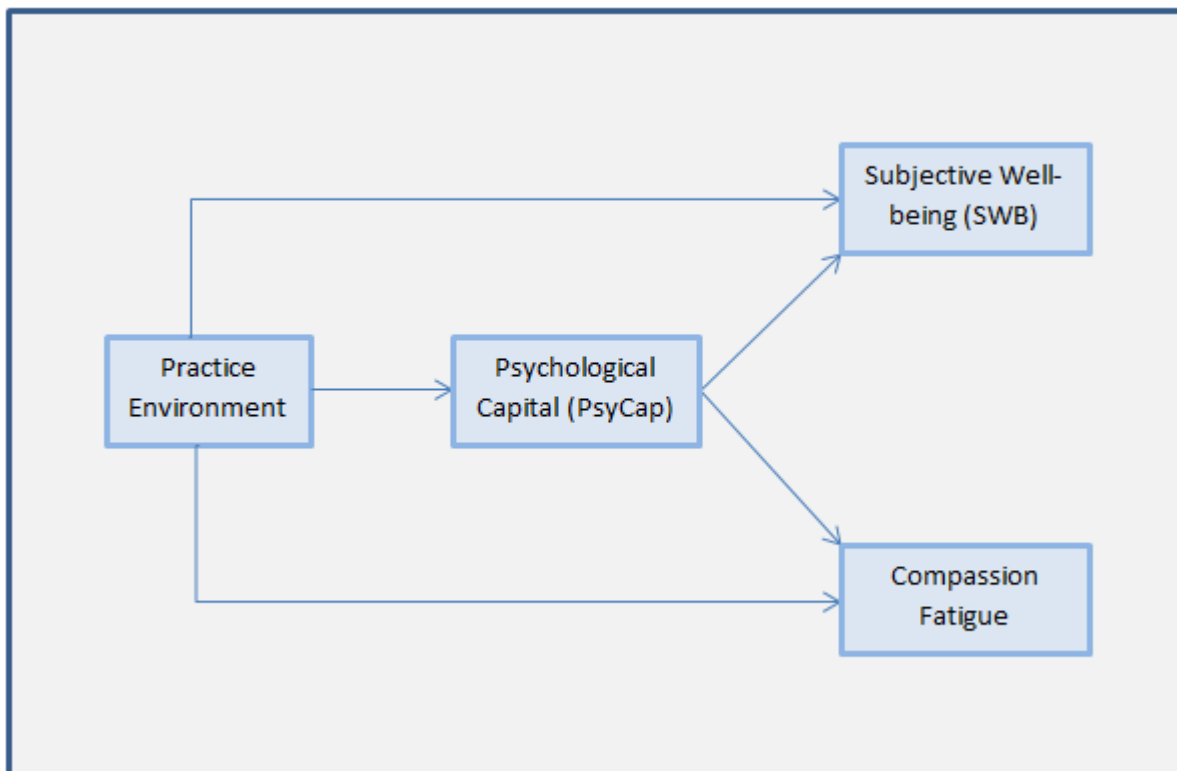
Figure 4-1: The proposed model

The model posed the following hypotheses:

Ha1 - There is a positive relationship between a positive practice environment and the subjective well-being of community service nurses who studied at higher education institutions in North West province.

Ha2 - There is a negative relationship between a positive practice environment and the development of compassion fatigue in community service nurses who studied at higher education institutions in North West province.

Ha3 - There is a positive relationship between a positive practice environment and the psychological capital of community service nurses who studied at higher education institutions in North West province.

Ha4 - Psychological capital moderates the positive relationship between practice environment and subjective well-being.

Ha5 - Psychological capital moderates the negative relationship between practice environment and compassion fatigue.

In pursuing the research objectives, the study used a cross-sectional survey design. The study was conducted in North West province, South Africa. The researchers purposively chose this province because it is a rural province and because no study had previously been conducted on CSNs in this province. An all-inclusive sample was used, and all CSNs who completed their training in 2015 at any higher education institution in NWP and who began their community service year in 2016 were invited to participate in the study. The sample consisted of 284 CSNs, of whom 60 CSNs participated in the study, giving a response rate of 21.1%. The survey consisted of five instruments, PES-NWI (Lake, 2002), CPI (Coetzee & Laschinger, 2017), PANAS (Watson *et al.*,1988), SWLS (Diener *et al.*,1985) and PCQ (Luthans, Avolio, *et al.*, 2007), along with demographic data. Participants were invited by a mediator independent of the study who sent SMS invitations to all participants containing a URL link to the survey on Survey Monkey. Invitations were sent on days 1, 3 and 7. This round of invitations did not yield a viable response rate, and the researchers then applied for an amendment to the ethics application to conduct a second round of invitations with addition of an incentive, which was entry in a lucky draw to win a Samsung Galaxy Note 10.1. The second round of invitations was again sent out by an independent mediator of the study as per the previous round. This round again did not yield an adequate response rate and ethical permission was granted to conduct a third round. This round, too, was unsuccessful. The researcher applied for goodwill consent from the CEOs of the selected hospitals on 1 December 2016, but after repeated follow-up the goodwill consent was not received, and CSNs completed their community service year on 31 December 2016. The third round proposal had been for the researcher to visit all tertiary hospital institutions in NWP, recruit participants using the nurse manager as mediator, allow 24 hours to complete informed consent, and then have CSNs complete the surveys in a structured interview format in a private room in the selected hospital. Data was collected over a 6-week period.

