

Burnout, empowerment, workplace relationships and the practice environment: an intervention programme for critical care nurses

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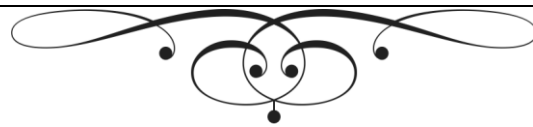
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Co-Promoter: **Prof HC Kloppe**

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FOR MY MOM AND DAD



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SUMMARY

BACKGROUND: A recent national study showed that critical care nurses and medical-surgical nurses in South Africa have high levels of burnout – higher than most other countries in the world. These high levels of burnout amongst registered nurses in South Africa were particularly associated with the practice environment and also with nurse staffing ratios. However, such burnout levels cannot be explained by the status of the practice environment and nurse to patient ratios alone. Other variables that are associated with high levels of burnout in the literature include issues such as empowerment (structural and psychological) and workplace relationships (incivility and bullying).

AIM: The aim of this research study was to develop an intervention programme to decrease the levels of burnout amongst critical care nurses in a private hospital group in the Gauteng Province of South Africa.

METHODS: This cross-sectional correlational survey study was conducted in a private hospital group in the Gauteng Province of South Africa. The sample included 15 private hospitals from the selected private hospital group. 20 critical care units from the selected private hospitals were included. A total of 209 critical care nurses participated in the study with a response rate of 49%. The methods used in Phase 1 of the study included the Maslach Burnout Inventory (measuring burnout), Conditions for Work Effectiveness Questionnaire – II, (measuring structural empowerment), Psychological Empowerment Instrument, (measuring psychological empowerment), Nursing Incivility Scale (measuring incivility), Negative Acts Questionnaire – Revised (measuring bullying behaviour) and the Practice Environment Scale of Nurses Work Index – Revised (measuring the status of the practice environment), together with a demographic checklist for the participants and the critical care unit. In Phase two, an eclectic method of curriculum and strategic development was applied to develop an

intervention programme to decrease the levels of burnout amongst critical care nurses.

RESULTS: The analysis revealed that critical care nurses in general are moderately burned out, with 42.1% experiencing high levels of emotional exhaustion. Participants were moderately structurally empowered, with adequate access to opportunities. On average the participants had mean values above 4.5 indicating that they are psychologically empowered within their practice environment. With regards to incivility, the participants agreed to the experience of general hostility in the practice environment ($M = 3.51$), and inconsiderate behaviour towards them ($M = 3.46$). Specific issues that were highlighted were unacceptable noise levels (79.5%), verbal abuse from physicians (59%) and patients and family members taking out their frustrations on them (55.5%). With regard to work, personal and physical bullying, 12.9% of the participants felt that they are exposed to an unmanageable workload on a weekly to daily basis, 10.5% of the participants felt that they are humiliated or ridiculed in connection with their work on a weekly to daily basis and 6.2% of the participants felt that they are the targets of spontaneous anger on a weekly to daily basis. The elements experienced most negatively in the practice environment were inadequate staffing and resource availability ($M = 2.33$), and collegial and nurse/physician relationships ($M = 2.48$). The staffing and resource adequacy subscale of the Practice Environment Scale of the Nurse Work Index - Revised had the highest correlation towards Emotional Exhaustion ($-.470$), followed by the work-related bullying behaviour subscale of the Negative Acts Questionnaire - Revised to Depersonalisation ($.456$), thirdly, the access to resources sub-scale of the Conditions for Work Effectiveness Questionnaire - II to Emotional Exhaustion (0.425) and finally, the displaced frustration subscale of the Nursing Incivility Scale to Emotional Exhaustion (0.350).

CONCLUSION: 75 problems contributing to the development of burnout were identified. The problems formed the evidence base for the development of an intervention programme for critical care nurses in a selected private hospital group in Gauteng province. The findings of this research study suggest that improving

staffing levels might decrease burnout levels experienced by critical care nurses. The collegial and nurse/physician relationships and patient and family interaction also need urgent attention to decrease the levels of burnout. All hospitals, in the private hospital group studied, need to adopt a policy of zero tolerance towards acts of incivility and bullying behavior.

KEYWORDS: Burnout, empower, incivility, bullying, practice environment, nurse, critical care, intervention

OPSOMMING

AGTERGROND: 'n Onlangse nasionale studie het aangetoon dat kritieke-sorg verpleegkundiges en medies-sjirurgiese verpleegkundiges in Suid-Afrika hoë vlakke van uitbranding ervaar – hoër as meeste ander lande in die wêreld. Hierdie hoë vlakke van uitbranding onder Suid-Afrikaanse geregistreerde verpleegkundiges word veral verbind met die praktykomgewing en ook met verpleegpersoneel-pasiënt-ratios. Sulke uitbrandingsvlakke kan egter nie verklaar word deur net te kyk na die status van die praktykomgewing en verpleegkundige-tot-pasiënt verhoudinge nie. Ander veranderlikes wat in die literatuur met sulke hoë uitbrandingsvlakke gepaard gaan sluit sake soos bemagtiging (struktureel en psigologies) en werkplekverhoudinge (onhoflike optrede en boelie-gedrag) in.

DOEL: Die doel van hierdie navorsingstudie was om 'n intervensieprogram te ontwikkel om die vlakke van uitbranding onder kritieke-sorgverpleegkundiges in 'n privaathospitaalgroep in die Gauteng-provinsie van Suid-Afrika te verminder.

METODES: Hierdie kruisdeursnit korrelasie opnamestudie is gedoen in 'n privaat hospitaalgroep in die Gauteng Provinsie van Suid-Afrika. Die steekproef het bestaan uit 15 privaat hospitale uit die geselekteerde privaat hospitaalgroep. Twintig volwasse kritiekesorgeenhede van hierdie hospitale is ingesluit in die studie. 'n Totaal van 209 kritieke-sorgverpleegkundiges het deelgeneem aan die studie met 'n terugvoerkoers van 49%. Die metodes gevolg in Fase een van die studie het ingesluit die “Maslach Burnout Inventory” (wat uitbranding meet), “Conditions for Work Effectiveness Questionnaire – II” (wat strukturele bemagtiging meet), “Psychological Empowerment Instrument” (wat psigologiese bemagtiging meet), “Nursing Incivility Scale” (wat onhoflike optrede meet), “Negative Acts Questionnaire – Revised” (wat boelie-gedrag meet) en die “Practice Environment Scale of Nurses Work Index – Revised” (wat die status meet van die praktykomgewing) saam met 'n demografiese stiplys vir die deelnemers asook die kritiekesorgeenhede. In Fase twee is 'n eklektiese metode van kurrikulum- en strategiese ontwikkeling toegepas om 'n intervensieprogram te

ontwikkel ten einde die vlakke van uitbranding onder kritieke-sorg verpleegkundiges te verminder.

RESULTATE: Die ondersoek het uitgewys dat kritieke-sorg verpleegkundiges in die algemeen matig uitgebrand is, met 42.1% wat hoë vlakke van emosionele uitputting ervaar. Deelnemers is matig struktureel bemagtig met voldoende toegang tot geleenthede. Wat psigologiese bemagtiging aanbetref is daar in die algemeen gemiddelde waardes bo 4.5 gevind, wat beteken dat hulle psigologies bemagtig is binne hulle praktykomgewing. Met verwysing na onhoflike optrede, het die deelnemers saamgestem oor die ervaring van algemene vyandigheid in die praktykomgewing ($M = 3.51$), en onkonsidererende gedrag teenoor hulle ($M = 3.46$). Spesifieke sake wat onderstreep is, sluit in onaanvaarbare vlakke van lawaai (79.5%), mondelinge beledigings van dokters (59%) en pasiënte en familieleden wat hulle frustrasies op verpleegpersoneel uithaal (55.5%). Met verwysing na werk, persoonlike en fisieke boelie-gedrag of afknouery, het 12.9% van die deelnemers gevoel dat hulle blootgestel word aan 'n onhanteerbare werkklas op 'n daaglikse tot weeklikse basis, 10.5% van die deelnemers voel dat hulle verneder en afgekraak word in die konteks van hulle werk, en 6.2% van die deelnemers voel dat hulle die teiken is van spontane woede op 'n daaglikse tot weeklikse basis. Die elemente in die praktykomgewing wat die meeste negatief ervaar word, is ontoereikende personeelvoorsiening en beskikbaarheid van hulpbronne ($M = 2.33$), gevolg deur kollegiale en verpleegkundige/dokterverhoudinge ($M = 2.48$). Die personeelvoorsiening en hulpbron toereikendheid sub-skaal van die "Practice Environment Scale van die Nurse Work Index – Revised" het die hoogste korrelasie gehad tot emosionele uitputting (-.470), gevolg deur die werkverwante boelie-gedrag sub-skaal van die "Negative Acts Questionnaire – Revised tot depersonalisasie (.456), en derdens toegang tot hulpbronne sub-skaal van die "Conditions for Work Effectiveness Questionnaire – II" tot emosionele uitputting (0.425), met die verplaaste frustrasie-sub-skaal van die "Nursing Incivility Scale" tot emosionele uitputting (0.350) wat daarop volg.

GEVOLGTREKKING: 75 probleme wat bydra tot uitbranding is uitgewys. Die probleme vorm die getuienisbasis vir die ontwikkeling van 'n intervensieprogram vir

kritieke-sorgverpleegkundiges in 'n geselekteerde privaathospitaalgroep in Gauteng. Die bevindinge van hierdie navorsingstudie suggereer dat 'n verbetering van personeelvoorsiening uitbrandingsvlakke wat deur hierdie verpleegkundiges ervaar word mag verlaag. Die kollegiale en verpleegkundige/doktersverhoudinge en pasiënt- en familieinteraksie het ook ernstige aandag nodig om die uitbrandingsvlakke onder beheer te bring. Alle hospitale, wat binne die privaat groep aan die navorsing deelgeneem het, moet 'n beleid van zero-toleransie teenoor onhoflike en boelie-gedrag aanvaar.

SLEUTELWOORDE: **Uitbranding, bemagtig, onhoflikheid, boelie, praktykomgewing, verpleegkundige, kritieke sorg, intervensie**

LIST OF ACRONYMS

A

AACN	American Association of Critical Care Nurses
AIDS	Acquired Immuno-deficiency Syndrome
AMOS	Analysis of a Moment Structures
ANCC	American Nurses' Credentialing Centre
ANOVA	Analysis of variance

C

CCN	Critical Care Nurse
CCU	Critical Care Unit
CEO	Chief Executive Officer
CFI	Comparative Fit Index
CMIN/Df	Chi-square divided by the degrees of freedom value
CWEQ-II	Conditions for Work Effectiveness Questionnaire II

D

DENOSA	Democratic Nursing Organisation of South Africa
DoH	Department of Health
Df	Degrees of freedom
Dp	Depersonalization

E

EE	Emotional Exhaustion

H

H₀	Null Hypothesis
HASA	Hospital Association of South Africa
HIV	Human Immuno-deficiency Virus

I

ICN	International Council of Nurses
IHOS	International Hospital Outcome Study

K

KMO	Kaiser-Meyer-Olkin measure

M

M	Mean
MBI	Maslach Burnout Inventory
MIS	Multidimensional Incivility Scale

N

N	Population
n	Sample
NAQ-R	Negative Acts Questionnaire - Revised
NIS	Nursing Incivility Scale
NSM	Nursing Service Manager
NWU	North West University

P

PA	Personal Accomplishment
PEI	Psychological Empowerment Instrument
PES-NWI-R	Practice Environment Scale of Nurses Work Index - Revised
PPE	Positive Practice Environment

R

RMSEA	Root Mean Square Error of Approximation
RN	Registered Nurse
RNAO	Registered Nurses Association of Ontario

S

SA	South Africa
SANC	South African Nursing Council
SADC	Southern African Development Community
SD	Standard Deviation
SEM	Structural Equation Modelling
Sig.	Significant
SPSS	Statistical Package for the Social Sciences
STTI	Sigma Teta Tau International

W

WHO	World Health Organization

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CHAPTER 1

OVERVIEW OF THE RESEARCH STUDY

"I've learned that courage was not the absence of fear but the triumph over it. The brave man is not he who does not feel afraid but he who conquers that fear"

Nelson Mandela

CHAPTER 1:

OVERVIEW OF THE RESEARCH STUDY

1.1. INTRODUCTION

Although burnout has been investigated and researched globally for many years in nursing, a recent national study showed that critical care nurses (CCNs) and medical-surgical nurses in South Africa (SA) have high levels of burnout – higher than most other countries in the world (Aiken, *et al.*, 2012:3; Kloppe, *et al.*, 2012:693; Coetzee, *et al.*, 2013:169). These high levels of burnout amongst registered nurses (RNs) in SA were particularly associated with the practice environment and also with nurse-patient-staffing ratios, specifically within the public healthcare system. However, such burnout levels cannot be explained by the status of the practice environment and nurse to patient ratios alone. Other variables that are associated with high levels of burnout in the literature include issues such as empowerment (structural and psychological) and workplace relationships (incivility and bullying) (Gilbert, *et al.*, 2010:345; Harwood, *et al.*, 2010:16; Laschinger, *et al.*, 2009:381). Hochwälder (2008:350) states that when psychological and structural empowerment is absent within the practice environment, burnout levels are higher. Campana and Hammoud (2015:720) also indicate that the more incivility is experienced within the practice environment the higher the experienced burnout levels in nurses.

Therefore, this study aims to study variables associated with high levels of burnout; namely structural and psychological empowerment, incivility and bullying and the practice environment to determine the nature of the relationship between these variables and to develop an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.

1.2. BACKGROUND AND PROBLEM STATEMENT

In the following section the background and problem statement with regards to burnout, empowerment, workplace relationships and the practice environment will be discussed in more detail.

1.2.1. Burnout

Since the initial studies of burnout in the scientific literature in the mid-1970s, burnout amongst nurses has received extensive and unceasing research attention (Freudenberger, 1974:159). The topic first emerged as a social problem when Freudenberger defined the concept in 1974 (Freudenberger, 1974:159). Freudenberger (1974:160), a psychiatrist, concentrated on the physical and behavioural signs of burnout, and stated that burnout is a feeling of exhaustion and fatigue that influences behaviour. Maslach, a social psychologist, adopted the term a year later and, together with Jackson (1981:99), defined burnout as a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do “people work” of some kind. During the early 1980s, Maslach and Jackson (1981:99) developed an instrument — “The Maslach Burnout Inventory” (MBI) — for professional staff in human service institutions. This instrument was applied to a wide range of human services’ professionals and three subscales emerged from the instrument testing emotional exhaustion (EE), depersonalisation (Dp) and personal accomplishment (PA).

A large inter-continental study on nurse outcomes showed that a substantial proportion of nurses in different countries experience high burnout levels (Aiken, *et al.*, 2012:3). These burnout levels also differ within countries, due to different health service organisations, financing and resources (Poghosyan, *et al.*, 2009:895). Research undertaken in SA exemplified this, with the private sector having lower levels of burnout than the public sector (Coetzee, *et al.*, 2013:162). South African researchers also specifically looked at the CCN populations and found that they had high levels of burnout (Klopper, *et al.*, 2012:693). A positive practice environment (PPE), empowerment (structural and psychological) within the workplace and good working relationships are significant predictors of lower levels of nurse burnout

(Laschinger, *et al.*, 2009:307-308; Laschinger, *et al.*, 2009:381). Each of these variables will be discussed in more detail.

1.2.2. Empowerment

Power can be defined as the ability to mobilise information, resources and support in order to accomplish goals within an organisation (Kanter, 1977:166; 1993). In other words, empowerment is commensurate with the physical utilisation of power as energy, thereby having access to whatever is needed for this mobilisation (Kanter 1977:166). Kanter states that *“empowering more people through generating more autonomy, more participation in decisions and more access to resources increases the total capacity for effective action”* (Kanter 1977:166; Laschinger, *et al.* 2014:7).

When investigating empowerment, Kanter’s structural empowerment theory identifies two primary empowerment structures, namely the structure of opportunity and the structure of power (Kanter 1977:246-247). Within the structure of opportunity, the employee has the chance to advance in his/her job. People with high-opportunity jobs are committed to the organisation, show innovation and involvement, while people in low-opportunity jobs show no commitment and feel trapped in their jobs. The structure of power includes access to information so as to be able to perform work in a meaningful way, access to resources to do the job, sufficient time to perform the work, and access to support that maximises effectiveness, such as feedback from supervisors and credit for creativity. Formal and informal power systems facilitate access to these empowerment structures (Kanter 1993). Formal power systems can be seen as job activities that allow for discretion in decision-making — for example, visibility of, and centrality to the organisational goals with scope for flexibility. While informal power systems can be seen as the relationships within the entire organisation — for example, alliances with managers, peers and subordinates, the degree of access to these structures determines the ability to mobilise activities and to get things done, thus influencing involvement and behaviour in the organisation (Kanter 1977; 1993). When these structures are not in place, employees experience powerlessness and a feeling of being trapped in their jobs, leading to their disengagement from the organisation. Employees in control feel

empowered to do what is expected of them (Kanter 1977). Empowerment influences RNs performance in practice and leads to positive organisational (Cai, *et al.*, 2011:143) and nurse outcomes (Hauck *et al.*, 2011:275). A longitudinal study performed by Laschinger *et al.* (2003:7) indicated that perceptions of structural empowerment had a statistically important direct effect on psychological empowerment and an indirect effect on burnout through psychological empowerment. The researchers also stated that nurses' feelings of empowerment in their practice environment predicted reported levels of burnout.

Psychological empowerment can be defined as a response to working in structurally empowering practice environments and consists of four components: 1) autonomy or self-determination, referring to the level of freedom or independence that people have in deciding how to do their work; 2) confidence or competence, referring to the level of confidence people have in being able to do their jobs well; 3) a sense of job meaningfulness, referring to how much people care about their work and feel that it is important, and 4) the ability to have an impact in the organisation, referring to the level at which people (can) leave their mark on the workplace, and whether the organisation takes their ideas seriously (Laschinger, *et al.*, 2001:262; Spreitzer, 1995:1443-1444). The focus of psychological empowerment is on the set of conditions that allow for employees or teams to believe that they have control over their work (Maynard, *et al.*, 2012:1235). Boudrias *et al.* (2012:9) state that psychological empowerment reflects the degree of fit between employees and core job characteristics. This fit might act as a protecting factor in reducing the effects of stressors on burnout. When people experience empowerment within their practice environment, it fosters a fit between their expectations and their working conditions. Thus they will experience acceptable workloads, controls within the practice environment, good collegial relationships, feel that they are treated fairly, that their values and that those of the organisation are aligned, and achieve adequate rewards (Greco, *et al.*, 2006:43).

1.2.3. Workplace relationships

Peters (2015:157) states that the word incivility has its roots in the Latin word “incivilitat” – a lack of civility, which means community or city. When people within the same community do not respect each other and treat each other with discourtesy, incivility prevails. The need for civility is of utmost importance when the interactions among people increase in complexity and frequency (Andersson & Pearson, 1999:452) and the presence of workplace incivility in hospitals has strong implications for the satisfaction and effectiveness of all healthcare staff, but particularly nurses (Guidroz, *et al.*, 2010:176; Read & Laschinger, 2013:227; Lachman, 2014:57). Workplace civility can be defined as behaviour involving politeness and respect for others within the practice environment (Andersson & Pearson, 1999:454). Incivility, on the other hand, can be defined as a common type of workplace mistreatment with low-intensity behaviour and ambiguous intent to harm, that violates workplace norms of mutual respect (Andersson & Pearson, 1999:455; Laschinger, *et al.*, 2009:303). Duffy (1995:5) coined the term “horizontal aggression/hostility” when describing uncivil behaviour between nursing staff and described this phenomenon as involving excessive abuse, criticism, intimidation, threats, impossible demands, withholding information, blocking opportunities for promotion or training and/or removing responsibilities (Embriaco, *et al.*, 2007:485; Poncet, *et al.*, 2007:701).

When aggressive behavior is persistently directed towards the same individual(s) over a longer period of time it can be seen as bullying behaviour. This means that someone is persistently exposed to interpersonal aggression and mistreatment from colleagues, supervisors or subordinates. The emphasis is as much on the frequency and duration of what is done, as it is on what and how it is done (Einarsen, *et al.*, 2009:25). The imbalance of power relationships between parties can be seen as central to the bullying experience (Einarsen, *et al.*, 2009:26). Bullying might occur for different reasons, including individual behaviour, the features of the practice environment, the way co-workers interact, how customers or clients interact with workers, and interaction between managers and workers (Sà & Flemming, 2008:413). Bullied nurses have significantly higher levels of emotional exhaustion

and depersonalisation than nurses who do not experience bullying (Sà & Flemming, 2008:421).

Cortina *et al.* (2001:64) report that 71% of U.S public-sector employees experience lower level forms of aggression and mistreatment on a daily basis within their practice environment, for example interruptions while talking and being gossiped about. In critical care units (CCUs), the way that communication takes place determines the relationships among employees, their attitude and the working climate. Poor workplace relationships can be experienced at the level of physicians, supervisors, nurse colleagues or patients, and have a direct impact on nurse and patient outcomes (Odendaal & Nel, 2005:99).

Conflict with physicians (Hamblin, *et al.*, 2015:2462), supervisors (Frone, 2000: 246; Tepper 2000: 178) and patients (Campana & Hammoud, 2015:716) can lead to severe psychological stress in nursing staff (Poncet, *et al.*, 2007:701). In research done by Odendaal and Nel (2005:99) in the Gauteng Province of SA, CCNs indicated that senior staff and doctors had poor interpersonal skills, and that doctors do not respect RNs. Perceived conflicts and perceived poor relationships with other staff members are strong independent risk factors for severe burnout syndrome (Allen, *et al.*, 2015:382; Elmblad, *et al.*, 2014:444), while social support from co-workers and supervisors provides an important buffer against burnout (Fincham & Rhodes, 2005:68; Palmer & Bor, 2008:216). Patients can also play a role in uncivil behavior, research showing that disproportionate customer expectations and verbal abuse from patients lead directly to burnout in nurses (Campana & Hammoud, 2015:722; Dormann & Zapf, 2004:61; Embriaco, *et al.*, 2007:485; Poncet, *et al.*, 2007:701).

1.2.4. The practice environment

Lake (2007:106S) defines a PPE as one which offers support for nurses to function at the highest level of clinical practice, to work efficiently in an interdisciplinary team of caregivers, and to activate resources rapidly. Lake (2002:183) identifies five characteristics of a PPE that facilitate or constrain professional nursing practice, which was derived from a common set of organisational attributes within magnet hospitals. These five characteristics include the following: *staffing and resource*

adequacy, measuring nurses' evaluation of the adequacy of resources in meeting patient care demands; *collegial nurse-physician relations* assessing the quality of working relationships between the nurses and the doctors in the practice environment; *nurse manager ability, leadership and support*, assessing key elements of leadership; *nursing foundation for quality of care*, assessing nurses' perceptions that the hospital supports a nursing model of care; and lastly *nurse participation in hospital affairs*, assessing the extent to which nurses feel they have an influence on the overall hospital administration (Lake, 2002; Leiter & Laschinger, 2006:138).

Guidelines to create and/or support a PPE have been provided by several global nursing organisations, including the World Health Organisation (WHO), Registered Nurses' Association of Ontario (RNAO), International Council of Nurses (ICN), American Association of Critical Care Nurses (AACN) and the American Nurses' Credentialing Centre (ANCC). Within the South African context the Democratic Nursing Organisation of South Africa (DENOSA) adheres to the PPE guidelines as set out by the ICN (DENOSA, 2014). Table 1.1 provides an overview of PPE guidelines set out by these organisations. The purpose of the table is not to draw a comparison between the different organisations, but merely to confirm the global attention that is given to the characteristics of a PPE as highlighted by Lake (2002).

Table 1.1: Global organisational guidelines regarding a positive practice environment

CHARACTERISTICS OF A PPE	WHO	RNAO	ICN	AACN	ANCC
STAFFING AND RESOURCE ADEQUACY	Creating a supportive healthy and safe practice environment	Developing and sustaining effective staffing and workload practices; Preventing and mitigating nurse fatigue in health care.	Safe staffing levels; Access to adequate equipment, supplies and support staff	Appropriate Staffing; Staffing must ensure the effective match between patient needs and those of nurses;	Practice environment is safe and healthy; Orientation programme for all new nursing staff in an attempt to retain staff; Professional development are provided and used; healthy work–life balance
COLLEGIAL NURSE-PHYSICIAN RELATIONS	Total organisational participation	Collaborative practice among nursing teams; Managing and mitigating conflict in healthcare teams; Preventing and managing violence in the workplace	Good peer support	True Collaboration Nurses must be relentless in pursuing and fostering true collaboration; Skilled Communication: Nurses must be as proficient in communication skills as they are in clinical skills competencies	Implementing a standard to address conflict-and-dispute resolution in Collaboration among health care professionals as a key component for the delivery of safe, quality care, with the added benefit of higher job satisfaction for all disciplines involved

CHARACTERISTICS OF A PPE	WHO	RNAO	ICN	AACN	ANCC
NURSE MANAGER ABILITY, LEADERSHIP AND SUPPORT OF NURSES	Create and have senior management accept and use a health, safety and well-being “filter” for all decisions	Developing and Sustaining Nursing Leadership	Organisational climate reflective of effective management and leadership practices, Equal opportunity and treatment; Job security; Support and supervision; Recognition programmes;	Authentic Leadership Nurse leaders must fully embrace the imperative of a healthy practice environment, authentically live it and engage others in its achievement	The influence of the nurse manager leadership on nursing care and patient care quality is identified as a key element for elevating nursing practice; Nurse managers must possess the knowledge, skills, and experience to effectively perform their roles and be accountable for outcomes.
NURSING FOUNDATIONS FOR QUALITY OF CARE		Workplace health, safety and well-being of the nurse	Fair and manageable workloads and job demands/stress	Meaningful Recognition Nurses must be recognised and must recognise others for the value each brings to the work of the organisation.	Nurses contribute to improved quality of care and safety for patients; Orientation programme for new nursing staff to ensure the delivery of quality patient care; A robust quality program with clinical decisions based on solid evidence translates into

CHARACTERISTICS OF A PPE	WHO	RNAO	ICN	AACN	ANCC
					better patient outcomes. Nurses play a key role in quality initiatives for patient care improvements, and lead efforts to implement best practices in patient care.
NURSE PARTICIPATION IN HOSPITAL AFFAIRS	Strategic planning must incorporate the human side of the equation, not simply the business case	Professionalism in Nursing; Embracing Cultural Diversity in Health Care: Developing Cultural Competence	Occupational health, safety and wellness policies that address workplace hazards, discrimination, physical and psychological violence and issues pertaining to personal security; Worker participation in decision-making, shared values; Opportunities for professional development and	Effective Decision-Making Nurses must be valued and committed partners in making policy, directing and evaluating clinical care and leading organisational operations	Nurses control the practice of nursing through a shared governance model; RNs directly involved in decisions that affect nursing practice with demonstrated autonomy and responsibility; Equitable Compensation is Provided; Nurses are recognised for achievements

CHARACTERISTICS OF A PPE	WHO	RNAO	ICN	AACN	ANCC
			career advancement; Professional identity, autonomy and control over practice; Decent pay and benefit; Open communication and transparency ;		
Lake (2002)	(WHO, 2010b)	(RNAO, 2015)	(ICN, 2007)	(AACN, 2005)	(ANCC,2015b)

International research (Aiken *et al.*, 2012, Nantsupawat *et al.*, 2011, Aiken *et al.*, 2008; Aiken *et al.*, 2002), shows that a PPE is negatively associated with poor quality of care, failing patient safety, patient dissatisfaction and poor nurse outcomes. Specifically in SA, nurses in hospitals with PPE were approximately half as likely to report poor nurse outcomes (burnout, job dissatisfaction, intention to leave, not recommend hospital to nurse colleagues as a worthwhile place to work) and approximately half as likely to report poor quality of care and patient safety (Coetzee, *et al.*, 2013:162).

To conclude, the academic literature provides ample evidence that all four variables influence nurse outcomes, and specifically burnout levels. Burnout is heightened by decreased levels of empowerment, whether structural (Hauk, *et al.*, 2011:275), or psychological (Boudrias, *et al.*, 2012:9). The experience of incivility and bullying within the workplace increases levels of burnout (Embriaco, *et al.*, 2007:201; Sá & Flemming, 2008:421). The practice environment can influence levels of burnout positively or negatively (Gandi, *et al.*, 2011:192; Greenglass, *et al.*, 2001:211; Kowalski, *et al.*, 2010:1654; Leiter, *et al.*, 2010:67). With this background, the problem statement and research questions are presented.

1.3. PROBLEM STATEMENT AND RESEARCH QUESTIONS

Research confirms that South African CCNs (Klopper, *et al.*, 2012:693) and medical-surgical nurses (Coetzee, *et al.*, 2013:169) are experiencing high levels of burnout, higher than most other countries in the world. These studies together with Pretorius and Klopper (2012:69) showed that the practice environment significantly contributes to nurse outcomes. However, research abounds on the effects that variables such as empowerment (structural and psychological) and workplace relationships (incivility and bullying) have on nurse outcomes, specifically burnout. These variables have, however, never been studied in the South African CCU context, and have also not been studied together in international literature. Therefore, the researcher would like to study the variables in combination, so as to identify the main contributing factors for the development of burnout and to develop an intervention programme to decrease the levels of burnout amongst CCNs within a private hospital group in the

Gauteng Province of SA. The research questions derived from the problem statement are as follows:

- What is burnout, empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment according to literature?
- What are the levels of burnout, empowerment (structural and psychological), workplace relationships (incivility and bullying) and the status of the practice environment according to CCNs in a private hospital group in the Gauteng Province of SA?
- What is the nature of the relationship between burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment of CCNs in a private hospital group in the Gauteng Province of SA?
- What intervention programme can be developed to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA?

1.4. AIM AND OBJECTIVES OF THE RESEARCH STUDY

The aim of this research study is to develop an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.

1.4.1. Phase one

- To describe and discuss burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment through an in-depth literature review;
- To describe the levels of burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the status of the practice environment according to CCNs in a private hospital group in the Gauteng Province of SA;

- To examine the nature of the relationship between burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment of CCNs in a private hospital group in the Gauteng Province of SA.

1.4.2. Phase two

- To develop an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.

1.5. HYPOTHESES

The following null hypotheses were identified for this research study:

- H₀₁** - There is no relationship between the levels of burnout and structural empowerment in CCUs in a private hospital group in the Gauteng Province of SA.
- H₀₂** - There is no relationship between the levels of burnout and psychological empowerment in CCUs in a private hospital group in the Gauteng Province of SA.
- H₀₃** - There is no relationship between the levels of burnout and incivility in CCUs in a private hospital group in the Gauteng Province of SA.
- H₀₄** - There is no relationship between the levels of burnout and bullying behavior in CCUs in a private hospital group in the Gauteng Province of SA.
- H₀₅** - There is no relationship between the levels of burnout and the status of the practice environment in CCUs in a private hospital group in the Gauteng Province of SA.
- H₀₆** - There is no relationship between structural empowerment, psychological empowerment, incivility, bullying behavior and the status of the practice environment in CCUs in a private hospital group in the Gauteng Province of SA.

Based on the problem statement, research questions, aim, objectives and hypotheses of the research study, the researcher proposed a model (See Figure 1.1). The proposed model enabled the researcher to identify which variables (structural empowerment, psychological empowerment, incivility, bullying behavior and the practice environment) contribute most to the development of burnout, and to prioritise the management of these variables in the proposed intervention programme (see Chapter 5, section 5.3.7).

The researcher would like to indicate to the reader that the colour coding provided within Figure 1.1 below will be utilised for each variable throughout the study i.e. burnout (blue), structural empowerment (green), psychological empowerment (purple), incivility (turquoise), bullying behavior (orange) and the practice environment (maroon).

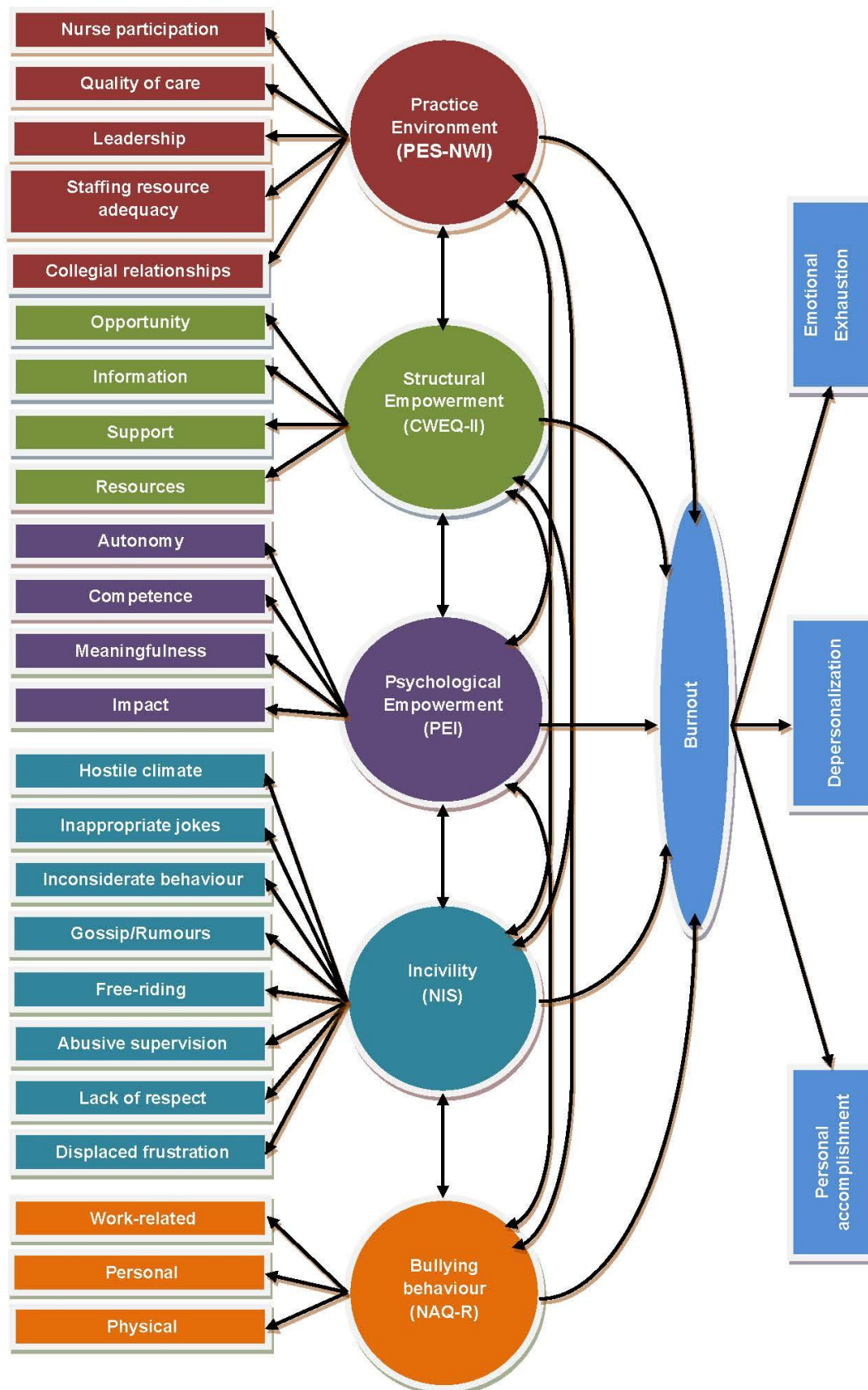


Figure 1.1: Proposed model

1.6. RESEARCHER'S ASSUMPTIONS

Because research is not value-free, the way that the researcher views the world will influence the way in which the research will be conducted (Creswell, 2009:6). Each researcher has a certain paradigmatic perspective that needs to be explained prior to conducting the research. A paradigm can be seen as a set of theoretical perspectives, consisting of a set of assumptions on which the research questions are based (Bowling, 2009:129). A paradigm can also be described as a particular way of viewing a phenomenon in the empirical world (Grove, *et al.*, 2013:702). Paradigmatic perspectives include meta-theoretical, theoretical and methodological assumptions (Klopper, 2008:67) and will be discussed in the next few paragraphs.

1.6.1. Meta-theoretical assumptions

Meta-theoretical assumptions (statements) are philosophical in nature, imbedded in worldviews and not meant to be tested (Klopper, 2008:67). These assumptions refer to the beliefs of the researcher regarding human beings (CCN, patient, family members), the society, the purpose of the discipline (health), and the empirical world (Bothma, *et al.*, 2010:187; Klopper, 2008:67; Mouton & Marais, 1996:192). The researcher subscribes to the Judeo-Christian philosophy and believes that God is the creator of all. Within this paradigm the research will define man, society, health and nursing.

1.6.1.1. *View of man (human being / individual / CCN)*

The researcher view man as a unique creation of God, created in His image. In Genesis 1:26 God said: *“and now we will make human beings; they will be like us and resemble us”* (Bible, 1983). The researcher also views man as a member of any race or religion. For the purpose of this research study, the CCN is seen as the human being of interest and is a complex bio-psycho-social-spiritual being.

The term “physiological” refers to what is seen as normal without the presence of any pathology (Dorland’s Pocket Medical Dictionary, 2004:673). The physiological dimension of the CCN refers to normal healthy functioning within the practice

environment. Burnout has certain physiological effects on the well-being of the CCN and therefore needs to be addressed. The physiological effects of burnout will be discussed in Chapter 2 of this research study (Please see Chapter 2, Section 2.3.3, Table 2.2.).

The psychosocial dimension of the CCN includes mental, emotional and social well-being in the critical care context. Mental well-being includes certain individual values, attitudes and beliefs that each CCN brings into the practice environment. The emotional dimension might be seen as the “feeling” part or psychosocial dimension of the CCNs well-being. Thus the mental and emotional well-being of the CCN can be related directly to the three dimensions of burnout (emotional exhaustion, depersonalisation and personal accomplishment). The social dimension can be seen as the interaction with other members of the multi-disciplinary team, patients and family members within the practice environment and the ability to adapt within this context, and can be related to civility and bullying behaviour in the practice environment. (The psychosocial consequences of burnout are tabulated in Chapter 2, Section 2.3.3, Table 2.2.)

The researcher view the spiritual dimension of the CCN as the drive for meaning (psychological empowerment) and purpose in life, a belief in something greater than ordinary physical existence. The researcher also sees the spiritual dimension in this context as involving a sense of hope and purpose.

1.6.1.2. View of society

The researcher views the world as an internal and external dynamic environment with constant changes happening. These constant changes within the environment affect the behaviour of not only the CCN but also the patient, his/her family and friends and other nursing personnel. The internal environment of the CCNs which includes her/his psychological, psychosocial and spiritual dimension will determine how she/he reacts to the external world. The external environment of the CCN includes influences from the practice environment where he/she is functional on a frequent basis and the CCN will always attempt to maintain good health by adapting to the influences from the external environment.

1.6.1.3. View of health

The researcher agrees with the definition of health as provided by the WHO. The WHO (2010a) defines health as the state of complete physical, mental and social well-being which illustrates that health not only encompasses physical well-being, but also embraces mental and social dimensions. This definition has not changed since 1946. For the purpose of this research study, health can be seen as the physical, emotional and psychological well-being of the CCN within a private hospital group in the Gauteng Province of SA. Since it has been confirmed that CCNs within CCUs are burned out, it is important to investigate burnout extensively in order to restore the emotional well-being of the CCNs.

1.6.1.4. View of nursing

The researcher adheres to the definition of nursing as provided by ICN (ICN, 2010):

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care of ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in-patient and health systems' management, and education are also key nursing roles.

With the above definition in mind critical care nursing can be described as a specialist area of nursing involving the care of patients who are suffering from life-threatening illnesses or injuries. Critical care nursing also involves the comforting and supporting of the family members of the critically ill patient (De Beer, *et al.*, 2011:6). Therefor the critical care environment requires nurses to have a broad knowledge base and high levels of decision-making skills due to the highly technological environment. Critical care nursing is constant, complex, detailed healthcare that needs to be provided in different acute life-threatening conditions (AACN, 2015a).

1.6.2. Theoretical assumptions

The theoretical assumptions are a reflection of the researcher's knowledge of current theoretical or conceptual frameworks, including theoretical models, theories, perceptions and meanings (Bothma, *et al.*, 2010:187). Klopper (2008:67) states that theoretical assumptions/statements reflect the researcher's view of valid knowledge in existing theoretical frameworks. Therefore, the concepts and variables applicable to this research study will be defined, and the theoretical framework will be discussed.

1.6.2.1. *Burnout*

For the purpose of this research study, the researcher adheres to the definition of burnout as provided by Maslach and Jackson (1981:99), where they define burnout as a syndrome involving emotional exhaustion and cynicism that occurs frequently among individuals who do "people work" of some kind. With depleted emotional resources, a person is unable to give of themselves at a psychological level and therefore develops negative, cynical attitudes and feelings about clients with decreased levels of personal accomplishment. The three subscales of burnout as described by Maslach and Jackson include EE, Dp and PA and will be discussed in detail in Chapter 2 of the research study (Please see Chapter 2, Section 2.3).

1.6.2.2. *Structural empowerment*

Empowerment is described as the process by which a leader or manager shares his or her power with subordinates. The importance lies primarily with the notion of sharing authority (Conger & Kanungo, 1988:473). Structural empowerment is mainly concerned with organisational conditions (e.g., aspects of the job, team strategies, or organisational arrangements that instil situations, policies, and procedures), whereby power, decision-making, and formal control over resources are shared (Kanter, 1977) (Please see Chapter 2, Section 2.4.1).

1.6.2.3. Psychological empowerment

Laschinger *et al.* (2001:268) define psychological empowerment as a response to working in structurally empowering practice environments and state that it consists of four components: 1) autonomy 2) confidence 3) a sense of job meaningfulness and 4) the ability to have an impact on the organisation (Please see Chapter 2, Section 2.4.2).

1.6.2.4. Incivility

Andersson and Pearson (1999:1999) define incivility as acting rudely or discourteously, without regard for others, in violation of norms based on showing respect in social interactions. These acts can be seen in isolation, without a definite pattern regarding specific individuals (Einarsen, *et al.*, 2009:25) (Please see Chapter 2, Section 2.5.1).

1.6.2.5. Bullying

Workplace bullying behaviour can be defined as persistent exposure to interpersonal aggression and mistreatment from colleagues, superiors or subordinates where the emphasis is as much on the frequency and duration of what is done, as it is on what and how it is done (Einarsen, *et al.*, 2009:24, 25). Where incivility can be displayed in disconnected events, bullying is associated with repetition (frequency), duration (over a period of time) and patterning (of a variety of behaviours involved) (Einarsen, *et al.*, 2003) (Please see Chapter 2, Section 2.5.2).

1.6.2.6. Practice Environment

Lake (2007:106S) defines a PPE as one which provides support to the nurse so that s/he is able to function at the highest level of practice and to work effectively within the multi-disciplinary team of caregivers, mobilising all resources effectively and expeditiously. The practice environment can be described as the physical-social-psychological characteristics of a work setting, including the physical features,

organisational policies and characteristic behaviour of people at work (Chan & Huak, 2004:207) (Please see Chapter 2, Section 2.6).

1.6.2.7. Critical care nurse

According to the South African Nursing Council (SANC, 2015b) a "registered person" shall mean a person who is registered as a nurse or as a midwife in terms of the Act, or as a medical practitioner or dentist in terms of the Medical, Dental and Supplementary Health Service Professions Act (Act 56 of 1974). A professional nurse, therefore, is a person who is qualified and competent to practise comprehensive nursing independently in the manner and to the level prescribed, and who is capable of assuming responsibility and accountability for such practice (Nursing Act 33 of 2005). Registration takes place after completion of a four-year diploma or four-year Baccalaureate degree. Therefor a CCN is a RN who has a comprehensive knowledge base and a high level of decision-making skills as they care for patients and their families who are in vulnerable circumstances (De Beer, *et al.*, 2011:6). A CCN can complete a postgraduate diploma in critical care nursing or gain experience within the critical care environment over a number of years, developing competence, skills and knowledge without formal studies (De Beer, *et al.*, 2011:8).

1.6.2.8. Intervention programme

An intervention programme can be described as the actions undertaken by the researcher, in collaboration with the CCNs and other relevant participants (nursing staff, patient, family and friends) to enhance and maintain the functioning and wellbeing of the CCN and to determine the impact of the programme aimed at solving the problem (burnout levels) (De Vos, *et al.*, 2013:475). The APA dictionary of Psychology (2007:996) also provided a comprehensive definition of and intervention programme, in that it includes actions on the part of a therapist (researcher) to deal with issues and problems of clients (burnout, not being empowered, experiencing incivility and bullying). The selection of the interventions are then guided by the nature of the problem (burnout), the orientation of the therapist (researcher in critical

care nursing), the setting (CCUs) and the willingness and the ability of the client (CCNs) to proceed with the treatment. For the purpose of this research study an intervention programme will be developed from the results of the study in order to decrease the levels of burnout amongst CCUs in a private hospital group in the Gauteng Province of SA.

Following the definition of concepts considered relevant to the phenomena under investigation, the 14 forces of magnetism as provided by ANCC was selected to provide the theoretical framework for the study.

1.6.2.9. *The 14 forces of magnetism*

The ANCCs 14 Forces of Magnetism provide the conceptual framework for this study. These Forces of Magnetism have their origin in the research study that was conducted in 1983, where 14 characteristics were identified to differentiate organisations that were best able to recruit and retain nurses during the nursing shortages experienced in the 1970s and 1980s (McClure, *et al.*, 1983). The appraisal process for Magnet Recognition involves, in short, three major phases. Phase one includes a *document review* where the appraiser team members independently score sources of evidence. Thereafter, a consensus discussion takes place to assign joint appraisal scores in determining whether they should proceed to the next appraisal stage. Phase two involves a *site visit* where documentation evidence is confirmed, clarified and amplified. This can be done through interviews, focus groups, observations and the reviews of public comment. Phase three involves appraiser reporting where six documents are submitted to the Commission on Magnet Recognition with a summary of findings, the organisational profile, joint appraiser score reports and the joint appraiser narrative report. Magnet recognition can only be achieved when scores in the realm of excellence have been attained for each of the 14 Forces of Magnetism (Lundmark & Hickey, 2006:291-294). These Forces are thus attributes that exemplify nursing excellence and therefore all 14 Forces are required to achieve Magnet designation (ANCC, 2015c). The 14 Forces are represented in Table 1.2 below.

Table 1.2: The 14 Forces of Magnetism (ANCC, 2015c)

FORCE	DESCRIPTION OF THE FORCE
FORCE 1: QUALITY OF NURSING LEADERSHIP	• Nurse leaders who are knowledgeable, strong, and can take risks and who follow a spoken, strategic and visionary philosophy in the day-to-day operations of nursing services; • Leadership at all organisational levels, delivering a strong sense of advocacy and support for the staff and for the patient; • The results of quality leadership are evident in nursing practice from the patient's perspective.
FORCE 2: ORGANISATIONAL STRUCTURE	• Flat rather than tall and decentralised decision-making; • Dynamic organisational structure responsive to change; • Nursing representation is present within organisational committees; • Executive-level nursing leaders serve at the executive level of the organisation; • Direct reporting to the Chief Executive Officer (CEO) by the Nursing Service Manager (NSM); • Shared decision-making.
FORCE 3: MANAGEMENT STYLE	• Supportive participative environment; • Feedback from all staff is encouraged; • Visible and accessible leadership committed to effective communication.