Data was analyzed using the computer software programmes SPSS Version 23 (SPSS Inc, 2016) and AMOS Version 23 (2016). Demographics and the results of scales were presented with descriptive statistics (means, frequencies, percentages and standard deviations). The reliability of the instruments was established by Cronbach's alpha, and validity through confirmatory factor analysis. In addition, the hypotheses of the study, and the relationships between demographics and the study variables were tested utilizing inferential statistics (Spearman's rank-order correlations, cross-tabs, effect sizes, t-tests and ANOVA's). The model (Figure 4.1) was tested using SEM.

To determine whether the research objectives were achieved, each hypotheses is discussed below.

Hypothesis 1 tested the possible positive relationship between a positive practice environment and the subjective well-being of CSNs who studied at higher education institutions in North West province. The study found that there is a medium statistically significant positive correlation between positive affect with nurse foundations of quality of care (r = 0.427; p = 0.003) and nurse participation in hospital affairs (r = 0.341; p = 0.003). For this reason, **hypothesis 1 is accepted.**

Hypothesis 2 tested the possible negative relationship between a positive practice environment and compassion fatigue in community service nurses who studied at higher education institutions in North West province. The study found that there is a medium statistically significant negative correlation between staffing and resource adequacy and impotence (r = −0.351; p = 0.013). For this reason, **hypothesis 2 is accepted.**

Hypothesis 3 tested the possible positive relationship between a positive practice environment and the psychological capital of community service nurses who studied at higher education institutions in North West province. There is a medium statistically significant positive correlation between hope and nurse participation in hospital affairs (r = 0.385; p = 0.010) and nurse foundations of quality of care (r=0.319; p=0.035). For this reason, **hypothesis 3 is accepted.**

Hypothesis 4 tested whether psychological capital mediates the positive relationship between practice environment and subjective well-being. The study found that there is a medium statistically significant positive correlation between efficacy (r = 0.437; p = 0.003); hope (r = 0.619; 0.000) and positive affect. There is also a medium statistically significant positive correlation between hope (r = 0.441; p = 0.003) and satisfaction with life. For this reason, **hypothesis 4 is accepted.**

Hypothesis 5 tested whether psychological capital mediates the negative relationship between practice environment and compassion fatigue. The study found that there is a medium statistically significant negative correlation between hope (r = −0.413; p = 0.005) and impotence. For this reason, **hypothesis 5 is accepted**.

SEM was applied to test the hypothetical model (Figure 4-1). The goodness- of- fit measures for model 1 (Figure 4-2) were CMIN/DF=1.519, CFI=0.813 and RMSEA=0.094 with 90% confidence interval of [0.059; 0.125], indicating an acceptable fit. Only the paths between the practice environment and PsyCap and between PsyCap and SWB were significant at the 10% level, indicating that PsyCap acts as a mediator between the practice environment and