FORCE	DESCRIPTION OF THE FORCE
FORCE 4: PERSONNEL POLICIES AND PROGRAMMES	• Competitive salaries and benefits; • Creative and flexible staffing models; • Support of a PPE; • Involvement of direct care nurses in personnel policy development; • Opportunities for professional growth; • Personnel policies and programmes supportive of professional nursing practice, work and life balance and delivery of quality care.
FORCE 5: PROFESSIONAL MODELS OF CARE	• Models of care providing: • Responsibility and authority in the provision of direct patient care; • Accountability for own practice and coordination of care; • Continuity of care across the continuum; • Consideration of patients' unique needs; • Provision of skilled nurses and adequate resources to accomplish desired outcomes.
FORCE 6: QUALITY OF CARE	• Provision of a PPE by nurses in leadership positions to positively influence patient outcomes; • High quality care provided to patients.
FORCE 7: QUALITY IMPROVEMENT	• Structures and processes for the measurement of quality are present; • Programmes for improving the quality of care and services are present within the organisation.

FORCE	DESCRIPTION OF THE FORCE
FORCE 8: CONSULTATION AND RESOURCES	• Adequate access to resources, support and opportunity for utilising expertise; • Promoting involvement of nurses in professional organisations and among peers in the community.
FORCE 9: AUTONOMY	• Autonomy through competence, professional expertise and knowledge; • Independent judgment within the context of interdisciplinary and multidisciplinary approaches to patient care.
FORCE 10: COMMUNITY AND THE HEALTHCARE ORGANISATION	• Establishing relationships between all relevant parties to develop strong partnerships supportive of improved patient outcomes and the health of the community they serve.
FORCE 11: NURSES AS TEACHERS	• Involvement of professional nurses in educational activities; • Students are present in a variety of academic programmes; • Development and mentoring programme for preceptors for all levels of students; • Nursing personnel are a faculty and preceptor for all students; • Patient education programme meeting the diverse needs of patients in all care settings within the organisation.

FORCE	DESCRIPTION OF THE FORCE
FORCE 12: IMAGE OF NURSING	• Nurses' contributions are seen as essential to other members of the healthcare team; • Nurses are viewed as integral to the healthcare organisation's ability to provide patient care; • Nursing effectively influences system-wide processes.
FORCE 13: INTERDISCIPLINARY RELATIONSHIPS	• Collaborative working relationships; • Mutual respect between team members; • Conflict management strategies.
FORCE 14: PROFESSIONAL DEVELOPMENT	• Management values and supports personal and professional growth and development of personnel; • Programmes promoting formal education, professional certification and career development are evident; • Competency-based clinical and leadership/management development are promoted; • Adequate human and fiscal resources for all professional development programmes are provided.

The 14 forces of Magnetism will be applied to the research study in Chapter 5 where the intervention programme will be discussed in detail. (Please see Chapter 5, Section 5.3.4, Section 5.3.8, Table 5.2 and Table 5.5.)

1.6.3. Methodological assumptions

Methodological assumptions involve views about the nature of scientific research, in other words, the expectations of what constitutes valuable research (Mouton & Marais, 1996:23). The Botes Model for Nursing Research will guide this research process (Botes, 1991). The model describes the three orders of nursing activities; namely' nursing practice, nursing science and the philosophy of nursing.

The first order describes the reality of the empirical world: the nursing practice. Within this order, nursing practice can be studied, problems or research questions identified and solutions suggested. Nursing actions are based on knowledge of nursing, but in practice actions take place with pre-scientific knowledge of nursing (Botes, 1991:19). In the context of this study, as previously mentioned (please see Section 1.1), SA has high burnout levels. Certain aspects such as structural empowerment, psychological empowerment, incivility and bullying behaviour and the practice environment of the CCN might affect burnout levels.

The second order represents the activities of nursing science and involves research and theory development. This is a meta-practical activity, suggesting that the researcher identifies nursing problems as they are, investigates the problem, describes the problem and suggests solutions (Botes, 1991:20). For the purpose of this study, the concepts of burnout, practice environment, structural and psychological empowerment, incivility and bullying will be identified, described and investigated with the aim of developing an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.

Within the third order, the philosophy of nursing is described and is seen as a meta-theoretical activity. This order involves the analysis and evaluation of concepts, assumptions and methods that are found in the first and second order (Botes,

1991:20). Botes (1991:20) supports a functional approach in nursing where a higher goal is served. This order, therefore, can be related back to the meta-theoretical assumptions where the view of man, society, health and nursing was discussed.

1.7. RESEARCH DESIGN

A research design can be seen as the precondition for any research study and the development of the design follows logically from the research problem. This implies that the research problem directs the choice of design (Klopper, 2008:68). The research design also maximises control over factors that could hinder the validity of the findings (Grove, *et al.*, 2013:218). To achieve the objectives of the research study, a cross-sectional (Marston, 2010:42) correlational survey design (Grove, *et al.*, 2013:26) with descriptive (Grove, *et al.*, 2013:215), explanatory (Bothma, *et al.*, 2010:51) and contextual strategies (Klopper, 2008:68; Mouton & Marais, 1996:49) was used for this study.

1.8. RESEARCH METHOD

Klopper (2008:69) describes a research method as the steps of population and sample, data collection, ensuring rigor and data analysis. An in-depth description of the research method will be provided in Chapter 3, Section 3.3 with only a brief overview provided in Table 1.3.

Table 1.3: Overview of the research method

RESEARCH OBJECTIVE	DATA COLLECTION	POPULATION AND SAMPLING	DATA ANALYSIS	RIGOUR
PHASE ONE				
1. To describe and discuss burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment through an in-depth literature review	In-depth literature review	Population: Multiple electronic data search engines, e.g. ScienceDirect, EBSCOHost (Academic Search Premier, CINAHL, Health Source: Nursing/Academic Edition, Premier, MEDLINE, Pre-CINAHL, PsychINFO, SociINDEX with Full Text, Humanities International Complete and Academic Search Complete), SAEpublications, books, dissertations, theses, Google Scholar. Sampling: Purposive sampling using the following search strategy: • Burnout AND	Content analysis of scientific literature	Deductive and inductive reasoning

RESEARCH OBJECTIVE	DATA COLLECTION	POPULATION AND SAMPLING	DATA ANALYSIS	RIGOUR
		Empower* AND nurs* • Burnout AND Civil* OR Uncivil* OR Uncivil And nurs* • Burnout AND Bully* AND nurs* • Burnout AND practice* OR environment* (Grove, <i>et al.</i> , 2013:346)		
2. To describe the levels of burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the status of the practice environment according to CCNs in a private hospital group in the Gauteng Province of SA;	Survey/Questionnaire: (Please see Addendum E – K) • Maslach Burnout Inventory (Maslach & Jackson, 1981); • Practice Environment Scale of Nurses Work Index – Revised (Lake, 2002) • Conditions of Work Effectiveness	Multi-level sampling (Please see Table 3.5) Gauteng Province SA (Purposive sampling) • N = 9 • n = 1 Private Hospital Group (Purposive sampling) • N = 3 • n = 1 Hospitals (All inclusive sampling)	SPSS (SPSS, 2015) Descriptive statistics • Percentage • Means • Frequencies • Ranges • Standard deviations Factor Analyses • Exploratory • Confirmatory	Validity: MBI: Construct (Klopper, <i>et al.</i> , 2012; Poghosyan, <i>et al.</i> , 2009); Convergent and discriminant (Hee & Chul-Woung, 2012) CWEQ-II: Construct (Laschinger, <i>et al.</i> , 2001) PEI: Construct and convergent (Spreitzer, 1995) NIS: Construct (Cortina, <i>et al.</i> , 2001); Convergent and discriminant (Guidroz, <i>et al.</i> , 2010).

RESEARCH OBJECTIVE	DATA COLLECTION	POPULATION AND SAMPLING	DATA ANALYSIS	RIGOUR
	Questionnaire – II (Laschinger, <i>et al.</i>, 2001); - Psychological Empowerment Instrument (Spreitzer, 1995) - Nursing Incivility Scale (Guidroz, <i>et al.</i>, 2010); - Negative Acts Questionnaire – Revised (Einarsen, <i>et al.</i>, 2009) - Demographics Demographic checklist for each CCU (Addendum L)	N = 23 n = 15 Adult CCUs (All inclusive sampling) N = 21 n = 20 CCNs (All inclusive sampling) N = 309 (permanently employed CCNs) n = 151 (permanently employed CCNs) n = 58 (CCNs working through an agency) (Please see Chapter 3, Section 3.4.)		NAQ-R Construct (Einarsen, <i>et al.</i>, 2009) PES-NWI-R: Construct (Parker, <i>et al.</i>, 2010). Predictive (Klopper, <i>et al.</i>, 2012; Coetzee, <i>et al.</i>, 2013) Reliability: MBI (Klopper, <i>et al.</i>, 2012; Maslach & Jackson, 1981; Aguayo, <i>et al.</i>, 2011) CWEQ-II (Fitzpatrick, <i>et al.</i>, 2011; Laschinger, <i>et al.</i>, 2009) PEI: (Laschinger, <i>et al.</i>, 2004; Knol & van Linge, 2009) NIS (Guidroz, <i>et al.</i>, 2010) NAQ-R (Einarsen, <i>et al.</i>, 2009; Abe & Henly, 2010) PES-NWI-R (Klopper, <i>et al.</i>, 2012; Coetzee, <i>et al.</i>, 2013; Chiang & Lin, 2008;

RESEARCH OBJECTIVE	DATA COLLECTION	POPULATION AND SAMPLING	DATA ANALYSIS	RIGOUR
				Laschinger, et al., 2009) (Please see Chapter 3, Table 3.2)
3. To examine the nature of the relationship between burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment of CCNs in a private hospital group in the Gauteng Province of SA.	As above	As above	SPSS and AMOS (SPSS, 2015) Inferential statistics: • T-tests • ANOVAs • Spearman's rank correlations • Model-Testing Structural Equation Modelling (SEM): Applied in the case of confirmatory factor analysis, as well as between the variables of the study	As above

RESEARCH OBJECTIVE	DATA COLLECTION	POPULATION AND SAMPLING	DATA ANALYSIS	RIGOUR
PHASE 2				
4. To develop an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.	Evidence from Phase one, Objective two and three	Evidence from Phase one, Objective two and three	Deductive and inductive reasoning: • Vision • Mission • Values • Principles • Assumptions • Problems identified • Assumptions • Objectives • Interventions • Actions (Please see Chapter 5, Section 5.3.)	Evaluation of the intervention programme after implementation thereof. (Not conducted as part of this study).

1.9. ETHICAL CONSIDERATIONS

The ethical considerations for this research study are aligned with the ethical principles provided by the Department of Health (DoH) (2015). The three broad ethical principles provided are (1) ***beneficence and non-maleficence*** where maximum benefit must be provided with minimum harm; (2) ***distributive justice (equality)*** provided that there will be a fair balance of risks and benefits among the role players taking part in the research; (3) ***respect for person (dignity and autonomy)*** requires that persons who can choose will have the right to self-determination and persons who have diminished capacity for making choices will be protected. Within these three broad ethical principles eight principles are provided. These are applied to the research study and tabulated in Table 1.4 below.

Table 1.4: Ethical considerations (DoH, 2015)

KEY NORMS AND STANDARDS (DoH, 2015)	ACTIONS
Relevance and value	The research was relevant and responsive to the high burnout levels experienced by CCNs within the private health sector of SA. This research study might lead to improved nurse outcomes for the CCNs within SA.
Scientific integrity	- The researcher followed a comprehensive design and methodology that resulted in reliable and valid data and outcomes, that addressed the research objectives. The researcher demonstrated competency, accuracy and honesty in all actions with no fabrication, falsification or forging of any data (Brink, <i>et al.</i> 2006:40). - Plagiarism was excluded through correct source referencing within the written text and reference list of the research study
Role-player engagement	The participants within the selected CCUs engaged in the research study by completing the questionnaire provided and at a later stage they might also participate in the implementation of the intervention programme to decrease the levels of burnout amongst them.
Fair selection of participants	- One private hospital group was selected for the research study because of the fact that the other two groups already participated in a similar research project. - All adult CCUs were included in the research study and, because of the absence of adult CCUs in seven of the hospitals identified in the Gauteng Province of SA these hospitals were excluded from the sample. - CCNs were selected by means of an all-inclusive sample due to the poor response rate in nursing. This again indicated that all CCNs had a fair chance to participate within the research study, regardless of race, gender, age, sexual orientation, marital status, employment status, etc. - The participants had to be able to speak, read and write in English.
Risk-benefit balance	There was minimal risk to the participants as they only had to complete a questionnaire with no risk of exposing their identities.

KEY NORMS AND STANDARDS (DoH, 2015)	ACTIONS
Informed consent	• All participants were provided with applicable information regarding the research project prior to providing informed consent. • Individual consent letters were also provided to each participant to sign.
Ongoing respect for participants, (privacy and confidentiality included)	• All candidates had the right to self-determination, whether or not to participate and to withdraw at any time without penalty. • A non-accessible box for completed questionnaires was available in each unit to ensure confidentiality. • Anonymous coding of each hospital was done to protect the hospital's identity. • All data was kept confidential, and was not accessible to any person other than the researcher, the promoters and the statistical consultant who assisted with the statistical analysis.
Researcher competence and expertise	• The principle investigator of this research study is a critical care trained RN with more than 15 years of experience in the specialised field of critical care nursing. • The principle investigator also completed her Master's Degree in critical care and burnout.

Lastly the classification of all the chapters and a summary of Chapter 1 will be provided.

1.10. CLASSIFICATION OF CHAPTERS

Chapter 1: Overview of the research study

Chapter 2: Literature review

Chapter 3: Research design and method

Chapter 4: Results

Chapter 5: Intervention programme to decrease burnout

Chapter 6: Evaluation of the study, limitations and recommendations for practice, education, research and policy.

1.11. SUMMARY

In Chapter 1, the researcher provided a broad overview of the research study. A background and problem statement regarding burnout, empowerment, workplace relationships and the practice environment was provided. Research questions, aims and objectives and the hypothesis related to the study were detailed. The researcher's assumptions and methodological assumptions were discussed in brief. The research design and research method were highlighted, and lastly, ethical considerations applicable to this research study were discussed.

CHAPTER 2

LITERATURE REVIEW

"After climbing a great hill, one only finds that

there are many more hills to climb"

Nelson Mandela

CHAPTER 2:

LITERATURE REVIEW

2.1. INTRODUCTION

By means of a literature review, the researcher gains an insight into prior research, current scholarship and what has been left unsaid, unstudied or overlooked (Franklin, 2013:100). Chapter 1 offered a brief Introduction and background to the research study. However, it is extremely important to provide more detail regarding the variables to be studied, in order to understand the concepts further, to be knowledgeable about international and national research regarding such variables, and to further explore the gap between them. In this chapter, the researcher will discuss the search strategy used to review the literature, as well as provide a literature review on the variables of burnout, empowerment (structural and psychological), workplace relationships (incivility and bullying), the status of the practice environment and the interrelationship between these variables.

2.2. SEARCH STRATEGY

In reviewing the literature international journal database systems, ScienceDirect and EBSCOHost (Academic Search Premier, CINAHL, Health Source: Nursing/Academic Edition, Premier, MEDLINE, Pre-CINAHL, PsychINFO, SociINDEX with Full Text, Humanities International Complete and Academic Search Complete), SAePublications (South African journal database system), books, dissertations, theses and Google Scholar were used. The keywords: “burnout”, “empower*”, “incivility”, “bullying”, “practice environment” AND “nurs*” OR “critical care” were searched in various sequences in the abstract or author-supplied abstract.

The search generated significant data considered relevant in addressing the objectives of this study. In the sections that follow, the researcher will elaborate in

depth on the variables of burnout, empowerment, incivility, bullying and the practice environment. Figure 2.1 provides a visual illustration of the outline of this chapter.

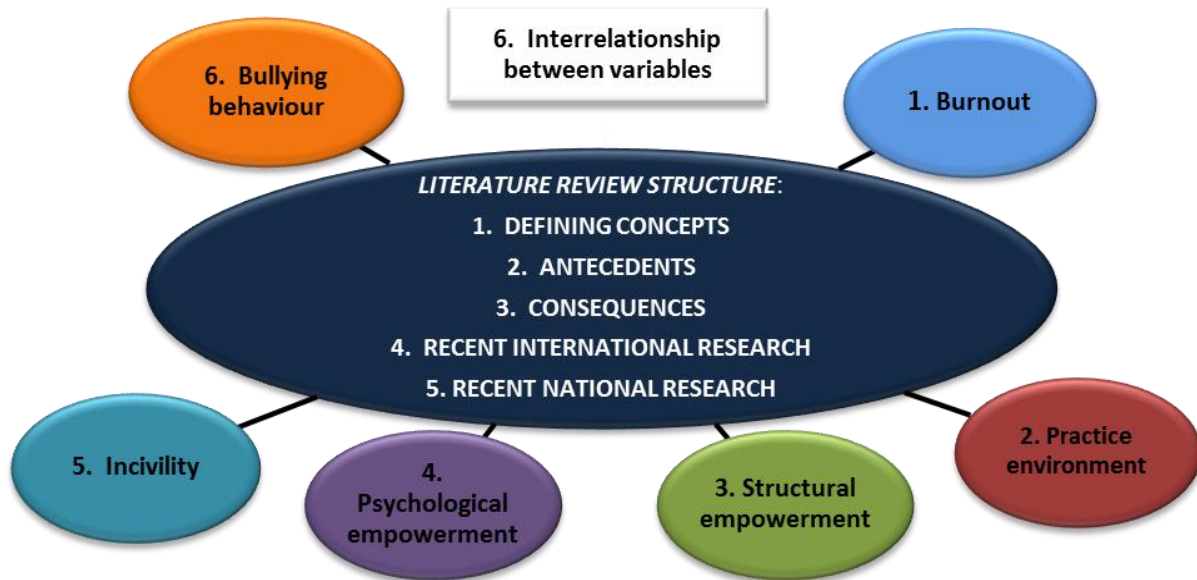


Figure 2.1: The literature review structure

Within the next few sections each of these variables will be discussed in detail.

2.3. BURNOUT

In this discussion of burnout, the variable will be defined, the antecedents and consequences of burnout will be discussed, and recent international and national research on the topic will be highlighted.

2.3.1. Conceptual definition of burnout

The term “burnout” was first coined in 1974 by Freudenberger (Freudenberger, 1974: 159). As mentioned in Chapter 1 (Section 1.2.1) Maslach and Jackson (1981:99) developed an instrument, the MBI, which measured the three constructs of burnout, namely: EE, Dp and PA. EE is the absence of energy required for the emotional requirements of providing services. Dp is a cognitive distance from work that denies

the human qualities of service recipients. PA describes feelings of competence and successful achievement in one's work with people. With depleted emotional energy a person is unable to perform at an optimal psychological level and therefore s/he develops negative, cynical attitudes and decreased levels of PA (Maslach & Jackson, 1981:101).

The MBI was tested on a wide range of professional staff in human service institutions and found to have good reliability and validity. The MBI is the main instrument used to measure burnout, as evidenced by the literature review of (Schaufeli & Enzmann, 1998) that showed that 90% of research published used the MBI. The MBI was therefore used to measure burnout in this study. Each of the constructs will be visually illustrated in Figure 2.2 and then explained in greater detail.

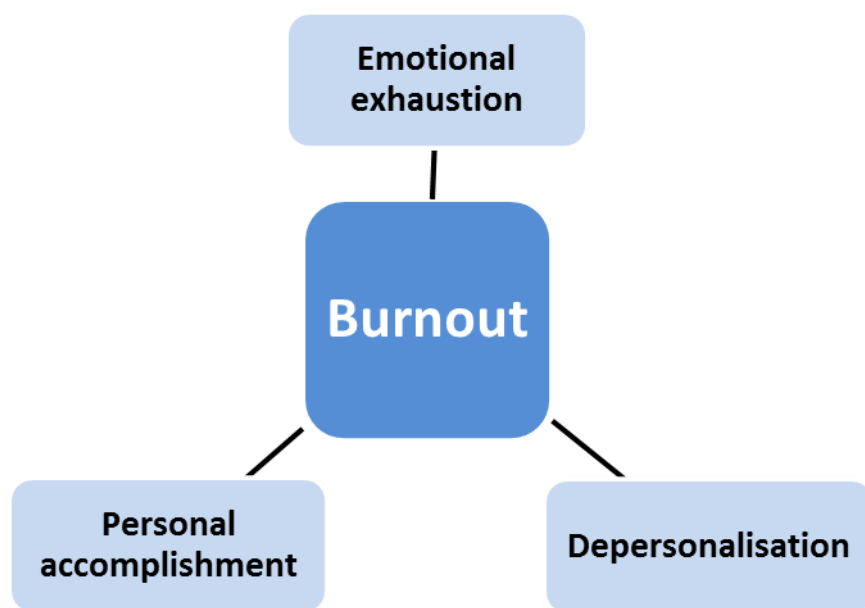


Figure 2.2: Constructs of burnout (Maslach & Jackson, 1981:100)

- **Emotional Exhaustion**

The first construct of burnout is EE, where the employee's resources are depleted, he/she feels emotionally and physically overextended, and is no longer able to give

of themselves to clients (Maslach & Leiter, 2008:498). Of the three constructs of burnout, EE is the most widely reported and thoroughly analysed, as it is the most obvious manifestation of this complex syndrome (Maslach, *et al.*, 2001:402). EE prompts the employee to distance him/herself emotionally and cognitively from his/her work in order to cope with the workload, leading to Dp (Maslach, *et al.*, 2001:403).

- **Depersonalisation**

Dp is where the employee develops negative and cynical attitudes and emotions towards clients (patients and family). Through Dp, employees attempt to distance themselves from clients by actively ignoring the qualities that make them unique and engaging people. Dp results in the demands of the practice environment becoming more manageable because clients are reduced simply to impersonal work objects (Maslach, *et al.*, 2001:403).

- **Personal Accomplishment**

The third characteristic of burnout includes a lack of PA or inefficacy. PA describes feelings of competence and satisfaction in one's work with people (Maslach & Jackson, 1981:101). PA is significantly reduced when EE and Dp interfere with one's sense of effectiveness. It is also difficult to gain a sense of accomplishment when feeling exhausted (Maslach, *et al.*, 2001:403).

2.3.2. Antecedents of burnout

Since burnout was identified in the scientific literature in the mid-1970s, the syndrome as it affects nurses has received extensive and unceasing research attention, which has resulted in a voluminous list of antecedents. The researcher highlights the main antecedents within the practice environment and the individual antecedents of burnout in Table 2.1.

Table 2.1: Antecedents of burnout

ANTECEDENTS OF BURNOUT	
ORGANISATIONAL	a. Participation in hospital affairs: • Little participation in decision-making (Holland, <i>et al.</i>, 2013:3156); • Hierarchical structures (Holland, <i>et al.</i>, 2013:3156; Maslach, <i>et al.</i>, 2001:409) ; • Operating rules within the organisation (Kar & Suar, 2014:30; Maslach, <i>et al.</i>, 2001:409); • Constant changes like downsizing and mergers where employees must give more in terms of time, effort, skills and flexibility but receive less in terms of career opportunities, lifetime employment and job security (Maslach, <i>et al.</i>, 2001:409); • Conflict in values between job requirements and one's personal principles (Alexander, 2009:5).
	b. Leadership and support: • Lack of positive feedback (Henry, 2013:213; Alexander, 2009:5); • Lack of trusting relationships between supervisors and staff (Khamisa, <i>et al.</i>, 2015:656; Hinderer, <i>et al.</i>, 2014:165; Bush, 2009:28); • Lack of control in the practice environment (Henry, 2013:213; Alexander, 2009:5); • Moral and general distress (Rushton, <i>et al.</i>, 2015:417).
	c. Staffing and resource adequacy: • Lacking or insufficient job resources (Demerouti, <i>et al.</i>, 2000:454,456); • Increased demands from the healthcare providers and practice environment: demands to do more with less (Khamisa, <i>et al.</i>, 2015:656; Breen & Sweeney, 2013:17; Bush, 2009:25; Palmer & Bor, 2008:212); • Space distribution (Maslach, <i>et al.</i>, 2001:409).
	d. Collegial and nurse-physician relationships : • Conflict and tension among staff (Khamisa, <i>et al.</i>, 2015:656; Hinderer, <i>et al.</i>, 2014:165); • Lack of respect (Basińska & Wilczek-Rużyczka, 2013:599) • Absence of support from colleagues (Khamisa, <i>et al.</i>, 2015:656; Hinderer, <i>et al.</i>, 2014:165); • Violence within the practice environment (Felton, 1998:241); • Fairness (Henry, 2013:213; Alexander, 2009:5).

ANTECEDENTS OF BURNOUT	
THE INDIVIDUAL	a. Demographic characteristics: • Younger age (Alexander, 2009:5); • Marital status (unmarried men are more vulnerable to burnout than married men) (Maslach, <i>et al.</i>, 2001:410); • Having children is associated with higher EE levels (Ayala & Carnero, 2013:3); • Level of education: people with higher levels of education report higher levels of burnout (Maslach, <i>et al.</i>, 2001:410); • Family support. When not emotionally supported by family, burnout is more prevalent (Alexander, 2009:6).
	b. Personality: • People with low levels of hardiness (Maslach, <i>et al.</i>, 2001:410-411); • People with an external locus of control (attributing events and achievements to powerful others or to chance) (Maslach, <i>et al.</i>, 2001:410-411); • Passive, defensive coping personality type (Maslach, <i>et al.</i>, 2001:410-411); • People with a low self-esteem (Maslach, <i>et al.</i>, 2001:410-411); • Neurotic individuals (Maslach, <i>et al.</i>, 2001:410-411); • Personal values (Henry, 2013:213; Altun, 2002:269); • Idealistic, highly motivated and committed caregivers (Bush, 2009:26).

2.3.3. Consequences of burnout

Not only does burnout have detrimental consequences for the employee's physical, psychological and social wellbeing, but also for the practice environment and client (patient and family). In Table 2.2, the researcher highlights the main consequences of burnout in the practice environment and consequences for the patient.

Table 2.2: Consequences of burnout

CONSEQUENCES OF BURNOUT	
FOR THE PRACTICE ENVIRONMENT	a. Participation in hospital affairs: - Financial costs (Aiken, <i>et al.</i>, 2012:10). b. Quality patient care: - Compromised patient care (Alexander, 2009:17); - High incidence of adverse events (Suner-Soler, <i>et al.</i>, 2014:84; Alexander, 2009:18); affecting patient safety (Halbesleben, <i>et al.</i>, 2008:568); - Increased patient mortality (Alexander, 2009:19); - Patient dissatisfaction (Vahey, <i>et al.</i>, 2004:7) ; - Decreased quality of patient care (Khamisa, <i>et al.</i>, 2015:652); - Decreased productivity (Khamisa, <i>et al.</i>, 2015:656; Alexander, 2009:17). c. Staffing and resource adequacy: - Absenteeism / increased sick leave (Suner-Soler, <i>et al.</i>, 2014:84; Alexander, 2009:17). - Shortage of nurses (Aiken, <i>et al.</i>, 2012:10); - Intention to leave (Suner-Soler, <i>et al.</i>, 2014:85; Kar & Suar, 2014:30; Aiken, <i>et al.</i>, 2012:10).
FOR THE INDIVIDUAL	a. Physical/Physiological: - Feeling of being worn out, physical exhaustion (Bush, 2009:25); - Tension headaches, muscle tension (Palmer & Bor, 2008:211); - Skin complaints (Palmer & Bor, 2008:211); - Indigestion (Palmer & Bor, 2008:211); - Increase in illness, (Palmer & Bor, 2008:211), chronic disease (Suner-Soler, <i>et al.</i>, 2014:85); - Insomnia (Palmer & Bor, 2008:211). b. Psychological: - Feelings of failure (Bush, 2009:25; Palmer & Bor, 2008:211); - Depression (Khamisa, <i>et al.</i>, 2015:656; Iacovides, <i>et al.</i>, 2003:209) ; - Symptoms like feelings of sadness, emptiness, hopelessness, helplessness, dysphonic feelings and low energy (Antoniou & Cooper, 2005:607);

CONSEQUENCES OF BURNOUT	
	• Anxiety (Khamisa, <i>et al.</i>, 2015:659) and somatic complaints (Antoniou & Cooper, 2005:607); • Poor concentration (Palmer & Bor, 2008:211); • Mood swings and anger (Palmer & Bor, 2008:211); • Guilt and shame (Palmer & Bor, 2008:211). c. Social: • Increase in alcohol consumption (Palmer & Bor, 2008:211); • Increase in perception of family deterioration (Suner-Soler, <i>et al.</i>, 2014:85); • Personal deterioration (Suner-Soler, <i>et al.</i>, 2014:87); • Irritability (Palmer & Bor, 2008:211); • Poor time management (Palmer & Bor, 2008:211); • Increase in absenteeism (Palmer & Bor, 2008:211); • Over-eating (Palmer & Bor, 2008:211); • Passive or aggressive behaviour (Palmer & Bor, 2008:211).

2.3.4. Recent international research regarding burnout

Globally, burnout plays an important role with regard to nurse, organisation and patient outcomes. International studies of burnout have included numerous single-country samples (Hinderer, *et al.*, 2014:165; You, *et al.*, 2013:159; Brooks, *et al.*, 2010:258; Xie, *et al.*, 2010:1541) and several multi-country samples (Poghosyan, *et al.*, 2010:294). A ground-breaking study is that of Aiken, *et al.*, (2012:10), which has studied burnout in 33 659 nurses in 488 general acute care hospitals in 12 European countries; and 27 509 nurses in 617 general acute care hospitals in the United States. The study found that nurses experience high levels of burnout. Among these 1 105 general acute care hospitals, burnout levels ranged from as low as 10% of nurses in the Netherlands to as high as 78% of nurses in Greece (Aiken, *et al.*, 2012:10).

Not even new graduate nursing staff, with less than 2 years clinical experience, can escape the effects of burnout. Laschinger *et al.* (2009: 381) showed that 62% of new

graduate nursing staff had high levels of burnout. Laschinger *et al.* (2009:306) also added a new dimension to burnout research in their study of five different health care organisations in 2 provinces of Canada, where they state that almost half (47.3%) of the nurses scored >3.0, the cut-off point for severe burnout.

Specifically within CCUs, several single country studies have been conducted (Guntupalli, *et al.*, 2014:141; Karanikola, *et al.*, 2012:97; Iglesias, *et al.*, 2010:33; Poncet, *et al.*, 2007:700) and results showed that CCNs had moderate to high levels of burnout. In a multi-country study of 1849 CCNs in 80 CCUs in 12 countries, the researchers found that nurses experienced high levels of burnout, and it was plausible that nurses working in CCUs could be infected with the “burnout-virus” by their colleagues (Bakker, *et al.*, 2005:284).

It is therefore clear that there is a moderate to extreme level of burnout among nurses internationally, and that it is experienced from the level of the new graduate to the knowledgeable CCN.

2.3.5. Recent national research on burnout

Within the South African context, recent research regarding burnout includes samples from specific hospitals, where Bruce and Sangweni (2012:89) found that 75.8% (n=125) of the nurses in an academic hospital (public sector) of Gauteng province experienced moderate to high levels of EE and 71.5% experienced moderate to high levels of Dp, although high levels of PA were reported by these RNs (77%). On a national level, Coetzee *et al.* (2013:169) concluded that 45.8% of nurses in SA experience high levels of burnout on a national level. Within the SA private sector, 40.6% nurses experience burnout, compared to 53.8% in the public sector. Pienaar and Bester (2011: 113) also indicate high levels of burnout amongst South African RNs.

With specific regard to CCNs, on a hospital level, Elkonin and Van der Vyver (2011:5) investigated different emotional responses to work-related trauma and determined that CCNs in a private health facility indicated an 89.9% moderate to high risk of burnout. Klopper *et al.* (2012:693) confirmed that South African CCNs are

experiencing high burnout levels. Compared to an eight-country study, EE in SA is the highest (27.0), with only Japan (25.0) and the USA (22.0) having comparable results. Furthermore, only Japan had a higher incidence of Dp (12.4) than SA (11.1).

From these studies it is clear that South African nurses, and CCNs in particular, experience high levels of burnout.

2.4. EMPOWERMENT

Empowerment can be defined as a process whereby an individual believes that his/her self-efficacy is enhanced. To empower means either to strengthen this belief or to weaken one's belief in personal powerlessness (Conger & Kanungo, 1988:474). Mead (2005: 324) states that empowerment means giving the subordinate greater control over his/her own affairs. This author also stated that empowerment motivates staff, releases energy, builds commitment and develops new skills.

In 1988, Conger and Kanungo (1988:475) defined empowerment as the motivational concept of self-efficacy. The researchers described different stages of empowerment (please see table 2.3). In stage one, certain conditions lead to a psychological state of powerlessness; for example, organisational factors, supervision, type of job and reward system. In stage two, the use of managerial strategies and techniques like participative management, goal settings, good feedback systems, modelling, competence-based rewarding and job enrichment enhance self-efficacy within the subordinate. Stage three includes the provision of self-efficacy information through four sources: 1) **enactive attainment**, referring to an individual's authentic mastery experience directly related to the job. When performing complex tasks or when given more responsibility in a job, the subordinate has the opportunity to test his/her efficacy, 2) **vicarious experience** of observing colleagues, such as co-workers, can lead to the feeling of being empowered; 3) to empower employees, supervisors can use words of encouragement, **verbal feedback** and other forms of social persuasion; 4) personal competence expectations are affected by one's **emotional arousal state**, resulting from stress, fear, anxiety, depression etc. within one's job or personal life. Emotional arousal states might lower self-efficacy expectations. Individuals are more likely to feel competent when they are not experiencing strong

aversive arousal. In stage four, all the above result in an empowering experience for the subordinate with strengthening of effort – performance expectancy or belief in personal efficacy. Stage five leads to behavioural effects, initiating behaviour to accomplish task objectives (Conger & Kanungo, 1988:475-479).

Table 2.3: The five stages of empowerment (Conger & Kanungo, 1988:475)

Stages	Stage description
Stage 1	Conditions leading to a psychological state of powerlessness: • Organisational factors; • Supervision • Reward system • Nature of job
Stage 2	Use of managerial strategies and techniques: • Participative management • Goal settings • Feedback system • Modelling • Competence-based reward • Job enrichment
Stage 3	To provide self-efficacy information to subordinates using four sources: • Enactive attainment • Vicarious experience • Verbal persuasion • Emotional arousal • AND • Remove conditions listed in Stage 1
Stage 4	Results in empowering experience for subordinates: Strengthening of effort – performance expectancy or belief in personal efficacy
Stage 5	Leading to behavioural effects: Initiation or persistence of behaviour to accomplish task objectives.

In the following sections the researcher will discuss structural and psychological empowerment.

2.4.1. Structural empowerment

In this discussion of structural empowerment, the variable will be defined, the antecedents and consequences of structural empowerment will be discussed, and recent international research on structural empowerment will be highlighted. Finally, the relationship between structural empowerment and burnout will be elaborated upon.

2.4.1.1. Conceptual definition of structural empowerment

A widely accepted definition of job-related empowerment in nursing is “structural empowerment”. Structural empowerment can be described as access to information, resources, support and opportunities within the practice environment so as to learn and grow (Laschinger, *et al.*, 2010:2734; Kanter, 1979:66). Laschinger *et al.* (2001) developed the Conditions for Work Effectiveness Questionnaire-II which will be used in this study. The constructs of structural empowerment will be visually presented in Figure 2.3 and then discussed in more detail.

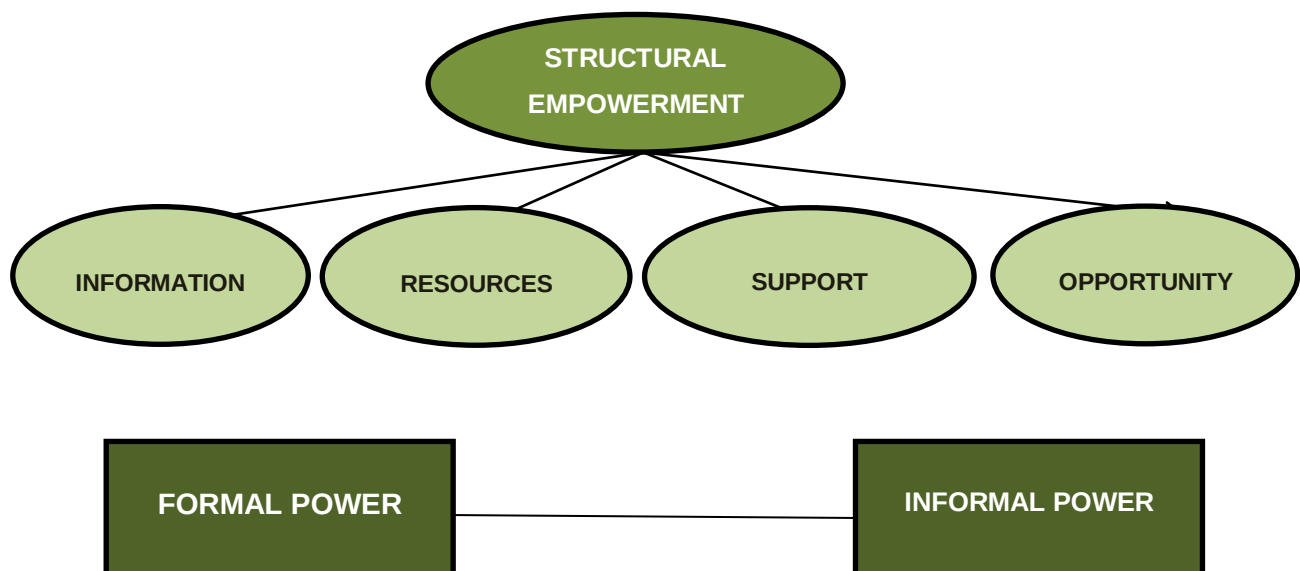


Figure 2.3: Constructs of structural empowerment (Kanter, 1979)

- **Information**

Information allows employees to have access to the formal and informal knowledge that is necessary for effectiveness in the practice environment (Almost & Laschinger, 2002:409). The lines of information involve formal information that is needed to carry out the job, as well as informal information concerning the current state of affairs within the organisation. Therefore, employees must possess technical knowledge and expertise required to accomplish the job, but they also need to understand organisational policies and decisions (Cho, *et al.*, 2006:45-46).

- **Resources**

To have access to resources relates to one's ability to acquire the financial means, materials, time and supplies required to do the job. All necessary resources must be present and readily available (Cho, *et al.*, 2006:45; Kanter, 1979).

- **Support**

Support refers to feedback and guidance received from subordinates, peers and supervisors (Cho, *et al.*, 2006:46). A supportive atmosphere and good teamwork should be encouraged by supervisors in order to increase staff experience of empowerment (Wahlin, *et al.*, 2010:262). Employees who are supported by management to act on their expertise and judgment are more likely to believe that high quality outcomes are achievable (Almost & Laschinger, 2002:409).

- **Opportunity**

The structure of opportunity embodies connections, exposure, visibility and the ability to grow professionally. Opportunities include expectations within the organisation as experienced by the employee. When employees have access to opportunities for learning, growth and advancement in the organisation, this leads to job satisfaction and productivity and employees are motivated, committed and innovative in their jobs (Cho, *et al.*, 2006:45).

- **Formal power**

Formal power facilitates access to the above mentioned empowerment structures (information, resources, support and opportunity) and is evident in jobs that are central and visible in the organisation's goals, allowing recognition, relevance and discretion (Kanter, 1979). This means that when jobs are constructed in such a way that there are significant levels of discretion or flexibility as to how work is accomplished, and when jobs are central to the overall purpose of the organisation, then they are rich in formal power. High levels of job discretion ensure that the job is non-routinised and permits flexibility, adaptability and creativity. Recognition of an employee's accomplishments among peers and supervisors contributes a great deal to formal power (Almost & Laschinger, 2002:409; Kanter, 1979). The relevance of job responsibilities and accomplishments to the organisation's strategic plan or existing problems is also vital (Kanter, 1979).

- **Informal power**

Informal power develops from close relationships and contact within the organisation between peers, superiors and subordinates, including connections from outside the organisation; for example, sponsors (Almost & Laschinger, 2002:409). Informal power promotes co-operation so that work can be accomplished more effectively (Cho, *et al.*, 2006:45). Relationships with people at higher hierarchical levels ensure support, respect and assistance, whereas peer networks provide status and "grapevine" information (Kanter, 1979). When strong relationships among supervisors, peers and subordinates are encouraged within the practice environment, the resulting associations confer informal power (Laschinger, *et al.*, 2005:440).

Practice environments providing access to the above structures empower employees to accomplish their work in meaningful ways (Kanter, 1979).

2.4.1.2. Antecedents of being structurally empowered

Certain structural determinants within an organisation either cultivate the growth of empowerment or the experience of powerlessness (Kanter, 1993). The researcher

highlights the main constructs of empowerment and the antecedents that will cause the employee to feel empowered in Table 2.4.

Table 2.4: Antecedents of being structurally empowered

ANTECEDENTS OF BEING STRUCTURALLY EMPOWERED	
THE PRACTICE ENVIRONMENT	a. Nurse participation in hospital affairs: • Communication of goals by management: the current and proposed future state of the organisation through various means of communication (e-mailing, on-line newsletters, websites, etc.) (Laschinger, <i>et al.</i>, 2010:6; Tromp, 2009:51); • Timely sharing of information (Laschinger, <i>et al.</i>, 2010:6); • Define outcomes of nursing practice and align with organisational goals (Laschinger, <i>et al.</i>, 2010:6); • Promote participative management and autonomous work units (Laschinger, <i>et al.</i>, 2010:6; Tromp, 2009:51); • Participate in special task forces or important organisational committees (Laschinger, <i>et al.</i>, 2010:6).
	b. Leadership and support: • Authentic leadership style (Wong & Laschinger, 2013:955; Laschinger, <i>et al.</i>, 2013:541); • Connectivity between the unit manager and the nursing personnel (Udod, 2014:120); • Provide specific timely feedback (Laschinger, <i>et al.</i>, 2010:6); • Provide recognition and approve achievements and recognise nurses' role as central and relevant (Laschinger, <i>et al.</i>, 2010:6; Tromp, 2009:51); • Encourage autonomy (Kuokkanen, <i>et al.</i>, 2014:353).
	c. Staffing and resource adequacy: • Adequate time and resources to accomplish work (Laschinger, <i>et al.</i>, 2010:6); • Assuring supplies are accessible and responsibly used (Laschinger, <i>et al.</i>, 2010:6); • Involvement of nurses in evaluation of supplies to assure quality care (Laschinger, <i>et al.</i>, 2010:6); • A functional plan for equipment replacement and preventative maintenance strategies (Laschinger, <i>et al.</i>, 2010:6);

ANTECEDENTS OF BEING STRUCTURALLY EMPOWERED	
	• Develop proposals to obtain funding for new equipment and equipment sharing (Laschinger, <i>et al.</i>, 2010:6); • Promote staff involvement in resource decisions (Laschinger, <i>et al.</i>, 2010:6); • Encourage interpretation of workload data as a necessary part of decision-making (Laschinger, <i>et al.</i>, 2010:6). d. Collegial and nurse-physician relationships: • Good collaboration and collegiality among staff (Laschinger, <i>et al.</i>, 2010:6; Wahlin, <i>et al.</i>, 2010:267).
THE INDIVIDUAL	• Educational qualifications (Nasser & Saadeh, 2013:543; Kuokkanen, <i>et al.</i>, 2014:353) ; • Motivation towards achievement (Nasser & Saadeh, 2013:543); • Participate in training and development sessions (Laschinger, <i>et al.</i>, 2010:6); • Request secondment or job exchange to expand skills (Laschinger, <i>et al.</i>, 2010:6); • Negotiate expanded role/function in current job (Laschinger, <i>et al.</i>, 2010:6); • Add new challenges and developmental tasks (Laschinger, <i>et al.</i>, 2010:6); • Establish career ladders based on skills development (Laschinger, <i>et al.</i>, 2010:6; Hajbaghery & Salsali, 2005:7-8);

2.4.1.3. Consequences of being structurally empowered

Structural empowerment has both a positive effect on the employee and the organisation. The major consequences of being structurally empowered are highlighted in Table 2.5.

Table 2.5: The consequences of being structurally empowered

CONSEQUENCES OF BEING STRUCTURALLY EMPOWERED	
FOR THE PRACTICE ENVIRONMENT	a. Participation in hospital affairs: • Participation in organisational decision-making (Udod, 2014: 120); • Perceived control over practice environment (Laschinger, <i>et al.</i> 2014:1621). b. Quality of care: • Improved patient care (Udod, 2014:115). c. Leadership and support: • Organisational effectiveness improves (Laschinger, <i>et al.</i>, 2014:1621). d. Staffing and resource adequacy: • Decreased staff turnover rate (Dahinten, <i>et al.</i>, 2014:24).
FOR THE INDIVIDUAL	• The increased experience of job satisfaction by nurses (Laschinger, <i>et al.</i>, 2014:1621); • Employee attitude and commitment improves ((Dahinten, <i>et al.</i>, 2014:24; Hauck, <i>et al.</i>, 2011:269, 274); • Nurses will react accordingly and take up challenges within the work environment (Nasser & Saadeh, 2013:543); • Nurses experiencing structural empowerment are more likely to experience increased levels of psychological empowerment (Laschinger, <i>et al.</i>, 2014:1621).

2.4.1.4. Recent international research regarding structural empowerment

Several studies have been conducted internationally on structural empowerment. Research done by Casey *et al.* (2010:28) showed that nurses perceived their work environment to be “somewhat” empowering. The nurses perceived that they had most access to opportunities and information, and least access to support and resources. Only 28% of the participants agreed that they had specific information about things they did well, and only 20% agreed that they were rewarded for job innovation. Similarly, O’Brien (2011:477) found that 67.8% of US nurses perceived a

moderate level of structural empowerment in their organisation, whereas 10.7% perceived low levels, and only 18.5% felt their workplace provided a high level of structural empowerment. The nurses in this study had the least access to resources ($M = 2.73$, $SD = 0.849$) and information ($M = 3.17$, $SD = 1.04$), signifying an overall lack of access to formal power. The lack of formal power by nurses was also previously identified by Faulkner and Laschinger (2008:219), and the authors countered that when nurses were more visible and important to the achievement of organisational goals they experienced increased feelings of being respected (Faulkner & Laschinger, 2008:219) and, in effect, more formal power (Casey, *et al.*, 2010:31).

Studies have also been conducted with new graduates with less than 2 years clinical experience in Ontario, which indicated that they only perceived themselves as being “somewhat” empowered ($M = 3.30$, $SD = 0.77$) within their practice environment (Cho, *et al.*, 2006:51). Smith *et al.* (2010:1009) also did research with new graduate nurses and indicated that they experienced moderate levels of structural empowerment, reporting to have the greatest access to opportunity ($M = 4.2$), while access to support ($M = 2.95$) was perceived as least empowering.

With regard to CCNs, Armellino *et al.* (2010:800) stated that CCNs in the US perceived themselves as moderately empowered, with the majority of CCNs (79.2%) indicating a moderate level of structural empowerment, 1.98% indicating low levels of structural empowerment and 18.81% indicating high levels of structural empowerment. Hauk *et al.* (2011:273) had a similar finding, and specified that CCNs had the least access to resources and information. Israeli CCNs also experience moderate levels of structural empowerment, having the greatest access to opportunities and the least access to information (Ganz, *et al.*, 2012:419). Although structural empowerment has been investigated internationally in many different countries, research nationally is lacking.

From this discussion, it is evident that nurses in general experience moderate structural empowerment, with most access to opportunity, and least access to formal power (resources and information).

2.4.1.5. Relationship of structural empowerment to burnout

When looking at the relationship between empowerment and burnout, research indicates that empowerment is inversely associated with EE (Gilbert, *et al.*, 2010:344, Harwood, *et al.*, 2010:15), This inverse association indicates that when nurses are more empowered they will experience fewer feelings of EE. So also O'Brien (2011:478), confirmed an inverse relationship between structural empowerment and burnout, and specifically found that access to resources and formal power were the dimensions of structural empowerment that most significantly predicted burnout. Wang, *et al.* (2013:2898) concluded that PA is positively influenced by being structurally empowered, with access to support having the largest effect on PA. Lastly, Laschinger *et al.* (2013:549) confirmed that being structurally empowered has a mediating effect on the experience of burnout in nurses.

2.4.2. Psychological empowerment

In this discussion of psychological empowerment, the variable will be defined, the antecedents and consequences of psychological empowerment will be discussed, and recent international research on psychological empowerment will be highlighted. Finally, the relationship between psychological empowerment and burnout will be elaborated upon.

2.4.2.1. Conceptual definition of psychological empowerment

Psychological empowerment is defined by Spreitzer (1995:1443-1444) as a motivational construct manifesting in four cognitions reflecting an individual's orientation to his/her work role: autonomy (self-determination), competence, meaningfulness and impact. It can thus be referred to as a set of psychological states necessary for individuals to feel a sense of control in relation to their work (Spreitzer, 2007:6) and focusses on the individuals' experiences (Gkorezis & Petridou, 2012:2). Spreitzer (1995) developed the Psychological Empowerment Instrument which will be used in this study. The following diagram provides a visual

illustration of the constructs of psychological empowerment, and each of these constructs will be discussed in more detail.

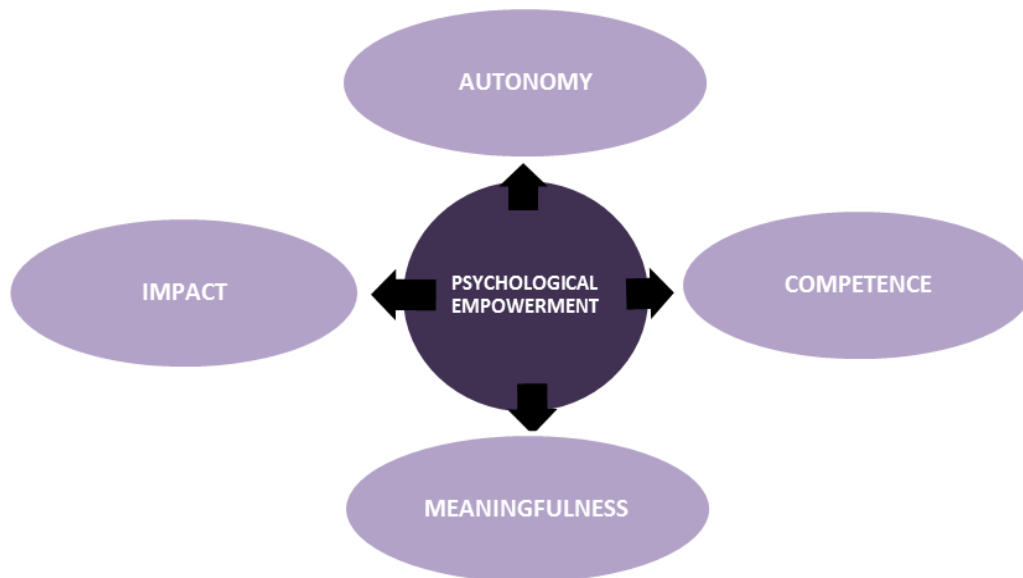


Figure 2.4: Constructs of Psychological empowerment (Spreitzer, 1995)

- **Autonomy (Self-determination)**

Autonomy refers to the independence that employees perceive within their practice environment (Spreitzer, 1995). Self-determination is also seen as an individual being able to exercise an intelligent choice in starting and modifying actions (Spreitzer, 1995:1443).

- **Competence**

Competence refers to the Individual's job performance (Spreitzer, 1995), thus indicating the "*individual's belief in his or her capability to perform work role activities with skill*" (Spreitzer, 1995:1443). Competence focuses on the level of efficacy specific to a work role (Stander & Rothman, 2009:2).

- **Meaningfulness**

Meaningfulness is an indication of the fit between the employee's behaviour, job requirements and organisational goals (Spreitzer, 1995). It can also be seen as *"the value of a work goal or purpose, judged in relation to an individual's own ideals or standards"* (Spreitzer, 1995:1443). Meaningfulness results from the feeling that job tasks are valuable and make a difference (Stander & Rothman, 2010:3).

- **Impact**

Impact refers to the degree to which an individual can influence organisational goals (Spreitzer, 1995). According to Stander and Rothman (2010:3), impact implies a sense of progression towards a goal and reflects individuals' belief that their actions are making a difference in their organisations.

2.4.2.2. Antecedents of being psychologically empowered

Certain conditions within the practice environment and the employee him/herself can lead to psychological empowerment. In Table 2.6 the main antecedents of structural empowerment are listed.

Table 2.6: Antecedents of being psychologically empowered

ANTECEDENTS OF BEING PSYCHOLOGICALLY EMPOWERED	
THE PRACTICE ENVIRONMENT	a. Participation in hospital affairs: • Perceived external prestige of an organisation has a contributing effect on psychological empowerment (Ghorezis & Petridou, 2012:5); • Providing of organisational information helps create a sense of meaningfulness (Spreitzer, 1995:1446). c. Leadership and support: • Good leadership (Seibert, et al., 2011:983); • Performance information reinforces a sense of competence and believing that one is valued within the organisation (Spreitzer, 1995:1446; Seibert, et al., 2011:983);

ANTECEDENTS OF BEING PSYCHOLOGICALLY EMPOWERED	
	• Incentive systems that reward performance recognise and reinforce personal competencies (Spreitzer, 1995:1446); • High performance managerial practices (Seibert, <i>et al.</i>, 2011:983); • Promotion opportunities (Ghorezis & Petridou, 2012:4); • Good relationships with supervisors contribute towards a psychologically empowering state (Ghorezis & Petridou, 2012:6); • Feelings of doing good (Wahlin, <i>et al.</i>, 2010:267). d. Staffing and resource adequacy: • A work environment that fosters meaningful work experiences (Macsinga, <i>et al.</i>, 2015:272). e. Collegial and nurse-physician relationships: • Good relations with peers, leading to autonomy and increased competence (Ghorezis & Petridou, 2012:7).
THE INDIVIDUAL	• Different personalities (Macsinga, <i>et al.</i>, 2015:272); • People with a high self-esteem can extend their feelings of self-worth to a work-specific sense of competence. Through self-esteem, employees see themselves as valued resources with talents contributing to their organisational goals (Spreitzer, 1995:1446); • Locus of control: When people have an internal locus of control regarding life, they feel more capable of shaping their work and practice environment and feel more empowered (Spreitzer, 1995:1446); • Positive self-evaluation traits (Seibert, <i>et al.</i>, 2011:984).

2.4.2.3 . Consequence of being psychologically empowered

Being psychologically empowered can lead to positive outcomes within the employee and the organisation. In table 2.7, these consequences are listed according to four cognitions of psychological empowerment.

Table 2.7: Consequences of being psychologically empowered

CONSEQUENCES OF BEING PSYCHOLOGICALLY EMPOWERED	
FOR THE PRACTICE ENVIRONMENT	a. Quality of care: - Improved patient care (Bartram, <i>et al.</i>, 2014:2412); - Psychological empowerment may relate positively to changes in an employee's performance over time (Maynard, <i>et al.</i>, 2014:1249); - High commitment and concentration of energy (Seibert, <i>et al.</i>, 2011:985); - Increased work engagement (Macsinga, <i>et al.</i>, 2015:271); - Effectiveness (Spreitzer, 1995:1448); - Absence of withdrawal from difficult situations and high performance (Spreitzer, 1995:1448); b. Leadership and support: - Job autonomy (Hauck, <i>et al.</i>, 2011:274). c. Staffing and resource adequacy: - Decreased turnover (Seibert, <i>et al.</i>, 2011:985).
FOR THE INDIVIDUAL	- Motivated employees (Macsinga, <i>et al.</i>, 2015:271); - Job satisfaction (Seibert, <i>et al.</i>, 2011:985) ; - Enhanced social identity (Bertram, <i>et al.</i>, 2014:2412).

2.4.2.4. Recent international research regarding psychological empowerment

In single country research done by Casey *et al.* (2010:29), nurses reported a moderately high level of psychological empowerment, especially with regard to meaning (98% agreed that their work was very important to them) and competence. On the other hand, nurses reported lower levels of psychological empowerment with regard to autonomy and impact. Awases *et al.* (2013:6) further explored nurses' experience of lack of impact in a Namibian study, with six hospitals from three different districts participating, and found that only 51.7% of nurses agreed that they knew how their work contributed to the organisation's mission (Awases, *et al.*, 2013:6). Most recently, Wang and Liu (2015:291) studied the effect of the practice

environment and psychological empowerment on work engagement, and found that both directly impacted on work engagement. They also found that nurses had a high level of psychological empowerment, with nurses' feelings of competence being the highest and impact on work being the lowest. Ibrahim *et al.* (2014:62) also confirmed the experience of moderate (76%) to high levels (24%) of psychological empowerment in nurses, with 58% experiencing high levels of autonomy within their practice environment. Nurses within private sectors stated that their experience of psychological empowerment was influenced by organisational extrinsic rewards, like financial incentives, promotion opportunities and organisational prestige (Gkorezis & Petridou, 2012:12). In the same research study, nurses working in the public sector experienced lower levels of psychological empowerment than nurses working in the private health sector (Gkorezis & Petridou, 2012:8). In a study done by Laschinger *et al.* (2001:268), where the impact of structural and psychological empowerment on job strain in the nursing work setting was examined, the nurses indicated that experiencing structural empowerment resulted in higher levels of psychological empowerment.

With specific reference to CCNs, Wahlin *et al.* (2010:267) found that critical nurses felt that competence and meaning were the most important components of being psychologically empowered and, for psychological empowerment to be experienced, nourishing encounters with patients and family members, as well as good fellowship involving teamwork should be present within the practice. This was confirmed by Browning (2013:148) who found that CCNs experience high levels of psychological empowerment, especially with regard to meaning and competence, followed by self-determination and impact. Although psychosocial empowerment has been investigated internationally, national research within the nursing setting is still lacking.

From this discussion it is clear that nurses in general and CCNs in particular experience moderate to high psychological empowerment, as they believe their work to be meaningful to the organisation, and also that they are competent to do the work. However, in all cases, nurses felt least psychologically empowered with regard to autonomy and impact.

2.4.2.5. Relationship of psychological empowerment to burnout

A systematic review (Wagner, *et al.*, 2010:448) found that there are significant associations between structural and psychological empowerment for nurses. Laschinger *et al.* (2003:8) studied the impact of structural and psychological empowerment on nurses' burnout and found that structural empowerment had a significant direct effect on psychological empowerment which, in turn, had a significant effect on perceptions of EE. Boudrias *et al.* (2012:16) also confirmed that psychological empowerment employs a generous moderating effect on burnout. Most recently, O'Brien, (2011:478) studied the relationship between structural empowerment, psychological empowerment and burnout and found that both structural and psychological empowerment were inversely correlated with burnout, while structural empowerment and psychological empowerment were positively correlated. However, in this study, psychological empowerment was not a significant independent predictor of burnout and did not mediate the relationship between structural empowerment and burnout, whereas psychological empowerment employs a generous moderating effect on burnout (Boudrias, *et al.*, 2012:16).

2.5. WORKPLACE RELATIONSHIPS

Workplace relationships can be described as unique interpersonal relationships with significant implications for the individuals and the organisation in which the relationships exist and grow. As such, the quality of these relationships has important consequences for employee experiences (Sias, 2005:377). Therefore, workplace relationships will be discussed in the following few sections under the headings of incivility and bullying.

2.5.1. Incivility

Incivility will be discussed by providing a definition of the variable, tabulating the antecedents and consequences thereof, elaborating on the latest international research on the variable and lastly exploring the relationship between incivility and burnout.

2.5.1.1. Conceptual definition of incivility

The literature provides various definitions of incivility. In general, incivility is seen as a form of psychological harassment and emotional aggression that violates the ideal workplace norm of mutual respect (Felblinger, 2008:235). Incivility can be described as a form of organisational disruption that generally includes obvious levels of rude and discourteous behaviour. The question of intent to harm distinguishes incivility from bullying or other forms of aggressive behaviour. Examples of uncivil behaviour might include nasty e-mail communication, criticising of colleagues, angry outbursts (verbal abuse), exclusion from important work activities, etc. (Felblinger, 2008:235). Johnson and Indvik (2001:459) state that the eleven most common uncivil behaviours within the practice environment include: 1) condescending and demeaning comments, 2) overruling decisions without offering a reason, 3) disrupting meetings, 4) giving public reprimands, 5) talking about someone behind his or her back, 6) giving others the silent treatment, 7) ignoring people, 8) not giving credit where credit is due, 9) sexually harassing employees, 10) giving dirty looks or negative eye contact, and 11) insulting and shouting at others.

Clark (2011) places uncivil behaviour on a continuum. On this continuum, uncivil behaviour ranges from disruptive behaviour on the one end to threatening behaviour on the other. On the left-hand side of the continuum, incivility can be expressed by some fairly subtle behaviour such as eye-rolling, arm-crossing and walking away. Obvious expressions of incivility like bullying, taunting and intimidation are more apparent and are most often reported in the media (Clark, 2011). (Please see figure 2.5 for a visual illustration of the incivility continuum.)

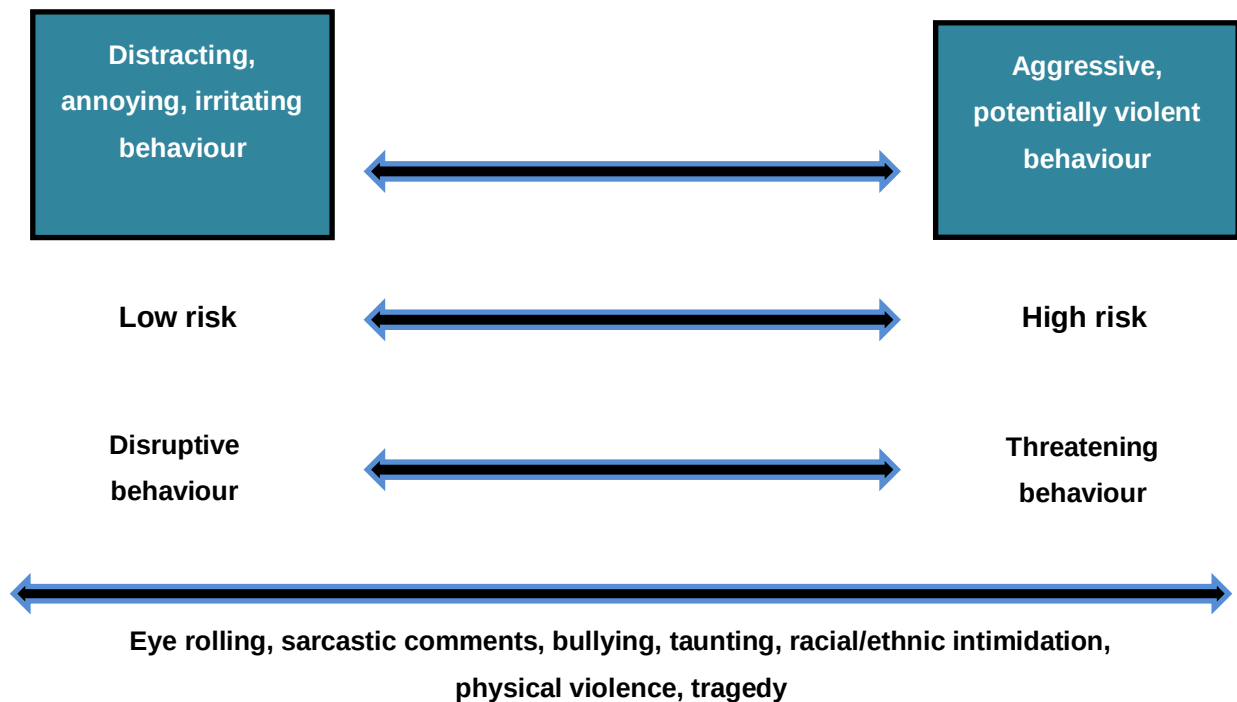


Figure 2.5: Continuum of incivility (Clark, 2011)

To measure incivility in this research study, the Nursing Incivility Scale developed by Guidroz *et al.* (2010) was used. According to Guidroz different sources regarding uncivil behaviour exists from within and outside the practice environment of the nurse, namely: general, nurses, supervisors, physicians, patients and families (Please see Figure 2.6). These sources gave rise to the development of specific constructs of incivility (Guidroz, *et al.*, 2010). These constructs will be discussed in detail in chapter 3, Section 3.3.2.4.

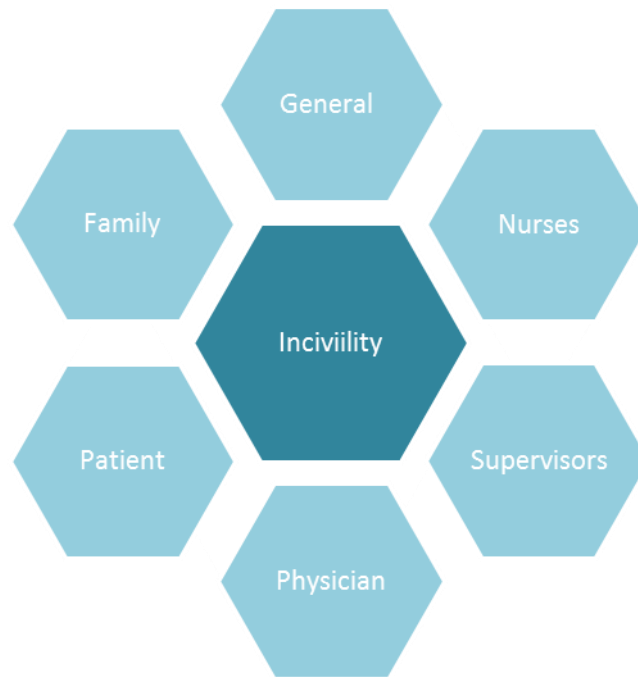


Figure 2.6: Sources of incivility

2.5.1.2. Antecedents of incivility

Certain sources of uncivil behaviour are present within the practice environment of the nurse and will be listed under antecedents of uncivil behaviour. Please see table 2.8.

Table 2.8: Antecedents of incivility

ANTECEDENTS OF INCIVILITY	
THE PRACTICE ENVIRONMENT	a. Leadership and support: • Period of personnel orientation (Hutton & Gates, 2008:173); • The absence of resonant leadership style (Laschinger, <i>et al.</i>, 2014:13); • Lowered levels of interactional justice from management (Almost, <i>et al.</i>, 2010:988); • Given too much responsibility without appropriate support (McKenna, <i>et al.</i>, 2003:93); • Complexity of work (Almost, <i>et al.</i>, 2010:988).
	b. Staffing and resource adequacy: • Day/night shift working (Budin, <i>et al.</i>, 2013:311);

ANTECEDENTS OF INCIVILITY	
	• Staff shortage (Budin, <i>et al.</i>, 2013:312). c. Collegial and nurse-physician relationships: • Lack of communication and collaboration issues (Lachman, 2015:40; Maniou, 2012:242; Leonard, <i>et al.</i>, 2004:i90); • Lack of respect (Lachman, 2015:40; Maniou, 2012:242); • High-stress interactions (Elmblad, <i>et al.</i>, 2014:444); • Misunderstanding of job role and responsibilities (Johnson & Kring, 2012:346).
THE INDIVIDUAL	
	• Power and gender issues in the workplace (Budin, <i>et al.</i>, 2013:311; Jackson, <i>et al.</i>, 2013:2070; Estes & Wang, 2008:230). • Race (Budin, <i>et al.</i>, 2013:311; Kern & Grandey, 2009:48); • Marital status (Budin, <i>et al.</i>, 2013:311); • Substance abuse (Lachman, 2015:41); • Problem with values, ambitions, views, mind sets and generational differences (Zemke, <i>et al.</i>, 2000:9-10; Leiter, <i>et al.</i>, 2010:975); • Training characteristics (Hutton & Gates, 2008:174); • Level of confidence (Almost, <i>et al.</i>, 2010:988; Baumberger-Henry, 2012:299).

2.5.1.3. Consequences of incivility

Uncivil behaviour has detrimental consequences for the nurse as individual and also for organisational effectiveness. The consequences of incivility are listed in table 2.9.

Table 2.9: Consequences of incivility

CONSEQUENCES OF INCIVILITY	
FOR THE PRACTICE ENVIRONMENT	a. Quality of care: • Lower commitment to the organisation (Budin, <i>et al.</i>, 2013:308); • Productivity loss (Hutton & Gates, 2008:173; Judkins-Cohn, 2010; Estes & Wang, 2008:234); • Poor quality patient care (Elmblad, <i>et al.</i>, 2014:444); • Decreased motivation (Estes & Wang, 2008:234); • Increase in error incidences (Judkins-Cohn, 2010).
	b. Leadership and support: • Absence of authentic leadership (Estes & Wang, 2008:235); • Relinquishment of autonomy (Budin, <i>et al.</i>, 2013:312); • Job dissatisfaction (Budin, <i>et al.</i>, 2013:308; Almost, <i>et al.</i>, 2010:987; Hutton & Gates, 2008:173).
	c. Staffing and resource adequacy: • Increased turnover intentions (Budin, <i>et al.</i>, 2013:312; Judkins-Cohn, 2010; Lim, <i>et al.</i>, 2008:97); • Increased absenteeism (McKenna, <i>et al.</i>, 2003); • Decreased sentiments for nursing as a career (Winstanley & Whittington, 2002); • Organisational profit can be adversely affected (Hutton & Gates, 2008:173).
	d. Collegial and nurse-physician relationships: • Destruction of nurses' relationships and workplace morale (Elmblad, <i>et al.</i>, 2014:444; Judkins-Cohn, 2010);

CONSEQUENCES OF INCIVILITY	
FOR THE INDIVIDUAL	a. Psychological consequences: • Feelings of depression (Estes & Wang, 2008:231; • Somatic symptoms (Frone, 2000:246); • Low self-esteem (Frone, 2000:246); • General sense of unhappiness and dissatisfaction with colleagues (Lim, <i>et al.</i>, 2008:97); • Decreased employee's ability to regulate their emotions (Almost, <i>et al.</i>, 2010:988); • Severe psychological stress (Campana & Hammoud, 2015:716; Babenko-Mould & Laschinger, 2014:150).

2.5.1.4. Recent international research regarding incivility

Laschinger *et al.* (2009:306) found that 67.5% of nurses experienced some sort of incivility from supervisors, and 77.6% of participants reported some level of co-worker incivility. However, only a small percentage reported regular to very frequent exposure to incivility (4.4% from supervisors and 2.7% from co-workers). Trépanier *et al.* (2012:5) did research in Canada within the public healthcare sector with a large sample of 5000 nurses. Results indicated that 20.4% (more than 1 000) of these nurses reported being frequently exposed to negative behaviour at work within a time-frame of six months. In addition, recent research from Jackson *et al.* (2013:2072) shows that the most prevalent form of incivility is verbal abuse from patients towards nurses.

Trudel and Reio (2011:415) conducted a research study in three companies, of which one was a healthcare institution and two were manufacturing companies. The results indicated that 86% of the participants experienced incivility within the time-frame of 12 months. Furthermore, self-reported victims of workplace psychological harassment generally indicated low levels of psychological health and less optimal functioning at work than did non-victims. Trépanier, *et al.* (2012:7) and Lewis & Malecha, (2011:44) looked at incivility from a different angle, stating that 84.8% of

nurses experienced workplace incivility in the last year but, of these nurses, 36.7% indicated that they initiated workplace incivility in the last year. Another disconcerting finding is that newly graduated nurses of Ontario indicated that 90.4% of them experienced some degree of co-worker incivility, with 77.8% reporting some degree of supervisor incivility. However, the majority of incivility levels were relatively low (Smith, *et al.*, 2010:1010).

Nurses are also experiencing uncivil behaviour within the public sector. Although plenty of research has been done internationally, national research and research focused on intensive care units regarding incivility within the practice environment of nurses is lacking.

2.5.1.5. Relationship of incivility to burnout

The relationship of uncivil behaviour to the level of experienced burnout has also been established in scientific literature. Elmlad *et al.* (2014:441) again recently provided evidence that nurses who experienced and reported lower levels of workplace incivility had reduced levels of burnout. Within the same year, Laschinger *et al.* (2014:11) stated that exposure to co-worker incivility has a significant positive relationship to levels of EE. Before this time, the research done by Li *et al.* (2013:288) indicated that doctor–nurse collegial relations affect all burnout dimensions at unit level. Nursing personnel experience incivility at a lower frequency from their direct supervisors and patients than from physicians, co-workers, and the general environment. Leiter *et al.* (2010:975) indicated that EE is more strongly correlated with supervisor incivility ($r = 0.40$) than with co-worker incivility ($r = 0.25$). Babenko-Mould and Laschinger (2014:150) also concentrated on nursing students and again confirmed the relationship between incivility and the experience of burnout within the clinical setting. Lastly, burnout levels are also affected by demanding patients (Elkonin & van der Vyver, 2011:6) and perceived conflict with family members and patients (Embriaco, *et al.*, 2007:485; Greenglass, *et al.*, 2001:214).

2.5.2. Bullying behaviour

In this discussion of burnout, the variable bullying will be defined, the antecedents and consequences of bullying will be discussed, and recent international research on bullying behaviour will be highlighted. Finally, the relationship between bullying behaviour and burnout will be explored.

2.5.2.1. Conceptual definition of bullying behaviour

Bullying can be defined as repeated (Felblinger, 2008:236) unreasonable behaviour occurring between colleagues (Farrell & Shafiei, 2012:1428). Again, one needs to distinguish between incivility and bullying: bullying involves systematic harassment for a long period of time and the intention is to control the target (Felblinger, 2008:236). The core dimension when defining bullying is the fact that it involves “repeated” and “enduring” negative acts (Einarsen, 2000:381).

Einarsen distinguished between two types of bullying behaviour— predatory bullying and dispute-related bullying behaviour. Predatory bullying occurs where the victim of bullying behaviour has done nothing to provoke the bullying. The victim might accidentally be in a situation where power is demonstrated, or otherwise the bully is trying to exploit an accidental victim by forcing them into compliance. Predatory bullying is most probably caused by a social climate where hostility and aggressiveness triumph (Einarsen, 1999:23). Dispute-related bullying occurs as a result of a highly escalated interpersonal conflict between parties (Einarsen, 1999:24). Dispute-related bullying behaviour may include three kinds of behaviour — aggressive behaviour used as a struggle method in an interpersonal conflict, malingering behaviour [“the act of intentionally feigning or exaggerating physical or psychological symptoms for personal gain” (*The Free Dictionary*, 2015)], and resentment to perceived wrong-doing or unfair treatment by one’s opponent (Einarsen, 1998). Furthermore, Einarsen and Hoel (2001) distinguished between three forms of workplace bullying, including 1) work-related bullying such as unreasonable deadlines, 2) personal bullying like gossiping, 3) physical bullying like verbal abuse towards an employee. (Please see Figure 2.6 below for the visual illustration of bullying behaviour.) To measure bullying behaviour within the practice

environment, the “Negative Acts Questionnaire-Revised” was used (Einarsen, *et al.*, 2009).

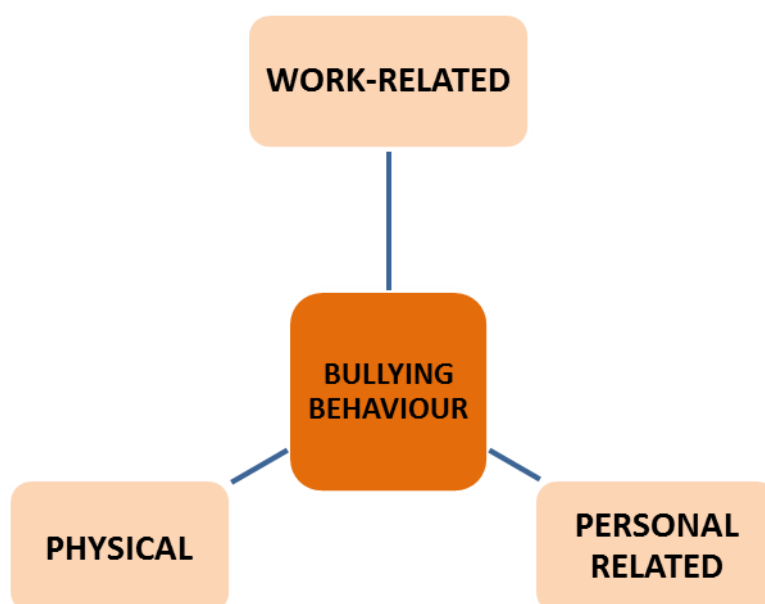


Figure 2.7: Constructs of bullying behaviour (Einarsen, *et al.*, 2009)

2.5.2.2. Antecedents of bullying behaviour

Certain aspects within the individual and the practice environment might lead to bullying behaviour. The antecedents of bullying behaviour are listed in table 2.10.

Table 2.10: Antecedents of bullying behaviour

ANTECEDENTS OF BULLYING BEHAVIOUR	
THE PRACTICE ENVIRONMENT	a. Participation in hospital affairs: • Reification of organisational structures, policies and practices (Croft & Cash, 2012:236); • Egoistic or self-interested organisational climates (Hutchinson, <i>et al.</i>, 2008:E64). b. Quality of care: • Lack of training (Farrell & Shaflei, 2012:1429). c. Leadership and support: • Lack of constructive leadership (Croft & Cash, 2012:235);

ANTECEDENTS OF BULLYING BEHAVIOUR	
	- Misuse of legitimate authority, processes and procedures (Hutchinson, <i>et al.</i>, 2008:E64). d. Staffing and resource adequacy: - Poor economy situations with cutback of nursing staff leading to unequal distribution of the workload (Croft & Cash, 2012:232); - Stressful and busy practice environments (Farrell & Shaflei, 2012:1428) with increased workload (Ekici & Breder, 2014:28); - Incompatible job demands with inadequate resources and materials to perform the job (Balducci, <i>et al.</i> 2012:205); - Working on unnecessary tasks (Balducci, <i>et al.</i> 2012:205); - The absence of a transitional program and the lack of support for new graduates (Rush, <i>et al.</i>, 2014:225). e. Collegial and nurse-physician relationships: - Poor communication between personnel (Hamblin, <i>et al.</i>, 2015:2458; Farrell & Shaflei, 2012:1429); - Poor collaboration (Hamblin, <i>et al.</i>, 2015:2458); - Lack of interpersonal skills (Croft & Cash, 2012:233); - Power imbalances (Lee, <i>et al.</i> 2014:257).
THE INDIVIDUAL	a. The bully: - Personality (Farrell & Shaflei, 2012:1428); - Mental illness (Farrell & Shaflei, 2012:1428); - Competition concerning status (Randle, 2003:400); - Influencing other people through the use of subtle and barely discernible forms of aggression with attempts to influence attitudes and perceptions of bystanders (Hutchinson, 2012:3). b. Patient, the bully: - Personality (Farrell & Shaflei, 2012:1425); - Effects of illness (Farrell & Shaflei, 2012:1425). c. The victim: - Low self-esteem (Randle, 2003:400; Sa & Flemming,

ANTECEDENTS OF BULLYING BEHAVIOUR	
	2008:413); • Personality (Ekici & Beder, 2014:27); • Lack of coping resources and sense of self-efficacy (Randle, 2003:400; Sa & Flemming, 2008:413); • Shyness, lack of conflict management skills (Randle, 2003:400; Sa & Flemming, 2008:413); • Being a female (Randle, 2003:400; Sa & Flemming, 2008:413); • Cognitive processes including beliefs and assumptions (Farrel & Shaflei, 2012:1425); • Victim's professional status (Ekici & Beder, 2014:28).

2.5.2.3. Consequences of bullying behaviour

Being bullied within one's practice environment might lead to severe negative physical, psychological and behavioural consequences within the employee, and bullying behaviour also negatively affects the organisation. Consequences of bullying behaviour are provided in table 2.11.

Table 2.11: Consequences of bullying behaviour

	CONSEQUENCES OF BULLYING BEHAVIOUR
THE PRACTICE ENVIRONMENT	Participation in hospital affairs: - Reduced commitment towards the organisation (Ekici & Breder, 2014:29). Quality of care: - Productivity loss (Berry, <i>et al.</i> 2012:83); - Decreased commitment to the patient (Ekici & Breder, 2014:29); - Poor quality patient care (Lee, <i>et al.</i>, 2014:265); - Altered patient safety (Longo & Hain, 2014:193); - Under-performance (Vessey, <i>et al.</i>, 2009:303). Leadership and support: - Decreased collaboration with supervisor (Ekici & Breder, 2014:29). Staffing and resource adequacy: - Increase in sick-leave (Ortega, <i>et al.</i> 2011:756; Lee, <i>et al.</i> 2014:265); - Increase in turnover rate (Wilson, <i>et al.</i> 2011:457; Vessey, <i>et al.</i>, 2009:303; Glambek, <i>et al.</i>, 2014:255). Collegial and nurse-physician relationships: - Decreased collaboration and communication with co-workers (Ekici & Breder, 2014:29).
THE INDIVIDUAL	a. Physical consequences: - Weight loss or gain (Bigony, <i>et al.</i>, 2009); - Gastro-intestinal disorders, (Bigony, <i>et al.</i>, 2009:689); - Cardiac palpitations (Bigony, <i>et al.</i>, 2009:689); - Headache (Bigony, <i>et al.</i>, 2009); - Elevated blood pressure (Bigony, <i>et al.</i>, 2009); - Fatigue (Bigony, <i>et al.</i>, 2009); - Insomnia (Lee, <i>et al.</i>, 2014:265; Bigony, <i>et al.</i>, 2009:690); - Lack of concentration (Vessey, <i>et al.</i> 2009:303); - Chronic illnesses (Lee, <i>et al.</i>, 2014:265).

	CONSEQUENCES OF BULLYING BEHAVIOUR
	b. Psychological consequences: • Depression (Ekici & Breder, 2014:29; Lee, <i>et al.</i>, 2014:265); • Hypersensitivity (Vessey, <i>et al.</i>, 2009:303); • Burnout (Allen, <i>et al.</i>, 2014:382). c. Behavioural consequences: • Socio-phobia/social isolation (Lee, <i>et al.</i>, 2014:265) ; • Displaced anger (Vessey, <i>et al.</i>, 2009:303); • Anxiety (Lee, <i>et al.</i>, 2014:265); • Decreased motivation and energy levels (Ekici & Breder, 2014:29); • Redirecting the negative behaviour experienced to other team members (Alspach, 2007:12; Lee, <i>et al.</i>, 2014:265).

2.5.2.4. Recent international research regarding bullying behaviour

Research shows that bullying is definitely experienced by all categories of nurses (Laschinger, *et al.*, 2010:2738), all over the world (Simons, 2008:E48; Escarten, *et al.*, 2010:16-17; Rodwell & Demir, 2012:542), ranging from discrimination to actual physical abuse (Ulrich, *et al.*, 2006:49) and the bullies include colleagues, supervisors and physicians. Furthermore, the bullying behaviour can be experienced as often as every day (Berry, *et al.*, 2011:83). A very large study done by Abe and Henly (2010:112-113) in Japan (Tokyo) of 20 hospitals in 107 medical or surgical wards indicated that the most common negative act towards nurses was the withholding of information, being humiliated and shouted at. Farrel and Shafiei (2012:1427) investigated workplace bullying in Victoria, Australia through a descriptive survey and indicated that nursing staff experience being bullied by patients and visitors. 36% of 1495 participants responded that they experienced verbal abuse, physical abuse and the threat to harm. Within the same research study, Farrell and Shafiei (2012:1428) found that 52% of nurses experienced some form of workplace bullying. Perpetrators were mostly colleagues (56%), followed by managers/supervisors (50%) and doctors accounted for 23% of bullying behaviour. In

contrast to this research, Wilson *et al.* (2011:453) conducted research within the southwest of the USA and indicated that bullying behaviour from physicians towards nurses counted for 49% of cases, but nurse to nurse bullying behaviour was also ranked the highest (61%). Park *et al.* (2015:90) also confirmed that 9.7% of nurses in a large study of almost 1000 participants experienced being bullied at work.

New graduate nurses who qualified in the Ohio, Kentucky and Indiana State Boards of Nursing confirmed being bullied at work. A total of 87% of the nurses stated that they experienced work-related bullying behaviour to some degree, whereas 84.3% experienced personal-related bullying behaviour. A smaller percentage of 37.3% experienced physical bullying behaviour (Berry, *et al.*, 2012:83). Rush *et al.* (2014:225) also confirmed the fact that newly graduate RNs were being bullied at work.

When investigating whether bullying behaviour is prevalent CCUs, Yun *et al.* (2014:221-222) confirmed that CCNs are bullied. The most common type of bullying was work-related ($M = 1.89$), followed by person-related bullying behaviour ($M = 1.71$). The participants responded that their workload ($M = 2.37$) was unmanageable and information was withheld which could affect their performance ($M = 2.10$). Furthermore, they reported that they were shouted at, being targets of spontaneous anger ($M = 2.05$). Although there is an abundance of international research on bullying behaviour within the practice environment, the topic has not been explored nationally, and also not within CCUs.

2.5.2.5. Relationship of bullying behaviour to burnout

Han *et al.* (2013:578) found that bullying and negative affectivity in the practice environment were factors that influenced burnout. Sa and Flemming (2008:421) confirmed that EE and Dp within nurses were higher when exposed to bullying

Research done by Laschinger *et al.* (2010:2737) in Ontario on new graduate nurses indicated that all aspects of bullying were statistically significantly related to burnout. The strongest associations were between the EE subscale and the NAQ work-related subscale ($r = 0.53$, $p < 0.01$). Research done 2 years later by Laschinger *et al.*

(2012:1272), once again on newly graduated nurses in Ontario, confirmed that bullying exposure is positively related to EE.

2.6. THE PRACTICE ENVIRONMENT

Within CCUs, the practice environment is complex, and CCNs are exposed to different types of stress on a daily basis. Professional practice environments support nurses so that they can function at the highest levels of clinical practice, to work effectively in an interdisciplinary team of caregivers, and to mobilise resources quickly (Friese, *et al.*, 2008:1147).

2.6.1. Conceptual definition of the practice environment

The practice environment is defined as embodying the organisational characteristics of a work setting that facilitate or constrain professional nursing practice (Lake, 2002:178). These organisational characteristics include nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership and support of nurses; staffing and resources adequacy and collegial nurse-physician relations. A visual illustration of the five constructs of the practice environment is provided in Figure 2.7 with a description of each thereafter.



Figure 2.8: Constructs of the practice environment (Lake, 2002)

- **Nurse participation in hospital affairs**

Nurse participation and involvement in hospital and unit activities includes aspects of internal governance, policy decisions and committees. Collaboration also includes advancement opportunities and open communication with visible nurse management (Lake, 2002:181). Nurses participating in hospital affairs offer the nursing staff an alternative and comprehensive perspective on the practice environment, providing opportunities to develop interpersonal skills such as participative decision-making (Manojlovich & Laschinger, 2008:483).

- **Quality of care**

Quality care includes formal quality assurance programs, the refinement of new staff and on-going education for all staff. A philosophy within the health system and clinical competency of nurses is essential in the provision of quality of care (Lake, 2002:182).

- **Leadership**

Leadership focuses on the critical role of the nurse manager and describes the key qualities of being both manager and leader. These key qualities include the way the manager supports the nurse during conflict with the physician, when nurses make mistakes and, lastly, the way she provides recognition and praise for a job well done (Lake, 2002:182).

- **Staffing and resource adequacy**

This subscale describes having adequate personnel and support resources for the provision of quality patient care. Adequate staffing leads to the provision of quality patient care, time spent with patients and opportunities to discuss patient care problems with colleagues (Lake, 2002:182). Jourdain and Chênevert (2010:709) state that demands within the practice environment are the most important determinants of EE and resources mainly predict Dp.

- **Nurse-physician relationships**

Collaboration entitles a positive working relationship between the nurse and the physician and also includes the “desire” of nurses to have collegial relationships with physicians within the hospital setting (Lake, 2002:182).

In chapter one, the researcher tabulated the different global organisations with their guidelines for PPEs. Please refer to Chapter 1, Table 1.1.

2.6.2. Recent international research regarding the practice environment

McGlynn *et al.* (2012:263) specified that nurses were only moderately satisfied with their professional practice environment. In a very large study where 12 countries participated in Europe and the United States, the researchers indicated that adequate staffing levels have a positive influence on the practice environment and quality of care provided to patients (Aiken, *et al.*, 2012:4). Research done by Aiken *et al.* (2008:226) indicated that 425 nurses out of a total of 1 308 reported poor *quality care* within their practice environments. Likewise, substantial percentages of

nurses in China described their practice environment and the quality of care in their unit as poor or fair (61% and 29%, respectively), 44% were dissatisfied with their opportunities for advancement and almost 50% lacked confidence that management would act to resolve patient care problems (You, *et al.*, 2013:4). Aiken *et al.* (2012:4) confirmed a lack of confidence that management would solve identified problems in patient care.

2.6.3. Recent national research regarding the practice environment

Nationally, Coetzee *et al.* (2013:168) found that 71% of medical-surgical nurses in public hospitals and 40.2 % of medical-surgical nurses in private hospitals rated their practice environment as poor or fair.

Specific to critical care nursing, Klopper *et al.* (2012:691) indicated that the practice environment within SA is positive and supports the work of CCNs, with only two aspects lacking within the environment: staffing and resource adequacy and participation in hospital affairs. Pretorius and Klopper (2011:70) also highlighted that staffing levels are experienced as a problem by CCNs, and that units rely on agency staff and staff from other parts of the hospital to care for patients, further adding to stress in the critical care environment.

2.6.4. Relationship of the practice environment to burnout

A large study done by Aiken *et al.* (2012:2) surveyed 61 168 nurses in 1 105 general acute care hospitals in Europe and USA and found that nurse outcomes of high burnout, dissatisfaction, and intention to leave were associated with the work environment and nurse-to-patient ratio. These same results were found in SA (Coetzee, *et al.*, 2012:169). Before this, Aiken *et al.* (2002:1987) and Garrett (2008:1191) also stated that when working in a practice environment where high patient-to-nurse ratios existed, the likelihood of experiencing burnout was high. You *et al.* (2012:6) also found that higher patient-to-nurse ratios were associated with poorer nurse outcomes (burnout, job satisfaction and intention to leave).

Looking specifically at the sub-scales of the practice environment, Li *et al.* (2013:287), using the extensive RN4CAST database of 23,446 nurses in 2087 nursing units in 352 hospitals in 11 countries, found that all three dimensions of burnout were affected by doctor-nurse-collegial relationships at unit level (Demir, *et al.*, 2003:807; Ilhan, *et al.*, 2007:100). Promotion of care quality is also significantly related to all three burnout dimensions at the hospital level. Van Bogaert *et al.* (2009:60) stated that nurse-physician relations and nurse management at unit level had a significant positive association with PA and an important negative association with both EE and Dp dimensions. Hospital management and organisational support has a substantial negative association only with Dp scores. Supportive nursing leadership can reduce burnout by encouraging and promoting nursing staff to participate in hospital affairs (Manojlovich & Laschinger, 2008:483). Problems regarding professional relationships directly affect burnout levels experienced by nurses. Therefore, it is clear that the practice environment has a great effect on nurse outcomes, especially the sub-scales of staffing and resource adequacy, nurse-physician collegial relationships and leadership, management and support of nurses. Burnout can therefore be directly linked to the practice environment (Bakker, *et al.*, 2005:177; French *et al.*, 2011:5). Poor organisational environments at different levels appear to lead to feelings of exhaustion (Van Bogaert, *et al.*, 2009:2183).

2.7 SUMMARY

Building on the basis presented in Chapter 1, the researcher progressed to present relevant literature regarding all variables within this study. International single and multi-country studies confirmed that nurses may experience moderate to high levels of burnout, irrespective of their years of experience within the nursing profession. South African nurses and CCNs in particular, may also experience high levels of burnout. Being highly empowered is only experienced by a small percentage of nurses, with most experiencing low to moderate levels of empowerment. Nationally, research regarding structural empowerment in CCUs is still lacking. Internationally, it has been confirmed that burnout is directly influenced by empowerment levels experienced by the nursing personnel. Therefore, it is important to investigate the phenomenon more closely within the South African context. With regard to

psychological empowerment, nurses internationally feel that they do not experience adequate autonomy and impact within their nursing profession, although moderate to high levels of meaning and competence are experienced. National research in this regard is also lacking, thus providing the motivation for the current research study. Incivility in the nursing profession is confirmed to be quite prevalent internationally but, because of the lack of national research, the researcher wants to investigate whether incivility exists within South African CCUs and determine a possible relationship to the experience of high burnout levels in the CCUs. The same applies to bullying behaviour in the CCUs. In Chapter 3, the research design and research methodology will be discussed with regard to the different instruments utilised within the study, along with relevant evidence pertaining to their reliability and validity.

CHAPTER 3

RESEARCH DESIGN AND METHOD

*“If you want to make peace with your enemy,
you have to work with your enemy.*

Then he becomes your partner

Nelson Mandela

CHAPTER 3: **RESEARCH DESIGN AND METHOD**

3.1. INTRODUCTION

In Chapter 2, the researcher conducted an in-depth literature review on the different variables applicable to this research study. Antecedents and consequences of burnout, structural empowerment, psychological empowerment, incivility and bullying were tabulated. Recent international and national research regarding these variables was discussed with nation research regarding empowerment, incivility and bullying behaviour still lacking. Chapter 3 will concentrate on the two phases of the research design, together with the research strategies. The research method will be discussed with regards to the structure and format of the instruments used for data collection together with the validity and reliability of each instrument. The population, sampling, data collection process and data analysis will also be discussed in more detail. A review of intervention programmes to decrease levels of burnout will be provided together with the method of developing the intervention programme relevant to this research study.

3.2. RESEARCH DESIGN (PHASE ONE)

A research design can be described as a plan of how the research will proceed. The plan includes consideration of the research approach to be taken, the research methods, the data collection tools and the methods of data analysis to be employed (Moule & Hek, 2011:30). Henning *et al.* (2004:36) also describe a research design as a reflection of the methodological requirements of the research question and therefore the form of data that will be produced and how the data will be processed. A ***cross-sectional correlational survey design*** will be used for this research study with ***descriptive, explanatory and contextual strategies***. In the sections that follow the design and strategies will be discussed in detail.

3.2.1. Cross-sectional design

A cross-sectional design is used to examine groups of subjects in various stages of development simultaneously, with the intent of inferring trends over time (Grove, *et al.*, 2013:220; McMillan & Schumacher, 2014:237). Only one private hospital group was utilised for this research study, but different hospitals within this group, different CCUs within these hospitals and different CCNs within these CCUs participated in this research study to examine the incidence of burnout and empowerment, workplace relationships and the status of the practice environment, and the relationship between these variables at a single point in time.

3.2.2. Correlational design

A correlational design examines relationships among variables and this examination can happen at several levels of the dependent variable. Through a correlational design the researcher has the choice to describe relationships, predict relationships among variables or to test relationships proposed by a model (Grove, *et al.*, 2013:224). Hoyle (2011:7) defines a model as “the formal statement about the statistical relations between variables”. A model-testing design is used to test the accuracy of a hypothesised causal model or map (Grove, *et al.*, 2013:700) and therefore structural equation modelling (SEM) was used. As mentioned in Chapter 1, for the purpose of this research study a model was provided to enable the researcher to identify which variable contributes the most to the experience of burnout levels and to identify priority problems in the development of the intervention programme. (Please see Chapter 1, Section 1.5 and Figure 1.1).

3.2.3. Survey design

A survey design includes data collection techniques in which questionnaires or personal interviews are used to gather data about an identified population (Grove, *et al.*, 2013:224). With regards to this research study, six different scales were used for data collection and therefore a survey design was followed. The MBI, CWEQ-II, PEI, NIS, NAQ-R and PES-NWI were utilised to collect data to measure burnout levels,

structural and psychological empowerment levels and the experience of uncivil and bullying behaviour within the practice environment of the CCNs.