SWB but not between the practice environment and compassion fatigue. The percentage of the total effect that is mediated is 86.6%.
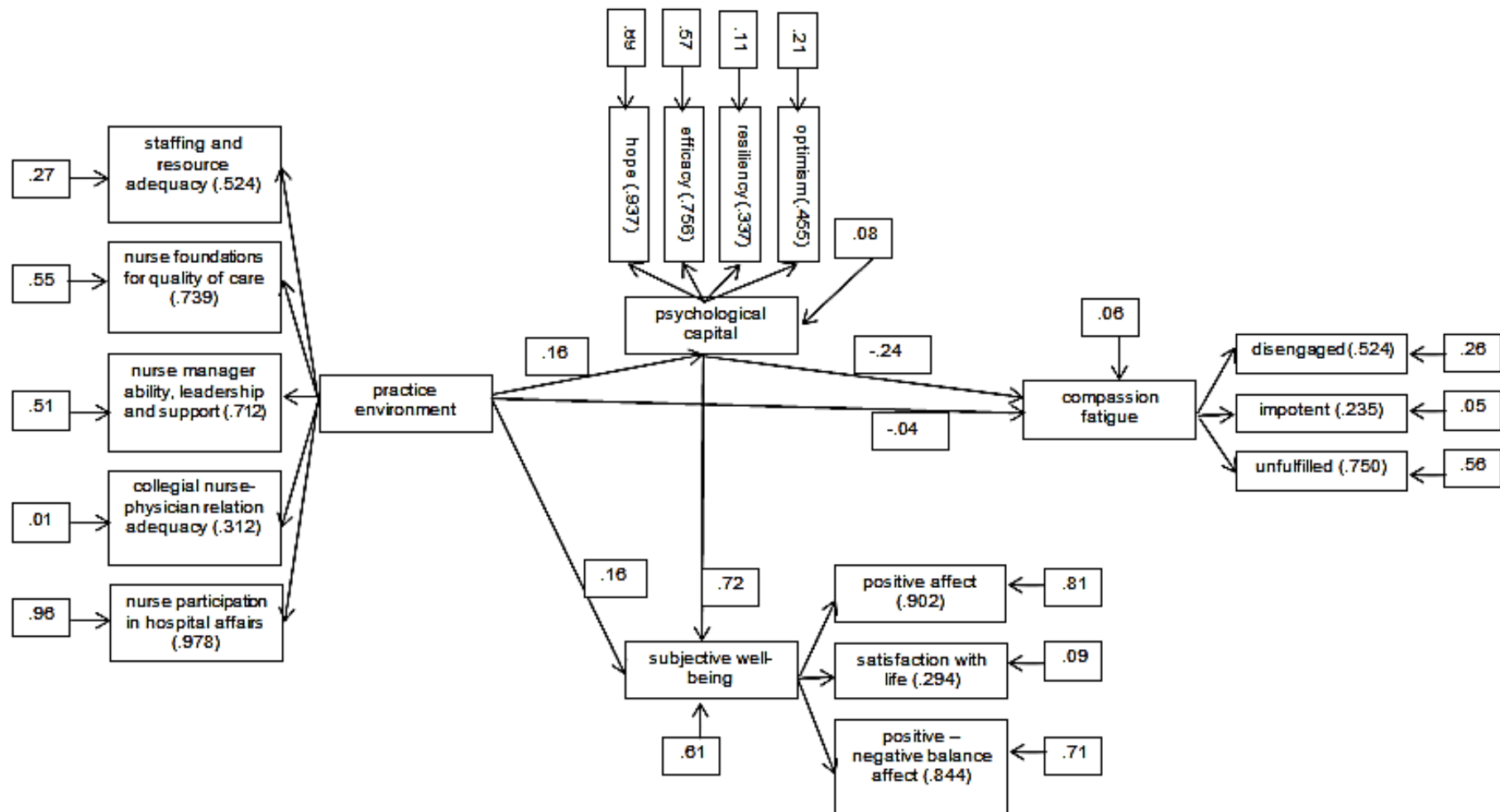
Figure 4-2: The goodness-of-fit measures for hypothetical model

The relationship between demographics and the study variables were also studied. In associations between the variables there was a large, practically and statistically significant difference between gender and perception of adequacy in staffing and resources (d=0.58; p=0.029), with male respondents viewing this more positively. Likewise, there was a large practically and statistically significant difference between receiving orientation and perceptions of management, leadership and support of nurses (d =1.05; p = 0.002), quality of care (d = 0.57; p = 0.038), and nurse participation in hospital affairs (d = 0.51; p = 0.040).

Correlations between the study variables and demographics show that there is a medium statistically significant positive correlation between age and positive affect (r = 0.647; p = 0.000), efficacy (r = 0.350; p = 0.020), hope (r = 0.367; p = 0.014), and a small statistically significant negative correlation between age and disengaged (r = −0.303; p = 0.034) and impotent (r = −0.293; p = 0.041). There is a medium statistically significant positive correlation between the duration in weeks of the orientation and quality of care (r = 0.351; p = 0.009) and nurse participation in hospital affairs (r = 0.367; p = 0.006), and a small statistically significant positive correlation with management, leadership and support of nurses (r = 0.332; p = 0.013). There is a medium statistically significant negative correlation between orientation having met the CSNs expectations and quality of care (r = −0.444; p = 0.001), and a small statistically significant negative correlation with management, leadership and support of nurses (r = −0.318; p = 0.018) and nurse participation in hospital affairs (r = −0.302; p = 0.025). There is a medium statistically significant negative correlation between choice of community service year placement and satisfaction with life (r = −0.395; p = 0.007). There is a medium statistically significant negative correlation between staff shortage affecting CSNs ability to meet patients' needs and staffing and resource adequacy (r = −0.529; p = 0.000) and management, leadership and support of nurses (r = −0.368; p = 0.006), and a small statistically significant negative correlation between quality of care (r = −0.305; p = 0.023) and nurses participation in hospital affairs (r = −0.307; p = 0.023). There is a small statistically significant negative correlation between CSN absenteeism and quality of care (r = −0.325; p = 0.016).

4.3 Limitations

According to Grove *et al.* (2013:598, 699), limitations are restrictions or weaknesses (theoretical and methodological) that reduce the generalizability of the findings of a study. Although three stages of data collection were proposed, of which the first two were applied and the third failed, a poor response rate was obtained (21% response rate) which limits generalisation of the study's findings. The SWLS, PANAS and PsyCap scales had relatively unacceptable fit indices, although all the subscales were reliable except for the unfulfilled subscale of the CPI. These instruments had however been used in the South African context before, and had proved valid

and reliable (Klopper *et al.*, 2012; Du Plessis & Guse, 2016; Wissing *et al.*, 2014:23; Hlongwane, 2016; Görgens-Ekermans & Herbert, 2013)

4.4 Recommendations

"Recommendations include ideas that emerged from the present study and previous studies in the same area that can provide direction for the future" (Grove *et al.*, 2013:599). Future investigation will now be directed towards nursing practice, nursing research, nursing education and policy development.