3.2.4. Descriptive strategy

When thinking of the term “descriptive”, the words “how many” might come to mind. “How many CCNs experience high burnout levels?” for example. Therefore, a descriptive strategy provides an accurate portrayal of the characteristics of a particular individual, event or group in real-life situations for the purpose of discovering new meaning, describing what exists, determining the frequency with which something occurs, categorising information and identifying problems in the practice environment (Grove, *et al.*, 2013:215). A simplified definition of a descriptive design are provided by McMillan and Schumacher (2014:235) where the authors state that a descriptive design are used to summarise the current or past status of something and asks “what is?” or “what was?” and in reporting things the way they are or were. In this research study the real-life situation involves the dynamic practice environment of the CCN experiencing burnout, certain levels of empowerment, incivility and bullying behaviour. These variables were defined and described according to previous research, the levels of burnout, empowerment, incivility and bullying were measured, relationships were determined and problems were identified to develop the intervention programme to decrease the levels of burnout amongst the CCNs.

3.2.5. Explanatory strategies

Explanatory strategies indicate causality between variables and needs to 1) demonstrate that a relationship exists between variables; 2) that there is a specific order of cause and effect between variables; and 3) that a specific phenomenon is the real cause of *y* (Mouton & Marais, 1996:45). For the purpose of this study burnout levels are influenced by levels of empowerment and the experience of uncivil and bullying behaviour. For e.g. when levels structural empowerment decrease burnout levels increase, when incivility were experienced in the practice environment it was associated with increased levels of burnout and vice versa.

3.2.6. Contextual strategies

In the social sciences, contextual strategies can be described as those where the aim may be to investigate a single case, a group or a sub-culture in research. For the purpose of this study, a specific group of nurses is investigated (CCNs) in a specific practice environment (CCUs) and in a specific population setting (Private hospital group in the Gauteng Province of SA). For the purpose of this research, the phenomena are studied because of the intrinsic interest which the researcher has in the topic (Mouton & Marais, 1996:50). The context of the study will be elaborated on in terms of its geographical boundaries, the health profile of the population and the healthcare systems within the country.

3.2.6.1. *Geographical boundaries*

SA is positioned at the southern tip of the continent of Africa and is slightly less than twice the size of Texas. The total land boundaries are 5 244 km, with a coast line of 2 798kms. Countries bordering SA include Botswana (1 969 km), Lesotho (1 106 km), Mozambique (496 km), Namibia (1 005 km), Swaziland (438 km) and Zimbabwe (230 km). The climate within SA is mostly semi-arid and subtropical along the east coast; sunny days with cool nights. SA is divided into 9 provinces: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West and Western Cape (Central Intelligence Agency [CIA], 2015). The Gauteng province in SA is geographically the smallest province in the country, whereas the Northern Cape is the largest. (Please see Figure 3.1.)



Figure 3.1: Map of SA: (Google images. Date of access: 12 July 2015)

The Government is based in 3 capitals including an administrative capital situated in Pretoria, a legislative capital in Cape Town and a judicial capital in Bloemfontein (CIA, 2015). The total population of SA is estimated at 54 002 000 million people (SA stats, 2015) with various different cultural populations. The official languages include isiZulu, IsiXhosa, Afrikaans, Sepedi, English, Setswana, Sesotho, Xitsonga, siSwati, Tshivenda and isiNdebele

3.2.6.2. The South African health profile

SA has four co-existing epidemics, a health profile found only in the Southern African Development Community (SADC) region. Poverty-related illnesses, such as infectious diseases, maternal death and malnutrition remain widespread, and there is a growing burden of non-communicable diseases. Human Immunodeficiency Virus (HIV) or Acquired Immunodeficiency Syndrome (AIDS) accounts for 31% of the total disability-adjusted life years of the South African population, with violence and

injuries constituting a further cause of premature deaths and disability. Rates of HIV infection in SA are higher in young women than in men. The epidemics of sexually transmitted infections in the country and other problems, such as teenage pregnancy, have been shaped by the context of sexual socialisation and family dynamics. Although SA is considered a middle-income country in terms of its economy, it has health outcomes that are worse than those in many lower income countries (Coovadia, *et al.* 2009:817). SA is also the only country providing social grants to relieve the impact of poverty and unemployment within the country (Coovadia, *et al.* 2009:823). Health statistics from 2011 estimated the overall HIV incidence rate at approximately 10.6%. The total number of people living with HIV is estimated at approximately 538 million people and an estimated 16.6% of the adult population (aged 15–49) years is HIV positive (SA statistics, 2015). Within this context, nurses' workloads are intense and demanding and can have deleterious consequences for individuals and the workplace.

3.2.6.3. *The healthcare system of SA*

Healthcare systems within SA are divided into 2 major sectors, the larger public health sector and the much smaller private health sector. The public health sector constitutes 79% of the total hospital beds in SA (Matsebula & Willie, 2007:160). The three main private hospital groups in SA (Mediclinic, Netcare and Life Health) provide vital healthcare services of the highest standard to millions of South Africans on a continuous basis. However, the value of these private hospitals to all communities extends far beyond healthcare services as such. These private hospitals also make critical contributions to employment, labour income, tax revenue and the overall gross domestic product in SA (HASA, 2011). The private healthcare sector also plays a very important role in reducing the geographical distance to the nearest public hospitals and also reduces the pressure upon a considerably overburdened public hospital infrastructure (Matsebula & Willie, 2007:160).

Gauteng province has the highest number of private hospital beds, followed by the Western Cape, with the least number of beds located in the Northern Cape (Matsebula & Willie, 2007:163). Although CCUs are present in the public and private

health sector of SA, only 23 % of public hospitals have CCUs, compared to 84% within the private sector (Bhagwanjee & Scribante, 2007:1312). The majority of beds are located in 3 provinces: Gauteng, KwaZulu-Natal and the Western Cape, consisting of 86% of all the beds in the country. Within the CCU, a multidisciplinary teamwork approach is important and is viewed as one of the key processes through which care is managed within the practice environment. Working in a multidisciplinary team requires many skills, which involve understanding, not only one's own role, but also the role of other professionals (Atwal & Caldwell, 2006:359). Leathard (1994) defines multidisciplinary team members as those who have different professional backgrounds, but who nevertheless make complementary contributions to patient care. In the following section the research method, including the different instruments to be used in the study, will be discussed.

3.3. RESEARCH METHOD

The research method includes the overall plan for conducting the specific steps of the study. To reach the first objective, the researcher conducted an in-depth literature review to describe and discuss the different variables applicable to the research study (Please see Chapter 2, Sections 2.3, 2.4, 2.5 & 2.6). Objective two was achieved through collecting data by method of paper and pencil surveys in the selected CCUs in a private hospital group in the Gauteng province of SA so that the incidence of burnout, empowerment, incivility and bullying behavior and the status of the practice environment could be measured (Please see Chapter 4, Section 4.6). After measuring the different variables, the nature (objective three) of the relationship between these variables was determined. (Please see Chapter 4, Section 4.7 and 4.8.) In the following sections the advantages and disadvantages of the use of a survey will be tabulated to support the rationale of using survey in this research study. The questionnaire used to collect data will also be discussed in more detail.

3.3.1. Advantages and disadvantages of questionnaires

A questionnaire can be defined as a printed self-report form designed to gain information that can be obtained from a participant's written responses (Burns &

Grove, 2009:406). In the following table the advantages and disadvantages of using a questionnaire are summarised. Please see Table 3.1.

Table 3.1: Advantages and disadvantages of questionnaires

ADVANTAGES OF QUESTIONNAIRES	DISADVANTAGES OF QUESTIONNAIRES
Can form the basis of large-scale national opinion polls (Rossouw, 2003:129) and provide data from a large group of people quickly (Brink, <i>et al.</i>, 2006:147).	Expensive (large number of fieldworkers, fieldworkers need training, must be briefed and supervised) and costs escalate if the sample is geographically dispersed (Rossouw, 2003:129).
May be the foundation of a relatively small elite research operation (Rossouw, 2003:129).	May fall into positivist traps of universalising findings and glorifying the “scientific nature” of findings (Rossouw, 2003:129).
May be structured or unstructured (Rossouw, 2003:129).	Mailed questionnaire: Lack of access to mail delivery and high rates of illiteracy (Rossouw, 2003:129).
May be fully quantified or partially quantified (Rossouw, 2003:129).	Impossible to control participants’ behaviour that might have elicited assistance or advice (Rossouw, 2003:129).
May be elaborate or brief (Rossouw, 2003:129).	Researcher loses the opportunity to clarify the question should it not be fully understood – challenging the validity of the data (Rossouw, 2003:129).
Can yield precise and comparative research data (Rossouw, 2003:129).	Time-consuming (Rossouw, 2003:129).
Is widely used in social, political and marketing research (Rossouw, 2003:129).	Response rates may be low (Brink, <i>et al.</i>, 2006:147).
Considered an appropriate method of research if the individual is the unit of analysis (Rossouw, 2003:129).	Participants might provide socially acceptable answers (Brink, <i>et al.</i>, 2006:147).
It often provides irreplaceable ways of ascertaining attitudes, opinions, perceptions and reports of individual behaviour (Rossouw, 2003:129).	Participants might fail to answer some of the items (Brink, <i>et al.</i>, 2006:147).

ADVANTAGES OF QUESTIONNAIRES	DISADVANTAGES OF QUESTIONNAIRES
Facilitates reliable generalisations about the total population at certain points in time and in particular contexts (Rossouw, 2003:129).	Participants participating might not be representative of the population (Brink, <i>et al.</i>, 2006:147).
May be used in the direct personal or in the mailed format (Rossouw, 2003:129).	Questions tend to have less depth than interview methods (Burns & Grove, 2009:406).
One of the easiest research instruments to test for reliability and validity (Brink, <i>et al.</i>, 2006:147).	
Participants feel a greater sense of anonymity and are more likely to provide honest answers, (Brink, <i>et al.</i> 2006:147); less opportunity for bias (Burns & Grove, 2009:406).	
Format is standard for all participants and is not dependent on the mood of an interviewer (Brink, <i>et al.</i>, 2006:147).	

The researcher attempted to overcome some of the disadvantages of questionnaires by collecting data in person without the use of fieldworkers and, in that way, took ownership of the research study. The questionnaire was also not mailed but delivered personally by hand to each unit after meeting with the CEO/NSM and Unit Managers. The contact details of the researcher were provided in the information letter and on each box that was left in the units. The researcher received two telephonic enquiries from participants clarifying uncertainties experienced by the participants. Some of the participants failed to answer some questions, but this was indicated as “missing values” during the statistical analysis of the research data. Lastly, the researcher specifically selected Gauteng Province because of the high density of CCUs and therefore CCNs, ensuring that the sampling was representative of the nursing population.

3.3.2. The instruments: structure and format

Permission to use all the instruments was obtained from the relevant authors via e-mail correspondence. The structure and format of all instruments used for data collection will now be discussed separately.

3.3.2.1. Maslach burnout inventory

The MBI was utilised to measure burnout levels amongst CCNs in a private hospital group in the Gauteng Province of SA. The three major symptoms of burnout gave rise to the three subscales of the MBI, and the 22 items for the MBI were designed to measure hypothesised aspects of the burnout syndrome. (Please see Chapter 2, Figure 2.2.) EE includes nine items, assessing feelings of being emotionally overextended and exhausted by one's work. The five items of Dp measure an unemotional and impersonal response toward recipients of one's service, care, treatment or instruction. PA includes eight items and assesses feelings of competence and successful achievement in one's work with people (Maslach, *et al.*, 1996:4; Maslach & Jackson, 1981:101). Items are written in the form of statements about personal feelings or attitudes, and each statement is rated on a Likert scale. The Likert scale is labelled at each point and ranges from 0 = never to 6 = every day (Please see Addendum E.) For both the EE and Dp, higher mean scores correspond to higher degrees of experienced burnout. PA is independent of the other two subscales, in that its component items do not impact negatively on them, thus meaning that PA cannot be assumed to be the opposite of EE and Dp (Maslach & Jackson, 1981:100). EE is high when the total is 27 or more, moderate when the total is between 17 to 26 and low when the total is 16 or less. Dp is considered high when it is above a total of 13, moderate when it is between a total of 7-12, and low when it involves a total of 6 or less. PA is scored in the opposite direction, with high PA having a total of 0-31, moderate with a total between 32-38, and low when the total is over 39 (Please see Chapter 4, Section 4.6.1, Table 4.34).

3.3.2.2. *Conditions for Work Effectiveness Questionnaire – II*

The CWEQ-II was utilised to measure structural empowerment levels. The CWEQ-II consists of 12 items, three for each of Kanter's empowerment structures; namely, access to opportunity, to resources, information and support (Laschinger, 2012; Laschinger, *et al.*, 2001:264; Kanter, 1993; Kanter, 1977). (Please see Chapter 2, Figure 2.3.) Items are rated on a five-point Likert scale with answers ranging between 1 = Never to 5 = A lot. (Please see Addendum G.) In measuring all four subscales, the mean scores are obtained by adding up and then averaging the items. The higher the score, the stronger the access to the specific subscale (Laschinger & Finegan, 2005:9; Laschinger, *et al.*, 2001:266). The total empowerment score is created by adding up the subscales with scores ranging between 4 – 20. Higher scores represent stronger perceptions of working in an empowered work environment. Scores ranging from 4 to 9 are described as low levels of empowerment, 10 to 14 as moderate levels of empowerment, and 15 to 20 as high levels of empowerment (Laschinger, 2012). (Please see Chapter 4, Section 4.6.3, 4.6.3.1 and Table 4.44).

3.3.2.3. *Psychological Empowerment Instrument*

The PEI was used to measure psychological empowerment levels. The instrument consists of four subscales with three propositions for each subscale. The four subscales include meaning, competence; self-determination (autonomy) and impact (Please see Chapter 2, Figure 2.4.) The seven-point Likert scale ranges from 1 = very strongly disagree to 7 = very strongly agree. (Please see Addendum H.) The total for each subscale is divided by three for an average score for that subscale (Spreitzer, 1995). The mean score can range between 1 – 7 and higher degrees of psychological empowerment are indicated by higher scores (Please see Chapter 4, Section 4.6.4, 4.6.4.1 and Table 4.49).

3.3.2.4. Nursing Incivility Scale

The NIS was utilised to measure uncivil behaviour within the practice environment of the CCN. The NIS was created by modifying an existing measure of general incivility to suit a healthcare setting. The multisource measure of workplace incivility (MIS) was designed to include both verbal and nonverbal behaviours, active and passive forms of incivility, and direct and indirect behaviours. The MIS was the only known measure of incivility that addressed rude behaviour from both internal and external sources. Therefore, the MIS was used to develop the NIS. The MIS measure was designed for general use across occupations, but some items were not appropriate for a healthcare setting. This meant that a portion of the original items needed to be removed from the NIS measure and new items added in order to encompass the social and professional dynamics of the nursing occupation (Guidroz, *et al.*, 2010:179). In the NIS, 43 items are present and are divided into five sources of incivility (general, nurse, supervisor, physician, and patient), each with additional subscales (see Chapter 2, Figure 2.6). The General Incivility Scale has three subscales with three items each, adding up to nine items. These nine items include a hostile working climate, inappropriate jokes and inconsiderate behaviour. The second source includes Nurse Incivility and has 10 items divided into three subscales, including a Hostile Climate, Gossip and Rumours, and Free-Riding. The Supervisor and Physician categories contain seven items each, divided into 2 subscales. All items regarding the Supervisor and Physician are the same, with only the source of incivility that differs. The subscales here are Abusive Supervision and Lack of Respect. The Patient Incivility Scale comprises 10 items divided into two subscales — namely, Lack of Respect and Displaced Frustration. Although the Supervisor, Physician, and Patient incivility factors share a subscale of the same name (e.g., Lack of Respect), the Patient Incivility Lack of Respect items are completely different from the items on the Supervisor and Physician Incivility Scales (Guidroz, *et al.* 2010:181). The five-point Likert scale ranges between 1 = strongly disagree to 5 = strongly agree. (Please see Addendum I.) (Please also see Chapter 4, Section 4.6.5, 4.6.5.1 and Table 4.54).

3.3.2.5. *Negative Acts Questionnaire - Revised*

The NAQ-R was used to measure bullying behaviour in the practice environment. The NAQ-R measures exposure to direct and indirect bullying behaviour in a variety of occupational settings. The NAQ-R contains 22 items that can be listed as work-related bullying (seven statements), person-related bullying (12 statements) and physical bullying behaviour (three statements) respectively (Please see Chapter 2, Figure 2.7.). All the items are written in behavioural terms, with no reference to the terms “bullying” or “harassment”. The instrument consists of a five-point Likert scale with response alternatives of 1 = Never to 5 = Daily (Einarsen, *et al.*, 2009:27, 28) (Please see Addendum J.) The mean score can range between 1 – 5 for each item and the higher the average score, the higher the experience of being bullied within the practice environment. The cut-off points for the NAQ-R are as follows: employees with a score lower than 33 are not bullied, 33-43 are experiencing low, yet systematic levels of bullying behaviour and a score above 44 may be considered as referring to people who are severely bullied within the practice environment (Notelaers & Einarsen, 2013:678) (Please see Chapter 4, Section 4.6.6, 4.6.6.1 and Table 4.63).

3.3.2.6. *Practice Environment Scale of the Nurse Work Index - Revised*

The PES-NWI-R was utilised to measure characteristics within the practice environment of the CCN. In developing the revised PES-NWI, the purpose was to provide measures suitable for outcomes research models, linking the status of the practice environment to nurse and patient outcomes. PES-NWI-R subscales have been used to describe and compare the status of practice environments in different settings. The applicable domains of the subscales range from the broad hospital context to the immediate nursing-unit context. The first two subscales, Nurse Participation in Hospital Affairs (eight statements) and Nursing Foundations for Quality of Care (nine statements), appear to reflect the hospital-wide environment. The last three subscales, Nurse Manager Ability, Leadership, and Support (four statements), Staffing and Resource Adequacy (four statements), and Collegial Nurse–Physician Relations (seven statements), are more unit specific (Lake,

2002:178,184) (Please see Chapter 2, Figure 2.8.) The PES-NWI-R consists of 32 Likert-type questions and scores indicate the extent to which participants agree that supportive traits are present in the practice environment and range from 1 = strongly disagree to 4 = strongly agree (Please see Addendum F.) The mean score can range between 1 to 4 and a mean score of 2.5 and higher indicates a positive practice environment for the CCN (Lake, 2002:184). (Please see Chapter 4, Section 4.6.2, 4.6.2.1 and Table 4.38.)

3.3.3. Validity and reliability of instruments to be used

The validity of an instrument determines the extent to which it actually reflects the abstract construct being examined (Grove, *et al.*, 2013:712). Validity can also be described as the degree to which a measurement represents a true value, always a matter of degree and not an absolute (Bothma, *et al.*, 2010:174) Validity is also proven through repeated satisfactory testing in a population for which it was designed, and refers to internal validity. External validity refers to the generalisability of research findings to a wider population of interest (Bowling, 2009:166).

Reliability can be defined as the consistency of the measure achieved, (Grove, *et al.*, 2013:707), thus meaning that if a valid measuring instrument is applied to different groups under various circumstances, it should produce the same results.

Cronbach's alpha is a test reliability technique that requires only a single test administration to provide a unique estimate of the reliability for a given test. Cronbach's alpha is the average value of the reliability coefficients one would obtain for all possible combinations of items when split into two half-tests. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient is to 1.0, the greater the internal consistency of the items in the scale (Gliem & Gliem, 2003:84, 87). Internal consistency includes the testing for similarity, and the extent to which the question asked is related to a particular dimension in a scale taps only this dimension and no other (Bowling, 2009:163).

The validity and reliability of all the instruments used in this research study have been established internationally and some nationally. Please see table 3.2 provided below.

Table 3.2: Validity and reliability of instruments

INSTRUMENT	VALIDITY	RELIABILITY
MBI	- Similar factorial structure across countries with differently organised and financed health systems and different languages. (Poghosyan, <i>et al.</i> 2009:901). - Convergent and discriminant validity confirmed (Hee & Chul-Woung, 2012:31).	Internationally: Total score: Cronbach alpha reliability (α): $\alpha = .83$. Subscales: $\alpha = .89$ EE, $\alpha = .74$ PA, $\alpha = .77$ Dp (Maslach & Jackson, 1981:105). The homogeneity of reliability estimates across 45 countries on average: $\alpha = .87$ EE, $\alpha = .70$ Dp and $\alpha = .78$ PA respectively for each dimension (Aguayo, <i>et al.</i> 2011:348; Wheeler, <i>et al.</i> 2011:231). The MBI has a similar factor structure and, with minor modifications, is performed similarly across countries (Poghosyan, <i>et al.</i>, 2009:894; Hee & Chul-Woung, 2012:31). Nationally: $\alpha = .89$ EE, $\alpha = .76$ Dp $\alpha = .76$ PA (Klopper <i>et al.</i>, 2012:691).
CWEQ-II	Construct validity (Laschinger, <i>et al.</i> 2001:265)	Internationally: Total score: $\alpha = .91$ (Fitzpatrick, <i>et al.</i> 2011:e14) $\alpha = .88$ (Knol & Van Linge, 2009:362) Subscales: $\alpha = .74 - \alpha = .89$ (Laschinger, <i>et al.</i> 2009:305) Above $\alpha = .80$ for all subscales

INSTRUMENT	VALIDITY	RELIABILITY
		(Armellino, <i>et al.</i>, 2010:799) $\alpha = .75 - \alpha = .88$ (Knol & Van Linge, 2009:362) Nationally: Lacking
PEI	Construct validity and convergent validity confirmed (Spreitzer, 1995:1452-1453)	Internationally Total score: $\alpha = .62$ and $.74$ (two different samples in one study) (Spreitzer, 1995:1453) $\alpha = .87$ (Knol & Van Linge, 2009:362) $\alpha = .89$ (Laschinger, <i>et al.</i> 2004:533). Subscales: $\alpha = .84 - .91$ (Knol & van Linge, 2009:362); $\alpha = .87 - \alpha = .94$ (Laschinger, <i>et al.</i> 2004:533). Nationally: Lacking
NIS	Acceptable convergent and discriminant validity (Guidroz, <i>et al.</i> 2010:176). Construct validity confirmed (Cortina, <i>et al.</i> 2001)	Internationally Total score: $\alpha = .76$ The average item-total correlation for all items (Guidroz, <i>et al.</i> 2010:190). Subscales: $\alpha = .81 - .94$ (Guidroz, <i>et al.</i> 2010:190). $\alpha = .88 - .94$ (Lewis & Malecha, 2011:43) Nationally: Lacking

INSTRUMENT	VALIDITY	RELIABILITY
NAQ-R	Construct validity (Einarsen <i>et al.</i> 2009:24).	Internationally Total score: $\alpha = .90$ (Einarsen <i>et al.</i> 2009:31). $\alpha = .89$ and $\alpha = .97$ (data collected two weeks apart) (Abe & Henly, 2010:112). $\alpha = .88$ (Simons, 2008:E54). Subscales: $\alpha = .94$ (personal related bullying), $\alpha = .83$ (work-related), $\alpha = .53$ (physical bullying behavior) (Laschinger & Grau, 2012:286). Nationally: Lacking
PES-NWI	- Construct validity was confirmed (Parker, <i>et al.</i> 2010:352). - PES-NWI has been used globally in nursing research (Frieze, <i>et al.</i>, 2008:1149). - Its content, length, and performance are equivalent or superior to other existing instruments. - The only instrument with magnet hospital reference scores available (Lake 2007:1158). - The only measure recommended by several U.S. organisations promoting quality healthcare (Warshawsky & Havens, 2011:17).	Internationally: Total score: $\alpha = .90$ (Chiang & Lin, 2008:919). Subscales: The subscales of the PES-NWI display substantive consistency, internal consistency, aggregate reliability, and generality to modern practice, confirming their theoretical and empirical foundations (Lake, 2002:187). $\alpha = .72$ and higher (Laschinger, <i>et al.</i>, 2009:380) $\alpha = .65 - 0.87$ (Chiang & Lin, 2008:919). Nationally: Cronbach alphas for PES-NWI above .75 (Klopper, <i>et al.</i>, 2012:690).

In Chapter 4, the validity and reliability of all the instruments in this study was tested and reported on. (Please see Chapter 4.4 & 4.5.)

3.4. POPULATION AND SAMPLING

A population is the term for the collectivity that the researcher plans to study and about which statements are made (Rossouw, 2003:108). A sample is a subset of the population that is selected for a particular study and defines the process for selecting a group of people, events, behaviours or other elements with which to conduct a study (Grove, *et al.*, 2013:708). Multi-level sampling was applied in this study. Mid 2015 population statistics indicated that the total national population estimate was 54 956 900 (Statistics SA, 2015). The total population in Gauteng Province was 13 200 300 during the 2015 population estimation, making it the most densely populated province (Statistics SA, 2015). The total population per province is provided in Table 3.3 below.

Table 3.3: Population estimate of SA (Statistics SA, 2015)

Province	Population estimate	% of total population
Eastern Cape	6 916 200	12.6
Free State	2 817 900	5.1
Gauteng	13 200 300	24.0
Kwazulu-Natal	10 919 100	19.9
Limpopo	5 726 800	10.4
Mpumalanga	4 283 900	7.8
Northern Cape	1 185 600	2.2
North West	3 707 000	6.7
Western Cape	6 200 100	11.3
Total	54 956 900	100.00

According to the latest SANC statistics (2014) the majority of the nursing man power is also situated within the Gauteng province of SA. Of the total RN population of 133 127 at the end of 2014, a total of 34 847 were practicing in the Gauteng Province of SA.

The above information and table provided the rationale for purposively sampling the Gauteng Province for this research study. The table that follows illustrates how many hospitals are within the public and private hospital sector of SA, as well as providing an indication of the number of CCUs and CCU beds per sector.

**Table 3.4: Hospitals in SA, CCUs/High care units and beds per sector
(Bhagwanjee & Scribante, 2007:1312)**

	Public sector	Private Sector
Hospitals in the SA	396	256
CCUs or High care units	92	216
CCU or High care beds per sector	1 783	2 385

The above table provides the rationale for selecting the private health sector for this research study. As previously discussed, there are three private hospital groups in SA. Two of these private hospital groups took part in a recent national research study, which included the study of burnout, and thus the third private hospital group was included in this study. The private hospital group participating in this research study has a total of 57 hospitals in SA, of which 23 are situated in the Gauteng province. Seven hospitals were excluded from the study for the following reasons: two general hospitals had no CCUs; one psychiatric hospital; one rehabilitation hospital and three day clinics with no CCUs (HASA, 2009).

All-inclusive sampling was applied to all CCUs in the selected hospitals, and all CCNs working within the selected CCUs. All-inclusive sampling was used due to the fact that recent national research showed that the response rate to surveys was less than 50% (Coetzee, *et al.*, 2013; Klopper, *et al.*, 2012). Please see Table 3.5 for a summary of the multi-level sampling process.

Table 3.5: Multi-level sampling (HASA, 2009; Grove, *et al.*, 2013; Statistics SA, 2015)

SAMPLING LEVEL	N	n	SAMPLING METHOD	RATIONALE/INCLUSION AND EXCLUSION CRITERIA
Provincial	9	1	Purposive	- SA total population: mid 2015: 54 956 900 - Gauteng Population: 13 200 300 256 private hospitals in SA (216 CCUs) 117 private hospitals within Gauteng
Private hospital groups	3	1	Purposive	Two of the private hospital groups within Gauteng Province participated in a recent national study.
Hospitals	23	15	Purposive	7 Hospitals excluded as follows: - one rehabilitation hospital - one psychiatric hospital - three day clinics - two hospitals without adult CCUs - One hospital used the right to self-determination and did not participate in the study
Adult CCUs	21	20	All-inclusive	Recent national research studies showed a response rate of less than 50%; thus all CCUs were included. (One hospitals CCU utilised the right to self-determination and did not participate in the research study)

SAMPLING LEVEL	N	n	SAMPLING METHOD	RATIONALE/INCLUSION AND EXCLUSION CRITERIA
CCNs	309 (full-time CCNs)	209	All-inclusive	Recent national research studies showed a response rate of less than 50%; thus all CCNs were included regardless of employment status (full-time CCNs and part-time CCNs were included in the study. Because part-time CCNs work randomly in different hospitals the N value could not be included. Of the 209 completed questionnaires: n = 151 (full-time CCNs), n = 58 (part-time CCNs)

3.5. DATA COLLECTION

The researcher describes during data collection what he/she is aiming to find out and how the data will be collected (Klopper, 2008:69). Grove *et al.* (2013:691) also describes data collection as the precise, systematic gathering of information relevant to the research purpose or the specific objectives, questions, or hypothesis of a study.

3.5.1. Procedure for data collection

The procedure for data collection included the following: ethical clearance was granted by the North-West University Health Research Ethics Committee (NWU-00121-13-A1) (please see Addendum A), and from the private hospital group's ethics board (please see Addendum B). Where possible, appointments were made with the CEO and the NSM of each hospital participating in the study. During the meeting, the rationale of the research study was explained, the proposed data collection plan was discussed and any uncertainties were clarified. With most of the appointments, the NSMs telephoned the relevant unit managers to sit in on the meeting or, if this was not possible, a second meeting was scheduled to explain the research study to

the relevant unit managers. All the questionnaires were distributed by the researcher to each unit according to the unit manager's estimate of total questionnaires to be left in the unit. Each questionnaire was accompanied by an information letter (Please see Addendum C) that explained the whole rationale behind the study and all the relevant ethical information. The questionnaire and information leaflet were placed in an unsealed envelope. Completion of the survey was done anonymously and sealed in the envelope provided. In each unit, a sealed box with a post-split was left in which completed questionnaires could be placed. Completed questionnaires were collected by the researcher after 2 weeks and a demographic checklist regarding the unit was completed by the researcher with the help of the unit manager of each CCU. The demographic checklist contained information regarding the type of unit, number of beds within the unit, number of patients in the unit on that day, etc. (Please see Addendum L for the demographic checklist.) Each unit was allocated a specific code which was written on the box and on the checklist. After each box was opened by the researcher, the completed questionnaire was coded with the relevant code for the hospital and for the unit. The researcher's time frame for collecting data included a period of approximately five months, with the first appointment on the 15th of May 2014 and the last appointment on the 18th of September 2014.

3.6. DATA ANALYSIS

Data analysis is the process where the pieces of information that were collected during a study are reduced, organised and given meaning (Grove, *et al.*, 2013:691). The data was captured by Statistical Consultation Services using the EpiData 3 software programme. EpiData is appropriate for simple datasets with one source of data (e.g. one questionnaire), as well as datasets with many or branching data forms. The advantage of EpiData is that it allows for data entry verification, which minimises errors in the data capturing process (Lauritsen & Bruus, 2003).

Data was then analysed using the software programme's Statistical Packages for the Social Sciences Version 21 (SPSS, 2015) and SPSS Analysis of Moment Structures Version 21 (AMOS, 2015). Holzemer (2010:119) states that SPSS can be seen as a good option for cross-sectional and descriptive studies, with a reasonable number of

variables. SPSS AMOS is an add-on module for SPSS. It is designed primarily for SEM, path analysis, and covariance structure modelling. It features an intuitive graphical interface that allows the researcher to specify models by drawing them. It also has a built-in bootstrapping routine and superior handling of missing data.

Data was analysed as descriptive statistics (percentages, means, frequencies, ranges, standard deviations) for the demographic data of the CCUs and the CCNs, as well as for all the items of each respective instrument. The construct validity (exploratory and/or confirmatory factor analysis) and reliability of all the instruments were then tested. Descriptive data of the sub-scales was provided, and inferential statistics (*t*-tables, ANOVA's and Spearman's rank correlations) between the variables of the study and demographics of the CCNs, as well as between the different variables of the study were explored. SEM was applied in the case of confirmatory factor analysis. A discussion of each step follows below.

3.6.1. Descriptive statistics

Demographic data of the CCUs and CCNS were described using percentages, means, frequencies, ranges and standard deviations. Thereafter, the mean and standard deviation of each subscale of all the instruments were described together with the percentages, mean and standard deviation of each item of the instruments (MBI, CWEQ-II, PEI, NIS, NAQ-R and PES-NWI-R). In the following sections factor analysis will be discussed in more detail.

3.6.2. Factor analysis

To reduce the amount of data, factor analysis was utilised. Factor analysis determines what items group together when you have a large number of related variables (items making up a scale), and wish to explore the underlying structure of this set of variables. In this way, a large number of related variables are decreased to a lesser, more manageable number of dimensions or components (Grove, *et al.*, 2013:694; Pallant, 2013:188). In this study, exploratory factor analysis was used to determine construct validity. The construct validity of the MBI and the PES-NWI-R

have been established within the South African context before and had valid measures; thus an exploratory factor analysis was conducted only on the CWEQ-II, PEI, NIS and NAQ-R used for the first time in the South African context.

3.6.2.1. Exploratory factor analysis

Steps followed during the exploratory factor analysis of all the relevant variables within this research study included the following:

- a. ***Suitability of the data for factor analysis.*** The sample size and the strength of the relationship among the variables is always considered first in factor analysis. Tabachnick and Fidell (2010) suggest that a sample size of 300 is preferable for factor analysis, but suggest that a sample size of 150 should be sufficient. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of Sphericity should be significant in helping to assess the factorability of the data. The KMO should be close to 1, with 0.6 as a suggestion for a minimum value for good factor analysis. Bartlett's test of Sphericity is significant at a $p < .05$ (Pallant, 2010:183)

- b. ***Factor extraction:***

Through factor extraction, the smallest numbers of factors that can be used to best represent the interrelationship between the set of variables are determined. (Palant, 2010:182). The approach used for factor extraction involved principle component factor analysis. Principle component factor analysis provides the preliminary information needed by the researcher to make decisions prior to final factoring (Burns & Grove, 2009:485) This also involves the process where the number of factors is reduced while simultaneously a large proportion of the information that is available is retained (Wilcox, 2012:664).

c. ***Factor rotation and interpretation***

After determination of the number of factors, the factors need to be interpreted: therefore, the factors are rotated. Through the use of factor rotation, the researcher tries to simplify the factor structure. Oblique rotation was used to accomplish the best fit by which the factors were allowed to be correlated (Grove, *et al.*, 2013:701).

Burns and Grove (2009:480) state that correlation coefficients with a value of less than 0.3 are considered as having a weak linear relationship, correlation coefficients of 0.3-0.5 are seen to involve a moderate linear relationship, and > 0.5 represents a strong linear relationship.

3.6.2.2. Confirmatory factor analysis

Confirmatory factor analysis involves validating the number of constructs in an instrument and measures equivalence among comparison groups. Items not falling into a factor or not correlating with other items might be deleted. ***Standardised regression weights*** are provided to determine which of the variables in the model contribute to the prediction of the dependent variable. The word “standardised” is used because it indicates that the values for each of the different variables have been changed to fit into the same scale so that they can be compared (Pallant, 2010:161). A standardised regression weight of .5 - .8 indicates a strong relationship between the elements of each subscale/factor. With confirmatory factor analysis, the following measures of appropriate fit are used:

- the Chi-squared test statistic divided by the degrees of freedom (Minimum Sample Discrepancy divided by Degrees of Freedom) should be between 2 and 5 (Mueller, 1996);
- the Comparative Fit Index (CFI) where a value of above 0.95 indicates a good model fit (Blunch, 2011:115) and

- the Root Mean Square Error of Approximation value (RMSEA) with a 90% confidence interval where the RMSEA value must not be larger than 0.10 (Blunch, 2011:116). CFI is based on the non-central tendency which reflects the degree of misspecifications. The RMSEA indexes absolute fit (Hoyle, 2011:44, 47)

3.6.3. Correlations

Grove *et al.* (2013:690) state that correlational analysis is the statistical procedure conducted to determine the direction (whether positive or negative) and magnitude (strength) of the relationship between two variables. To determine the correlation between all measured constructs and ordered biographical variables Spearman rank order correlations was used (SPSS, 2015). Not only was the relationship between burnout and all the other variables measured (please see Chapter 4, Section 4.7), but also all the inter-relationships between each of the other variables; for example, burnout to structural empowerment but also structural empowerment to the practice environment, psychological empowerment, incivility and bullying behaviour. (Please see Chapter 4, section 4.8.)

3.6.4. Associations with nominal data and effect size of relationships

T-tests and ANOVAs were used to test associations between nominal biographical groups and the measured constructs. The effect size can be understood as a large enough difference to have an effect in practice. A natural way to comment on practical significance is to use the standardised difference between the means of two populations, i.e. the difference between the two means divided by the estimate for standard deviation (Ellis & Steyn, 2003). The following guidelines for the interpretation of the effect size for the difference between means is: small effect: $d=0.2$; medium effect: $d=0.5$ and large effect: $d=0.8$.

Effect sizes were determined for differences in means determined by *T*-testing and ANOVA. The *T*-test can be defined as a parametric test which is used to determine whether there are significant differences between two independent groups or two

repeated measured conditions. (Dancey, *et al.*, 2012:550). ANOVA is a statistical technique which shows whether there are significant differences between conditions or groups (Dancey, *et al.*, 2012:542). ANOVA can also be defined as the comparison of means of two or more samples to see whether they come from the same population (Harris & Taylor, 2013:29) (Please see Chapter 4, Section 4.10.2.)

3.6.5. Structural Equation Modelling (SEM)

SEM permits modelling of complex relations among multiple exogenous and endogenous latent variables, each measured by multiple indicators, and provides estimates of the level of fit between the model and the data (Hoyle 2011:1). With SEM, measured variables are called “indicators” or “manifest variables” and “latent variables” are underlying constructs. Endogenous variables are variables that are directly “caused by” one or more other variables in the model, and exogenous variables are those in the model that are only present as a cause of other variables (Hoyle, 2011:9). Statistics relating to level of fit within the model were evaluated and a decision made about the model fit (Please see Chapter 1, Figure 1.1 and Chapter 4, Section 4.11.)

3.7. INTERVENTION PROGRAMME TO DECREASE THE LEVELS OF BURNOUT (PHASE 2)

In this section, a review of intervention programmes to decrease the levels of burnout will be discussed, as well as the method used to develop the intervention programme.

3.7.1. Review of intervention programmes to decrease the levels of burnout

Grove *et al.* (2013:698) define an intervention as “treatments, therapies, procedures, or actions implemented by researchers to determine their outcomes in a study...” Intervention programmes to decrease burnout reviewed previously highlighted that these interventions must be person-directed, organizational directed or a combination of the two (Westermann, *et al.*, 2014:67; Awa, *et al.*, 2010:189; Ruotsalainen, *et al.*,

2008:175). The effects of decreasing burnout levels by burnout interventions that were person-directed lasted approximately six months, while programmes that focused on the organization itself had an effect of approximately one year. The combined interventions had the highest level of effectiveness (Awa, *et al.*, 2010:189). The articles reviewed by Ruotsalainen *et al.* (2008:175) also confirmed the person-directed and organizational-directed approach to burnout, but concluded that there is limited evidence that person-directed programs alone are effective in reducing burnout levels. Maslach *et al.* (2012:298-299) also confirmed that interventions to decrease burnout should be aimed at unit level or multilevel. The intervention programme for this research study will therefore be based on a multi-level platform, focusing on the unit, hospital and organizational level. Please see table 3.6 for a review summary of intervention programmes to decrease burnout levels.

Table 3.6: Review of intervention programmes to decrease burnout

REVIEW OF BURNOUT INTERVENTION PROGRAMMES			
AUTHOR	YEAR	TITLE	INTERVENTION APPROACH
Westermann, <i>et al.</i>	2014	Burnout intervention studies for in-patient elderly care nursing staff: systematic literature review	• Person-directed interventions • Work-directed interventions • Combined interventions
Maslach, <i>et al.</i>	2012	Making a significant difference with burnout interventions: Researcher and practitioner collaboration	• Unit level approach • Multi-level approach
Ruotsalainen, <i>et al.</i>	2008	Systematic review of interventions for reducing occupational stress in healthcare workers	• Person-directed interventions • Organizational-directed interventions • Person-work interface
Awa, <i>et al.</i>	2010	Burnout prevention: a review of intervention programs	• Person-directed interventions • Work-directed intervention • Combined interventions

3.7.2. Method to develop the intervention programme to decrease the levels of burnout amongst CCNs in the Gauteng Province of SA

The eclectic method of curriculum development (Uys & Gwele, 2005:27) and strategy development (Ehlers & Lazenby, 2010:7) were used to develop an intervention programme to decrease the levels of burnout amongst CCNs in the Gauteng Province of SA. The below table presents the steps of each method, and the steps that was applied in this study.

Table 3.7: Method to develop the intervention programme

CURRICULUM DEVELOPMENT METHOD	STRATEGY DEVELOPMENT METHOD	METHOD APPLIED IN THIS RESEARCH STUDY
Establish the context and foundations	Basis for strategy development	Problems identified
Formulate the outcomes or objectives	Strategy objectives	Intervention programme objectives
Develop a macro-content		Proposed interventions
Develop a micro content	Functional tactics	Proposed actions
Plan for the evaluation of implementation and outcomes	Implementation of the strategy	Implementation of the intervention programme
(Uys & Gwele, 2005:27)	(Ehlers & Lazenby, 2010:7)	

Each step of the method applied in this research study to develop an intervention programme to decrease the levels of burnout among CCNs will now be discussed in detail:

Step one: Problems Identified: The literature review provided in Chapter 2 providing the aim and objectives for the research study and thereafter the empirical research contributed to the identification of 75 problems with regards to burnout,

empowerment, incivility, bullying and the status of the practice environment (Please see Chapter 5, Table 5.3.) Problem identification was done through deductive logic (Uys & Gwele, 2005:27). Grove *et al.* (2015:502) describes deductive logic as the process of reasoning from the general (general premise) to the specific (particular situation). From the problem identification the objectives for the intervention programme were formulated

Step two: Intervention programme objectives: According to Uys and Gwele (2005:27) it is of vital importance to formulate the outcomes or objective of a programme to give direction to the development of the programme. Through deductive logic the objectives was developed and prioritised on the hand of the data analysis process. (Please see Chapter 5, Table 5.4.)

Step three: Suggested interventions: After setting of the objectives the researcher provided suggested interventions in broad to reach these objectives. (Please see Chapter 5, Table 5.5.)

Step four: Suggested actions: Through deductive and inductive logic suggested interventions was developed into more specific actions in providing the finer detail of the programme. These specific actions are divided into unit, hospital and organisational level actions. Inductive logic are defined by Grove *et al.* (2015:505) as reasoning from the specific (a particular instance are observed) to the general (larger whole or general statement). The proposed actions are provided in Table 5.6.

Step five: Implementation and evaluation of the intervention programme: Even though the intervention programme is not going to be implemented within the next few months it is important to know how to evaluate the implementations and outcomes thereof prior to the implementation process. According to Uys and Gwele (2005:27) it is important to monitor to what extent the programme that is on paper is actually experienced by the participants. Therefor it is also important to monitor the planned and unplanned results of the intervention programme. The figure below provides a visual illustration of the method applied in the development of the intervention programme to decrease burnout levels

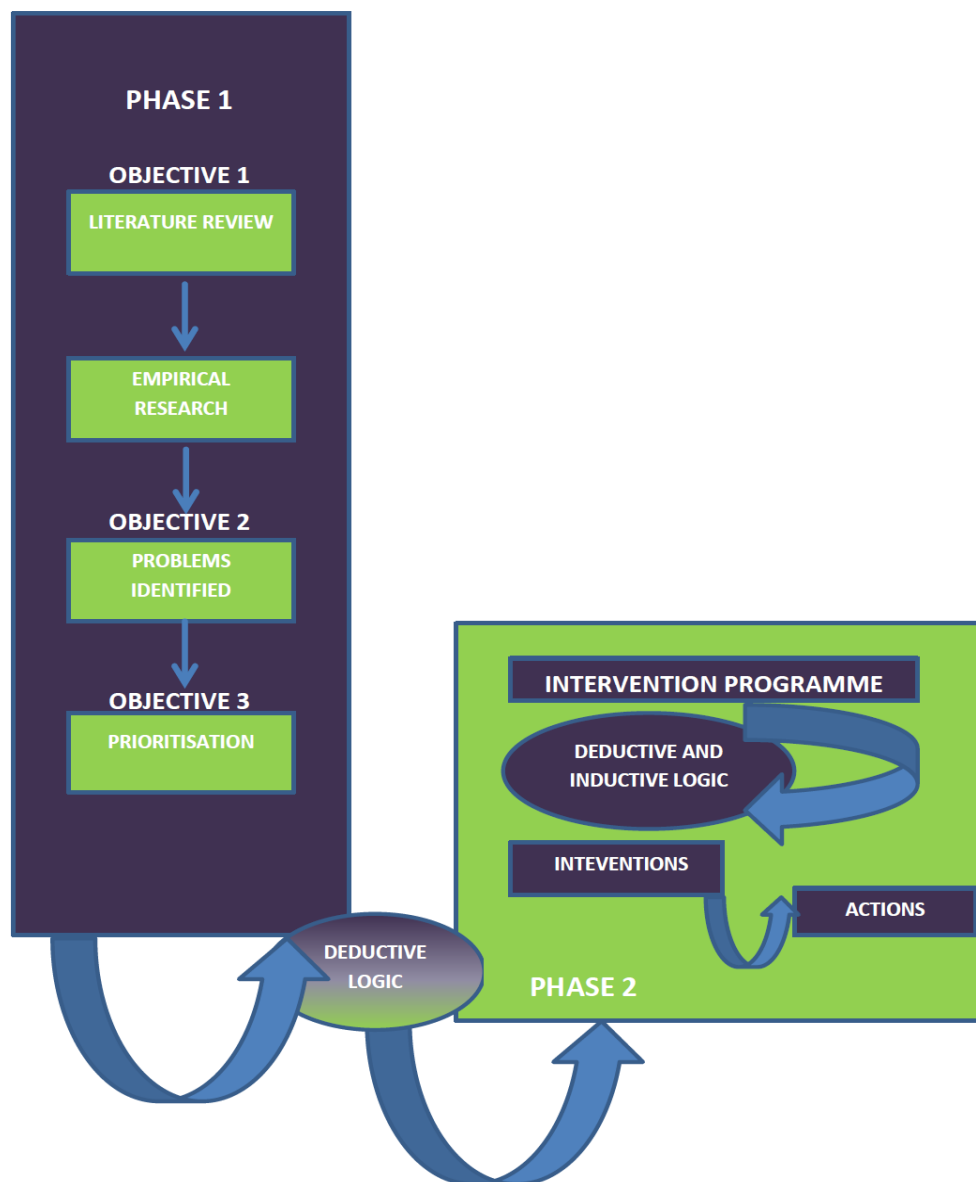


Figure 3.2: Method applied in the development of the intervention programme to decrease burnout levels

3.8. SUMMARY

Chapter 3 provided a detailed discussion of the research design in two phases. A cross-sectional correlational survey design with descriptive, explanatory and contextual strategies was discussed. Contextual strategies provided details regarding the research setting in relation to the geographical boundaries, the health

profile and the health care system of SA. The research methods included the advantages and disadvantages of questionnaires and the researcher explained how she managed the specific disadvantages associated with during the research process. The structure and format of all the relevant instruments within the questionnaire package were elaborated on in detail, and validity and reliability indices internationally and nationally were provided in a table format. The population (adult CCUs in Gauteng Province of SA), sample (CCNs) and sampling technique (multi-level, all-inclusive and purposive sampling) were discussed, and the procedure for data collection and analysis elaborated on. The specific data analysis techniques were detailed, and finally, an overview of intervention programmes and the method of developing the intervention programme to decrease burnout levels was expounded on and visually illustrated.