4.4.1 Recommendations for nursing practice

The study gave indications that there might be positive outcomes when effort is made to improve all aspects of the practice environment, especially in relation to staffing and resource adequacy. Possible outcomes could be that nurses experience more positive emotions, feel that they make a difference in patient's lives, and less often abstain from work. Healthcare facilities should also give CSNs opportunity to be involved in patient, nursing and organization affairs, as this improves nurse and patient outcomes.

Orientation for nurses is important and should be emphasized by health facilities. Duration of orientation and number of mentors in the orientation can give nurses a better perception of aspects of the practice environment and reduce negative affect of nurses. It would thus be advisable for the national Department of Health to develop a single, common, structured orientation programme for all CSNs.

Health facilities should offer self-enrichment courses and training that will enhance PsyCap as this will be directly beneficial to CSNs and indirectly beneficial to patient outcomes.

4.4.2 Recommendations for nursing research

The study found some interesting associations, although not consistently statistically significant: one being that male CSNs had better perceptions of aspects of the practice environment, less negative affect, better satisfaction with life and more resilience, but also greater disengagement. Variations of this kind, including, but not limited to, practice environment, SWB, compassion fatigue and PsyCap should be studied among the male nurse population.

In support of the recommendation for a single, common, structured orientation programme, research could be done on developing a programme of the nature that would sufficiently meet the needs of CSNs.

4.4.3 Recommendations for nursing education

Both compassion fatigue and PsyCap can be developed through intervention programmes such as workshops. CSNs show that they have compassion distress, and, surprisingly, in the first year of full-time practice. Enhancing PsyCap would help these CSNs to be more resilient, hopeful, self-efficient and optimistic. This indicates a serious need for inclusion in undergraduate education and continued professional development programs of workshops to address compassion fatigue and nurture PsyCap. These should be targeted not only towards the novice nurse population but extended also to the wider nurse population so that all nurses can reap the benefits of heightened compassion and PsyCap.

4.4.4 Recommendations for policy development

The study showed that nurses who received their first choice of community service year placement had better satisfaction with life. The DoH should therefor endeavour to place CSNs in their preferred facility.

The DoH should institute policies that give CSNs access to a placement list indicating exactly how many students must be placed in that year and the number of placements available at each health care facility, so that the CSNs have a realistic idea of the placement process.

4.5 Conclusion

The study was evaluated, limitations to the study were identified and recommendations were proposed for various entities (nursing practice, future nursing research, nursing education and nursing policy). Through sound application of the research process, the researcher achieved the objectives of the study in describing the influence of the practice environment on subjective well-being, describing the influence of the practice environment on compassion fatigue, describing the influence of the practice environment on PsyCap, and describing how PsyCap mediates the effect of the practice environment on both subjective well-being and compassion fatigue among all CSNs who had studied at higher education institutions in North West province.

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APPENDIX A – LANGUAGE EDITING REPORT

grammarline
editing services

23 April 2017

To whom it may concern

This is to certify that the dissertation by Jan Dirk Visagie Holtzhausen entitled 'The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue' has been edited by me for English grammar, idiom, orthography, punctuation and sentence structure.

I will be happy to furnish additional information if requested.

David Newmarch BA (Hons)(Natal), M Phil (York)

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Associate

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082 554 9090 (c) • 031 261 2197 (h) • grammarline@gmail.com

APPENDIX B – INFORMED CONSENT FORM


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│       HREC Stamp        │
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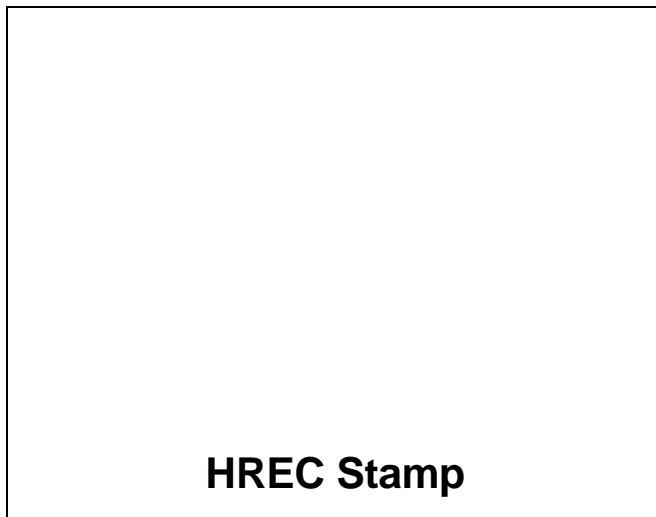
PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR 2016 COMMUNITY SERVICE NURSES THAT STUDIED AT HIGHER EDUCATION INSTITUTIONS IN THE NORTH WEST PROVINCE

TITLE OF THE RESEARCH PROJECT: The influence of the practice environment on Community Service Nurses' subjective well-being and compassion fatigue.