CHAPTER 4

RESULTS

*“What counts in life is not the mere fact
that we have lived. It is what difference
we have made to the lives of others that
will determine the significance of the
life we lead.”*

Nelson Mandela

CHAPTER 4:

RESULTS

4.1. INTRODUCTION

Chapter 3 provided an overview of the research design and method for this study. This chapter presents the results of the study which include the realisation of the study sample, demographic profile of the CCUs and CCNs, construct validity and reliability testing of the instruments, descriptive data of the instruments, the association between demographic data and the variables, the correlations between variables and structural equation modelling.

4.2. REALISATION OF THE STUDY SAMPLE

In Chapter 3 (please see section 3.4), the sampling method is discussed in detail. Here the researcher provides a brief overview of the sampling method. A large national study researched CCUs in two of the three main private hospital groups (Klopper, *et al.*, 2012). In this study, the previously unstudied hospital group was chosen. The Gauteng Province was purposively selected as it has the highest population density (Statistics, 2015), as well as the highest number of RNs. The hospital group has 23 hospitals in the Gauteng Province: of this total, seven hospitals were excluded from the study. These included one rehabilitation hospital, one psychiatric hospital, three day clinics and two other hospitals that had no adult CCUs. A total of 16 hospitals met the inclusion criteria, and a total of 15 hospitals consented to participate in the study. A total of 20 adult CCUs were identified within the 15 participating hospitals and all the units agreed to participate in the study. A total of 309 full-time CCNs were employed in the selected adult CCUs, but the researcher also included all part-time CCNs in the unit. A total of 151 full-time CCNs completed the survey, with a response rate of 49%, and a total of 58 part-time CCNs completed the survey.

4.3. DEMOGRAPHIC PROFILE OF THE CCUs AND CCNs

Demographic data can be described as the attributes of the subjects measured during the study to describe the sample. The demographics also determine the population for generalisation of the findings (Burns & Grove, 2009:179). The demographic profile of CCUs was established through the use of a demographic checklist (See Chapter 3, Section 3.5.1 and Addendum L), while the demographic profile of the CCNs was delineated within the demographic section of the survey (please see Addendum K). The demographic profile of CCUs is discussed in the section that follows.

4.3.1. Demographic profile of CCUs

A total of 15 hospitals with 20 adult CCUs participated in the study. The different types of adult CCUs participating in the study are presented in Figure 4.1.

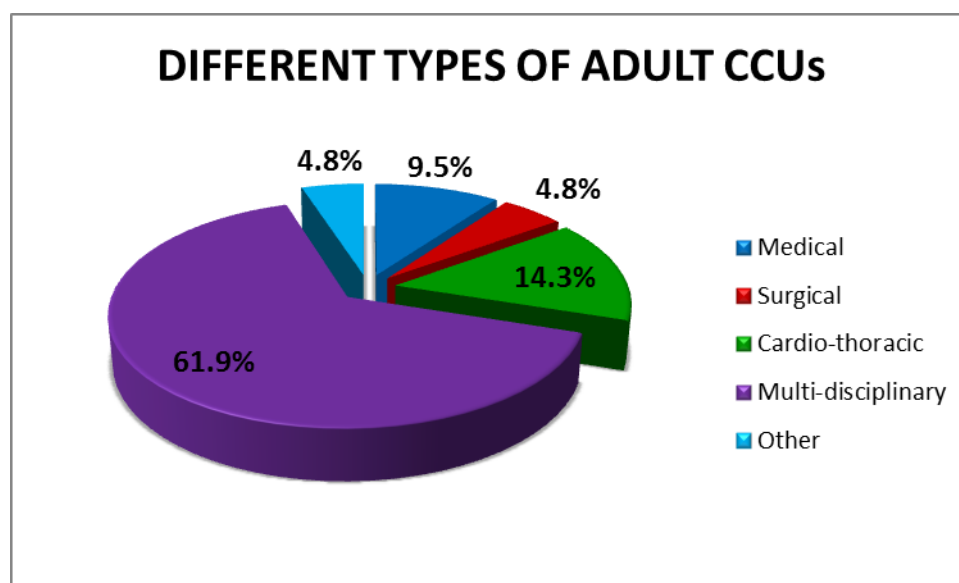


Figure 4.1: Different types of adult CCUs

The majority (61.9%) of CCUs participating in the study were multi-disciplinary. Multi-disciplinary CCUs can be described as those which are specially designed to accommodate all the different types of patients admitted to the unit. These patients can vary between poly-trauma, elective surgery patients, medical patients, etc. The

20 CCUs participating in the study had an average of 17.4 beds, ranging from a minimum of nine beds to a maximum of 26 beds. The average number of patients nursed a day was 14.15 (SD = 4.38), while the average patient acuity per month was 20.13 ranging from 18-23. The average number of nursing staff per shift (CCNs and all other categories of nurses) was 13.35 nurses, of which 4.75 were full time CCNs and 1.9 were part-time CCNs. The remaining 6.7 accounted for other categories of nurses. Most CCNs were critical-care-experienced, which means that they had received no formal training in critical care nursing. Critical care trained nurses ranged from zero to 17 CCNs (M=6.90; SD=4.29). Please see Table 4.1 for a detailed description of CCUs' demographics.

Table 4.1: CCUs demographics

Unit demographic variable	N	Minimum	Maximum	Mean	SD
Number of beds in the units	20	9	26	17.40	5.66
Number of patients	20	8	23	14.15	4.38
Number of all nursing staff on the shift	20	6	25	13.35	5.59
Average patient acuity for the month	16	18	23	20.13	1.50
Full-time CCNs on the shift	20	1	10	4.75	2.97
Part-time CCNs on the shift	20	0	6	1.90	1.88
CCU trained CCNs working in unit	20	0	17	6.90	4.29
CCU experienced CCNs working in unit	20	1	23	8.55	6.42

The demographic profile of CCNs is discussed in the next section.

4.3.2. Demographic profile of CCNs

A total of 209 surveys were completed by CCNs. Questions that were not responded to in the survey were reported as missing in the analysis and interpretation.

4.3.2.1. Gender distribution of CCNs

The sample of CCNs consisted of 86.6% (181/209) females and 11% (23/209) males. Please see Figure 4.2 for visual illustration of gender distribution of CCNs.

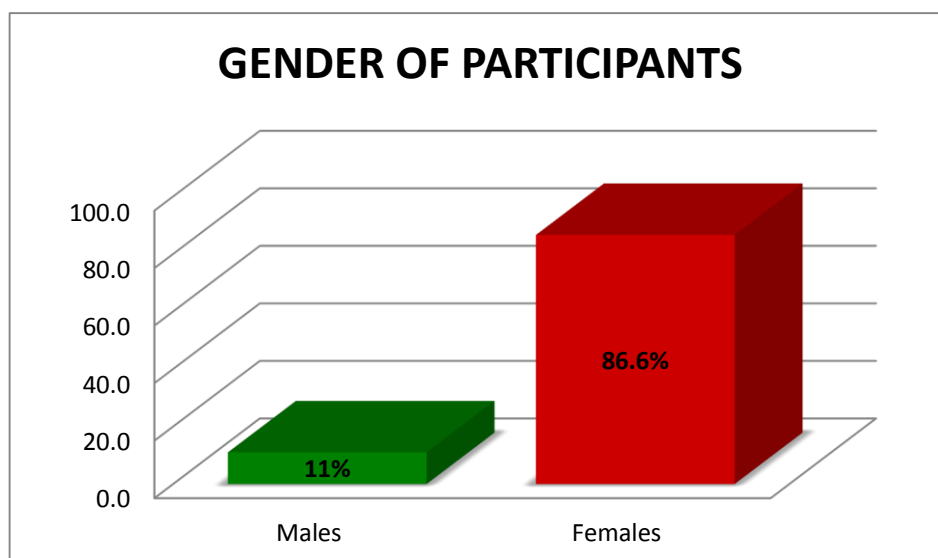


Figure 4.2: Gender distributions of CCNs

4.3.2.2. Age distribution of CCNs

The majority of CCNs were between the ages of 31 to 50 years, with 33.5% (70/209) between the ages of 41-50 years, and 32.5% (68/209) between the ages of 31-40 years. Only 9.6% (20/209) of CCNs were between the ages of 22 to 30 years. (Please see Figure 4.3.)

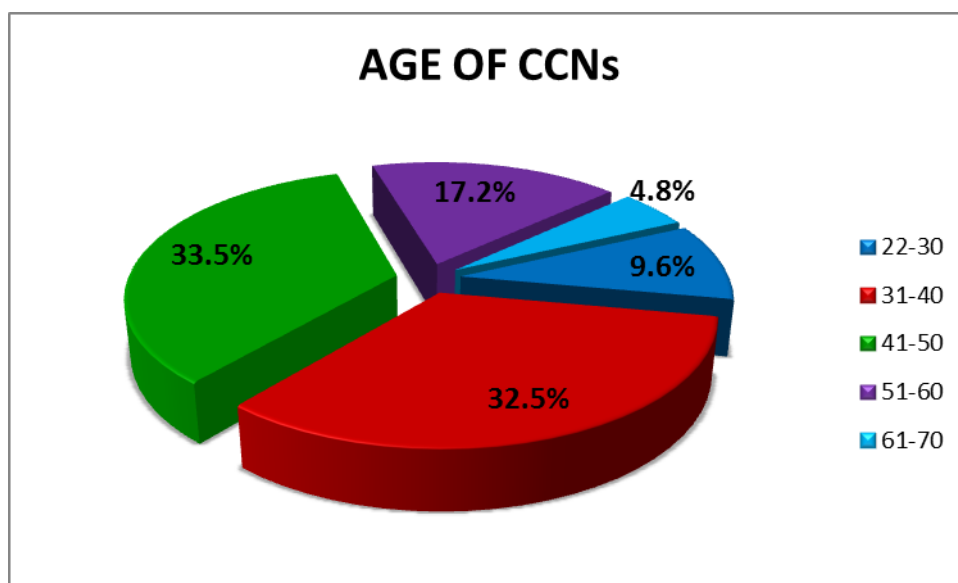


Figure 4.3: Age distribution of CCNs

4.3.2.3. Marital status of CCNs

The majority [41.6% (87/209)] of CCNs were married, closely followed by 34.4% (72/209) of CCNs who were single, and almost a fifth [13.9% (29/209)] of CCNs were divorced. This information is illustrated in figure 4.4.

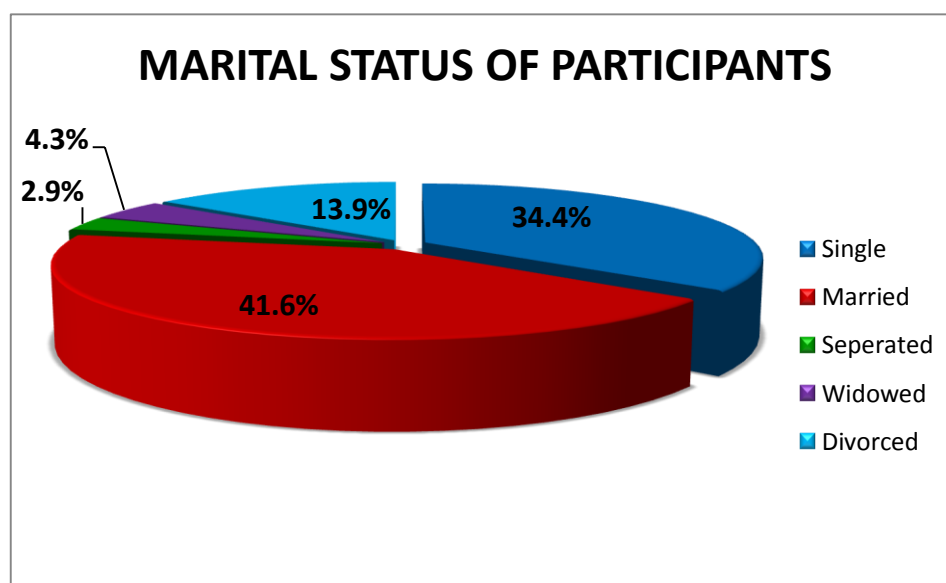


Figure 4.4: Marital statuses of CCNs

4.3.2.4. Age on commencement of nursing career.

The majority [78.9% (165/209)] of CCNs started their nursing careers between the ages of 16 to 25. Only 13.5% (28/209) of CCNs began the nursing careers after 25 years of age. (Please see Figure 4.5).

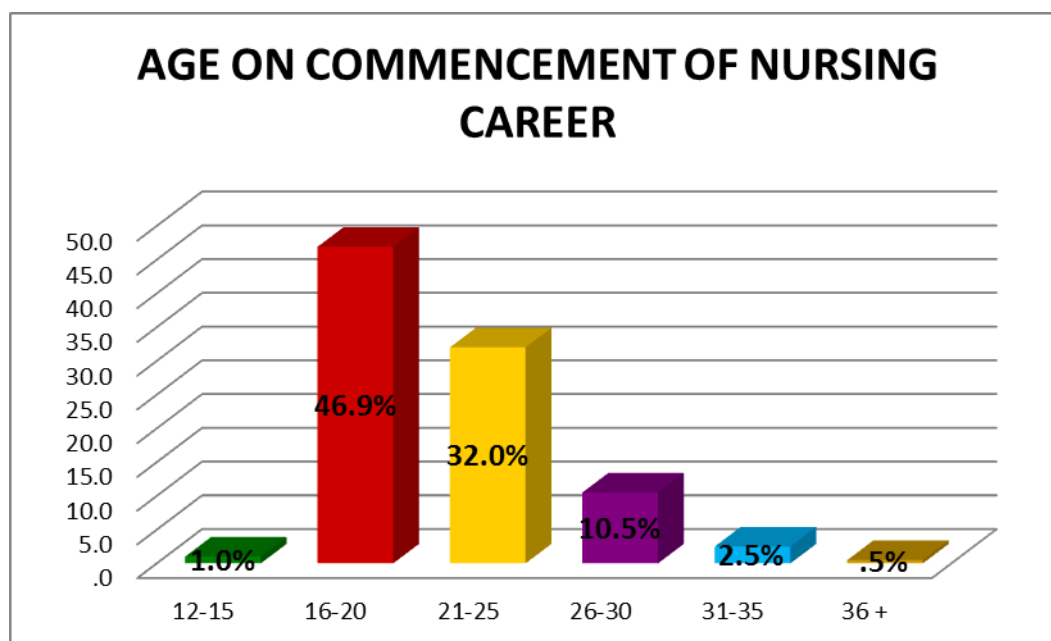


Figure 4.5: Age on commencement of nursing career

4.3.2.5. Years being a RN

The diagram below provides information regarding the number of years of practising as a RN. This indicates that 42% (88/209) of all the participants had been practising for less than 10 years and 28.7% (58/209) for between 11 to 20 years. A total of 23.3% (48/209) of the participants had been qualified for more than 20 years.

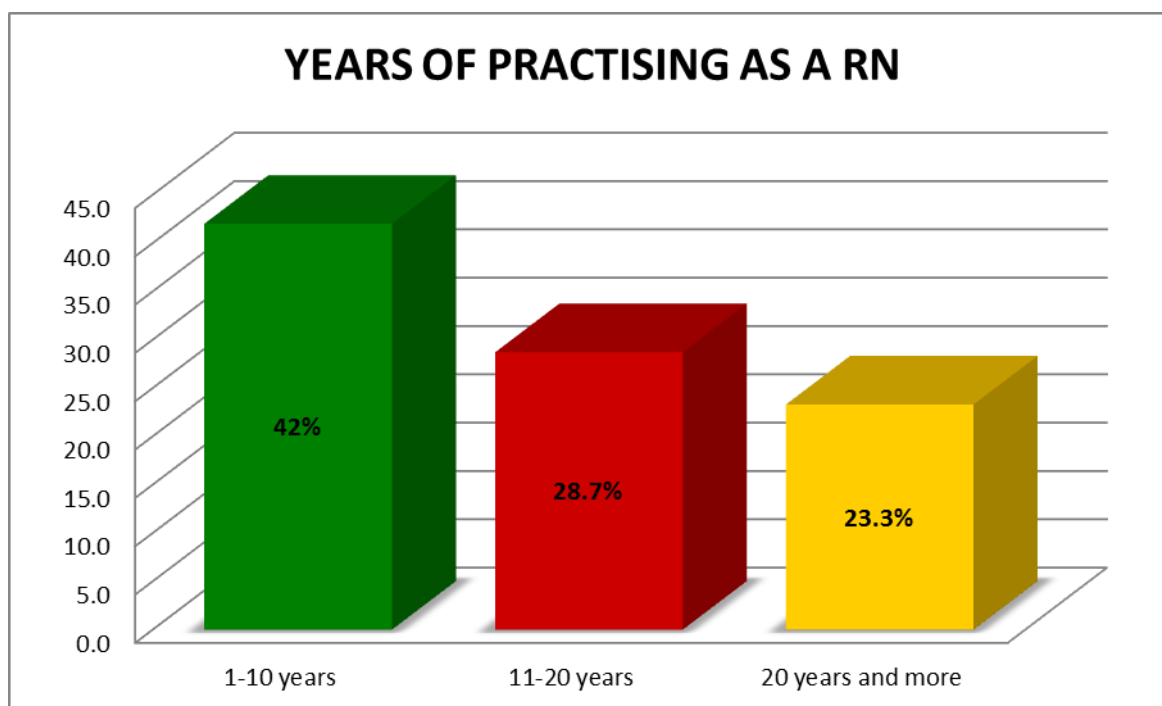


Figure 4.6: Years of practising as a RN

4.3.2.6. Years of practising in critical care

More than half [(51.8%) (108/209)] of the participants indicated that they had been practising in the critical care environment for the last 10 years, while 26.3% (55/209) had been practising in this environment for the last 20 years. Within this context, 7.2% (15/209) of CCNs have been within the specialised setting for more than 20 years. This question had a large missing value of 14.8% (31/209).

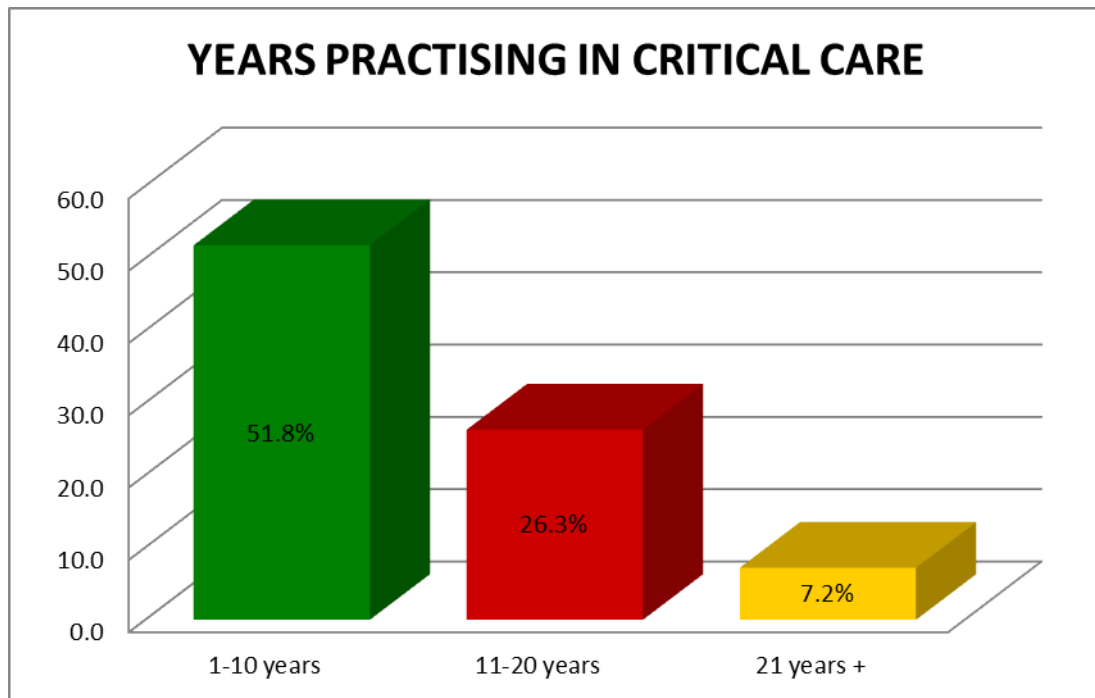


Figure 4.7: Years practising in critical care

4.3.2.7. Nursing as first career choice

56.5% (118/209) of the sampled CCNs indicated that nursing was their first career choice.

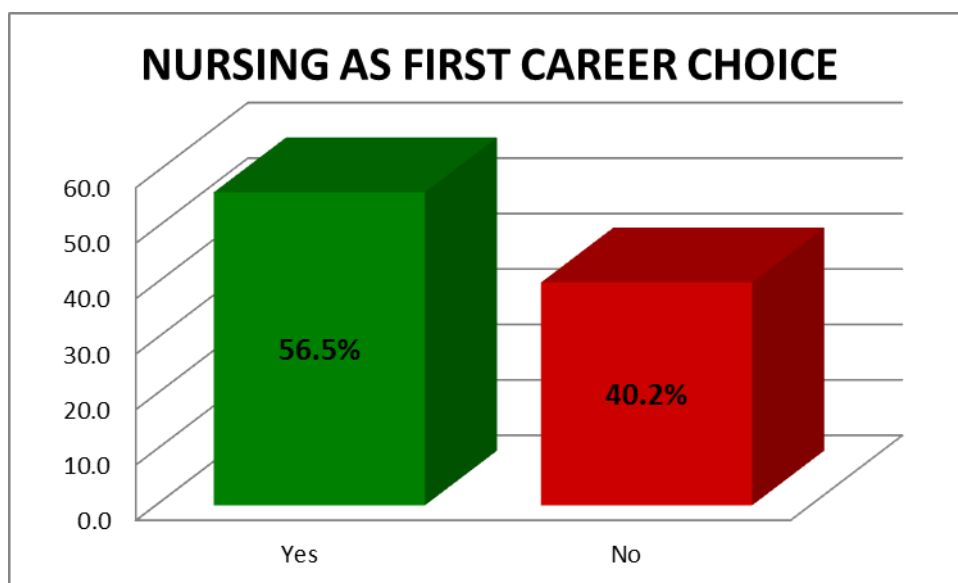


Figure 4.8: Nursing as first career choice

4.3.2.8. Satisfaction with nursing as a career

81.8% (171/209) of the sampled RNs were moderately satisfied or satisfied with nursing as a career.

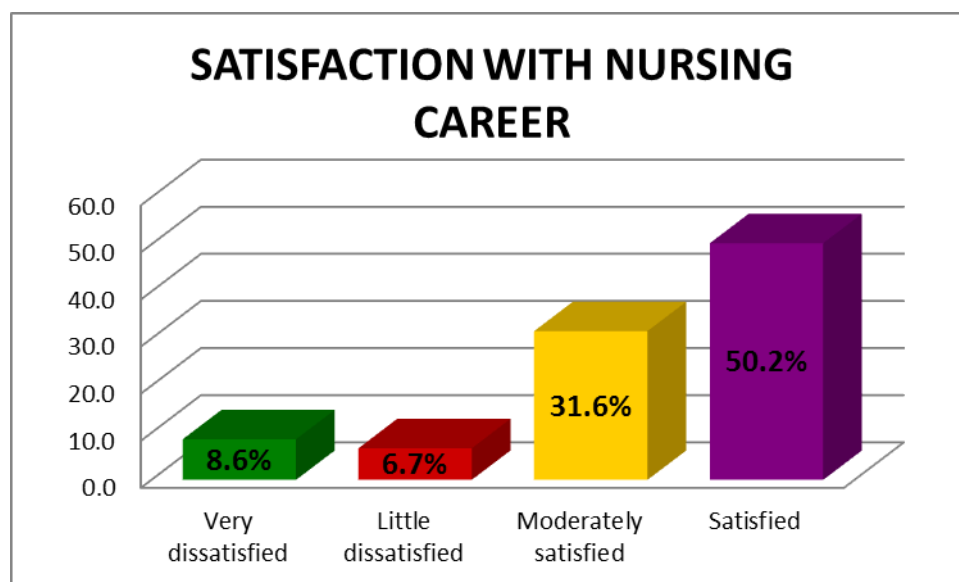


Figure 4.9: Satisfaction with nursing career

4.3.2.9. Qualifications in nursing

Most of the RNs had a 4-year diploma [(33.5%) (70/209)], followed by a post basic diploma [(31.6%) (66/209)]. A much smaller percentage of RNs had a 4-year undergraduate degree in nursing [(5.3%) (11/209)] or a post basic degree [(17.7%) (37/209)]. Furthermore, 1.9% (4/209) had a Master's degree and 0.5% (1/209) a doctoral degree. Please see Figure 4.10 below.

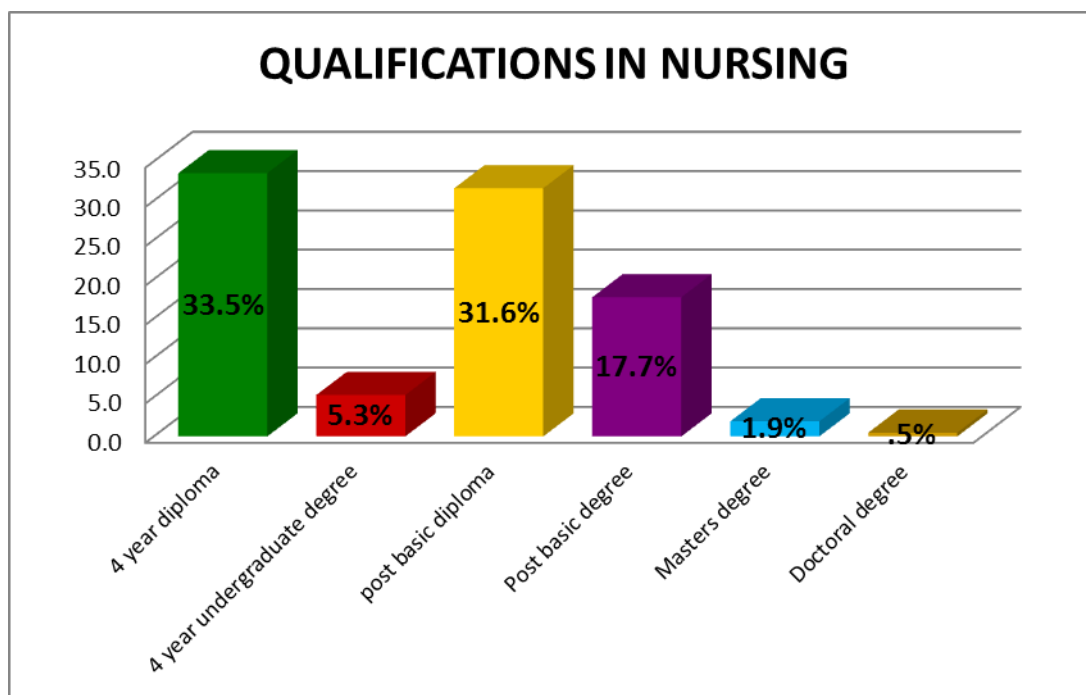


Figure 4.10: Qualifications within nursing

4.3.2.10. Critical care trained or experienced

40.7% (85/209) of the sampled RNs were critical care trained nurses with a one or 2-year diploma in critical care nursing. 53.1% (111/209) of the RNs were experienced within the CCU environment: this could range from as little as 1 month to many years. Please see figure 4.11.

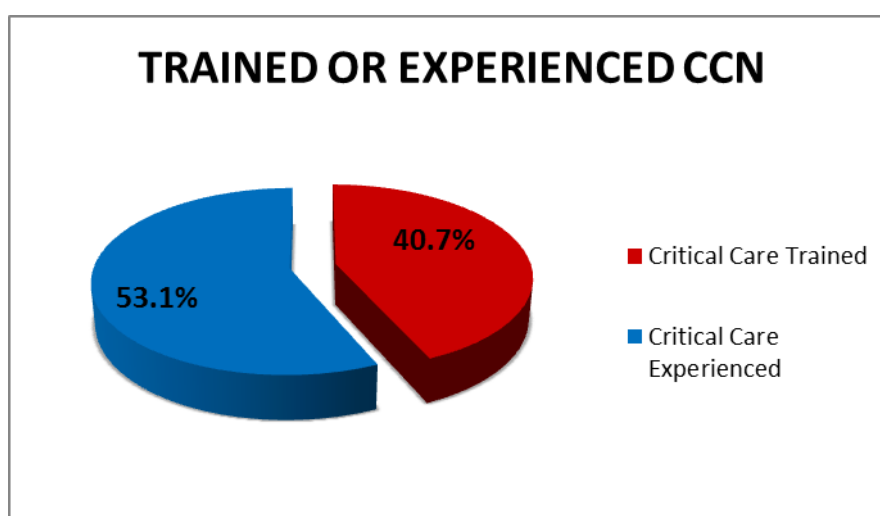


Figure 4.11: Trained or experienced CCN

4.3.2.11. Employment status

72.2% (151/209) of the RNs were permanent staff.

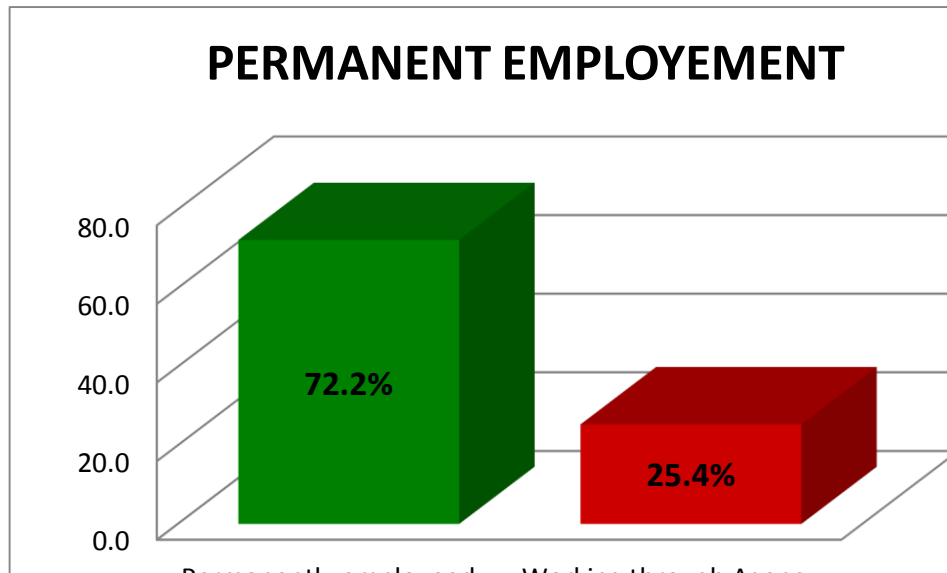


Figure 4.12: Employment statuses of CCNs

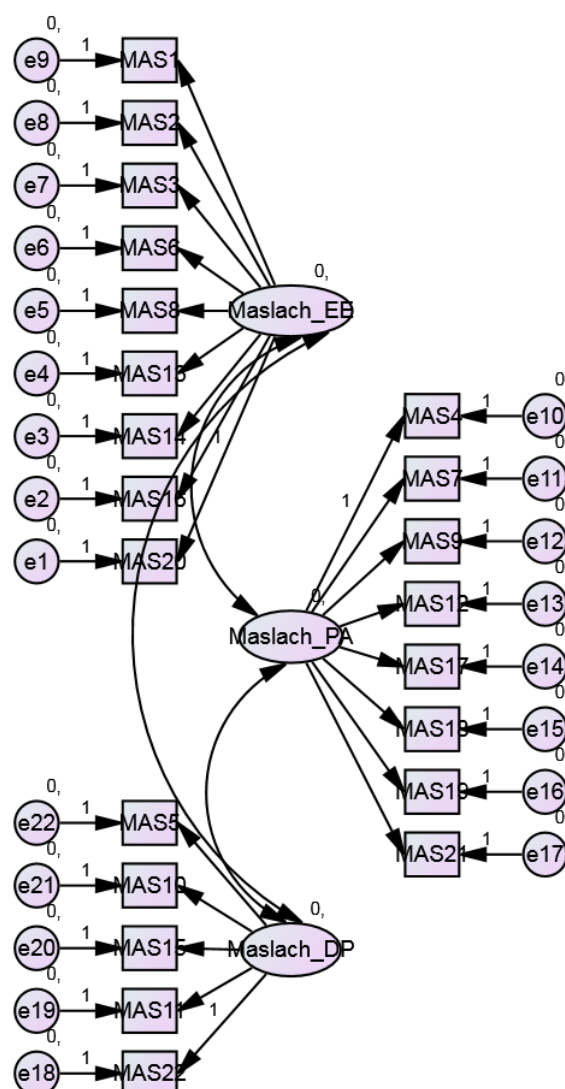
In the following section, the construct validity and reliability of all the instruments will be discussed in more detail.

4.4. CONSTRUCT VALIDITY

Validity of an instrument defines the extent to which it actually replicates the abstract variable being examined, and includes content validity, predictive validity and construct validity. Construct validity contains content and predictive validity and, through the examination of construct validity, the researcher aims to determine whether the instrument really measures the theoretical construct it purports to measure (Burns & Grove, 2009:380, 224). The construct validity of the relevant instruments was confirmed through the process of exploratory and confirmatory factor analysis.

The MBI was described in section 3.3.2.1 and was used to measure participants' burnout levels. Since the MBI has been validated in the South African context (Klopper, *et al.*, 2012; Coetzee, *et al.*, 2013), only a confirmatory factor analysis of the MBI is presented.

The confirmatory factor analysis of the MBI is presented in Figure 4.13 and Table 4.2.



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CHAPTER 4 : RESULTS

Table 4.2: Standardised regression weights and *p*-values of the MBI

MASLACH BURNOUT INVENTORY			STANDARD REGRESSION WEIGHT	P-VALUE
MAS20	Emotional Exhaustion	I feel like I am on the end of my rope	.720	
MAS16	Emotional Exhaustion	Working direct with people puts too much stress on me	.632	***
MAS14	Emotional Exhaustion	I feel I am working too hard on my job	.502	***
MAS13	Emotional Exhaustion	I feel frustrated by my work	.729	***
MAS8	Emotional Exhaustion	I feel burned out from my work	.830	***
MAS6	Emotional Exhaustion	Working with people all day is really a strain to me	.651	***
MAS3	Emotional Exhaustion	I feel fatigue when I get up in the morning...	.816	***
MAS2	Emotional Exhaustion	I feel used up at the end of the work day	.823	***
MAS1	Emotional Exhaustion	I feel emotionally drained from my work	.823	***
MAS4	Personal Accomplishment	I easily understand how my patients feel about things	.388	
MAS7	Personal Accomplishment	I deal very effectively with the problems of my patients	.564	***
MAS9	Personal Accomplishment	I feel I am positively influencing other people's lives	.505	***
MAS12	Personal Accomplishment	I feel very energetic	.505	***

MASLACH BURNOUT INVENTORY			STANDARD REGRESSION WEIGHT	P-VALUE
MAS17	Personal Accomplishment	I easily create a relaxed atmosphere with my patients	.664	***
MAS18	Personal Accomplishment	I accomplish many worthwhile things in this job	.646	***
MAS19	Personal Accomplishment	I feel exhilarated after working closely with my patients	.398	***
MAS21	Personal Accomplishment	In my work, I deal with emotional problems very calmly	.529	***
MAS22	Depersonalisation	I feel patients blame me for some of their problems	.494	
MAS11	Depersonalisation	I worry that this job is hardening me emotionally	.809	***
MAS15	Depersonalisation	I don't really care what happens to some patients	.513	***
MAS10	Depersonalisation	I've become more callous toward people since I took this job	.571	***
MAS5	Depersonalisation	I feel I treat patients as if they were impersonal objects	.663	***

*** p -value < 0.001

Confirmatory factor analysis was done to confirm the three sub-scales EE, Dp and PA of burnout as identified in the literature. The confirmatory factor analysis that was performed is presented in Figure 4.13. All items had statistically significant regression weights above 0.388, indicating that items loaded significantly on the theoretical sub-scales of burnout. Item 8 *“I feel burned out from my work”* contributes the most weight (0.830) in explaining EE, while item 14 *“I feel I am working too hard at my job”* contributes the least weight (0.502). With regard to PA, item 17 *“I easily create a relaxed atmosphere with my patients”* contributes the most weight (0.664) in explaining PA, while item 4 *“I easily understand how my patients feel about things”* contributed the least (0.388). Finally, the subscale of Dp showed that item 8 *“I worry that this job is hardening me emotionally”* contributed the most weight (0.809), and item 22 *“I feel patients blame me for some of their problems”* contributed the least weight (0.494). Please see Table 4.2 for standardised regression weights and *p*-values of the MBI. The correlations among the three sub-scales of the MBI are summarised in Table 4.3.

Table 4.3: Correlation coefficients and *p*-values of the MBI subscales

			CORRELATION COEFFICIENT	P-VALUE
MBI: EE	<-->	MBI: PA	-.253	.010
MBI: Dp	<-->	MBI: EE	.816	<0.001
MBI: Dp	<-->	MBI: PA	-.332	.005

Considering the correlation coefficients in Table 4.3, EE and PA had a moderate negative correlation of -.253: so, too, did Dp and PA, with a moderate negative correlation of -.332. A large positive correlation of .816 was obtained between Dp and EE. All correlations were statistically significant. In Table 4.4, the measures relating to level of fit for the three subscales of burnout are presented.

Table 4.4: Measures of goodness of fit model for the MBI

	ACCEPTABLE VALUES	MBI
CMIN/DF	2-5	2.02
CFI	>0.9	.881
RMSEA (90%CI)	< 0.1	0.07 (0.06; 0.08)

Measures of levels of fit for the three subscales of burnout yielded a CMIN/DIF value of 2.02 which indicates a good model fit. A close to acceptable CFI of .88 was obtained, as well as an acceptable RMSEA value of 0.07 with a 90% confidence interval of [0.06; 0.08].

4.4.2. Practice Environment Scale of Nurses Work Index – Revised

The PES-NWI-R was discussed in Section 3.3.2.6 and was used to measure the practice environment of the CCNs. Since the PES-NWI-R has been validated nationally (Klopper, *et al.*, 2012; Coetzee, *et al.*, 2013), only a confirmatory factor analysis was conducted.

4.4.2.1. Confirmatory factor analysis of the PES-NWI-R

The confirmatory factor analysis is provided in Figure 4.14.

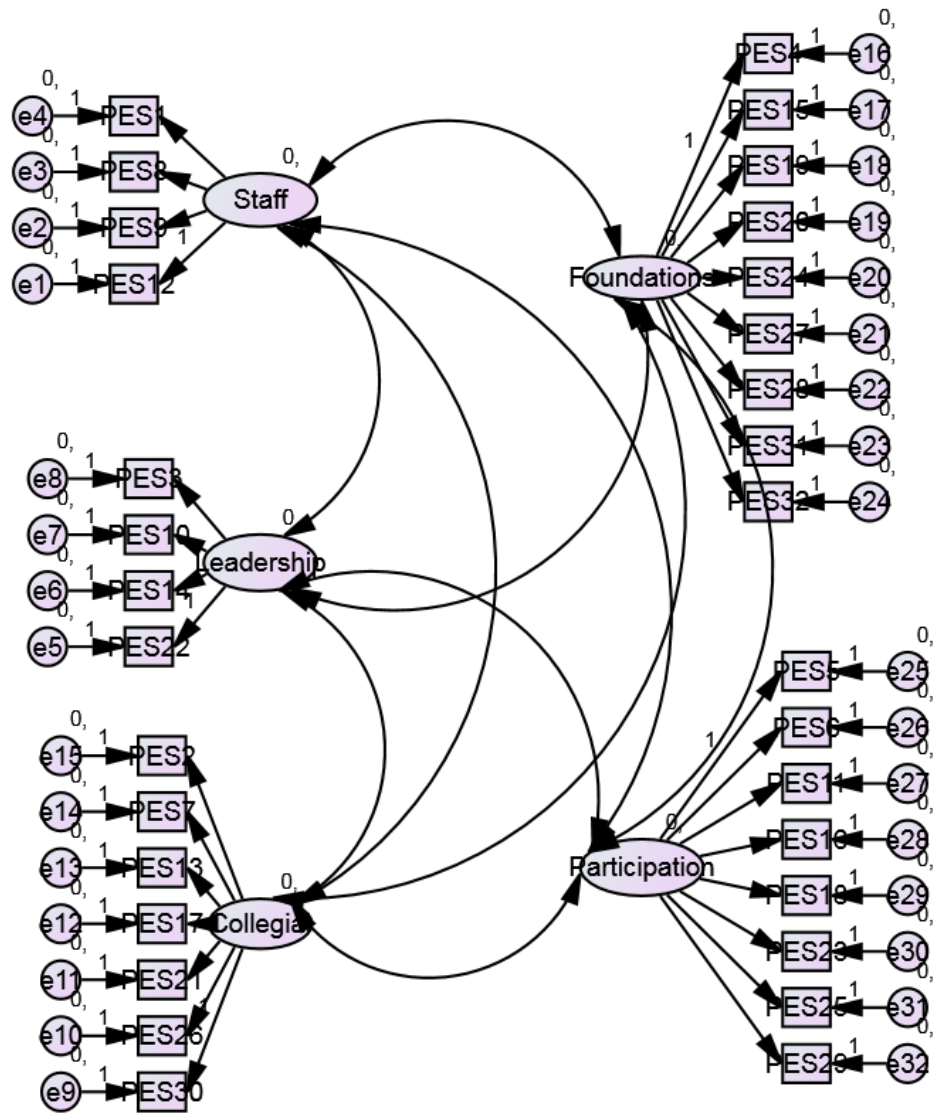


Figure 4.14: Confirmatory factor analysis of the PES-NWI-R

Table 4.5: Standard regression weights and p -values of the PES-NWI-R

PRACTICE ENVIRONMENT SCALE			STANDARD REGRESSION WEIGHT	P-VALUE
PES12	Staffing and Resource Adequacy	Enough staff to get the work done	.703	
PES9	Staffing and Resource Adequacy	Enough RNs on staff to provide quality patient care	.697	***
PES8	Staffing and Resource Adequacy	Enough time and opportunity to discuss patient care problems with other nurses	.607	***
PES1	Staffing and Resource Adequacy	Adequate support services allow me to spend time with my patient	.658	***
PES22	Leadership and Support of Nurses	A nurse manager who backs up the nursing staff in decision- making, even if the conflict is with a physician	.770	
PES14	Leadership and Support of Nurses	Praise and recognition for a job well done	.689	***
PES10	Leadership and Support of Nurses	A nurse manager who is a good manager and leader	.769	***
PES3	Leadership and Support of Nurses	A supervisory staff that is supportive of nurses	.711	***
PES30	Collegial/Nurse/Physician relationship	Physicians hold nurses in high esteem	.745	
PES26	Collegial/Nurse/Physician relationship	Collaboration between nurses and physicians	.790	***
PES21	Collegial/Nurse/Physician relationship	Physicians respect nurses as professionals	.785	***
PES17	Collegial/Nurse/Physician relationship	A lot of team work between nurses and physicians	.796	***

PRACTICE ENVIRONMENT SCALE			STANDARD REGRESSION WEIGHT	P- VALUE
PES13	Collegial/Nurse/Physician relationship	Physicians recognise nurses' contributions to patient care	.774	***
PES7	Collegial/Nurse/Physician relationship	Physicians value nurses' observations and judgments	.788	***
PES2	Collegial/Nurse/Physician relationship	Physicians and nurses have good working relationships	.679	***
PES4	Foundations for Quality of Care	Active staff development or continuing education programs for nurses	.619	
PES15	Foundations for Quality of Care	High standards of nursing care are expected by the management	.254	***
PES19	Foundations for Quality of Care	A clear philosophy of nursing that pervades the patient care environment	.692	***
PES20	Foundations for Quality of Care	Working with nurses who are clinically competent	.631	***
PES24	Foundations for Quality of Care	An active quality assurance program	.713	***
PES27	Foundations for Quality of Care	A preceptor program for newly hired nurses	.597	***
PES28	Foundations for Quality of Care	Nursing care are based on a nursing rather than a medical model	.586	***
PES31	Foundations for Quality of Care	Written, up-to-date care plans for all patients	.558	***
PES32	Foundations for Quality of Care	Patient care assignments that foster continuity of care (i.e., the same nurse cares for the patient from one day to the next)	.516	***
PES5	Participation in Hospital Affairs	Career development/clinical ladder opportunity	.687	

PRACTICE ENVIRONMENT SCALE			STANDARD REGRESSION WEIGHT	P- VALUE
PES6	Participation in Hospital Affairs	Opportunity for registered nurses to participate in policy decisions	.677	***
PES11	Participation in Hospital Affairs	A chief nursing officer who is highly visible and accessible to staff	.728	***
PES16	Participation in Hospital Affairs	A chief nursing officer is equal in power and authority to other top level hospital executives	.574	***
PES18	Participation in Hospital Affairs	Opportunity for advancement	.691	***
PES23	Participation in Hospital Affairs	Management that listens and responds to employee concerns	.740	***
PES25	Participation in Hospital Affairs	RNs are involved in the internal governance of the hospital (e.g., practice and policy committees)	.716	***
PES29	Participation in Hospital Affairs	RNs have the opportunity to serve on hospital and nursing committees	.716	***

*** p -value < 0.001

Confirmatory factor analysis confirmed the 5 subscales of the PES-NWI-R within the literature and the standard regression weights and *p*-values for all the subscales determined the following: the strongest contribution to the subscale “Staffing and Resource Adequacy” was made by the statement “*enough staff to get the work done*”, with a standard regression weight of .703. All other items in this subscale loaded higher than .600. “*A nurse manager who backs up the nursing staff in decision-making, even if the conflict is with a physician*” loaded with a standard regression weight of .770 for the subscale “leadership and support for nurses”. All other items within this subscale loaded between .689 - .769. For the “collegial/nurse/physician relationship” subscale, the item “*a lot of team work between nurses and physicians*” loaded with a standard regression weight of .796. All other items regarding this subscale loaded with standard regression weights higher than .670. “*An active quality assurance program*” contributed best to the subscale “foundations for Quality of Care” and provided a standard regression weight of .713. All other items loaded between .254 - .692. Regarding “participation in Hospital Affairs”, a standard regression weight of .740 was obtained with the item “*management that listens and responds to employee concerns*”. All other items in this subscale loaded above .574. *p*-values for all items loading on subscales were found to be statistically significant. The correlations among the five (5) sub-scales of the PES-NWI-R are summarised in Table 4.6.

Table 4.6: Correlation coefficients of the PES-NWI-R subscales

			CORRELATION COEFFICIENT	P-VALUE
Staff	<-->	Leadership	.837	< 0.001
Staff	<-->	Collegial	.574	< 0.001
Staff	<-->	Foundations	.794	< 0.001
Participation	<-->	Staff	.819	< 0.001
Leadership	<-->	Collegial	.615	< 0.001
Leadership	<-->	Foundations	.801	< 0.001
Participation	<-->	Leadership	.857	< 0.001

			CORRELATION COEFFICIENT	P-VALUE
Collegial	<-->	Foundations	.552	< 0.001
Participation	<-->	Foundations	.931	< 0.001
Participation	<-->	Collegial	.594	< 0.001

In view of the correlation coefficients in Table 4.6, a large positive correlation of .931 was obtained between participation in hospital affairs and the foundation for quality care. Collegial relationships and foundation for quality care with the weakest correlation had a moderate positive correlation of .552. All correlations were statistically significant. In Table 4.7, the measures of goodness of fit for the five subscales of the practice environment are presented.

Table 4.7: Measures of goodness of fit model of PES-NWI-R

	ACCEPTABLE VALUES	PES-NWI-R
CMIN/DF	2-5	2.03
CFI	>0.9	.86
RMSEA (90% CI)	< 0.1	0.07 (0.06; 0.07)

Measures of goodness of fit for the five subscales of the practice environment generated a CMIN/DF value of 2.03 which indicates a good model fit. A close to acceptable CFI of .86 was obtained, with an acceptable RMSEA value of 0.07 and a 90% confidence interval of (0.06; 0.07).