REFERENCE NUMBERS:

PRINCIPAL INVESTIGATORS: Prof SK Coetzee & Mr JDV Holtzhausen

ADDRESS: 11 Hoffman Street, Potchefstroom, 2520

CONTACT NUMBER: 018 299 1879 (Prof SK Coetzee)

                         082 631 0554 (Mr JDV Holtzhausen)

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You are being invited to take part in a research project in requirement for the degree *Magister Curationis* in the School of Nursing Science at the North-West University (Potchefstroom Campus) for JDV Holtzhausen. 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 this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00081-16-S1)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and 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 would like to explore how the practice environment (such as staffing and resources, relationships with physicians, leadership and management) and your work psychological capital (such as hope, resilience, efficacy and optimism) influence the development of subjective well-being and compassion fatigue.*
>
> *The objectives of the research are:*
>
> - *To describe the influence of the practice environment on compassion fatigue in community service nurses who studied at higher education institutions in the North West province.*
>
> - *To describe the influence of the practice environment on subjective wellbeing in community service nurses who studied at higher education institutions in the North West province.*
>
> - *To describe how psychological capital mediates the effect of the practice environment on both compassion fatigue and subjective well-being.*

Why have you been invited to participate?

> ➤ *You have been invited to participate because you are a community service nurse, who completed your nursing studies at a higher education institution in the North West province.*

- You have also complied with the following inclusion criteria:

  - *A community service nurse who completed your nursing studies at any higher education institution in the North West province in 2015.*
  - *A community service nurse who commenced your community service year in 2016.*

- Exclusion criteria

  - *All community service nurses that completed their nursing studies at a higher education institution outside of the North West Province, even if they complete their community service year in the North West province.*

What will your responsibilities be?

- *You will be expected to complete a survey on the internet.*
- *This survey can be completed at any time and place that is most convenient to you.*
- *If there has been little participation via a survey on the internet, the researcher will conduct structured interviews using the survey.*
- *The survey will take about ±30 minutes to complete.*

Will you benefit from taking part in this research?

You have the option to be entered into a lucky draw to win a Samsung Galaxy 10.1. Upon completion of the survey you will receive instructions on how to enter the lucky draw, should you wish to do so.

This study will be beneficial to future community service nurses, hospital management, nursing schools and policy makers as it will provide information regarding community service nurses' perception of the practice environment, their psychological capital and their experience of subjective well-being and compassion fatigue, as well as how the practice environment and psychological capital influence the development of subjective well-being and compassion fatigue.

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

- *There is minimal risk associated with this study. The only possible risks that can be identified is that you may get bored completing the survey. To overcome this risk we have ensured that the topic is relevant and it is interesting, that the surveys are short, easy to understand and quick to complete.*

- *Another risk is that while completing this survey you may become aware that you are working in an unfavourable practice environment or that you have symptoms of negative affect or compassion fatigue. In this event please contact the project head, Prof SK Coetzee, to express your discomfort, so that necessary counselling arrangements can be made.*

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?

Should you experience any discomfort as a result of partaking in this research survey, please contact the project head, Prof SK Coetzee, that necessary counselling arrangements can be made.

Who will have access to the data?

- *An IT technician that is not involved in the project, and has no relationship with the School of Nursing Science (Potchefstroom Campus), the BCur IV 2016 students or the project heads, will have access to your cellphone number that will not be linked to your name.*
- *You will be completing the survey on the internet and will not be adding any personal information; therefore you can never be linked to the data in any way.*
- *The details you provide to be entered into the lucky draw can't be linked to your survey in any way.*

What will happen with the data/samples?

- *The combined data for the group will be stored on a password protected computer in the office of the research head, Prof SK Coetzee, and deleted after 5 years.*

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 for you, if you do take part. However, at the end of the survey, you will be given instructions of how to enter a lucky draw to win a Samsung Galaxy 10.1.*
- *The lucky draw will take place when the results are presented and the prize will then be posted by courier to the winner, should they not be present at the presentation*
- *IMPORTANT: PLEASE DO NOT TAKE PART IN THE SURVEY IF YOU HAVE PREVIOUSLY DONE SO.*
- *If you have already participated in the research study, you may email Prof S.K Coetzee at Siedine.Knobloch@nwu.ac.za stating that you have already participated in the study and she will send you instructions on how to enter the lucky draw.*

Is there anything else that you should know or do?

- ➢ You can contact Prof Siedine Coetzee 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 1206; 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 study will be presented to the North West Department of Health and an article will be written. You will be invited by SMS to the presentation, and also receive an http link to the Power Point presentation and article if you are unable to attend the presentation.

Declaration by participant

- • 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.

☐ I AGREE

☐ I DECLINE

APPENDIX C – ETHICS APPROVAL FROM NORTH WEST UNIVERSITY

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

2016/09/27

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

ETHICS APPROVAL CERTIFICATE OF STUDY

Based on approval by **Health Research Ethics Committee (HREC)** on **21/09/2016**, after being reviewed at the meeting held on **13/07/2016**, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby **approves** your study 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 study may be initiated, using the ethics number below.

Study title: **The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue.**

Study Leader/Supervisor: **Prof SK Coetzee**
Student: JDV Holtzhausen

Ethics number:

N	W	U	-	0	0	0	8	1	-	1	6	-	A	1
Institution				Study Number						Year			Status	

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

Application Type: Single Study
Commencement date: 2016-09-21

Risk: **Minimal**

Continuation of the study is dependent on receipt of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation up to a maximum period of three years.

Special conditions of the approval (if applicable):

- Translation of the informed consent document to the languages applicable to the study participants should be submitted to the HREC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the HREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

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 study leader (principle investigator) must report in the prescribed format to the NWU-IRERC via HREC:*
  - *annually (or as otherwise requested) on the monitoring of the study, and upon completion of the study*
  - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *Annually a number of studies may be randomly selected for an external audit.*
- *The approval applies strictly to the proposal as stipulated in the application form. Would any changes to the proposal be deemed necessary during the course of the study, the study leader must apply for approval of these amendments at the HREC, prior to implementation. Would there be deviated from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *The date of approval indicates the first date that the study may be started.*
- *In the interest of ethical responsibility the NWU-IRERC and HREC retains the right to:*
  - *request access to any information or data at any time during the course or after completion of the study;*
  - *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.*
  - *withdraw or postpone approval if:*
    - *any unethical principles or practices of the study are revealed or suspected,*
    - *it becomes apparent that any relevant information was withheld from the HREC or that information has been false or misrepresented,*
    - *the required amendments, annual (or otherwise stipulated) report and reporting of adverse events or incidents was not done in a timely manner and accurately,*
    - *new institutional rules, national legislation or international conventions deem it necessary.*
- *HREC can be contacted for further information or any report templates via Ethics-HRECApply@nwu.ac.za or 018 299 1206.*

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

Yours sincerely

Prof LA
Du Plessis

Digitally signed by
Prof LA Du Plessis
Date: 2016.09.28
09:58:04 +02'00'

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

APPENDIX D – ETHICAL CLEARANCE FROM NORTH WEST DEPARTMENT OF HEALTH: POLICY, PLANNING, RESEARCH, MONITORING AND EVALUATION

health
Department of
Health
North West Province
REPUBLIC OF SOUTH AFRICA

Cnr Sekame & First Street   Enq: Nthabiseng Mapogo
New Office Park   Tel: 018 391 4504
Mafiheng, 2745   Fax: 018 388 6202
Private Bag X2068   NMapogo@nwpg.gov.za
MMABATHO, 2735   www.nwhealth.gov.za

NDP 2030

POLICY, PLANNING, RESEARCH, MONITORING AND EVALUATION

Name of researcher : Mr. J.D.V. Holtzhausen
North West University

Physical Address   _____

(Work/ Institution)   _____

                                   _____

Subject   : Research Approval Letter – The influence of the practice
environment on community service nurses' subjective well-being
and compassion fatigue.

This letter serves to inform the Researcher that permission to undertake the above mentioned study has been granted by the North West Department of Health. The Researcher is expected to arrange in advance with the chosen facilities, and issue this letter as proof that permission has been granted by the Provincial office.

This letter of permission should be signed and a copy returned to the department. By signing, the Researcher agrees, binds him/herself and undertakes to furnish the Department with an electronic copy of the final research report. Alternatively, the Researcher can also provide the Department with electronic summary highlighting recommendations that will assist the department in its planning to improve some of its services where possible. Through this the Researcher will not only contribute to the academic body of knowledge but also contributes towards the bettering of health care services and thus the overall health of citizens in the North West Province.

Kindest regards

Mr. L.P. Moaisi
Acting Director: PPRM&E
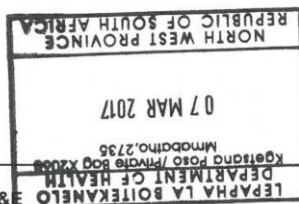
07/03/2017
Date

08/03/2017

Researcher   Date

Healthy Living for All

1

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APPENDIX E – COMPLETE SURVEY

Section A Biographical data

1. Gender:
   □ Female
   □ Male

2. Age (in years):_____

3. Date of Graduation (Month, Year): _____

4. Date of Hire *(as Community Service Nurse)*:_____

5. Did you receive any kind of orientation?
   □ No
   □ Yes   Describe briefly_____

6. How many weeks did your orientation last (in weeks)?_____

7. Did your orientation meet your needs?
   □ Completely
   □ Somewhat
   □ Not At All

8. How many *mentors* did you have during your orientation? _____

9. Was your current community service year placement
   □ Your 1st choice
   □ Your 2nd choice
   □ Your 3rd choice
   □ Your 4th choice
   □ Your 5th choice
   □ Not one of your choices