Now that the confirmatory factor analysis of the MBI and PES-NWI-R have been presented and discussed, the exploratory factor analysis and the confirmatory factor analysis of the other instruments will be analysed.

4.4.3. Conditions for Work Effectiveness Questionnaire - II

The CWEQ-II was described in section 3.3.2.2 and was used to determine whether the participants experienced structural empowerment or not. As was evident from the literature review, the CWEQ-II had not been used in SA before, and therefore had not been validated within our context. In the following section, the exploratory factor analysis of the CWEQ-II will be provided and thereafter the confirmatory factor analysis will be presented.

4.4.3.1. Exploratory factor analysis of the CWEQ-II

Table 4.8 presents the suitability of the data for exploratory factor analysis.

Table 4.8: KMO and Bartlett's Test of Sphericity for the CWEQ-II

SUITABILITY OF THE DATA		VALUES OBTAINED
KMO		.820
BARTLETT'S TEST OF SPHERICITY	Approx. Chi-Square	987.20
	df	66
	Sig.	.000
TOTAL VARIANCE EXPLAINED		64.32%

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the analysis was found to be .820 and a 64.32% of the total variance was explained by the three extracted factors which is considered good. The pattern matrix, extracted subscales are presented in Table 4.9.

Table 4.9: Pattern matrix of the CWEQ-II

ITEM NO.	ITEM	FACTOR	COMPONENT		
			1	2	3
CWEQ6	Goals of top management	Access to information	.843		
CWEQ4	The current state of the hospital	Access to information	.829		
CWEQ5	Values of top management	Access to information	.783		
CWEQ8	Specific comments about things you could improve	Support	.495	-.274	
CWEQ11	Time available to accomplish job requirements	Resources		-.921	
CWEQ10	Time available to do necessary paperwork	Resources		-.919	
CWEQ12	Acquiring temporary help when needed	Resources		-.667	
CWEQ9	Helpful hints or problem-solving advice	Support	.382	-.506	
CWEQ7	Specific information about things done well	Support	.405	-.493	
CWEQ3	Tasks that use all of your own skills and knowledge	Opportunity			.801
CWEQ1	Challenging work	Opportunity			.775
CWEQ2	The chance to gain new skills and knowledge on the job	Opportunity		-.348	.679

A principal axis exploratory factor analysis with Oblimin rotation of the CWEQ-II extracted three factors, which was one less factor than identified in the literature. The subscales “Resources” and “Support” loaded together as one factor, while the subscales “Information” and “Opportunity” loaded separately as identified in literature. The results of the exploratory factor analysis corresponded well with the subscales identified in the literature, and therefore a confirmatory factor analysis was performed.

4.4.3.2. Confirmatory factor analysis of the CWEQ-II

The confirmatory factor analysis that was performed is presented in Figure 4.15.

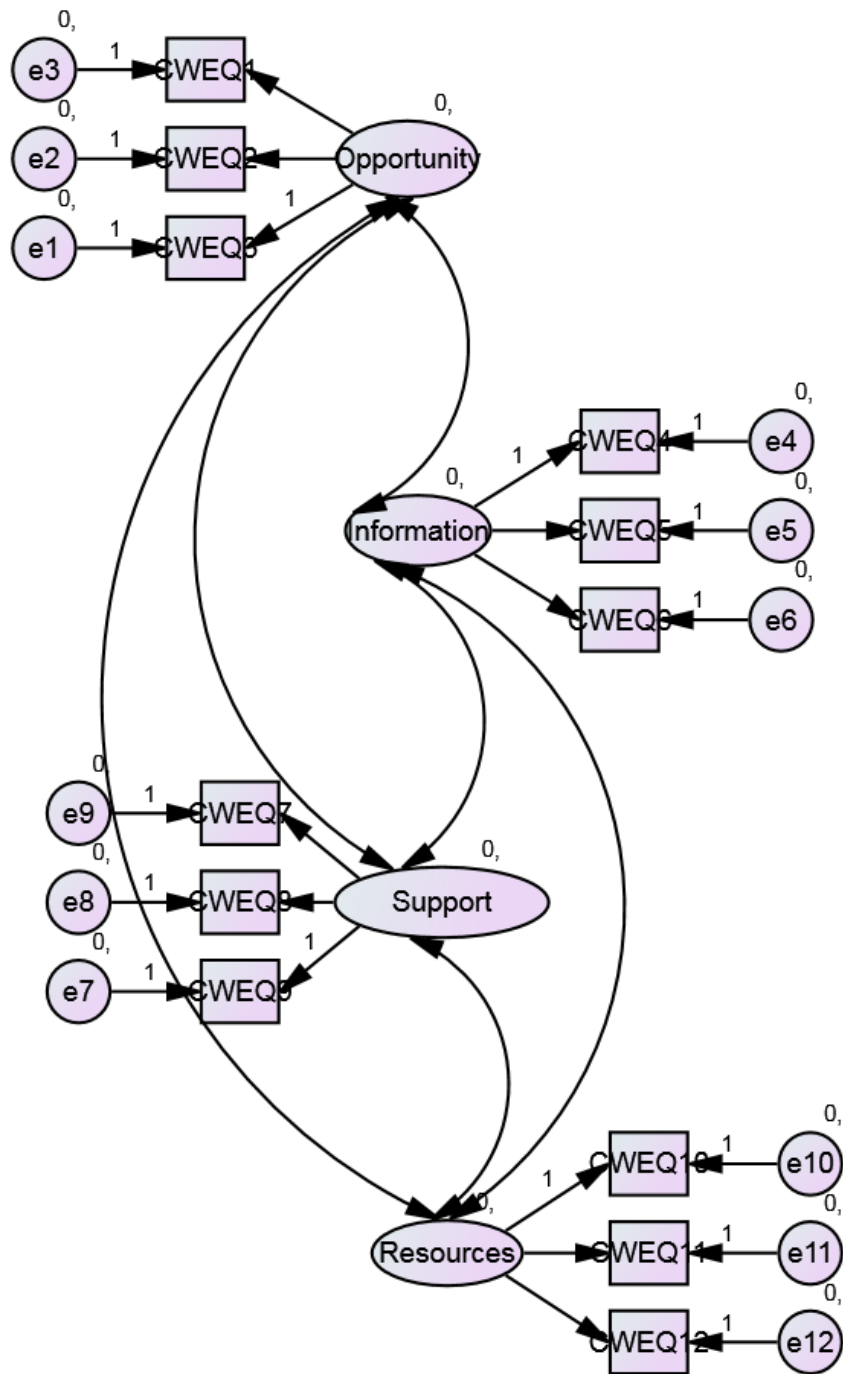


Figure 4.15: Confirmatory factor analysis of the CWEQ-

Table 4.10: Standard regression weights and p -values of the CWEQ-II

CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE-II			STANDARD REGRESSION WEIGHT	P-VALUE
CWEQ3	Access to Opportunity	Tasks that use all of your own skills and knowledge	.569	
CWEQ2	Access to Opportunity	The chance to gain new skills and knowledge on the job	.794	***
CWEQ1	Access to Opportunity	Challenging work	.516	***
CWEQ4	Access to Information	The current state of the hospital	.638	
CWEQ5	Access to Information	The values of top management	.909	***
CWEQ6	Access to Information	Goals of top management	.779	***
CWEQ9	Access to Support	Helpful hints or problem-solving advice	.801	
CWEQ8	Access to Support	Specific comments about things you could improve	.680	***
CWEQ7	Access to Support	Specific information about things you do well	.724	***
CWEQ10	Access to Resources	Time available to do necessary paperwork	.821	
CWEQ11	Access to Resources	Time available to accomplish job requirements	.973	***
CWEQ12	Access to Resources	Acquiring temporary help when needed	.579	***

*** p -value < 0.001

All items had statistically significant regression weights above 0.516, indicating that items loaded significantly on the theoretical sub-scales of structural empowerment. Item 2 *“The chance to gain new skills and knowledge on the job”* contributed the most weight (0.794) in explaining the subscale access to opportunity, while item 1 *“Challenging work”* contributed the least weight (0.516). With regard to access to information, item 5 *“The values of top management”* contributes the most weight (0.909), while item 4 *“The current state of the hospital”* contributes the least (0.638). Item 9, *“Helpful hints or problem-solving advice”* contributes the most weight (0.801) in explaining the subscale access to support, and item 8 *“Specific comments about things you could improve”* contributes the least weight (0.680). Finally, the subscale of access to resources showed that item 11 *“Time available to accomplish job requirements”* contributed the most weight (0.973), and item 12 *“Acquiring temporary help when needed”* contributed the least (0.579). The correlations among the four sub-scales of the CWEQ-II are summarised in Table 4.11.

Table 4.11: Correlation coefficients of the CWEQ-II subscales

			CORRELATIONS COEFFICIENT	P-VALUES
Opportunity	<-->	Information	.603	< 0.001
Opportunity	<-->	Support	.532	< 0.001
Information	<-->	Support	.654	< 0.001
Resources	<-->	Support	.635	< 0.001
Resources	<-->	Information	.349	< 0.001
Resources	<-->	Opportunity	.459	< 0.001

The information in this table indicates that all correlations between the factors of the CWEQ-II are positive and large. The largest correlation was between resources and support, which explains why these two subscales merged as one factor in the exploratory factor analysis. In Table 4.12, the measures of goodness of fit for the four subscales of structural empowerment are presented.

Table 4.12: Measures of goodness of fit model for the CWEQ-II

	ACCEPTABLE VALUES	CWEQ-II
CMIN/DF	2-5	2.219
CFI	>0.9	.942
RMSEA (90% CI)	< 0.1	.077 (0.057; 0.096)

Measures of goodness of fit for the four subscales of structural empowerment yielded a CMIN/DIF value of 2.219 which indicates a good model fit. An acceptable CFI of .942 was obtained, as well as an acceptable RMSEA value of 0.077 with a 90% confidence interval of [0.057; 0.096].

4.4.4. Psychological Empowerment Instrument

The PEI was discussed in section 3.3.2.3 and was utilised to measure the experience of psychological empowerment of the CCNs. Because of the lack of national research with regard to the PEI, an exploratory factor analysis was done first, followed by the confirmatory factor analysis.

4.4.4.1. Exploratory factor analysis of the PEI

The suitability of the data for factor analysis is presented in Table 4.13.

Table 4.13: KMO and Bartlett's Test of Sphericity for the PEI

SUITABILITY OF THE DATA		VALUES OBTAINED
KMO		.890
BARTLETT'S TEST OF SPHERICITY	Approx. Chi-Square	1713.68
	df	120
	Sig.	.000
TOTAL VARIANCE EXPLAINED		63.57%

The KMO measure of sampling adequacy for the analysis was found to be .890 and the total variance explained by two factors was 68.72%, which is again considered as good and confirmed the suitability of the data for analysis. The pattern matrix, extracted subscales are presented in Table 4.14.

Table 4.14: Pattern matrix of the PEI

ITEM NUMBER	ITEM	FACTOR	COMPONENT	
			1	2
PSYC2	The work I do is important to me	Meaning	.836	
PSYC13	The work I do is meaningful to me	Meaning	.791	
PSYC1	I am confident about my ability to do my job	Competence	.790	
PSYC11	I have mastered the skills necessary for my job	Competence	.784	
PSYC15	I am self-assured about my capabilities to perform my work activities	Competence	.717	
PSYC5	My job activities are personally meaningful to me	Meaning	.528	.312
PSYC6	I have a great deal of control over what happens in my unit	Impact		.904
PSYC14	I have significant influence over what happens in my unit	Impact		.848
PSYC4	My impact on what happens in my unit is large	Impact		.762
PSYC7	I can decide on my own how to go about doing my own work	Self-determination		.690
PSYC10	I have considerable opportunity for independence and freedom in how I do my job	Self-determination		.615
PSYC3	I have significant autonomy in determining how to do my job	Self-determination	.389	.440

With the exploratory factor analysis of the PEI, only 2 factors were extracted. The theoretical subscales “meaning” and “competence” loaded on one factor and the subscales “self-determination” and “impact” loaded on another factor. Within the next section the confirmatory factor analysis will be done.

4.4.4.2. Confirmatory factor analysis of the PEI

After the exploratory factor analysis where only 2 factors were loaded, confirmatory factor analysis was performed by evaluating the standard regression weights and p -values, correlation coefficients and the measures of goodness of fit model for the PEI. The confirmatory factor analysis of the PEI is presented in the next figure and table and discussed thereafter.

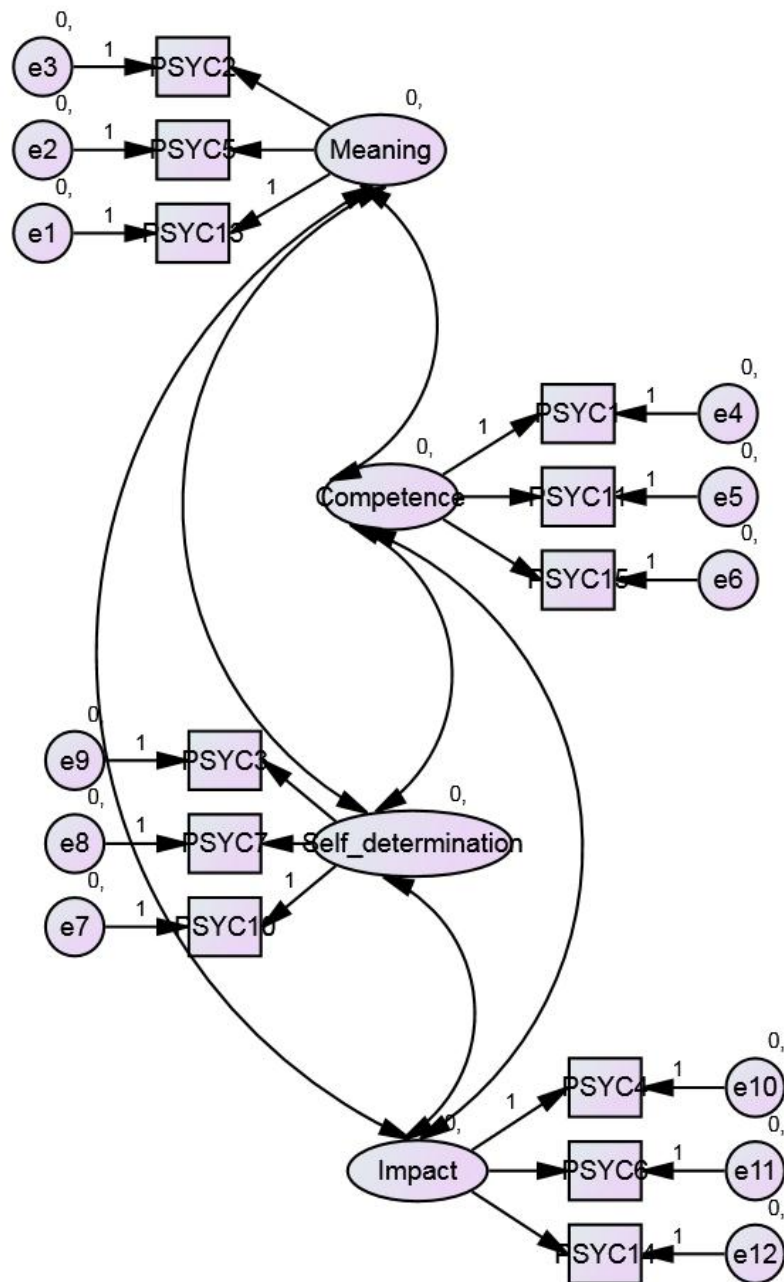


Figure 4.16: Confirmatory factor analysis of the PEI

Table 4.15: Standard regression weights and p -values of the PEI

PSYCHOLOGICAL EMPOWERMENT INSTRUMENT			STANDARD REGRESSION WEIGHT	P-VALUE
PSYC13	Meaning	The work I do is meaningful to me	.836	
PSYC5	Meaning	My job activities are personally meaningful to me	.693	***
PSYC2	Meaning	The work that I do is important to me	.822	***
PSYC1	Competence	I am confident about my ability to do my job	.724	
PSYC11	Competence	I have mastered the skills necessary for my job	.676	***
PSYC15	Competence	I am self-assured about my capabilities to perform my work activities	.643	***
PSYC10	Self-determination	I have opportunities for independence and freedom in how I do my work	.760	
PSYC7	Self-determination	I can decide on my own how to go about doing my own work	.799	***
PSYC3	Self-determination	I have significant autonomy in determining how I do my job	.653	***
PSYC4	Impact	My impact on what happens in my unit is large	.673	
PSYC6	Impact	I have a great deal of control over what happens in my unit	.828	***
PSYC14	Impact	I have significant influence over what happens in my unit	.797	***

*** p -value < 0.001

All items had statistically significant regression weights. The standardised regression weights of the PEI loaded as follows: “*The work I do is meaningful to me*” was the item explaining the subscale “meaning” the best, with a standard regression weight of

.836. The subscale “competence” loaded with a standard regression weight of .724 on the item “*I am confident about my ability to do my job*”. “Self-determination” was best explained by the item “*I can decide on my own how to go about doing my own work*”, with a standard regression weight of .799. Lastly, the item “*I have a great deal of control over what happens in my unit*”, with a standard regression weight of .828 explained the subscale “impact” the best. The correlation coefficients among the four subscales of the PEI are summarised in Table 4.16.

Table 4.16: Correlation coefficients and *p*-values of the PEI

			CORRELATION COEFFICIENTS	P-VALUES
Meaning	<-->	Competence	.908	< 0.001
Meaning	<-->	Self-determination	.649	< 0.001
Competence	<-->	Self-determination	.590	< 0.001
Impact	<-->	Self-determination	.767	< 0.001
Impact	<-->	Competence	.307	<0.002
Impact	<-->	Meaning	.437	< 0.001

The evidence in this table indicates that all the correlations between the factors of the PEI are positive, with a very strong correlation between meaning and competence. The weakest correlation loaded between impact and competence with a correlation coefficient of .307. The very strong correlation coefficients between “meaning” and “competence” ($r = 0.908$) and between “impact” and “self-determination” ($r = 0.767$) explain why only 2 factors were extracted during the exploratory factor analysis. The measures of goodness of fit values for the PEI are presented in Table 4.17.

Table 4.17: Measures of goodness of fit model of the PEI

	ACCEPTABLE VALUES	PEI
CMIN/DF	2-5	3.18
CFI	>0.9	.90
RMSEA 90% CI	< 0.1	.10 (0.08; 0.12)

A good CMIN/DF of 3.18 and a CFI of .90 were obtained. The RMSEA of .103 does not indicate a good fit with the theoretical model, possibly because fewer than four factors could be used, as shown in the exploratory factor analysis where only two factors were extracted.

4.4.5. Nursing Incivility Scale

The NIS was described in section 3.3.2.4 and was used to determine whether the participants experienced the presence of uncivil behaviour within their practice environment. As was evident from the literature review, the NIS had not been used in SA or critical care nursing before and therefore had not been validated within these contexts. Thus, an exploratory factor analysis was performed first.

4.4.5.1. Exploratory factor analysis of the NIS

The suitability of the data for the NIS is summarised in Table 4.18.

Table 4.18: KMO and Bartlett's Test of Sphericity for the NIS

SUITABILITY OF THE DATA FOR NIS		VALUES OBTAINED
KMO		.845
BARTLETT'S TEST OF SPHERICITY	Approx. Chi-Square	6004.405
	df	903
	Sig.	0.000
TOTAL VARIANCE EXPLAINED		72.56%

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the analysis was found to be .845, and a 72.56% of the total variance was explained by the nine extracted factors which are considered good. The pattern matrix, extracted subscales are presented in Table 4.19.

Table 4.19: Pattern matrix of the NIS

ITEM NO.	ITEM	FACTOR	COMPONENT								
			1	2	3	4	5	6	7	8	9
INC13	Nurses gossip about one another	Gossip/Rumours	.860								
INC12	Nurses scream at other employees	Hostile climate	.825								
INC14	Nurses gossip about their supervisor at work	Gossip/Rumours	.811								
INC15	Nurses disparage others in the workplace	Gossip/Rumours	.789								
INC11	Nurses have violent outbursts or heated arguments in the workplace	Hostile climate	.774								
INC16	Nurses spread bad rumours around here	Gossip/Rumours	.726						-.217		
INC10	Nurses argue with each other frequently	Hostile climate	.669								
INC21	My direct supervisor yells at me about matters that are not important	Abusive supervision		-.878							
INC23	My direct supervisor takes his/her feelings out on me (e.g., stress, anger)	Abusive supervision		-.877							
INC22	My direct supervisor shouts or yells at me for making mistakes	Abusive supervision		-.864							

ITEM NO.	ITEM	FACTOR	COMPONENT								
			1	2	3	4	5	6	7	8	9
INC20	My direct supervisor is verbally abusive	Abusive supervision		-.848							
INC25	My direct supervisor is condescending to me	Lack of respect		-.801							
INC26	My direct supervisor factors gossip and personal information into personnel decisions	Lack of respect		-.766							
INC24	My direct supervisor does not respond to my concerns in a timely manner	Lack of respect		-.757							
INC41	Patient and/family make insulting comments to nurses	Displaced frustration			.866						
INC40	Patient and/family have taken out their frustration on nurses	Displaced frustration			.844						
INC42	Patient and/family treat nurses as if they were inferior or stupid	Displaced frustration			.843						
INC43	Patient and/family show that they are irritated or impatient	Displaced frustration			.810						

ITEM NO.	ITEM	FACTOR	COMPONENT								
			1	2	3	4	5	6	7	8	9
INC39	Patient and/family pose unreasonable demands	Lack of respect			.709						
INC30	Physicians take their feelings out on me (e.g., stress, anger)	Abusive supervision				.885					
INC29	Physicians shouts or yell at me for making mistakes	Abusive supervision				.852					
INC31	Physicians do not respond to my concerns in a timely manner	Lack of respect				.815					
INC27	Some physicians are verbally abusive	Abusive supervision				.796					
INC33	Physicians are condescending to me	Lack of respect				.774					
INC28	Physicians yells at nurses about matters that are not important	Abusive supervision				.769					
INC32	Physicians treat me as though my time is not important	Lack of respect				.748					
INC1	Hospital employees raise their voices when frustrated	Hostile climate					.845				

ITEM NO.	ITEM	FACTOR	COMPONENT								
			1	2	3	4	5	6	7	8	9
INC2	People blame others for their mistakes or offences	Hostile climate					.705				
INC3	Basic disagreements turn into personal verbal attacks on other employees	Hostile climate					.537			-.224	-.345
INC35	Patients and/family are condescending to me	Lack of respect						-.926			
INC36	Patient and/family make comments that question the competence of nurses	Lack of respect						-.911			
INC34	Patients and/family do not trust the information I give them and ask to speak with someone of higher authority	Lack of respect						-.697			
INC37	Patient and/family criticise my job performance	Lack of respect			.321			-.469		.265	
INC38	Patient and/family make personal verbal attacks against me	Lack of respect			.410			-.446		.246	
INC19	Other nurses take credit for work they did not do	Free riding							-.835		
INC18	Other nurses claim credit for my work	Free riding							-.784		

ITEM NO.	ITEM	FACTOR	COMPONENT								
			1	2	3	4	5	6	7	8	9
INC17	Other nurses make little contribution to a project but expect to receive credit for working on it	Free riding	.301						-.550		
INC8	Employees don't stick to an appropriate noise level (e.g. talking too loudly)	Inconsiderate behaviour								-.750	
INC7	Some people take things without asking	Inconsiderate behaviour								-.558	-.376
INC9	Employees display offensive body language (e.g., crossed arms, body posture)	Inconsiderate behaviour							-.329	-.440	
INC6	Employees make inappropriate remarks about one's race or gender	Inapp. jokes									-.751
INC5	People make jokes about religious groups	Inapp. jokes							-.228		-.724
INC4	People make jokes about minority groups	Inapp. jokes					.246				-.700

A principal axis exploratory factor analysis with Oblimin rotation of the NIS extracted nine factors, which was one more factor than identified in the literature. The content of the factors identified was analysed to determine to what degree they resembled the 8 subscales identified in the literature. Items with double loadings, also loading on the theoretically identified subscales were kept within the initial subscale. The factors according to the theoretical subscales assigned to the identified factors in the pattern matrix are presented as follows:

- Gossip/rumours (factor 1): 8 items: 10, 11, 12, 13, 14, 15, 16, 17
- Abusive supervision (factor 2): 7 items: 20, 21, 22, 23, 24, 25, 26
- Displaced frustration (factor 3): 7 items: 37, 38, 39, 40, 41, 42, 43
- Abusive supervision (factor 4): 7 items: 27, 28, 29, 30, 31, 32, 33
- Hostile climate (factor 5): 4 items: 1, 2, 3, 4
- Lack of respect (factor 6): 5 items: 34, 35, 36, 37, 38
- Free-riding (factor 7): 6 items: 5, 9, 16, 17, 18, 19
- Inconsiderate behaviour (factor 8): 6 items: 3, 7, 8, 9, 37, 38,
- Inappropriate jokes (factor 9): 5 items: 3, 4, 5, 6, 7

Based on the results of this analysis, some items included in specific subscales or factors in the literature loaded onto other factors. These items, discussed in the order that they appear, loaded onto other factors as follows:

- Items 10, 11 and 12 loaded on the factor “Gossip/rumours” instead of the factor “Hostile climate”. This might be due to the fact that all the items listed in the factor “Gossip/rumours” have to do with verbal incivility between nurses.
- Items 24, 25 and 26 loaded on the factor “Abusive supervision” and not “Lack of respect”. This might be due to the fact that all the items listed in the factor “Abusive supervision” have to do with incivility from the direct supervisor.
- Item 39 loaded on the factor “Displaced frustration” and not on “lack of respect” and might be due to the fact that patients and/family might pose unreasonable demands due to frustration.

- Item 31, 32 and 33 loaded on the factor “Abusive supervision” and not “Lack of respect”. This might be due to the fact that all the items listed in the factor “Abusive supervision” have to do with incivility from the physician.

The results of the factor analysis indicated that, to a large extent, the 9 factor exploratory analysis corresponds well with the 8 subscales that were initially anticipated from the literature: therefore, a confirmatory factor analysis of the subscales as discussed in the literature was used.

4.4.5.2 The confirmatory factor analysis of the NIS (8 Factors)

The confirmatory factor analysis of the NIS (8 Factors) are presented in Figure 4.17. Thereafter, the standardised regression weights are presented and discussed in Table 4.20.

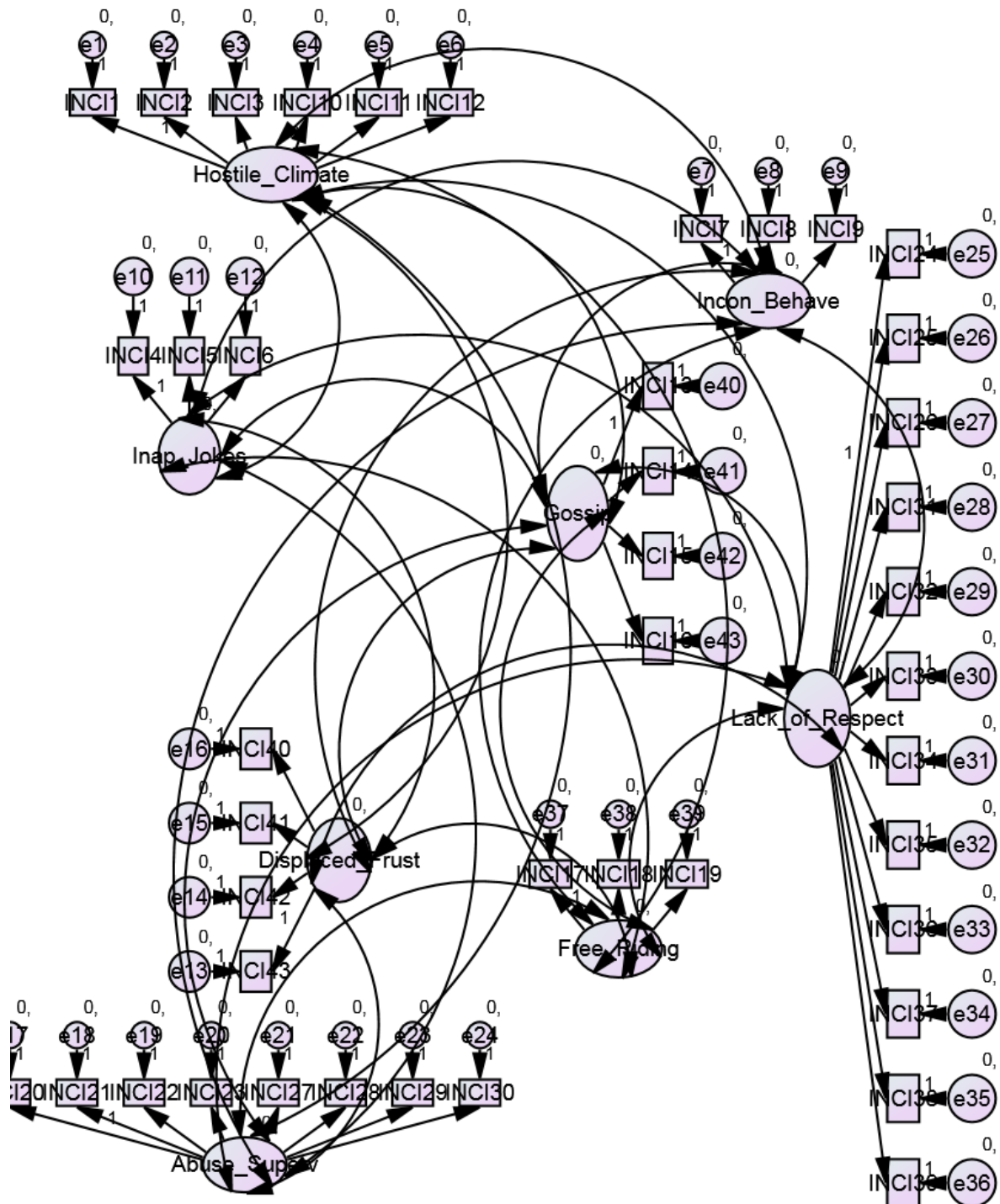


Figure 4.17: Confirmatory factor analysis of the NIS (8 factors)

Table 4.20: Standard regression weights and *p*-values of the NIS (8 factors)

NURSING INCIVILITY SCALE			STANDARD REGRESSION WEIGHT	P-VALUE
INC1	Hostile Climate	My direct supervisor yells at me about matters that are not important	.131	
INC2	Hostile Climate	My direct supervisor shouts or yells at me for making mistakes	.258	.101
INC3	Hostile Climate	My direct supervisor takes his/her feelings out on me (e.g., stress)	.370	.082
INC10	Hostile Climate	Nurses argue with each other frequently	.817	.068
INC11	Hostile Climate	Nurses have violent outbursts or heated arguments in the workplace	.919	.067
INC12	Hostile Climate	Nurses scream at other employees	.855	.068
INC7	Inconsiderate Behaviour	Some people take things without asking	.633	
INC8	Inconsiderate Behaviour	Employees don't stick to an appropriate noise level (e.g., talking loudly)	.615	***
INC9	Inconsiderate Behaviour	Employees display offensive body language (e.g., crossed arms, body posture)	.693	***
INC4	Inappropriate Jokes	People make jokes about minority groups	.835	
INC5	Inappropriate Jokes	People make jokes about religious groups	.816	***
INC6	Inappropriate Jokes	Employees make inappropriate remarks about one's race or gender	.716	***
INC43	Displaced Frustration	Patient and/family show that they are irritated or impatient	.802	
INC42	Displaced Frustration	Patient and/family treat nurses as if they were inferior or stupid	.836	***

NURSING INCIVILITY SCALE			STANDARD REGRESSION WEIGHT	P-VALUE
INC41	Displaced Frustration	Patient and/family make insulting comments to nurses	.869	***
INC40	Displaced Frustration	Patient and/family have taken out their frustrations on nurses	.888	***
INC20	Abuse Supervision	My direct supervisor is verbally abusive	.809	
INC21	Abuse Supervision	My direct supervisor yells at me about matters that are not important	.878	***
INC22	Abuse Supervision	My direct supervisor shouts or yells at me for making mistakes	.915	***
INC23	Abuse Supervision	My direct supervisor takes his/her feelings out on me (e.g., stress)	.868	***
INC27	Abuse Supervision	Some physicians are verbally abusive	.063	.379
INC28	Abuse Supervision	Physicians yell at nurses about matters that are not important	.076	.293
INC29	Abuse Supervision	Physicians shouts or yell at me for making mistakes	.153	.033
INC30	Abuse Supervision	Physicians take their feelings out on me (e.g., stress, anger)	.131	.072
INC24	Lack of Respect	My direct supervisor does not respond to my concerns in a timely manner	.565	
INC25	Lack of Respect	My direct supervisor is condescending to me	.508	***
INC26	Lack of Respect	My direct supervisor factors gossip and personal information into personnel decisions	.508	***
INC31	Lack of Respect	Physicians do not respond to my concerns in a timely manner	.301	***
INC32	Lack of Respect	I am treated by physician as though my time is not important	.379	***

NURSING INCIVILITY SCALE			STANDARD REGRESSION WEIGHT	P-VALUE
INC33	Lack of Respect	Physicians are condescending to me	.360	***
INC34	Lack of Respect	Patient and/family do not trust the information I give them and ask to speak with someone of higher authority	.675	***
INC35	Lack of Respect	Patient and/family are condescending to me	.714	***
INC36	Lack of Respect	Patient and/family make comments that question the competence of nurses	.715	***
	Lack of Respect	Patient and/family criticise my job performance	.690	***
	Lack of Respect	Patient and/family make personal verbal attacks against me	.759	***
	Lack of Respect	Patient and/family pose unreasonable demands	.667	***
	Free Riding	Other nurses make little contribution to a project but expect to receive credit for working on it	.751	
	Free Riding	Other nurses claim credit for my work	.818	***
	Free Riding	Other nurses take credit for work they did not do	.865	***
	Gossip	Nurses gossip about one another	.837	
	Gossip	Nurses gossip about their supervisor at work	.853	***
	Gossip	Nurses bad-mouth others in the workplace	.906	***
	Gossip	Nurses spread bad rumors around here	.823	***

Several standardised regression weights were not statistically significant, and regression weights were as low as 0.063 which showed that some items did not load significantly on the subscales of nursing incivility. The correlation coefficients are presented in Table 4.21.

Table 4.21: Correlation coefficients and p -values of the NIS (8 factors)

			Correlation coefficients	P Values
Hostile Climate	<-->	Inappropriate Jokes	.544	.079
Hostile Climate	<-->	Displaced Frustration	.229	.121
Hostile Climate	<-->	Abuse Supervision	.281	.103
Hostile Climate	<-->	Free Riding	.609	.078
Gossip	<-->	Hostile Climate	.757	.074
Hostile Climate	<-->	Inconsiderate Behaviour	.593	.082
Hostile Climate	<-->	Lack of Respect	.404	.091
Inappropriate Jokes	<-->	Displaced Frustration	.250	.003
Inappropriate Jokes	<-->	Abusive Supervision	.271	.001
Inappropriate Jokes	<-->	Free Riding	.483	***
Gossip	<-->	Inappropriate Jokes	.404	***
Inconsiderate Behaviour	<-->	Inappropriate Jokes	.604	***
Inappropriate Jokes	<-->	Lack of Respect	.406	***
Displaced Frustration	<-->	Abuse Supervision	.282	***
Gossip	<-->	Displaced Frustration	.352	***
Displaced Frustration	<-->	Free Riding	.397	***
Inconsiderate Behaviour	<-->	Displaced Frustration	.426	***
Displaced Frustration	<-->	Lack of Respect	.689	***
Gossip	<-->	Abuse Supervision	.293	***

			Correlation coefficients	P Values
Abuse Supervision	<-->	Free Riding	.321	***
Inconsiderate Behaviour	<-->	Abuse Supervision	.168	.061
Abuse Supervision	<-->	Lack of Respect	.545	***
Gossip	<-->	Free Riding	.666	***
Inconsiderate Behaviour	<-->	Free Riding	.611	***
Lack of Respect	<-->	Free Riding	.419	***
Gossip	<-->	Inconsiderate Behaviour	.621	***
Gossip	<-->	Lack of Respect	.382	***
Inconsiderate Behaviour	<-->	Lack of Respect	.423	***

The information in this table indicates that there were weak to strong positive correlations between all the factors of the NIS, but many of the correlations were not statistically significant. In Table 4.22 the measures of goodness of fit for the eight subscales of incivility are presented.

Table 4.22: Measures of goodness of fit model to the NIS (8 factors)

	ACCEPTABLE VALUES	NIS (8 FACTORS)
CMIN/DF	2-5	3.93
CFI	>0.9	.620
RMSEA 90% CI	< 0.1	.119 (0.11; 0.12)

The measures of goodness of fit for the 8 subscales of nursing incivility confirms that the subscales are not a good fit, with only the CMIN/DIF value of 3.93 being

acceptable, and an unacceptable CFI of .620 and RMSEA value of 0.119, with a 90% confidence interval of [0.114; 0.123]. Based on this analysis, the researcher, in consultation with the statistician and promoters, decided to do a 9 factor analysis as was identified in the exploratory factor analysis (Please see section 4.4.5.1).

4.4.5.3. *The confirmatory factor analysis of the NIS (9 Factors)*

The confirmatory factor analysis of the NIS (9 Factors) was done to confirm the 9 factors that were extracted in the exploratory factor analysis (please see section 4.4.5.3). The nine factors included the following:

- Gossip/rumours (factor 1 – renamed Hostile nurses): 7 items: 10, 11, 12, 13, 14, 15, 16
- Abusive supervision (factor 2 – renamed Abusive supervisors): 7 items: 20, 21, 22, 23, 24, 25, 26
- Displaced frustration (factor 3): 4 items: 40, 41, 42, 43
- Abusive supervision (factor 4 – renamed Abusive physician): 7 items: 27, 28, 29, 30, 31, 32, 33
- Hostile climate (factor 5 – renamed Hostile general): 3 items: 1, 2, 3
- Lack of respect (factor 6 – renamed lack of respect family): 5 items: 34, 35, 36, 37, 38, 39
- Free-riding (factor 7): 3 items: 17, 18, 19
- Inconsiderate behaviour (factor 8): 3 items: 7, 8, 9
- Inappropriate jokes (factor 9): 3 items: 4, 5, 6

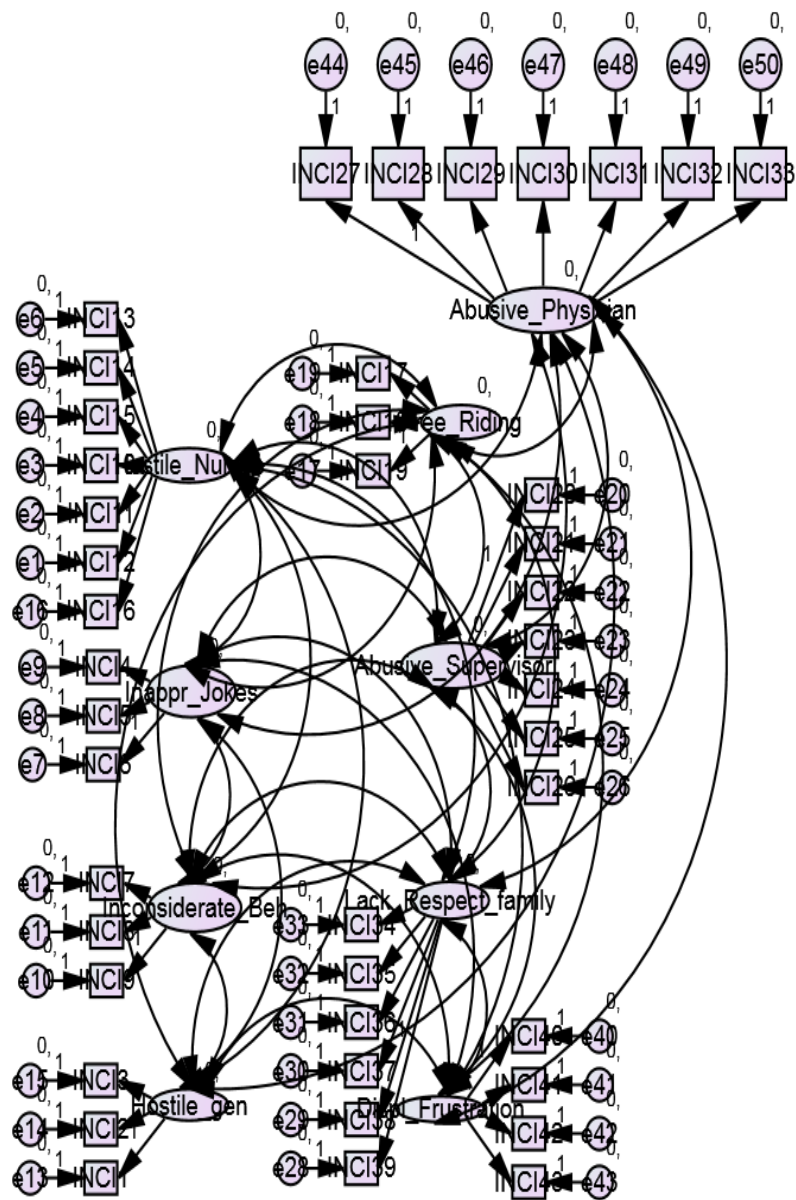


Figure 4.18: Confirmatory factor analysis of the NIS (9 factors)

Table 4.23: Standardised regression weights and *p*-values of the NIS (9 factors)

NURSING INCIVILITY SCALE			STANDARD REGRESSION WEIGHT	P-VALUE
INC12	Hostile Nurses	Nurses scream at other employees	.784	
INC11	Hostile Nurses	Nurses have violent outbursts or heated arguments in the workplace	.778	***
INC10	Hostile Nurses	Nurses argue with each other frequently	.716	***
INC15	Hostile Nurses	Nurses bad-mouth others in the workplace	.869	***
INC14	Hostile Nurses	Nurses gossip about their supervisor at work	.816	***
INC13	Hostile Nurses	Nurses gossip about one another	.801	***
INC6	Inappropriate Jokes	Employees make inappropriate remarks about one's race or gender	.709	
INC5	Inappropriate Jokes	People make jokes about religious groups	.789	***
INC4	Inappropriate Jokes	People make jokes about minority groups	.868	***
INC9	Inconsiderate Behaviour	Employees display offensive body language (e.g., crossed arms, body posture)	.695	
INC8	Inconsiderate Behaviour	Employees don't stick to an appropriate noise level (e.g., talking loudly)	.624	***
INC7	Inconsiderate Behaviour	Some people take things without asking	.623	***
INC1	Hostile gen	Hospital employees raise their voices when they get frustrated	.341	
INC2	Hostile gen	People blame others for their mistakes or offences	.679	***
INC3	Hostile gen	Basic disagreements turn into personal verbal attacks on other employees	.853	***
INC19	Free Riding	Other nurses take credit for work they did not do	.862	

NURSING INCIVILITY SCALE			STANDARD REGRESSION WEIGHT	P-VALUE
INC18	Free Riding	Other nurses claim credit for my work	.818	***
INC17	Free Riding	Other nurses make little contribution to a project but expect to receive credit for working on it	.754	***
INC20	Abusive Supervisor	My direct supervisor is verbally abusive	.822	
INC21	Abusive Supervisor	My direct supervisor yells at me about matters that are not important	.875	***
INC22	Abusive Supervisor	My direct supervisor shouts or yells at me for making mistakes	.884	***
INC23	Abusive Supervisor	My direct supervisor takes his/her feelings out on me (e.g., stress)	.869	***
INC24	Abusive Supervisor	My direct supervisor does not respond to my concerns in a timely manner	.738	***
INC25	Abusive Supervisor	My direct supervisor is condescending to me	.743	***
INC26	Abusive Supervisor	My direct supervisor factors gossip and personal information into personnel decisions	.754	***
INC39	Lack of Respect family	Patient and/family pose unreasonable demands	.424	
INC38	Lack of Respect family	Patient and/family make personal verbal attacks against me	.548	***
INC37	Lack of Respect family	Patient and/family criticise my job performance	.479	***
INC36	Lack of Respect family	Patient and/family make comments that question the competence of nurses	.975	***
INC35	Lack of Respect family	Patient and/family are condescending to me	.973	***
INC34	Lack of Respect family	Patient and/family do not trust the information I give them and ask to speak with someone in higher authority	.641	***
INC40	Displaced Frustration	Patient and/family have taken out their frustrations on nurses	.887	

NURSING INCIVILITY SCALE			STANDARD REGRESSION WEIGHT	P- VALUE
INC41	Displaced Frustration	Patient and/family make insulting comments to nurses	.865	***
INC42	Displaced Frustration	Patient and/family treat nurses as if they were inferior or stupid	.838	***
INC43	Displaced Frustration	Patient and/family show that they are irritated or impatient	.807	***
INC16	Hostile Nurses	Nurses spread bad rumours around here	.830	***
INC27	Abusive Physician	Some physicians are verbally abusive	.751	
INC28	Abusive Physician	Physicians yell at nurses about matters that are not important	.796	***
INC29	Abusive Physician	Physicians shouts or yell at me for making mistakes	.839	***
INC30	Abusive Physician	Physicians take their feelings out on me (e.g., stress, anger)	.879	***
INC31	Abusive Physician	Physicians do not respond to my concerns in a timely manner	.797	***
INC32	Abusive Physician	I am treated by physicians as though my time is not important	.759	***
INC33	Abusive Physician	Physicians are condescending to me	.775	***

*** p -value < 0.001

There were still a few items that were not statistically significant, but in this instance the regression weights were all above 0.341, indicating that items loaded significantly on the sub-scales as extracted from the exploratory factor analysis. The correlations among the 9 sub-scales of the NIS are summarised in Table 4.24.

Table 4.24: Correlation coefficients and p -values of the NIS (9 factors)

			CORRELATION COEFFICIENT	P- VALUES
Hostile Nurses	<-->	Inappropriate Jokes	.466	< 0.001
Hostile Nurses	<-->	Inconsiderate Behaviour	.642	< 0.001
Hostile Nurses	<-->	Hostile General	.362	< 0.002
Hostile Nurses	<-->	Free Riding	.692	< 0.001
Hostile Nurses	<-->	Abusive Supervisor	.330	< 0.001
Hostile Nurses	<-->	Lack of respect family	.261	< 0.003
Hostile Nurses	<-->	Displaced Frustration	.327	< 0.001
Inappropriate Jokes	<-->	Inconsiderate Behaviour	.592	< 0.001
Inappropriate Jokes	<-->	Hostile General	.647	< 0.001
Inappropriate Jokes	<-->	Free Riding	.472	< 0.001
Inappropriate Jokes	<-->	Abusive Supervisor	.246	< 0.003
Inappropriate Jokes	<-->	Lack of Respect family	.229	< 0.009
Inappropriate Jokes	<-->	Displaced Frustration	.242	< 0.004
Inconsiderate Behaviour	<-->	Abusive Supervisor	.195	< 0.029
Inconsiderate Behaviour	<-->	Lack of Respect family	.309	< 0.002
Inconsiderate Behaviour	<-->	Displaced Frustration	.425	< 0.001
Inconsiderate Behaviour	<-->	Hostile General	.615	< 0.001
Inconsiderate Behaviour	<-->	Free Riding	.610	< 0.001
Hostile General	<-->	Free Riding	.321	< 0.004
Hostile General	<-->	Lack of Respect family	.161	< 0.078

			CORRELATION COEFFICIENT	P- VALUES
Hostile General	<-->	Displaced Frustration	.259	< 0.010
Free Riding	<-->	Abusive Supervisor	.345	< 0.001
Free Riding	<-->	Lack of Respect family	.242	< 0.005
Free Riding	<-->	Displaced Frustration	.397	< 0.001
Abusive Supervisor	<-->	Lack of Respect family	.290	< 0.001
Abusive Supervisor	<-->	Displaced Frustration	.312	< 0.001
Lack Respect family	<-->	Displaced Frustration	.454	< 0.001
Abusive Physician	<-->	Hostile Nurses	.314	< 0.001
Abusive Physician	<-->	Free Riding	.267	< 0.001
Abusive Physician	<-->	Inappropriate Jokes	.407	< 0.001
Abusive Physician	<-->	Inconsiderate Behaviour	.292	< 0.002
Abusive Physician	<-->	Hostile General	.260	< 0.011
Abusive Physician	<-->	Abusive Supervisor	.080	< 0.286
Abusive Physician	<-->	Lack of respect family	.301	< 0.001
Abusive Physician	<-->	Displaced Frustration	.386	< 0.001
Hostile General	<-->	Abusive Supervisor	.168	< 0.063

The information in this table indicates that there were still some weak correlations between the factors of the NIS, but in this instance most of the correlations were statistically significant. In Table 4.25, the measures of goodness of fit for the nine subscales of nursing incivility are presented.

Table 4.25: Measures of goodness of fit model of the NIS (9 factors)

	ACCEPTABLE VALUES	NIS (9 FACTORS)
CMIN/DF	3-5	2.395
CFI	>0.9	.820
RMSEA	< 0.1	.082 (0.77; 0.87)

Measures of goodness of fit for the nine subscales of nursing incivility yielded a CMIN/DIF value of 2.395 which indicates a good model fit. An acceptable CFI of .820 was obtained, as well as an acceptable RMSEA value of 0.082, with a 90% confidence interval of [0.077; 0.087]. Therefore, the researcher concludes that the 9 factor NIS, as extracted from the exploratory factor analysis, will be used in the interpretation of the NIS results.

4.4.6. Negative Acts Questionnaire – Revised

The NAQ-R was described in section 3.3.2.5 and measured whether participants experienced bullying behaviour within their practice environment, whether work-related, personal or physical. Because of the fact that the literature review indicated validation of the NAQ-R internationally but not within the SA context, an exploratory factor analysis was performed.

4.4.6.1. Exploratory factor analysis of the NAQ-R

In Table 4.26, the researcher provides information with regard to the suitability of the data for factor analysis and thereafter, in Table 4.27, the factor loading in the form of a pattern matrix.

Table 4.26: Suitability of the data for NAQ-R

SUITABILITY OF THE DATA FOR NAQ-R		VALUES OBTAINED
KMO		.902
BARTLETT'S TEST OF SPHERICITY	Approx. Chi-Square	2419.289
	df	231
	Sig.	0.000
TOTAL VARIANCE EXPLAINED		56.97%

KMO of 0.902 was obtained confirming suitability of data for data analysis with Bartlett's Test of Sphericity at 0.000 and a total variance explained by one factor of 56.97%. The standard regression weights and p -values of the NAQ-R (1 factor) are presented in Table 4.27.

Table 4.27: Pattern matrix of the NAQ-R (1 factor)

ITEM NUMBER	ITEM	FACTOR	COMPONENT
			1
NEG13	Persistent criticism of your work and effort	Personal	.787
NEG17	Having allegations made against you	Personal	.775
NEG14	Having your opinions and views ignored	Work related	.768
NEG15	Practical jokes carried out by people you don't get on with	Personal	.741
NEG12	Being ignored or facing a hostile reaction when you approach	Personal	.740
NEG10	Hints or signals from others that you should quit your job	Personal	.735
NEG20	Being the subject of excessive teasing and sarcasm	Personal	.719
NEG11	Repeated reminders of your errors or mistakes	Personal	.707
NEG8	Being shouted at or being the target of spontaneous anger (or rage)	Physical	.701
NEG7	Having insulting or offensive remarks made about your person (i.e. habits and background), your attitudes or your private life	Personal	.678
NEG6	Being ignored, excluded or being 'sent to Coventry'	Personal	.647
NEG4	Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	Personal	.636
NEG5	Spreading of gossip and rumours about you	Personal	.629
NEG2	Being humiliated or ridiculed in connection with your work	Personal	.625
NEG18	Excessive monitoring of your work	Work related	.604

ITEM NUMBER	ITEM	FACTOR	COMPONENT
			1
NEG9	Intimidating behaviour such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	Physical	.598
NEG16	Being given tasks with unreasonable or impossible targets or deadlines	Work related	.595
NEG22	Threats of violence or physical abuse or actual abuse	Physical	.573
NEG1	Someone withholding information which affects performance	Work related	.528
NEG19	Pressure not to claim something which by right you are entitled to (e.g. sick leave, holiday entitlement, travel expenses)	Work related	.520
NEG21	Being exposed to an unmanageable workload	Work related	.493
NEG3	Being ordered to do work below your level of competence	Work related	.437

*** $p\text{-value} < 0.001$

Although internationally the literature indicated that the NAQ-R loaded as 3 factors, including personal bullying behaviour, work-related bullying behaviour and physical bullying behaviour, all factors within this data analysis process loaded as 1 factor – bullying behaviour. (Please see Table 4.27).

4.4.6.2. *Confirmatory factor analysis of the NAQ-R (3 factors)*

The confirmatory factor analysis of the NAQ-R (3 factors) is presented in Figure 4.19, with the standard regression weights and p -values in Table 4.28.

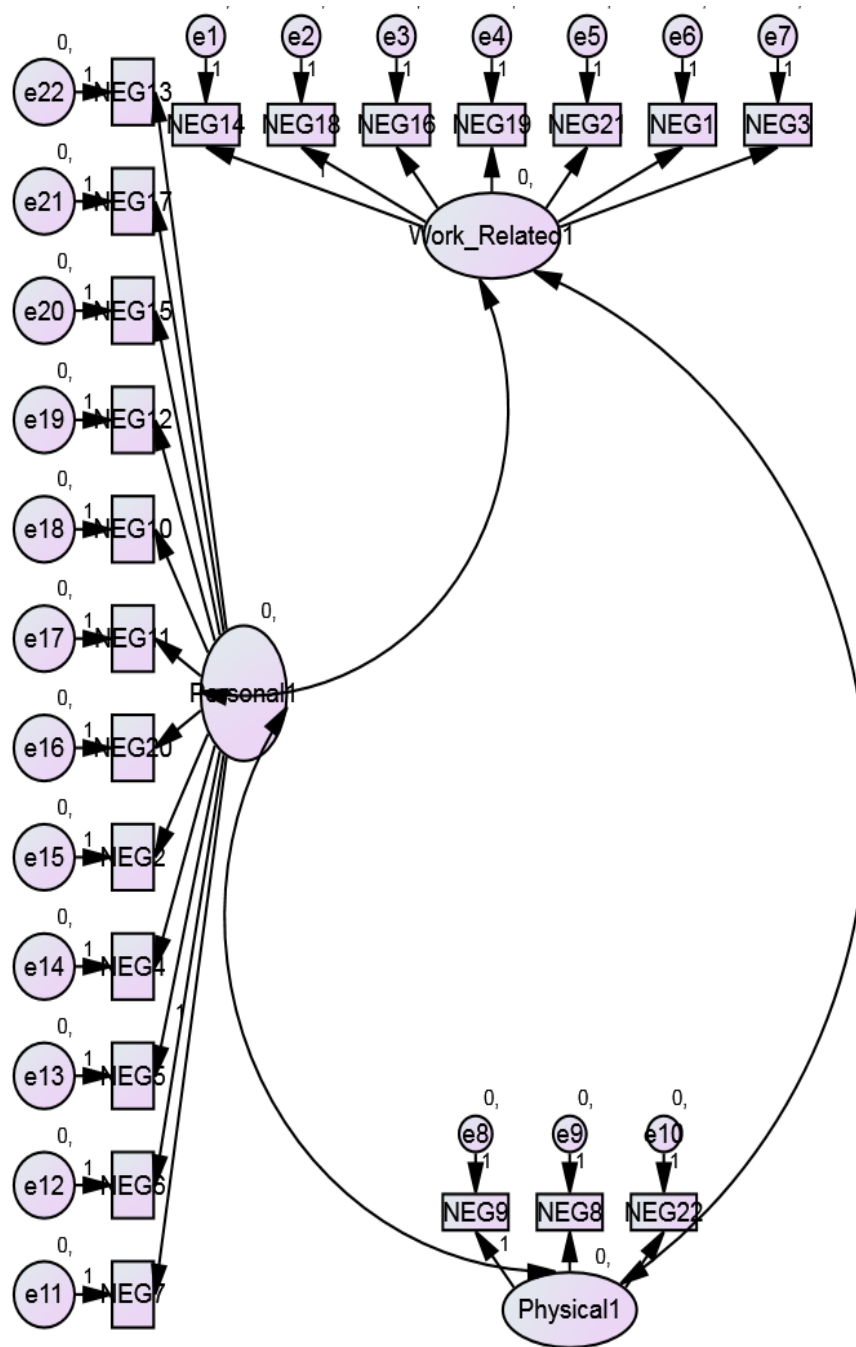


Figure 4.19: Confirmatory factor analysis of the NAQ-R (3 factors)

Table 4.28: Standardised regression weights and p -values of the NAQ (3 factors)

Negative Acts Questionnaire – Revised			Standard regression weight	p -value
NEG14	Work Related	Having your opinions and views ignored	.788	
NEG18	Work Related	Excessive monitoring of your work	.626	***
NEG16	Work Related	Being given tasks with unreasonable or impossible targets or deadlines	.592	***
NEG19	Work Related	Pressure not to claim something which by right you are entitled to (e.g., sick leave, holiday entitlement, travel expenses	.505	***
NEG21	Work Related	To be exposed to an unmanageable workload	.491	***
NEG1	Work Related	Someone withholding information which affects your performance	.469	***
NEG3	Work Related	Being ordered to do work below your level of competence	.395	***
NEG9	Physical	Intimidating behaviour such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	.612	
NEG8	Physical	Being shouted at or being the target of spontaneous anger (or rage)	.715	***
NEG22	Physical	Threats of violence or physical abuse or actual abuse	.606	***
NEG7	Personal	Having insulting or offensive remarks made about your person (i.e., habits and background), your attitudes or your private life.	.635	

Negative Acts Questionnaire – Revised			Standard regression weight	p-value
NEG6	Personal	Being ignored, excluded or being “sent to Coventry”	.617	***
NEG5	Personal	Spreading of gossip and rumours about you	.579	***
NEG4	Personal	Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	.568	***
NEG2	Personal	Being humiliated or ridiculed in connection with your work	.575	***
NEG20	Personal	Being the subject of excessive teasing and sarcasm	.745	***
NEG11	Personal	Repeated reminders of your errors or mistakes	.706	***
NEG10	Personal	Hints or signals from others that you should quit your job	.744	***
NEG12	Personal	Being ignored or facing a hostile reaction when you approach	.758	***
NEG15	Personal	Practical jokes carried out by people you don’t get on with	.746	***
NEG17	Personal	Having allegations made against you	.782	***
NEG13	Personal	Persistent criticism of your work and effort	.802	***

All items had statistically significant regression weights. Regarding the standardised regression weights, the item *“having your opinions and views ignored”* loaded the highest for “work related bullying behaviour” with a standard regression weight of .788. Physical bullying behaviour was best described by the item *“Being shouted at or being the target of spontaneous anger (or rage)”*, with a standard regression weight of .715. Personal bullying behaviour loaded at .802 with the item *“Persistent criticism of your work and effort”*. The correlation among the 3 subscales of bullying behaviour is presented in Table 4.29.

Table 4.29: Correlation coefficients and p -values of the NAQ-R (3 factors)

			CORRELATION COEFFICIENT	P-VALUES
Personal	<-->	Work Related	.966	< 0.001
Work Related	<-->	Physical	.911	< 0.001
Personal	<-->	Physical	.936	< 0.001

All correlation weights for the 3 factor NAQ-R loaded above .900 and this explains the reason for the first factor analysis where only one factor loaded during the exploratory factor analysis of the NAQ-R. The goodness of fit model for the NAQ-R (3 factors) is summarised in Table 4.30.

Table 4.30: Measures for the goodness of fit model of the NAQ-R (3 factors)

	ACCEPTABLE VALUES	NAQ-R
CMIN/DF	2-5	3.727
CFI	>0.9	.762
RMSEA	< 0.1	.115

The measures of goodness of fit model of the NAQ-R (3 factors) loaded with an acceptable CMIN/DF of 3.727, a CFI of .762 and a RMSEA of .115. Based on this

analysis, the researcher, in consultation with the statistician and promoters, decided to test the one factor analysis as identified with exploratory factor analysis.

4.4.6.3. *Confirmatory factor analysis of the NAQ-R (1factor)*

The confirmatory factor analysis for the one factor NAQ-R included the standard regression weights and goodness of fit model thereof. (Please see figure 4.20 and Table 4.31).

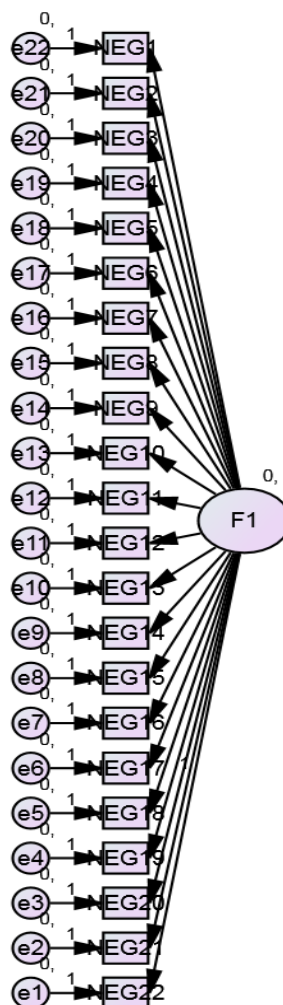


Figure 4.20: Confirmatory factor analysis of the NAQ-R (1 factor)

Table 4.31: Standard regression weights and p -values of the NAQ-R (1 factor)

NEGATIVE ACTS QUESTIONNAIRE – REVISED			STANDARD REGRESSION WEIGHTS	P-VALUE
NEG22	Bullying behaviour	Threats of violence or physical abuse or actual abuse	.582	
NEG21	Bullying behaviour	To be exposed to an unmanageable workload	.469	***
NEG20	Bullying behaviour	Being the subject of excessive teasing and sarcasm	.741	***
NEG19	Bullying behaviour	Pressure not to claim something which by right you are entitled to (e.g., sick leave, holiday entitlement, travel expenses	.501	***
NEG18	Bullying behaviour	Excessive monitoring of your work	.615	***
NEG17	Bullying behaviour	Having allegations made against you	.779	***
NEG16	Bullying behaviour	Being given tasks with unreasonable or impossible targets or deadlines	.567	***
NEG15	Bullying behaviour	Practical jokes carried out by people you don't get on with	.742	***
NEG14	Bullying behaviour	Having your opinions and views ignored	.778	***
NEG13	Bullying behaviour	Persistent criticism of your work and effort	.799	***
NEG12	Bullying behaviour	Being ignored or facing a hostile reaction when you approach	.755	***
NEG11	Bullying behaviour	Repeated reminders of your errors or mistakes	.706	***

NEGATIVE ACTS QUESTIONNAIRE – REVISED			STANDARD REGRESSION WEIGHTS	P- VALUE
NEG10	Bullying behaviour	Hints or signals from others that you should quit your job	.740	***
NEG9	Bullying behaviour	Intimidating behaviour such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	.562	***
NEG8	Bullying behaviour	Being shouted at or being the target of spontaneous anger (or rage)	.681	***
NEG7	Bullying behaviour	Having insulting or offensive remarks made about your person (i.e., habits and background), your attitudes or your private life.	.634	***
NEG6	Bullying behaviour	Being ignored, excluded or being “sent to Coventry”	.616	***
NEG5	Bullying behaviour	Spreading of gossip and rumours about you	.581	***
NEG4	Bullying behaviour	Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	.573	***
NEG3	Bullying behaviour	Being ordered to do work below your level of competence	.380	***
NEG2	Bullying behaviour	Being humiliated or ridiculed in connection with your work	.578	***
NEG1	Bullying behaviour	Someone withholding information which affects your performance	.453	***

All items had statistically significant regression weights. The item “Persistent criticism of your work and effort”, with a standard regression weight of .799, described bullying behaviour the best with the one factor loading. The goodness of fit model of the NAQ-R (1 factor) is presented in Table 4.32.

Table 4.32: Measures for goodness of fit model of the NAQ-R (1 factor)

	GOODNESS OF FIT VALUES	NAQ-R
CMIN/DF	2-5	3.704
CFI	>0.9	.760
RMSEA	< 0.1	.114

Although the CMIN/DF value was acceptable at 3.704, a weak CFI value of .760 and RMSEA value of .114 was obtained and therefore did not confirm the goodness of fit for the NAQ-R model with one factor. Because of the unacceptable CFI and RMSEA with both the 1 and 3 factor analyses, the 3 factor NAQ-R will be used for the purpose of this study.

4.5. RELIABILITY

Following the construct validity, reliability testing was done by calculating Cronbach’s Alpha coefficient and the mean inter-item correlation. The Cronbach’s Alpha coefficient provides indications of the average correlation among all the items that make up the scale. Values range from 0 to 1; the higher the value the greater the indication of reliability. A Cronbach Alpha value of above .7 is considered acceptable according to Nunnally (cited by Pallant, 2013:6), but values above .8 are preferable (Pallant, 2010:100). The mean inter-item correlation matrix (must all be positive) and range between .2 - .4 (Pallant, 2010:6). The Cronbach’s Alphas and mean inter-item correlations are summarised in Table 4.33 and discussed thereafter.

Table 4.33: Cronbach Alpha and Mean inter-item correlation values for all subscales

SCALE	SUBSCALE	NUMBER OF ITEMS	CRONBACH'S ALPHA	MEAN INTER-ITEM CORRELATION
MBI	Emotional Exhaustion	9	.911	.533
	Depersonalisation	5	.746	.377
	Personal Accomplishment	8	.751	.276
PES-NWI	Staffing and resource adequacy	4	.760	.448
	Collegial nurse/ physician relations	7	.908	.588
	Leadership and support	4	.818	.530
	Foundation for quality of care	9	.818	.328
	Participation in hospital affairs	7	.872	.461
CWEQ-II	Access to opportunity	3	.674	.408
	Access to information	3	.825	.610
	Access to support	3	.779	.543
	Access to resources	3	.824	.617
PEI	Meaning	3	.827	.616
	Competence	3	.726	.473
	Self-determination	3	.781	.543
	Impact	3	.811	.589
NIS	Hostile climate - general	3	.661	.402
	Hostile climate - nurses	7	.925	.638
	Inappropriate jokes	3	.832	.623
	Inconsiderate behaviour	3	.686	.424
	Free-riding	3	.851	.658
	Abusive supervisor	7	.930	.655

SCALE	SUBSCALE	NUMBER OF ITEMS	CRONBACH'S ALPHA	MEAN INTER-ITEM CORRELATION
	Abusive physician	7	.928	.648
	Lack of respect	5	.870	.577
	Displaced frustration	5	.912	.676
NAQ-R	Work-related bullying	7	.739	.296
	Personal bullying	12	.911	.469
	Physical bullying	3	.521	.307

Within international literature, good internal consistency for the MBI was confirmed by (Loera, *et al.*, 2014:10), with Cronbach alpha coefficient of .986 for EE, .755 for Dp, and .821 for PA reported. Ayala and Carnero (2013:3) also confirmed good Cronbach alpha coefficients for EE at 0.85 and PA at 0.70. On a national level, internal consistency for the MBI was also confirmed by Klopper *et al.* (2012:690), with Cronbach alphas of 0.89 for EE, 0.76 for PA and Dp respectively. In this study, the MBI also indicated very good internal consistency reliability with Cronbach alpha coefficients of .911 for the EE subscale, .751 for PA and .746 for the Dp subscale. The different subscales also indicated acceptable mean inter-item correlation values of .533 for EE, .276 for PA and .377 for Dp.

The internal consistency of the PES-NWI was nationally confirmed by Klopper *et al.* (2012:690), with Cronbach alpha coefficients of 0.77 for staffing and resource adequacy, 0.89 for collegial/nurse/physician relations, 0.86 for nurse manager ability, leadership and support for nurses, 0.65 for nursing foundation for quality of care and 0.79 for nurse participation in hospital affairs. For this research study, the PES-NWI Cronbach Alpha reliability coefficients of higher than 0.7 were obtained for all subscales, 0.76 for the “Staffing and Resource Adequacy” subscale, 0.90 for the “Collegial/nurse/physician relations” subscale, 0.81 for “Nurse Manager Ability, leadership and support of nurses” subscale, 0.81 for “Nursing foundations for quality of care” subscale and lastly 0.87 for the “Nurse Participation in hospital affairs” subscale. The inter-item correlations of the PES-NWI-R were 0.448 for the “Staffing

and Resource Adequacy” subscale, 0.588 for the “Collegial/nurse/physician relation” subscale, 0.530 for “Nurse Manager Ability, leadership and support for nurses’ subscale, 0.328 for “Nursing foundations for quality of care” subscale and 0.461 for the “Nurse Participation in hospital affairs” subscale.

International research confirmed the internal consistency of the CWEQ-II. Stewart *et al.* (2010:30) provided good internal consistency of the CWEQ-II with Cronbach Alpha coefficients of .87 for access to information, .82 for access to support, .75 for access to opportunity and, lastly, a more unacceptable value of .65 for access to resources. Hauck *et al.* (2011:273) also confirmed good Cronbach Alpha coefficients above .80 for all the subscales of the CWEQ. With regard to the present research study, CWEQ-II good Cronbach Alphas was obtained for 3 of the subscales: .825 for access to information, .824 for access to resources and .779 for access to support. The subscale “access to opportunity” indicated a low Cronbach Alpha coefficient of .674. All mean inter-item correlation values were above .400.

International research also confirmed the internal consistency of the Psychological Empowerment Instrument. Stewart *et al.* (2010: 30) provided Cronbach’s alphas for the subscales self-determination (.89), competence (.87), impact (.85) and meaning (.72). The reliability of the PEI was also confirmed by Uner and Turan (2010:4) with Cronbach Alpha coefficients of more than .8 for all four of the subscales. The reliability indices for this research study all measured above .70. For the subscale “meaning” .827, for the subscale “impact” .811, for the subscale “self-determination” .781 and for “competence” .726. All the mean inter-item correlation values were above .400.

Guidroz *et al* (2010:184) developed and validated the Nursing Incivility Scale used in this research study and found that the Cronbach Alpha coefficients ranged between .81 and .94 for all the subscales (8 factors). For the 9 factor NIS, all subscales indicated good reliability, with Chronbach Alphas above .83, except for the subscale “hostile climate – general” ($r = .661$) and “inconsiderate behaviour” ($r = .686$). Although these two subscales did not have good reliability with the Cronbach Alphas measured, the mean inter-item correlation value for both these subscales was above .400.

Research done by Abe and Henley (2010:112) indicated a total reliability score for the NAQ-R above .89 on two occasions of data collection, previously also confirmed by Einarsen *et al.* (2009:31). For this research study, the subscale “physical bullying” had a very low Chronbach Alpha coefficient of .521 in comparison with the acceptable Chronbach Alpha of .739 for “work-related bullying behaviour” and the very good Chronbach Alpha for “personal bullying” of .911. All three of the subscales revealed acceptable mean inter-item correlation values above .200.

4.6. DESCRIPTIVE STATISTICS

In this section, the descriptive statistics of each instrument will be presented, first looking at the overall subscales and then focusing in on the items so as to identify aspects that need to be addressed in the intervention programme.

4.6.1. Maslach Burnout Inventory

The structure and format of the MBI was discussed in detail within Chapter 3 (please see section 3.3.2.1). As a summary, the MBI consists of three subscales: EE, Dp and PA. The scale ranges between values of 0, “never” and 6 = “every day”. The level of burnout is measured by totalling the mean score of each subscale. In the next sections, a report of the subscale and item analysis will be provided.

4.6.1.1 MBI – Subscale analysis

The subscale analysis of the MBI is provided in Table 4.34.

Table 4.34: MBI: Subscale analysis

MASLACH BURNOUT INVENTORY					
SUBSCALES	N	MINIMUM	MAXIMUM	MEAN	SD
Emotional Exhaustion	209	0.00	50.00	24.300	12.671
Personal Accomplishment	209	1.00	48.00	36.190	8.069
Depersonalisation	209	0.00	26.00	7.856	6.486

When interpreting the table above, it is clear that, on average, the participants experience moderate levels of EE, Dp and PA. On average, the participants are therefore moderately burned out. However, when looking at individual participants, results show that 42.1% (88) of participants have high levels of EE, 23.4% (49) have high levels of Dp and 43.1% (90) have low PA. Furthermore, of these participants, 4.31% (9) have high levels of burnout, with high levels of EE and Dp and low levels of PA.

4.6.1.2. MBI – Item analysis

In this section, the items of each subscale will be explored so as to identify those aspects that are experienced most negatively by CCNs.

a. Emotional Exhaustion

Table 4.35 shows that almost half of participants (43%) (90/209) feel that they work too hard at their jobs, more than a third (35.4%) (72/209) feel used up at the end of the workday, almost a third (33%) (69/209) feel emotionally drained by their work, more than a quarter feel burned-out from their work (28.7%) (60/209) and fatigued when they get up in the morning and have to face another day on the job (28.7%) (60/209) at least a few times a week to every day.

Table 4.35: Percentages, Means and Standard Deviations of Emotional Exhaustion

Item number	Item	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
1	I feel emotionally drained from my work	7.7	10.5	12.9	26.8	8.6	26.3	6.7	3.25	1.717
2	I feel used up at the end of the workday	10.0	11.0	12.4	15.8	14.8	17.7	17.7	3.39	1.950
3	I feel fatigued when I get up in the morning and have to face another day on the job	13.4	6.2	14.8	25.4	11.0	20.1	8.6	3.10	1.821
6	Working with people all day is really a strain for me.	29.2	20.6	14.4	16.7	5.7	8.1	5.3	1.95	1.832
8	I feel burned-out from my work.	11.5	16.3	12.9	22.5	5.7	17.7	11.0	2.94	1.916
13	I feel frustrated by my job.	20.6	20.1	12.4	16.3	7.2	13.4	9.1	2.46	1.995
14	I feel I'm working too hard on my job.	6.2	11.0	8.1	23.0	7.7	21.5	21.5	3.67	1.887
16	Working directly with people puts too much stress on me.	30.6	25.8	16.7	13.4	5.3	3.8	3.3	1.61	1.612
20	I feel like I'm at the end of my rope.	32.5	17.7	14.4	12.9	5.3	10.0	5.3	1.92	1.909

b. Depersonalisation

From Table 4.36 it is clear that almost a fifth of CCNs (21.6%) (32/209) feel, at least a few times a week to every day that their job is hardening them emotionally.

Table 4.36: Percentages, Means and Standard Deviations of Depersonalisation

Item number	Item	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
5	I feel that I treat some patients as if they were Impersonal objects.	57.9	11.0	9.1	7.7	2.9	6.7	2.9	1.17	1.752
10	I've become more callous towards people since I took this job.	37.8	18.7	8.6	12.4	1.9	8.1	11.5	1.92	2.128
11	I worry that this job is hardening me emotionally.	27.3	17.7	12.9	14.8	5.7	9.6	12.0	2.31	2.085
15	I don't really care what happens to some patients.	66.0	16.3	4.8	4.3	1.4	2.4	1.0	0.65	1.257
22	I feel patients blame me for some of their problems.	36.8	18.2	13.9	12.0	6.2	9.1	3.8	1.75	1.846

c. Personal Accomplishment

From Table 4.37 it is clear that the majority of CCNs feel personally accomplished at least a few times a week or every day

Table 4.37: Percentages, Means and Standard Deviations of Personal Accomplishment

Item number	Item	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
4	I can easily understand how my patients feel about things	5.0	2.9	4.8	8.6	6.7	23.0	51.7	5.00	1.409
7	I deal very effectively with the problems of my patients.	2.4	2.9	3.3	5.3	5.7	26.8	52.6	5.03	1.478
9	I feel I'm positively influencing other people's lives.	7.2	2.4	4.8	12.0	6.7	19.1	46.9	4.56	1.866
12	I feel very energetic.	3.8	6.2	8.6	19.6	7.7	28.2	25.4	4.08	1.741
17	I can easily create a relaxed atmosphere with my patients.	2.4	4.8	6.2	4.8	10.5	26.8	44.0	4.74	1.618
18	I accomplish many worthwhile things in this job.	3.3	2.9	6.2	13.9	6.2	26.3	38.8	4.57	1.661
19	I feel exhilarated after working closely with my patients.	5.7	7.2	12.4	13.9	14.4	19.6	19.6	3.74	1.837
21	In my work, I deal with emotional problems very calmly.	1.9	3.8	6.7	19.6	7.7	24.4	34.4	4.42	1.617

PROBLEMS IDENTIFIED REGARDING BURNOUT

BURNOUT

- The participants in general are moderately burned out.
- 4.31% of the participants have high levels of burnout

EMOTIONAL EXHAUSTION

- Almost half (42.1%) of the participants have high levels of EE
- Almost half of all the participants (43%) felt that they work too hard at their jobs
- More than a third (35.4%) of the participants felt used up at the end of each working day
- A third (33%) of the participants felt emotionally drained by their work
- More than a quarter (28.7%) of all the participants felt burned out from their work
- More than a quarter (28.7%) of all the participants experienced fatigue when getting up in the morning and facing another day at work

DEPERSONALISATION

- Almost a quarter (23.4%) of the participants have high levels of Dp
- More than half (53.6%) of the participants indicated that their job hardens them emotionally

PERSONAL ACCOMPLISHMENT

- Almost half (43.1%) of the participants have low PA.

4.6.2. Practice Environment Scale of Nurse Work Index - Revised

The PES-NWI-R has been discussed in Chapter 3 (please see section 3.3.2.6), but can be summarised as follows: the PES-NWI-R is used to measure the general practice environment of nursing staff through certain subscales. These subscales include “Staffing and resource adequacy” within the practice environment, “collegial and nurse-physician relations”, “leadership support”, “quality of care” and “participation within hospital affairs”. The instrument is presented again on a Likert

scale with answers ranging from 1 = strongly disagree, 2 = somewhat disagree, 3 = somewhat agree, 4 = strongly agree. A report of the subscales and item-analysis will be provided in the following few pages.

4.6.2.1. PES-NWI-R: Subscale analysis

The mean value for the subscale “staffing and resource adequacy” indicated that, on average, participants tend to disagree with the fact that there is adequate staffing and resources available within their units ($M = 2.33$; $SD = 0.768$). The mean value of 2.48 ($SD = 0.767$) with the “collegial and nurse/physician relationship” subscale indicates that, on average, the participants neither agree nor disagree with the fact that good relationships between colleagues, nurses and physicians are prevalent. “Leadership and Support” with a mean value of 2.75 ($SD = 0.820$) specifies that on average the participants tend to agree with the fact that the leadership and support provided to them is present within their practice environment. On average, participants also on average agreed to the fact that quality of care is present within their CCUs with the highest mean of all the different subscales ($M = 2.90$; $SD = 0.599$). Participants on average neither agree nor disagree with the fact that they may participate in hospital affairs ($M = 2.50$; $SD = 0.758$).

Table 4.38: PES-NWI-R: subscale analysis

PRACTICE ENVIRONMENT SCALE FOR NURSES WORK INDEX - REVISED					
SUBSCALES	N	MIN	MAX	MEAN	SD
Staffing and resource adequacy	209	1.00	4.00	2.336	0.768
Collegial & nurse/physician relationships	209	1.00	4.00	2.485	0.767
Leadership and support	209	1.00	4.00	2.758	0.820
Quality of care	209	1.33	4.00	2.904	0.599
Participation in hospital affairs	209	1.00	4.00	2.503	0.758

4.6.2.2. PES-NWI-R: Item analysis

As with the MBI, in this section the researcher will explore each item in each subscale separately, with the aim of identifying problems for the intervention programme.

a. Staffing and resource adequacy

In Table 4.40, 73.2 % (153/209) of all participants indicated that they strongly disagreed to somewhat disagreed regarding the fact that there was enough staffing available to provide quality nursing care to patients. A total of 63.2% (132/209) of participants strongly disagreed to somewhat disagreed regarding the fact that there were enough staff available to get the work done. Support services were seen as adequate by 59.8% (125/209) of all participants, whereas 40.2% (84/209) of the participants did not experience support services as being adequate for them to be able to spend time with their patients. Lastly, 39.3% (82/209) of the participants indicated that they did not have enough time or opportunities to discuss patient problems with other nurses.

Table 4.39: Percentages, Means and Standard Deviations of Staffing and Resource Adequacy

Item number	Item	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%		
1	Adequate support services allow me to spend time with my patients.	13.4	26.8	39.7	20.1	2.67	.947
8	Enough time and opportunity to discuss patient care problems with other nurses.	14.4	24.9	42.6	17.7	2.64	.938
9	Enough registered nurses on staff to provide quality patient care.	46.9	26.3	13.4	13.4	1.93	1.068
12	Enough staff to get the work done.	38.8	24.4	21.5	13.9	2.11	1.081

b. Collegial and nurse/physician relationships

In Table 4.41, the percentages answered with regard to relationships within the CCU are presented. According to 61.3% (128/209) of the participants, physicians did not hold nurses in high esteem. The participants also did not feel respected by physicians, as indicated by 52.2% (108/209). 47.4% (99/209) of the participants did not feel that their contribution to patient care, observations and judgments were recognised and valued by the physicians. 42.1% (88/209) of the participants indicated that team work and collaboration [(41.1%) (86/209)] between physicians and nurses were not adequate. Lastly, 33.5% (70/209) indicated that there was not a good relationship between physicians and nurses.

Table 4.40: Percentages, Means and Standard Deviations of Collegial and Nurse-Physician Relations

Item number	Item	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%		
2	Physicians and nurses have good working relationships	13.4	20.1	47.4	19.1	2.72	.925
7	Physicians value nurses' observations and judgments	18.7	28.7	39.2	12.4	2.46	.938
13	Physicians recognise nurses' contributions to patient care	19.6	27.8	35.9	15.8	2.48	.985
17	A lot of team work between nurses and physicians	14.8	27.3	40.2	17.7	2.61	.945
21	Physicians respect nurses as professionals	27.3	24.9	31.6	14.4	2.34	1.038
26	Collaboration between nurses and physicians	12.4	28.7	43.5	12.9	2.58	.875
30	Physicians hold nurses in high esteem.	29.7	31.6	28.2	10.0	2.19	.977

c. Leadership and support

It is very clear in Table 4.42 that the participants value the leadership and support provided from line managers. 70.1% of participants indicated that they somewhat to strongly agreed that their nurse manager was a good manager and a leader. 64.6% of participants a somewhat to strongly agreed that supervisory staff were supportive of nurses. Participants (62.2%) felt that they experienced back-up from their nurse managers, even in the event of conflict with a physician. Of all the participants 49.3% (103/209) felt that they did not receive praise and recognition for a job well done. In spite of the large percentage who experienced back-up from their nurse managers, there were still 37.3% (78/209) who did not experience this kind of management behaviour. The same goes for supervisory staff who are supportive: 33.5% (70/209) of the participants did not experience this kind of behaviour from their supervisors.

Table 4.41: Percentages, Means and Standard Deviations of Leadership and Support

Item number	Item	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%		
3	A supervisory staff that is supportive of nurses	10.5	23.0	38.3	26.3	2.82	.951
10	A nurse manager who is a good manager and leader	9.6	12.4	32.1	45.0	3.14	.976
14	Praise and recognition for a job well done	27.3	22.0	36.8	12.9	2.36	1.023
22	A nurse manager who backs up the nursing staff in decision- making, even if the conflict is with a physician	20.1	17.2	32.1	30.1	2.73	1.102

c. Foundation for quality of care

Seen within Table 4.43, Quality of Care plays an important role within the practice environment of the participants. 73.7% of participants strongly agreed with the fact that it was expected by management that high standards of nursing care were maintained. Active staff development or continuing education programmes for nurses (75.6%) were present. Almost half of all the participants experienced working with incompetent nursing staff [(46%) (96/209)]. 38.3% (80/209) felt that continuity of patient care was not maintained. The participants indicated that 37.3% (78/209) of them did not experience the presence of a quality assurance program and 33% (69/209) also indicated the absence of a preceptor program for newly employed staff. Almost a third (31.1%) (65/209) of participants stated that nursing was built on a medical model rather than one of a nursing nature. Lastly, 29.2% (61/209) of the participants stated that nursing care plans were not experienced as being up-to-date.

Table 4.42: Percentages, Means and Standard Deviations of Quality of Care

Item number	Item	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%		
4	Active staff development or continuing education programs for nurses.	9.1	14.4	38.3	37.3	3.05	.944
15	High standards of nursing care are expected by management	2.9	4.8	18.7	73.7	3.63	.709
19	A clear philosophy of nursing that pervades the patient care environment	6.7	16.7	45.9	28.7	2.99	.860
20	Working with nurses who are clinically competent	16.3	29.7	32.5	21.1	2.59	.999
24	An active quality assurance program	17.2	20.1	38.8	23.0	2.68	1.017
27	A preceptor program for newly hired nurses	11.0	22.0	40.2	26.3	2.82	.949
28	Nursing care is based on a nursing rather than a medical model	12.4	18.7	46.4	20.6	2.77	.926
31	Written, up-to-date care plans for all patients	8.1	21.1	36.4	34.0	2.97	.940
32	Patient care assignments that foster continuity of care (i.e., the same nurse cares for patients from one day to the next).	18.7	19.6	38.3	22.5	2.65	1.031

d. Participation in hospital affairs

Looking at Table 4.44, it appears as if the participants are not very satisfied with their level of participation in hospital affairs. Participants [(64.2%) (134/209)] responded that they did not have the opportunity to participate in policy decision-making. This correlates with the item where they were asked whether they were involved in the internal governance of the hospital, and 60.8% (127/209) responded that they did not participate in this type of governance. More than 50% [(55%) (115/209)] of participants responded that management did not listen and respond to their concerns. 46.4% (96/209) stated that their chief nursing officer was not highly visible and accessible to them. Almost 40% of the participants did not experience the opportunity for advancement [(39.7%) (83/209)] or have the opportunity to serve on hospital committees [(39.8%) (83/209)]. More than a third did not experience career development opportunities [(34.5%) (72/209)] and almost the same response was found for the question as to whether the chief nursing officer shared equal power and authority with other members of top management [(34%) (71/209)].

Table 4.43: Percentages, Means and Standard Deviations of Participation in Hospital Affairs

Item number	Item	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%		
5	Career development/clinical ladder opportunity	15.8	18.7	33.5	31.6	2.81	1.053
6	Opportunity for registered nurses to participate in policy decisions	38.8	25.4	20.1	15.3	2.12	1.095
11	A chief nursing officer who is highly visible and accessible to staff	24.4	22.0	29.2	22.5	2.51	1.101
16	A chief nursing officer is equal in power and authority to other top-level hospital executives.	15.3	18.7	33.0	29.7	2.80	1.048
18	Opportunities for advancement	15.8	23.9	42.1	16.3	2.60	.948
23	Management that listens and responds to employee concerns	26.8	28.2	29.7	14.8	2.33	1.030
25	Registered nurses are involved in the internal governance of the hospital (e.g., practice and policy committees)	27.3	33.5	26.8	10.0	2.20	.964
29	Registered nurses have the opportunity to serve on hospital and nursing committees	14.4	25.4	38.3	21.1	2.67	.970

When evaluating the individual responses regarding the practice environment, the participants felt that there were insufficient personnel to provide quality care (73.2%) and to get the work done (63.2%). Physicians did not hold the nurses in high esteem (61.3%), and the participants felt that they did not receive praise and recognition for work well done (49.3%). Participants felt that they worked with other nurses who were not clinically competent (46%) and that they did not participate in hospital affairs.

PROBLEMS IDENTIFIED WITHIN THE PRACTICE ENVIRONMENT

THE PRACTICE ENVIRONMENT

Inadequate staffing and resource availability (M = 2.33)

Collegial and nurse/physician relationships are not adequately maintained (M = 2.48)

STAFFING AND RESOURCE ADEQUACY

- **Almost three quarters (73.2%) of participants indicated that there were not enough RNs on staff to provide quality patient care**
- **Again almost two thirds (63.2%) of the participants also stated that there were inadequate staff to get all the work done**
- **Support services were not experienced as being adequate by almost half (40.2%) of the participants. Thus, participants were unable to spend enough time with their patients.**
- **The time and opportunity to discuss patient care problems with other nurses was seen to be insufficient by a third of the participants (39.3%)**

COLLEGIAL AND NURSE-PHYSICIAN RELATIONS

- **Two thirds (61.3%) of RNs did not agree with the statement that physicians held the participants in high esteem**
- **More than half the participants (52.2%) felt that they were not respected by the physicians as professionals**
- **Almost half the participants indicated that physicians did not value their observations and judgments and did not recognise nurses' contributions to patient care (47.4%)**
- **Participants also did not all experience good team work between nurses and physicians, as indicated by more than a third of the RNs (42.1%)**

- Collaboration between nurses and physicians was also not experienced by 41.1% of all participants and 43.5% of all the participants only somewhat agreed to the matter
- A third of the participants (33.5%) indicated that there was not a good relationship between physicians and nurses.

LEADERSHIP AND SUPPORT

- Almost half the RNs (49.3%) indicated that they did not receive praise and recognition for work well done
- More than a third (37.7%) of all the participants indicated that they did not receive back-up from their nurse managers during decision-making and conflict with physicians
- A third of all the participants (33.5%) responded that supervisory staff were not supportive of them.

FOUNDATION FOR QUALITY OF CARE

- Almost half the participants (46%) felt that they worked with clinically incompetent nurses
- More than a third (38.3%) felt that continuity of patient care was not maintained.
- According to more than a third (37.3%) of the participants, there was not an active quality assurance programme within their units
- A third of the participants also felt that there was not a preceptor programme for newly hired nurses present within their practice environment
- Almost a third (31.1%) of the participants stated that nursing is built on a medical, model rather than one of a nursing nature
- Almost a third of the participants (29.2%) stated that nursing care plans were not up-to-date.

PARTICIPATION IN HOSPITAL AFFAIRS

- Almost two thirds (64.2%) of the participants disagreed with the fact that they had an opportunity to participate in policy decisions
- RNs also did not experience involvement in the internal governance of the hospital. This was indicated by almost two thirds of the participants (60.8%)
- More than half (55%) of the RNs felt that management did not listen and respond to their concerns

- Almost half of the participants (46.4%) indicated that they did not experience a chief nursing officer who was highly visible and accessible to staff
- The opportunity for advancement was not experienced by more than a third of the RNs (39.7%)
- More than a third (39.8%) also indicated that they did not have opportunities to serve on hospital and nursing committees
- Career development opportunities were not experienced by a third of the RNs (34.5%) and
- A third (34%) indicated that a chief nursing officer was inferior in power and authority to other top level hospital executives

4.6.3. Conditions for Work Effectiveness Questionnaire - II

The format and structure of the CWEQ-II was described in Chapter 3 (please see 3.3.2.2) and was used to measure structural empowerment levels within the CCUs. To summarise: the CWEQ-II consists of four subscales; namely, access to opportunity, access to information, access to support and access to resources. Answers range between 1 = Never, 2, 3 = Seldom, 4, 5 = A lot. An overall empowerment score can be calculated by adding the first four subscales.

4.6.3.1. CWEQ-II: Subscale analysis

The participants experience the access to opportunities on average towards high empowerment (M = 15.9). On average, access to information (M = 13.6), access to support (M = 12.87) and access to resources (M = 11.91) are experienced as moderate empowerment within the practice environment of these participants. Please see Table 4.44 for the subscale analysis.

Table 4.44: CWEQ-II: Subscale analysis

CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE - II					
SUBSCALES	N	MINIMUM	MAXIMUM	MEAN	SD
Access to opportunity	208	4	20	15.92	3.61
Access to information	205	4	20	13.60	4.13
Access to support	208	4	20	12.87	4.13
Access to resources	207	4	20	11.91	4.04

4.6.3.2. CWEQ-II: Item analysis

Each item regarding structural empowerment will be explored individually, with the aim of identifying problem areas for the intervention programme.

a. Access to opportunity

In table 4.45, 42.6% (89/209) of the participants indicated that they did not have the chance to gain new skills and knowledge in their jobs. More than a third (34.6%) felt that they did not perform tasks where they could use all their own skills and knowledge (72/209). Within the dynamic environment of the CCU, 32% (67/209) experienced no challenges within their practice environment.

Table 4.45: Percentages, Means and Standard Deviations of Access to Opportunity

Item number	Item	None		Seldom		A lot	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
1	Challenging work.	4.3	1.9	25.8	12.4	54.5	4.12	1.128
2	The chance to gain new skills and knowledge on the job.	4.8	3.8	34.0	15.8	40.7	3.85	1.151
3	Tasks that use all of your own skills and knowledge.	5.3	5.3	23.9	15.8	47.8	3.98	1.198

b. Access to information

In Table 4.46, the participants responded that they seldom to never had access to information with regard to the values of top management [(63.6%) (122/209)], the managerial goals (55.5%) (116/209) and the current state of the hospital [(49.3%) (103/209)].

Table 4.46: Percentages, Means and Standard Deviations of Access to Information

Item number	Item	None		Seldom		A lot	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
4	The current state of the hospital.	6.7	7.2	35.4	19.6	23.7	3.51	1.166
5	The values of top management.	10.0	9.1	44.5	12.0	22.0	3.27	1.209
6	The goals of top management.	8.1	9.6	37.8	14.8	26.8	3.44	1.227

c. Access to support

Table 4.47 indicates that most percentages were obtained within the “seldom” to “none” area of the Likert Scale. Participants responded that 65.5% (137/209) of them seldom to never received information about things they did well. 62.6% (131/209), stating that helpful hints or problem-solving advice was seldom given to them, 56% (117/209) stating that they seldom to never received comments about factors on which they could improve.

Table 4.47: Percentages, Means and Standard Deviations of Access to Support

Item number	Item	None		Seldom		A lot	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
7	Specific information about things you do well.	17.7	10.5	37.3	15.3	17.7	3.05	1.306
8	Specific comments about things you could improve.	9.1	6.2	40.7	17.7	23.0	3.41	1.190
9	Helpful hints or problem-solving advice.	11.0	10.0	41.6	17.2	18.7	3.23	1.198

d. Access to resources

Table 4.48 indicates that 77.5% (162/209) of participants seldom to never had enough time available for necessary paperwork and to accomplish job requirements (70.8%) (148/209). Together with this, 66.5% (139/209) of participant felt that they could seldom to never acquire temporary help when needed.

Table 4.48: Percentages, Means and Standard Deviations of Access to Resources

Item number	Item	None		Seldom		A lot	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
10	Time available to do necessary paperwork.	14.8	18.2	44.5	9.6	11.0	2.83	1.147
11	Time available to accomplish job requirements.	12.0	12.9	45.9	16.3	11.5	3.02	1.119
12	Acquiring temporary help when needed.	16.3	9.1	41.1	16.3	16.3	3.07	1.254

PROBLEMS IDENTIFIED REGARDING STRUCTURAL EMPOWERMENT

STRUCTURAL EMPOWERMENT:

Moderate experience of access to information (M = 13.6),

Moderate experience of access to support (M = 12.87)

Moderate experience of access to resources (M = 11.91)

ACCESS TO OPPORTUNITY

- 42.6% of the participants indicated that they did not have the opportunity to gain new skills and knowledge in their jobs.
- More than a third (34.6%) felt that they did not perform tasks where they could use all their own skills and knowledge.
- A third (32%) experienced no challenge within their practice environment.