10. Nursing was my first choice as a career
    □ Yes
    □ No, please explain_____

11. My immediate supervisor is:
    □ A registered nurse
    □ Other, please explain_____

12. Specialty area of your current unit:
    □ Med-Surgery
    □ Critical Care
    □ Maternal-Child
    □ Mental Health
    □ Other, please state_____

13. How many patients were on your unit during the last shift? _____ # of pts.

14. How many of these patients were assigned to you? _____ # of pts.

15. **<u>In the last month</u>**, how often has short staffing affected your ability to meet your patients/clients' needs?
  - □ never
  - □ once or twice a month
  - □ weekly
  - □ several times a week
  - □ daily

16. Average hours worked per week?
  - □ less than 20 hours
  - □ 20-39 hours
  - □ over 40 hours

17. In the past year, has the amount of overtime required of you:
  - □ Increased
  - □ Remained the Same
  - □ Decreased
  - □ Not Applicable

18. In the past 6 months, how many times have you missed work due to illness/disability? ____ # of times

19. In the past 6 monts, what is the most common reason you missed work? (choose only **<u>one</u>**)
  - □ Physical illness
  - □ Injury (work related)
  - □ Family situation
  - □ Mental health day

20. As a result of my education I am well prepared to manage my work as a nurse.

Fully   Disagree
Fully Agree

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

21. How long do you expect to stay active as a nurse (in years)?⌐⌐⌐⌐⌐⌐⌐⌐⌐⌐⌐

Section B Practice Environment (Lake, 2002)

Please indicate the extent to which you agree that each of the following features is present in your current job.

	1 Strongly Disagree	2 Somewhat Disagree	3 Somewhat Agree	4 Strongly Agree
1. Adequate support services allow me to spend time with my patients.				
2. Physicians and nurses have good working relationships.				

3. A supervisory staff that is supportive of nurses.				
4. Active staff development or continuing education programs for nurses.				
5. Career development/clinical ladder opportunity.				
6. Opportunity for registered nurses to participate in policy decisions.				
7. Physicians value nurses' observations and judgements.				
8. Enough time and opportunity to discuss patient care problems with other nurses.				
9. Enough registered nurses on staff to provide quality patient care.				
10. A nurse manager who is a good manager and leader.				
11. A chief nursing officer who is highly visible and accessible to staff.				
12. Enough staff to get the work done.				
13. Physicians recognize nurses' contributions to patient care.				
14. Praise and recognition for a job well done.				
15. High standards of nursing care are expected by the management.				
16. A chief nursing officer is equal in power and authority to other top level hospital executives.				
17. A lot of team work between nurses and physicians.				
18. Opportunities for advancement.				
19. A clear philosophy of nursing that influences the patient care environment.				
20. Working with nurses who are clinically competent.				
21. Physicians respect nurses as professionals.				
22. A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.				
23. Management that listens and responds to employee concerns.				
24. An active quality assurance program.				
25. Registered nurses are involved in the internal governance of the hospital (e.g, practice and policy committees).				
26. Collaboration between nurses and physicians.				
27. An induction program for newly hired nurses.				
28. Nursing care is based on a nursing rather than a medical model.				
29. Registered nurses have the opportunity to serve on hospital and nursing committees.				

30. Physicians hold nurses in high esteem.				
31. Written, up-to-date care plans for all patients.				
32. Patient care assignments that foster continuity of care (i.e., the same nurse care for the patient from one day to the next).				

Section C: Positive and Negative Affect Schedule (Watson *et al.*, 1988)

1 = Very Slightly or Not at All	2 = A Little	3 = Moderately	4 = Quite a Bit	5 = Extremely

This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment *OR* indicate the extent you have felt this way over the past week (circle the instructions you followed when taking this measure).

_____ 1. Interested

_____ 2. Distressed

_____ 3. Excited

_____ 4. Upset

_____ 5. Strong

_____ 6. Guilty

_____ 7. Scared

_____ 8. Hostile

_____ 9. Enthusiastic

_____ 10. Proud

_____ 11. Irritable

_____ 12. Alert

_____ 13. Ashamed

_____ 14. Inspired

_____ 15. Nervous

_____ 16. Determined

_____ 17. Attentive

_____ 18. Jittery

_____ 19. Active

_____ 20. Afraid

Section D: Satisfaction with Life Scale (Diener, *et al.*, 1985)

1 = Strongly disagree	2 = Disagree	3 = Slightly disagree	4 = Neither agree nor disagree	5 = Slightly agree	6 = Agree	7 = Strongly agree

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

1. In most ways my life is close to my ideal	1	2	3	4	5	6	7
2. The conditions of my life are excellent.	1	2	3	4	5	6	7
3. I am satisfied with my life.	1	2	3	4	5	6	7
4. So far I have gotten the important things I want in life.	1	2	3	4	5	6	7
5. If I could live my life over, I would change almost nothing.	1	2	3	4	5	6	7

Section E: Compassion Practice Instrument (Coetzee & Lashinger, 2017),

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

Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

1	I struggle to connect with patients.		1 2 3	4 5 6	
2	I am unable to provide the kind of care to patients that I would like to.		1 2 3	4 5 6	
3	I have no energy to work with patients.		1 2 3	4 5 6	
4	I doubt I make much difference in the lives of patients.		1 2 3	4 5 6	
5	I struggle to open myself up to patients' suffering and sorrow.		1 2 3	4 5 6	
6	I am unable to meet patients' needs the way I would like to		1 2 3	4 5 6	
7	I have nothing more to give patients emotionally.		1 2 3	4 5 6	
8	I am unable to see meaning and purpose in caring for patients.		1 2 3	4 5 6	
9	I try to shield (protect) myself from patients' suffering and sorrow.		1 2 3	4 5 6	
10	I feel that patients deserve better care than I can provide.		1 2 3	4 5 6	
11	I feel too tired to interact with patients.		1 2 3	4 5 6	
12	Caring for patients provides me with no satisfaction.		1 2 3	4 5 6	
13	I try to limit contact with patients as much as possible.		1 2 3	4 5 6	
14	I feel that I should provide better care to patients than I currently do.		1 2 3	4 5 6	
15	I am unable to bounce back the way I used to.		1 2 3	4 5 6	
16	Caring for patients is a thankless job.		1 2 3	4 5 6	
17	I distance myself emotionally from patients.		1 2 3	4 5 6	
18	I fail to meet patient's needs.		1 2 3	4 5 6	

19	I have lost balance in my life.	1 2 3 4 5 6
20	I feel that no matter how hard I try, it's never good enough.	1 2 3 4 5 6
21	I have lots of energy to invest in patients.	1 2 3 4 5 6
22	I am unable to help patients the way I would like to.	1 2 3 4 5 6
23	I do not live up to my expectations of providing patient care.	1 2 3 4 5 6
24	I can identify with patients' feelings.	1 2 3 4 5 6
25	I struggle to identify with patients' suffering and sorrow.	1 2 3 4 5 6
26	I do not live up to others (patients, families and colleagues) expectation of providing patient care.	1 2 3 4 5 6
27	I can't give my patients the care they need.	1 2 3 4 5 6
28	I feel that the care I provide to patients does not live up to standards.	1 2 3 4 5 6
29	Caring for patients does not live up to my expectations.	1 2 3 4 5 6
30	Caring for patient makes me feel empty inside.	1 2 3 4 5 6
31	I never notice when patients are upset	1 2 3 4 5 6
32	I feel like I am a "failure" as a caregiver	1 2 3 4 5 6

Section F: Psychological Capital Questionnaire

1 = Strongly disagree	2 = Disagree	3 = Slightly disagree	4 = Neither agree nor disagree	5 = Slightly agree	6 = Agree	7 = Strongly agree

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

1. I feel confident analyzing a long-term problem to find a solution.	1 2 3 4 5 6 7
11. I can think of many ways to reach my current work goals.	1 2 3 4 5 6 7
24. I approach this job as if "every cloud has a silver lining."	1 2 3 4 5 6 7

NOTE: In compliance with the agreement to use this instrument, only 3 sample items may be reproduced for the dissertation (see appendix F).

APPENDIX F – PERMISSION TO USE PSYCHOLOGICAL CAPITAL QUESTIONNAIRE

Jan Dirk Visagie Holtzhausen

mind garden

To whom it may concern,

This letter is to grant permission for Jan Dirk Visagie Holtzhausen to use the following copyright material:

Instrument: *Psychological Capital (PsyCap) Questionnaire (PCQ)*

Authors: *Fred Luthans, Bruce J. Avolio & James B. Avey.*

Copyright: *"Copyright © 2007 Psychological Capital (PsyCap) Questionnaire (PCQ) Fred L. Luthans, Bruce J. Avolio & James B. Avey. All rights reserved in all medium."*

for his/her thesis/dissertation research.

Three sample items from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.
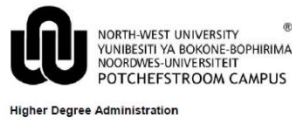
The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,

Mind Garden, Inc.
www.mindgarden.com

APPENDIX G – PLAGIARISM DECLARATION

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

Higher Degree Administration

I, Jan Dirk Visagie Holtzhausen, student number 23753358, declare that:

- **The influence of the practice environment on community service nurses' subjective well-being and compassion fatigue,** is my own original work and all sources have been acknowledged by means of complete reference.

- The study has been approved by the Research Ethics Committee (humans), Health Science Faculty, North West University (Potchefstroom Campus), ethics number: *NWU-00081-16-A1*

- The whole study complies with the research ethical standards of the North West University, Potchefstroom Campus.

_____

JDV Holtzhausen

24/04/2017

LAST UPDATED: 25 APRIL 2017