ACCESS TO INFORMATION

- Half of the participants (49.3%) did not experience access to information with regard to the current state of the hospital
- Almost two thirds of the RNs (63.6%) did not have access to information regarding the values of top management
- 55.5% indicated that they did not have information regarding the goals of top management

ACCESS TO SUPPORT

- Two thirds of the participants (65.5%) seldom to never received information about things they did well
- They also did not receive the necessary support on how to solve problems. This was indicated by two thirds of the participants (62.6%)
- More than half (56%) were also not sure about things they could improve on, as no specific comments were provided in this regard

ACCESS TO RESOURCES

- Not even a quarter (22.5%) of all the participants had enough time to do their necessary paperwork
- 70.8% did not have enough time to accomplish their job requirements
- Two thirds (66.5%) of the RNs indicated that they were not able to acquire temporary help when needed

4.6.4. Psychological Empowerment Instrument

As all the other instruments, the PEI was described in Chapter 3 section 3.3.2.3 and was utilised to measure psychological empowerment levels experienced within the CCUs. To summarise: the PEI is a 12-item tool measuring 3 items per dimension on a 7-point Likert Scale. The scale ranges from 1 = Very Strongly Disagree to 7 = Very Strongly Agree. The total for each subscale is divided by three for an average score for that subscale (Spreitzer, 1995). Minimum scores of 12 to a maximum of 60 can be obtained. The higher the score obtained, the more psychological empowerment is experienced within the practice environment (Spreitzer, 1995:1444).

4.6.4.1. The PEI: Subscale analysis

The experience of high levels of psychological empowerment was confirmed in Table 4.49, with the mean values above 4.5. Participants on average strongly agreed to experiencing meaning ($M = 5.70$; $SD = 0.910$) and competence ($M = 5.51$; $SD = 0.877$) within the CCU environment. On average, there was also agreement with the fact that they experienced self-determination ($M = 4.92$; $SD = 1.086$) in their practice environment and that they did have an impact ($M = 4.57$; $SD = 1.176$) within the CCU setting.

Table 4.49: PEI: Subscale analysis

PSYCHOLOGICAL EMPOWERMENT INSTRUMENT					
SUBSCALES	N	MINIMUM	MAXIMUM	MEAN	SD
Meaning	209	1.00	7.00	5.708	0.910
Competence	209	1.00	7.00	5.518	0.877
Self-determination	209	1.00	7.00	4.921	1.086
Impact	208	1.00	7.00	4.576	1.176

4.6.4.2. PEI: Item analysis

Each item of all four of the subscales of the PEI was explored for possible problem identification for the intervention programme, but all items indicated that the participants experienced adequate psychological empowerment within their practice environment. The item analysis will still be discussed in the following few pages.

a. Meaning

Measuring “meaning”, high mean values above 5.5 were obtained for all 3 questions within this subscale (please see table 4.49). 75.1% (157/209) of participants strongly agreed to very strongly agreed with the fact that the work they did was important to them. 72.5% (152/209) of responses indicated that their jobs were meaningful to them. Personally meaningful job activities were experienced by 60.3% (126/209) of participants on a strongly agree to very strongly agree basis. The items of the subscale “meaning” are presented in Table 4.50.

Table 4.50: Percentages, Means and Standard Deviations of Meaning

Item number	Item	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
2	The work that I do is important to me	1.9	0.0	0.0	4.8	17.7	56.9	18.2	5.81	1.002
5	My job activities are personally meaningful to me	1.9	0.0	1.0	12.0	23.4	45.9	14.4	5.54	1.111
13	The work I do is meaningful to me	1.4	1.0	0.5	5.7	16.7	54.1	18.7	5.78	1.056

b. Impact

In Table 4.51, only a small percentage of participants [(18.2%) (38/209)] felt that they did not have control over what happens in their units or that they have no influence over what happens in their units [(19.6%) (41/209)]. These small percentages confirm that most participants do experience having an impact within their units.

Table 4.51: Percentages, Means and Standard Deviations of Impact

Item number	Item	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
4	My impact on what happens in my unit is large	3.3	2.4	4.8	25.8	24.9	29.7	7.7	4.89	1.351
6	I have a great deal of control over what happens in my unit	4.8	2.9	10.5	37.3	19.1	21.1	3.8	4.42	1.367
14	I have significant influence over what happens in my unit	4.3	5.3	10.0	34.9	18.2	20.6	5.3	4.42	1.428

c. Competence

Table 4.52 gives a clear indication of the fact that the participants felt confident in their ability to do their jobs. Only 1.4% (3/209) very strongly disagreed with the fact of not feeling confident about their ability to do their jobs. In contrast with this, 59.8% (125/209) strongly and very strongly agreed with the fact that they felt confident about their ability to do their jobs. 56% (117/209) strongly agreed to very strongly agreed that they had mastered the skills necessary for their jobs. Again, only 0.5% (1/209) of the participants felt that they definitely did not have the capabilities to perform their work activities, with 58.4% (122/209) feeling very capable of performing their working activities.

Table 4.52: Percentages, Means and Standard Deviations of Competence

Item number	Item	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
1	I am confident about my ability to do my job	1.4	0.5	0.5	5.3	30.6	46.4	13.4	5.61	1.002
11	I have mastered the skills necessary for my job	1.4	1.4	1.0	17.7	22.0	41.6	14.4	5.41	1.188
15	I am self-assured about my capabilities to perform my work activities	0.5	1.9	1.9	8.6	27.8	44.5	13.9	5.53	1.074

d. Self-determination

In Table 4.53, only 6.8% (14/209) of participants indicated that they did not have significant autonomy in determining how to do their jobs, and a further 16.3% (34/209) felt that they could not decide on their own how to do their work. 13.9% (29/209) felt that they did not have the necessary opportunities for independence and freedom as to how to do their jobs. These low percentages indicate that the participants experience a great deal of self-determination within their practice environment.

Table 4.53: Percentages, Means and Standard Deviations of Self-Determination

Item number	Item	Very strongly disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Very strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%	%	%		
3	I have significant autonomy in determining how I do my job	1.0	1.0	4.8	22.0	24.9	36.4	9.1	5.16	1.171
7	I can decide on my own how to go about doing my own work	2.9	2.9	10.5	24.4	21.1	28.2	8.6	4.80	1.417
10	I have considerable opportunity for independence and freedom in how I do my job	1.0	4.3	8.6	27.8	24.4	23.9	9.1	4.80	1.324

Participants experienced being psychologically empowered within their practice environment.

PROBLEMS IDENTIFIED REGARDING PSYCHOLOGICAL EMPOWERMENT

No real problems could be identified regarding psychological empowerment

4.6.5. Nursing Incivility Scale

The NIS was described in Section 3.3.2.4 of Chapter 3 and was used to measure uncivil behaviour within the CCU environment. The instrument also consists of a Likert Scale where 1 = I strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree. Although the instrument consists of 8 subscales and includes Hostile Climate, Inappropriate Jokes, Inconsiderate Behaviour, Gossip/Rumours, Free-Riding, Abusive Supervision, Lack of Respect and Displaced Frustration, in this study items have been grouped in 9 subscales. To compute subscale scores, individual item scores should be added and averaged (e.g., aggregated Hostile Climate score) to glean more specific information for targeting interventions. The source-level aggregated score (e.g., aggregated Physician Incivility score) may be appropriate for understanding source-specific incivility. Mean values can vary between 1 and 5 per question.

4.6.5.1. NIS: Subscale analysis

When evaluating the subscales of the NIS in Table 4.54, it is evident that the participants on average tend to agree with the fact that, in general, a hostile climate exists within their practice environment ($M = 3.535$; $SD = 0.917$). The other subscales of the NIS indicated mean values between 2.5 – 3.5, demonstrating the fact that, on average, they tend to remain neutral to the questions asked. The maximum value of each subscale was 5, indicating that some participants do experience uncivil behaviour within their practice environment on a “strongly agree”

level. The mean values indicated the following: on average, participants disagreed that they experienced abusive supervision ($M = 2.046$; $SD = 1.025$) and lack of respect ($M = 2.411$; $SD = 0.915$). On average, participants tended to remain neutral regarding the experience of inappropriate jokes ($M = 2.50$; $SD = 1.072$), free riding ($M = 2.860$; $SD = 1.113$), hostile nurses ($M = 2.877$; $SD = 1.070$), abusive physicians ($M = 3.127$; $SD = 1.104$) and experience of displaced frustration ($M = 3.21$; $SD = 1.034$). Participants, on average, tended to agree with the inconsiderate behaviour towards them ($M = 3.46$; $SD = 0.922$).

Table 4.54: NIS: Subscale analysis

NURSING INCIVILITY SCALE					
SUBSCALES	N	MINIMUM	MAXIMUM	MEAN	SD
Hostile climate general	208	1.00	5.00	3.535	0.917
Hostile nurses	208	1.00	5.00	2.877	1.070
Inappropriate jokes	207	1.00	5.00	2.500	1.072
Inconsiderate behaviour	207	1.00	5.00	3.460	0.922
Free riding	208	1.00	5.00	2.860	1.113
Abusive supervisor	207	1.00	5.00	2.046	1.025
Abuse physician	207	1.00	5.00	3.127	1.104
Lack of respect	207	1.00	5.00	2.411	0.915
Displaced frustration	207	1.00	5.00	3.216	1.034

4.6.5.2. NIS: Item analysis

Again, each item of the NIS was explored to determine whether any problems existed to add into the intervention program in Chapter 5 of this study.

a. Hostile climate

Please see Table 4.55 where participants indicated whether a hostile climate in general existed in their practice environment. A high percentage of 67.4% (141/209) of all participants felt that people in general blamed others for their mistakes or offences and that hospital employees in general raise their voices when frustrated (55.5%) (116/209). Lastly, more than 50% (53.6%) (112/209) of the CCNs agreed to strongly agreed with the fact that basic disagreements turn into personal verbal attacks on other employees.

Table 4.55: Percentages, Means and Standard Deviations of “Hostile Climate”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
1	Hospital employees raise their voices when they get frustrated	10.5	12.0	21.5	33.5	22.0	3.45	1.254
2	People blame others for their mistakes or offences	5.3	9.1	16.7	43.5	23.9	3.73	1.093
3	Basic disagreements turn into personal verbal attacks on other employees	10.0	10.5	24.4	34.0	19.6	3.43	1.215
	Nurses...							
10	argue with each other frequently	24.4	28.7	19.6	17.7	9.1	2.58	1.283
11	have violent outbursts or heated arguments in the workplace	26.8	32.5	18.7	14.4	7.2	2.42	1.229
12	scream at other employees	26.3	32.1	18.2	14.4	7.7	2.44	1.243

b. Inappropriate jokes

The subscale “inappropriate jokes” are presented in Table 4.56 and indicate that inappropriate jokes are not experienced within the CCUs.

Table 4.56: Percentages, Means and Standard Deviations of “Inappropriate Jokes”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	All individuals interacting with at work...							
4	People make jokes about minority groups.	22.0	21.1	28.7	17.2	9.6	2.71	1.262
5	People make jokes about religious groups.	30.6	29.7	19.1	13.9	4.8	2.31	1.192
6	Employees make inappropriate remarks about one's race or gender.	29.7	23.4	22.5	16.3	7.2	2.47	1.273

c. Inconsiderate behaviour

In Table 4.57, a high 79.5% (166/209) of all participants indicated that they agreed to strongly agreed with the fact that noise levels within the units were not kept at a low level. Almost 50% (46%) (96/209) of the participants responded that people took things without asking. 42.1% (88/209) of the participants experienced that employees display offensive body language.

Table 4.57: Percentages, Means and Standard Deviations of “Inconsiderate Behaviour”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	All individuals interacting with at work...							
7	Some people take things without asking.	9.6	17.2	23.9	34.0	12.0	3.22	1.174
8	Employees don't stick to an appropriate noise level (e.g., talking too loudly).	5.3	6.7	7.7	40.7	38.8	4.02	1.106
9	Employees display offensive body language (e.g., crossed arms, body posture).	12.4	17.7	26.3	28.2	13.9	3.14	1.234

d. Gossip/Rumours

Table 4.58 confirms that participants agreed that nurses not only gossip about one another [(52.1%) (109/209)], but also about their supervisors [(47.9%) (100/209)]. In addition, they reported that nurses badmouth one another (45.7%) (95/209) and spread rumours (to a lesser degree) within the CCU [(33.5%) (70/209)].

Table 4.58: Percentages, Means and Standard Deviations of “Gossip/Rumours”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	Nurses ...							
13	gossip about one another.	12.4	9.6	24.9	30.6	21.5	3.40	1.276
14	gossip about their supervisor at work.	12.9	13.9	24.4	26.8	21.1	3.29	1.305
15	bad-mouth others in the workplace.	15.3	17.2	21.1	26.8	18.9	3.16	1.341
16	spread bad rumours.	19.6	22.0	23.9	20.1	13.4	2.86	1.321

e. Free riding

In Table 4.59, 40.7% (85/209) of the participants responded that nursing colleagues tended to take credit for projects to which they hardly contributed. Together with this, 33% (69/209) agreed that nurses took credit for work that they did not do.

Table 4.59: Percentages, Means and Standard Deviations of “Free Riding”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	Other nurses ...							
17	make little contribution to a project but expect to receive credit for working on it.	18.2	17.2	23.4	27.3	13.4	3.00	1.313
18	claim credit for my work.	18.7	23.9	28.7	17.7	8.6	2.73	1.216
19	take credit for work they did not do.	20.6	17.7	25.4	22.5	10.5	2.84	1.299

f. Abusive supervision

Participants did not experience verbal abuse from their direct supervisors to a large extent. In Table 4.60, it is evident that the participants responded fairly strongly towards abusive supervision from the physician. 59.8% (125/209) of the participants agreed to strongly agreed that they are exposed to verbal abuse from physicians. Almost 50% [(47.3%) (99/209)] of the participants indicated that physicians yell at them about matters that were not important, and 43.5% responded that physicians took out their feelings of anger and stress on them. 40.2% (91/209) stated that they were yelled at for making mistakes.

Table 4.60: Percentages, Means and Standard Deviations of “Abusive Supervision”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	My direct supervisor...							
20	is verbally abusive.	48.8	23.0	8.6	8.6	4.8	1.91	1.199
21	yells at me about matters that are not important.	51.2	22.5	8.6	11.5	4.8	1.95	1.231
22	shouts or yells at me for making mistakes.	48.3	23.4	12.4	10.0	4.3	1.97	1.193
23	takes his/her feelings out on me (e.g., stress, anger).	47.8	23.4	9.1	12.4	5.7	2.03	1.270
	The physician							
27	Some physicians are verbally abusive.	9.6	15.8	13.9	26.8	33.0	3.58	1.348
28	Physicians yell at nurses about matters that are not important.	10.0	23.0	18.7	23.4	23.9	3.29	1.330
29	Physicians shout or yell at me for making mistakes.	17.7	22.0	19.1	22.5	17.7	3.00	1.374
30	Physicians take their feelings out on me (e.g., stress, anger).	15.3	22.5	16.3	23.9	19.6	3.10	1.380

g. Lack of respect

Participants responded that they had a great deal of respect for their direct supervisors, as indicated in Table 4.61. However, participants did respond that physicians treated them as if their time was not important (39.2%) (82/209), thus the delayed time in response to RNs concerns [(35%) (73/209)]. Participants agreed that the patient and/or family posed unreasonable demands upon them [(35.4%) (74/209)].

Table 4.61: Percentages, Means and Standard Deviations of “Lack of Respect”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	My direct supervisor ...							
24	does not respond to my concerns in a timely manner.	37.8	26.8	15.8	13.4	3.8	2.17	1.196
25	is condescending to me.	37.3	27.8	19.1	6.7	4.3	2.09	1.132
26	factors gossip and personal information into personnel decisions.	35.9	30.1	15.8	6.2	9.1	2.20	1.264
	Physicians....							
31	do not respond to my concerns in a timely manner.	26.3	23.9	23.4	21.1	13.9	2.92	1.297
32	I am treated as though my time is not important.	11.5	24.4	23.9	19.6	19.6	3.12	1.302
33	Physicians are condescending to me.	15.3	23.4	31.1	11.0	14.8	2.86	1.268
	Patients and/family ...							
34	do not trust the information I give them and ask to speak with someone of higher authority	23.4	28.7	23.9	13.9	8.6	2.55	1.240
35	are condescending to me.	17.2	28.2	34.4	12.0	4.8	2.57	1.073
36	make comments that question the competence of nurses.	15.8	28.2	30.1	12.9	4.3	2.58	1.077
37	criticise my job performance.	29.7	38.8	18.2	7.2	4.8	2.17	1.090
38	make personal verbal attacks against me.	28.2	39.2	17.2	8.6	5.3	2.22	1.117
39	pose unreasonable demands	14.4	26.8	22.5	26.3	9.1	2.89	1.216

h. Displaced frustration

55.5% (116/209) of the participants indicated that patients and/or family take their frustrations out on them as RNs, with a correlating value of 50.3% (105/209) stating that patients and/or family are irritated with them. Almost 50% [(47.8%) (100/209)] of participants felt that they were treated as being inferior and as if they were stupid. 41.7% (87/209) of the participants experienced being insulted by patients and/or family. Please see Table 4.62 for the displaced frustration percentages.

Table 4.62: Percentages, Means and Standard Deviations of “Displaced Frustration”

Item number	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
	Patient and/family...							
40	have taken out their frustrations on nurses.	9.1	11.5	23.0	36.4	19.1	3.45	1.193
41	make insulting comments to nurses.	11.0	20.1	25.8	27.3	14.4	3.14	1.224
42	treat nurses as if they were inferior or stupid.	10.0	17.2	23.0	30.6	17.2	3.28	1.236
43	show that they are irritated or impatient.	9.1	14.8	24.9	36.4	13.9	3.31	1.163

PROBLEMS IDENTIFIED REGARDING UNCIVIL BEHAVIOUR

INCIVILITY:

- Agreed to have experienced general hostility in the practice environment (M = 3.51)
- Agreed to having experienced inconsiderate behaviour (M = 3.46)

HOSTILE CLIMATE

- More than half of the participants experienced a hostile climate within the general practice environment:
- Two thirds of the RNs (67.4%) stated that people blamed each other for their own mistakes and offences
- Hospital employees do raise their voices when frustrated, as indicated by more than half the participants (55.5%)
- More than half the participants (53.6%) indicated that personal verbal attacks on other employees were experienced during basic disagreements

INCONSIDERATE BEHAVIOUR

- More than three quarters (79.5%) of the participants experienced an inappropriately high noise level in the CCUs
- Almost half (46%) of the participants agreed to the fact that people take things without asking
- 42.1% stated that other employees display argumentative body language

GOSSIP/RUMOURS

- Half of the participant responded that nurses gossip about one another (52.1%)
- Almost half (47.9%) of the RNs also indicated that nurses gossip about their supervisors at work
- Within the workplace, people are bad-mouthed by others, as indicated by almost half the participants (45.5%)
- A third of the participants (33.5%) indicated that people spread rumours within their CCU

FREE RIDING

- Almost half (40.7%) of the participants responded that they expected to receive credit for working on projects to which they made little contribution
- In addition to this, 33% agreed with the fact that nurses take credit for work that they did not do.

ABUSIVE SUPERVISION

- More than half (59.8%) of the participants agreed with the fact that physicians are verbally abusive
- Physicians yell at nurses regarding matters that are not important, indicated by almost half of the participants (47.3%)

- 43.5% of all the responses indicated that physicians take their feelings of anger and stress out on the RNs
- More than a third (40.2%) of the participants stated that when they make mistakes, the physician will yell or shout at them

LACK OF RESPECT

- More than a third (39.2%) of the participants indicated that physicians treated them as if their time was not important.
- More than a third (35%) also indicated that physicians did not respond to their concerns in a timely manner
- A third of the participants (35.4%) felt that the family and patients make unreasonable demands on the RNs

DISPLACED FRUSTRATION

- Participants responded that the patient and/or family takes out their frustrations on nurses (55.5%)
- Half of the participants (50.3%) stated that patient and/or family show that they are irritated or impatient
- Nurses are treated as if they are inferior and stupid by patients and/or family, as indicated by almost half the participants (47.8%)
- More than a third (41.7%) of the participants felt that patients and/or family make insulting comments to them.

4.6.6. Negative Acts Questionnaire - Revised

The NAQ-R was described in Chapter 3, Section 3.3.2.5 and used to measure bullying behaviour with regard to personal-related bullying, work-related bullying and physical bullying behaviour. The questionnaire is presented on a Likert Scale, with scores ranging between the following: 1 = never; 2 = now and then; 3 = monthly; 4 = weekly; 5 = daily. Scoring for the NAQ-R is done by adding item scores. The scores are averaged to form one overall score. Subscale scores can be calculated by adding and averaging subscale items. Subscale and item analysis will be done, as with all the other instruments.

4.6.6.1. NAQ-R: Subscale analysis

All subscales of the NAQ-R measured low mean values of less than 2. Although physical bullying behaviour within the CCU environment only measured, on average, at a mean of 1.50 (SD = 0.660), this value tends towards “now and then”. The maximum value in Table 4.63 indicates that some participants experienced physical bullying behaviour on a daily basis. Another concern is the fact that work-related bullying behaviour (M = 1.77; SD = 0.670) has a higher mean value than personal bullying behaviour (M = 1.59; SD = 0.669), both values indicating, on average, that bullying behaviour tends to occur now and then within their practice environment.

Table 4.63: NAQ-R: Subscale analysis

NEGATIVE ACTS QUESTIONNAIRE - REVISED					
SUBSCALES	N	MINIMUM	MAXIMUM	MEAN	SD
Work-related bullying behaviour	207	1.00	4.71	1.777	0.670
Personal bullying behaviour	207	1.00	4.42	1.592	0.669
Physical bullying behaviour	205	1.00	5.00	1.508	0.660

4.6.6.2. NAQ-R: Item analysis

Again, exploring each item of the three subscales is aimed at identifying possible problems for the burnout intervention programme.

a. Work-related bullying behaviour

In Table 4.64, the items of the subscale “work-related bullying behaviour” are presented. 10.5% (22/209) of the participants stated that, on a weekly to daily basis, they experience someone withholding information from them which might affect their performance. 11% (23/209) felt that they work below their level of competence, and 12.9% (27/209) responded that they are exposed to an unmanageable workload on a weekly to daily basis.

Table: 4.64: Percentages, Means and Standard Deviations of Work-Related Bullying Behaviour

Item number	Item	Never	Now and then	Monthly	Weekly	Daily	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
1	Someone withholding information which affects your performance	40.2	37.3	11.0	7.2	3.3	1.95	1.056
3	Being ordered to do work below your level of competence	51.2	29.2	7.7	4.3	6.7	1.85	1.167
14	Having your opinions and views ignored	49.8	31.1	10.0	4.8	1.9	1.75	.963
16	Being given tasks with unreasonable or impossible targets or deadlines	58.4	24.4	8.1	4.3	1.9	1.63	.953
21	Being exposed to an unmanageable workload	47.4	30.6	6.2	8.6	4.3	1.89	1.140

b. Personal-related bullying behaviour

Although the percentages of answers are low on the scales of “weekly” and “daily”, almost all the percentages reflected are important, as bullying behaviour is not supposed to be present within a CCU at all. In Table 4.65, it is clear that 10.5% (22/209) of the participants experience being humiliated or ridiculed in connection with their work on a weekly to daily basis. The previous result might be connected to the fact that 9.6% (20/209) of the participants experience the fact that key areas of responsibility are being removed for unpleasant tasks on a weekly to daily basis. CCNs experience the fact that they are reminded of their mistakes on a weekly to daily basis and, even though it is only a low percentage of 7.2%, it involves 15 of the participant’s lives. 6.7% (14/209) indicated that people spread gossip and rumours about them, whereas 6.2% (13/209) of these participants responded that they experience insulting remarks regarding their person, attitudes and private life. Lastly, 6.3% (13/209) indicated that they are ignored or faced with hostile reactions on a weekly to daily basis. 5.3% (11/209) also experience hints or signals that they should quit their jobs.

Table 4.65: Percentages, Means and Standard Deviations of Personal-Related Bullying behaviour

Item number	Item	Never	Now and then	Monthly	Weekly	Daily	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
2	Being humiliated or ridiculed in connection with your work	49.3	31.6	7.7	8.6	1.9	1.81	1.033
4	Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	47.4	28.2	12.0	7.7	1.9	1.85	1.043
5	Spreading of gossip and rumours about you	52.2	29.7	9.6	3.8	2.9	1.73	.991
6	Being ignored, excluded or being 'sent to Coventry'	59.3	24.4	8.1	5.3	1.0	1.61	.920
7	Having insulting or offensive remarks made about your person (i.e. habits and background), your attitudes or your private life	61.7	21.5	7.7	3.3	2.9	1.60	.982
10	Hints or signals from others that you should quit your job	75.1	14.8	2.9	2.9	2.4	1.40	.877
11	Repeated reminders of your errors or mistakes	56.5	29.2	5.3	5.3	1.9	1.64	.947
12	Being ignored or facing a hostile reaction when you approach	59.8	22.5	6.7	5.3	1.0	1.58	.917
13	Persistent criticism of your work and effort	61.7	23.4	6.7	4.3	1.9	1.59	.939
15	Practical jokes carried out by people you don't get on with	71.3	16.7	6.2	2.4	1.0	1.41	.798
17	Having allegations made against you	67.9	19.6	4.8	3.3	1.9	1.48	.890
20	Being the subject of excessive teasing and sarcasm	78.1	10.5	4.3	3.3	1.4	1.36	.839

c. Physical bullying behaviour

6.2% (13/209) of the participants experienced being the targets of spontaneous anger on a weekly to daily basis. 3.4% (7/209) experienced intimidating behaviour on a weekly to daily basis within the practice environment. Lastly, a concerning factor in the percentages of physical bullying is the fact that 1.4% (3/209) of the participants indicated that they are threatened on a daily basis with violence or physical abuse or actual abuse (please see Table 4.66).

Table 4.66: Percentages, Means and Standard Deviations of Physical Bullying behaviour

Item number	Item	Never	Now and then	Monthly	Weekly	Daily	Mean (M)	Standard Deviation (S.D)
		%	%	%	%	%		
8	Being shouted at or being the target of spontaneous anger (or rage)	57.4	24.4	10.0	3.8	2.4	1.67	.979
9	Intimidating behaviour such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	72.2	18.7	3.8	2.9	0.5	1.38	.741
22	Threats of violence or physical abuse or actual abuse	85.6	8.1	1.9	0.5	1.4	1.20	.636

PROBLEMS IDENTIFIED REGARDING BULLYING BEHAVIOUR

BULLYING BEHAVIOUR:

- Work-related bullying behaviour is experienced now and then (M = 1.77)
- Personal bullying behaviour is experienced now and then (M = 1.59)
- Physical bullying behaviour is experienced now and then (M = 1.50)

WORK-RELATED BULLYING BEHAVIOUR

- 12.7% of these participants feel that they are exposed to an unmanageable workload which 4.3% experience daily
- 11% feel that they do work below their level of competence
- Information affecting performance is withheld from 10.5% of all the participants

PERSONAL-RELATED BULLYING BEHAVIOUR

- On a weekly to daily basis, the following were found. All these values are seen as important, as bullying behaviour is not supposed to exist within the practice environment:
- 10.5% Participants experience being humiliated or ridiculed in connection with their work. 8.6% experience this weekly
- Areas of responsibility are removed or replaced with more unpleasant tasks (9.6%) (7.7% happens on a weekly basis)
- 7.2% of participants feel that they are constantly reminded of their errors or mistakes
- 6.7% indicated that people spread gossip and rumours about them
- 5.3% indicated that they are ignored or faced with hostile reactions on a weekly basis
- 6.2% of these participants responded that they experience insulting remarks regarding their person, attitudes and private life
- 5.3% also experience hints or signals that they should quit their jobs

PHYSICAL BULLYING BEHAVIOUR

- Being shouted at or being a target of spontaneous anger is indicated by 6.2% of participants. This happens on a weekly to daily (2.4%) basis
- Intimidating behaviour is indicated as being experienced by 3.4% of the participants on a weekly to daily basis
- 1.4% of participants are in the presence of threats of violence, physical abuse or actual abuse on a DAILY BASIS!!!!

4.7. DISCUSSION OF CORRELATION COEFFICIENTS BETWEEN VARIABLES

All significant correlation coefficients between burnout and all other variables will now be discussed in detail.

4.7.1. Correlation coefficients between burnout and the practice environment

From the analysis it was evident that there is a large negative correlation between EE and staffing and resource adequacy ($r = -0.470$; $p = 0.000$) and leadership and support ($r = -0.433$; $p = 0.000$). The participation in hospital affairs ($r = -0.380$; $p = 0.000$), foundation for quality care ($r = -0.354$; $p = 0.000$) and participants perception of collegial and nurse/physician relationships ($r = -0.256$; $p = 0.000$) had a moderate negative correlation with EE. There is a medium positive correlation between PA and the foundations of quality for quality of care ($r = 0.286$; $p = 0.000$). A negative medium correlation was found between Dp and staffing and resource adequacy ($r = -0.310$; $p = 0.000$); foundations for quality care ($r = -0.283$; $p = 0.000$); leadership and support ($r = -0.269$; $p = 0.000$) and participation in hospital affairs ($r = -0.251$; $p = 0.000$). Please see Table 4.67 for the correlation coefficient values between burnout and the practice environment.

Table 4.67: Correlation matrix: Burnout and the practice environment

CORRELATIONS COEFFICIENTS BETWEEN MBI AND PES-NWI-R					
			MBI		
SCALE	SUBSCALE		EE	PA	Dp
PES-NWI-R	Staffing and resource adequacy	Correlation Coefficient	-.470**	.169*	-.310**
		Sig. (2-tailed)	.000	.014	.000
		N	209	209	209
	Collegial and nurse/physician relationships	Correlation Coefficient	-.256**	-.017	-.102
		Sig. (2-tailed)	.000	.802	.141
		N	209	209	209
	Leadership and support	Correlation Coefficient	-.433**	.089	-.269**
		Sig. (2-tailed)	.000	.202	.000
		N	209	209	209
	Foundation for quality of care	Correlation Coefficient	-.354**	.286**	-.283**
		Sig. (2-tailed)	.000	.000	.000
		N	209	209	209
	Participation in hospital affairs	Correlation Coefficient	-.380**	.179**	-.251**
		Sig. (2-tailed)	.000	.010	.000
		N	209	209	209

4.7.2. Correlation coefficients between burnout and structural empowerment

Access to resources had a large negative correlation to EE ($r = -0.425$; $p = 0.000$) and a moderate negative correlation was found between EE and access to support ($r = -0.357$; $p = 0.000$). A moderate positive correlation coefficient was found between

the access to opportunity ($r = 0.302$; $p = 0.000$) access to resources ($r = 0.307$; $p = 0.000$) and PA. A moderate negative correlation coefficient was found between access to resources ($r = -0.368$; $p = 0.000$), access to support ($r = -0.235$; $p = 0.001$) and Dp. Please see Table 4.68 for detailed information regarding the correlations between burnout and structural empowerment.

Table 4.68: Correlation matrix: Burnout and structural empowerment

CORRELATION MATRIX BETWEEN BURNOUT AND THE PRACTICE ENVIRONMENT					
			MBI		
SCALE	SUBSCALE		EE	PA	Dp
CWEQ-II	Access to opportunity	Correlation Coefficient	-.178**	.302**	-.110
		Sig. (2-tailed)	.010	.000	.115
		N	208	208	208
	Access to information	Correlation Coefficient	-.178*	.158*	-.078
		Sig. (2-tailed)	.011	.023	.263
		N	205	205	205
	Access to support	Correlation Coefficient	-.357**	.201**	-.235**
		Sig. (2-tailed)	.000	.004	.001
		N	208	208	208
	Access to resources	Correlation Coefficient	-.425**	.307**	-.368**
		Sig. (2-tailed)	.000	.000	.000
		N	207	207	207

4.7.3. Correlation coefficients between burnout and psychological empowerment

All the correlation between EE and psychological empowerment were moderate negative correlations. The highest correlations were between EE and impact ($r = -0.230$; $p = 0.001$) and self-determination ($r = -0.243$; $p = 0.000$). Only PA and

meaning indicated a moderate positive correlation coefficient of ($r = 0.306$; $p = 0.000$). Please see Table 4.69 for the correlation matrix between burnout and psychological empowerment.

Table 4.69: Correlation matrix: Burnout and psychological empowerment

CORRELATIONS BETWEEN BURNOUT AND PSYCHOLOGICAL EMPOWERMENT					
			MBI		
SCALE	SUBSCALE		EE	PA	Dp
PEI	Meaning	Correlation Coefficient	-.108	.306**	-.036
		Sig. (2-tailed)	.119	.000	.606
		N	209	209	209
	Competence	Correlation Coefficient	-.041	.188**	-.047
		Sig. (2-tailed)	.551	.006	.502
		N	209	209	209
	Self-determination	Correlation Coefficient	-.243**	.152*	-.086
		Sig. (2-tailed)	.000	.028	.217
		N	209	209	209
	Impact	Correlation Coefficient	-.230**	.107	-.116
		Sig. (2-tailed)	.001	.125	.095
		N	208	208	208

4.7.4. Correlation coefficients between burnout and incivility

A moderate positive correlation was found between EE and displaced frustration ($r = 0.350$; $p = 0.000$). The positive correlations between incivility and EE were as follows: EE and lack of respect ($r = 0.277$; $p = 0.000$); EE and nurse hostility ($r = 0.261$; $p = 0.000$); EE and free riding ($r = 0.216$; $p = 0.002$); EE and abusive supervision ($r = 0.212$; $p = 0.002$). Moderate positive correlations were found between Dp and displaced frustration ($r = 0.344$; $p = 0.000$), lack of respect ($r =$

0.340; $p = 0.000$), abusive supervisor ($r = 0.312$; $p = 0.000$) and hostile nurses ($r = 0.281$; $p = 0.000$). Please refer to Table 4.70 for the correlation matrix between burnout and incivility.

Table 4.70: Correlation matrix: Burnout and incivility

CORRELATIONS BETWEEN BURNOUT AND INCIVILITY					
			MBI		
SCALE	SUBSCALE		EE	PA	Dp
NURSING INCIVILITY SCALE	Hostile general	Correlation Coefficient	.189**	-.098	.157*
		Sig. (2-tailed)	.006	.160	.023
		N	208	208	208
	Hostile nurses	Correlation Coefficient	.261**	-.094	.281**
		Sig. (2-tailed)	.000	.175	.000
		N	208	208	208
	Inappropriate jokes	Correlation Coefficient	.076	-.019	.128
		Sig. (2-tailed)	.277	.780	.066
		N	207	207	207
	Inconsiderate behaviour	Correlation Coefficient	.174*	-.027	.221**
		Sig. (2-tailed)	.012	.702	.001
		N	207	207	207
	Free riding	Correlation Coefficient	.216**	-.034	.197**
		Sig. (2-tailed)	.002	.627	.004
		N	208	208	208
	Abusive supervisor	Correlation Coefficient	.212**	-.138*	.312**
		Sig. (2-tailed)	.002	.047	.000
		N	207	207	207
	Abusive physician	Correlation Coefficient	.189**	.025	.201**
		Sig. (2-tailed)	.006	.718	.004
		N	207	207	207
	Lack of respect	Correlation Coefficient	.277**	-.060	.340**
		Sig. (2-tailed)	.000	.388	.000
		N	207	207	207
	Displaced frustration	Correlation Coefficient	.350**	-.073	.344**
		Sig. (2-tailed)	.000	.296	.000
		N	207	207	207

4.7.5. Correlation coefficients between burnout and bullying behaviour

Looking at table 4.71 below, correlations found between burnout and bullying behaviour had quite significantly higher values than the other subscales discussed before. EE and work-related bullying behaviour indicated a large positive correlation of ($r = 0.399$; $p = 0.000$). Personal-related bullying behaviour ($r = 0.353$; $p = 0.000$) also had a moderate (tending to large) positive correlation with EE. A moderate positive correlation was measured between EE and physical bullying behaviour ($r = 0.218$; $p = 0.002$). The correlations found between Dp and bullying behaviour exhibited the largest positive correlation coefficients for the NAQ-R. A positive correlation coefficient loaded between Dp and work-related bullying behaviour ($r = 0.456$; $p = 0.000$) as well as to personal-related bullying behaviour ($r = 0.376$; $p = 0.000$). Physical bullying behaviour ($r = 0.284$; $p = 0.000$) indicated a moderate positive weak correlation coefficient to Dp.

Table 4.71: Correlation Matrix: Burnout and bullying behaviour

CORRELATIONS BETWEEN BURNOUT AND BULLYING BEHAVIOUR					
			MBI		
SCALE	SUBSCALE		EE	PA	Dp
NEGATIVE ACTS QUESTIONNAIRE - REVISED	Work-related bullying behaviour	Correlation Coefficient	.399**	-.175*	.456**
		Sig. (2-tailed)	.000	.011	.000
		N	207	207	207
	Personal related bullying behaviour	Correlation Coefficient	.353**	-.191**	.376**
		Sig. (2-tailed)	.000	.006	.000
		N	207	207	207
	Physical bullying behaviour	Correlation Coefficient	.218**	-.061	.284**
		Sig. (2-tailed)	.002	.388	.000
		N	205	205	205

4.8. CORRELATION COEFFICIENTS BETWEEN OTHER VARIABLES

Because of the fact that 6 different scales were used during the data collection process and SEM was utilised in this research study, the correlation coefficients between all other variables will also be discussed in the following few pages. Please take note that only the moderate to high correlations with good statistical significance of ** will be elaborated upon.

4.8.1. The practice environment and structural empowerment

The correlations found between staffing and resource adequacy (Table 4.72) and all the subscales of structural empowerment ranged between moderate to strong correlations: access to resources ($r = 0.577$; $p = 0.000$) had the highest correlation to the subscale of staffing and resource adequacy. Access to support ($r = 0.471$; $p = 0.000$) also demonstrated a high positive correlation to staffing and resource adequacy, together with a moderate to high correlation to access to information ($r = 0.387$; $p = 0.000$). Finally, a moderate correlation coefficient value was found between staffing and resource adequacy and access to opportunity ($r = 0.290$; $p = 0.000$). The correlations between collegial relationships and structural empowerment included the following moderate correlations coefficients: collegial relationships and access to support ($r = 0.365$; $p = 0.000$); access to resources ($r = 0.344$; $p = 0.000$); access to information ($r = 0.274$; $p = 0.000$). Leadership and support again also had moderate to very high correlations towards the variables of structural empowerment: leadership and support and access to information ($r = 0.569$; $p = 0.000$); access to resources ($r = 0.518$; $p = 0.000$); access to information ($r = 0.411$; $p = 0.000$). A moderate correlation coefficient value of ($r = 0.316$; $p = 0.000$) was found between leadership and support and access to opportunity. The foundation for quality of care confirmed, with very high correlation coefficients, that optimum quality patient care can only be provided when personnel are structurally empowered. Last but not least, high positive correlation coefficients were found between participation in hospital affairs and the structural empowerment subscales. Participation in hospital affairs and access to support had the highest correlation ($r = 0.568$; $p = 0.000$), followed by

access to resources ($r = 0.522$; $p = 0.000$); access to information ($r = 0.467$; $p = 0.000$) and access to opportunity ($r = 0.438$; $p = 0.000$).

Table 4.72: Correlation matrix: The practice environment and structural empowerment

CORRELATIONS BETWEEN THE PRACTICE ENVIRONMENT AND STRUCTURAL EMPOWERMENT							
PES-NWI-R							
Scale	Subscale		Staffing and resource adequacy	Collegial relationships	Leadership and support	Foundation for quality care	Participation in hospital affairs
CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE - II	Access to opportunity	CC	.290**	.178*	.316**	.399**	.438**
		Sig. (2-tailed)	.000	.010	.000	.000	.000
		N	208	208	208	208	208
	Access to information	CC	.387**	.274**	.411**	.466**	.467**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	205	205	205	205	205
	Access to support	CC	.471**	.365**	.569**	.493**	.568**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	208	208	208	208	208
	Access to resources	CC	.577**	.344**	.518**	.538**	.522**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	207	207	207	207	207

4.8.2. The practice environment and psychological empowerment

Moderate positive correlations were found between staffing and resource adequacy and the psychological empowerment subscales: self-determination ($r = .253$; $p = 0.000$), impact ($r = 0.213$; $p = 0.002$) and meaning ($r = 0.211$; $p = 0.002$). Leadership and support also demonstrated moderate positive correlation coefficients towards self-determination ($r = 0.217$; $p = 0.002$) and impact ($r = 0.201$; $p = 0.004$) within the practice environment. When a foundation for quality care is present within the practice environment, it enhances the participants' sense of meaning ($r = 0.240$; $p = 0.000$), self-determination ($r = 0.240$; $p = 0.000$) and impact ($r = 0.207$; $p = 0.003$) within the CCU. Furthermore, when participants are allowed participate in hospital affairs, it increases their experience of impact ($r = 0.253$; $p = 0.000$), self-determination ($r = 0.250$; $p = 0.000$) and meaning ($r = 0.221$; $p = 0.001$) within their CCUs. Please see Table 4.73 for the correlation matrix between the practice environment and psychological empowerment.

Table 4.73: Correlation matrix: The practice environment and psychological empowerment

CORRELATIONS BETWEEN PRACTICE ENVIRONMENT AND PSYCHOLOGICAL EMPOWERMENT							
			PES–NWI–R				
Scale	Subscale		Staffing and resource adequacy	Collegial relationships	Leadership and support	Foundation for quality care	Participation in hospital affairs
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT	Meaning	CC	.211**	.060	.176*	.240**	.221**
		Sig. (2-tailed)	.002	.390	.011	.000	.001
		N	209	209	209	209	209
	Competence	CC	.017	.031	.068	.024	-.017
		Sig. (2-tailed)	.802	.655	.326	.732	.804
		N	209	209	209	209	209

CORRELATIONS BETWEEN PRACTICE ENVIRONMENT AND PSYCHOLOGICAL EMPOWERMENT							
			PES–NWI–R				
Scale	Subscale		Staffing and resource adequacy	Collegial relationships	Leadership and support	Foundation for quality care	Participation in hospital affairs
	Self-determination	CC	.253**	.090	.217**	.240**	.250**
		Sig. (2-tailed)	.000	.197	.002	.000	.000
		N	209	209	209	209	209
	Impact	CC	.213**	.106	.201**	.207**	.253**
		Sig. (2-tailed)	.002	.126	.004	.003	.000
		N	208	208	208	208	208

4.8.3. The practice environment and incivility

In Table 4.74, collegial and nurse/physician relationships indicated a strong negative correlation coefficient towards abusive physicians ($r = -0.493$; $p = 0.000$), together with a moderate negative correlation to hostile nurses ($r = -0.214$; $p = 0.002$). Abusive supervision ($r = -0.200$; $p = 0.004$) also demonstrated a moderate negative correlation with leadership and support. Quality patient care is also moderately negatively influenced in the presence of a hostile nursing environment ($r = -0.213$; $p = 0.002$).

Table 4.74: Correlation matrix: The practice environment and incivility

CORRELATIONS BETWEEN PRACTICE ENVIRONMENT AND INCIVILITY							
			PES-NWI-R				
Scale	Subscale		Staffing and resource adequacy	Collegial relationships	Leadership and support	Foundation for quality care	Participation in hospital affairs
NURSING INCIVILITY SCALE	Hostile general	CC	-.054	.013	.066	-.060	.024
		Sig. (2-tailed)	.435	.853	.341	.385	.732
		N	208	208	208	208	208
	Hostile nurses	CC	-.148*	-.214**	-.181**	-.213**	-.190**
		Sig. (2-tailed)	.032	.002	.009	.002	.006
		N	208	208	208	208	208
	Inappropriate jokes	CC	.014	-.099	-.002	-.044	-.059
		Sig. (2-tailed)	.839	.154	.976	.525	.398
		N	207	207	207	207	207
	Inconsiderate behaviour	CC	-.072	-.052	-.035	-.166*	-.087
		Sig. (2-tailed)	.302	.454	.618	.017	.211
		N	207	207	207	207	207
	Free riding	CC	-.030	-.057	-.042	-.095	-.017
		Sig. (2-tailed)	.664	.416	.547	.170	.802
		N	208	208	208	208	208
	Abuse supervisor	CC	-.076	-.086	-.200**	-.120	-.055
		Sig. (2-tailed)	.277	.219	.004	.085	.427
		N	207	207	207	207	207
	Abuse physician	CC	-.064	-.493**	-.132	-.110	-.120
		Sig. (2-tailed)	.360	.000	.059	.115	.086
		N	207	207	207	207	207

CORRELATIONS BETWEEN PRACTICE ENVIRONMENT AND INCIVILITY							
			PES-NWI-R				
Scale	Subscale		Staffing and resource adequacy	Collegial relationships	Leadership and support	Foundation for quality care	Participation in hospital affairs
	Lack of respect	CC	.004	-.148*	-.073	.007	-.015
		Sig. (2-tailed)	.960	.033	.293	.917	.835
		N	207	207	207	207	207
	Displaced frustration	CC	-.111	-.138*	-.186**	-.115	-.117
		Sig. (2-tailed)	.113	.047	.007	.098	.094
		N	207	207	207	207	207

4.8.4. The practice environment and bullying behaviour

Physical bullying behaviour demonstrated a moderate negative correlation coefficient ($r = -0.205$; $p = 0.003$) with respect to collegial relationships. Leadership and support correlated with all three subscales of the NAQ-R, and only moderate negative correlation coefficients were found: work-related bullying ($r = -0.276$; $p = 0.000$), physical bullying behaviour ($r = -0.213$; $p = 0.002$) and personal-related bullying behaviour ($r = -0.212$; $p = 0.002$). Quality of nursing care is, to a moderate extent, negatively influenced by work-related bullying ($r = -0.253$; $p = 0.000$). The participation within hospital affairs also demonstrated a moderate negative correlation towards work-related bullying behaviour ($r = -0.265$; $p = 0.000$) and personal-related bullying behaviour ($r = -0.235$; $p = 0.001$). (Please see Table 4.75.)

Table 4.75: Correlation Matrix: The practice environment and bullying behaviour

CORRELATIONS BETWEEN THE PRACTICE ENVIRONMENT AND BULLYING BEHAVIOUR							
			PES-NWI-R				
Scale	Subscale		Staffing and resource adequacy	Collegial relationships	Leadership and support	Foundation for quality care	Participation in hospital affairs
NEGATIVE ACTS QUESTIONNAIRE - REVISED	Work-related bullying behaviour	CC	-.181**	-.180**	-.276**	-.253**	-.265**
		Sig. (2-tailed)	.009	.009	.000	.000	.000
		N	207	207	207	207	207
	Personal-related bullying behaviour	CC	-.134	-.142*	-.212**	-.193**	-.235**
		Sig. (2-tailed)	.054	.042	.002	.005	.001
		N	207	207	207	207	207
	Physical bullying behaviour	CC	-.092	-.205**	-.213**	-.131	-.158*
		Sig. (2-tailed)	.189	.003	.002	.060	.024
		N	205	205	205	205	205

4.8.5. Structural empowerment and psychological empowerment

Table 4.76 shows that when CCNs have access to opportunity, this will enhance their sense of meaning within their CCUs ($r = .232$; $p = 0.001$). Likewise, when

participants have access to information, it demonstrates a moderate positive correlation towards the impact they might exercise within their units ($r = 0.212$; $p = 0.002$). The access to a support system also had positive correlations with two of the psychological empowerment subscales: self-determination ($r = 0.265$; $p = 0.000$) and impact ($r = 0.248$; $p = 0.000$). Lastly, access to resources also indicated a moderate positive correlation coefficient towards self-determination ($r = 0.266$; $p = 0.00$). It is interesting to note that not one of the subscales of structural empowerment had a statistically significant correlation coefficient to the subscale “competence” of psychological empowerment.

Table 4.76: Correlation matrix: Structural and psychological empowerment

CORRELATIONS BETWEEN STRUCTURAL AND PSYCHOLOGICAL EMPOWERMENT						
			CWEQ-II			
Scale	Subscale		Access to opportunity	Access to information	Access to support	Access to resources
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT	Meaning	CC	.232**	.080	.181**	.170*
		Sig. (2-tailed)	.001	.256	.009	.014
		N	208	205	208	207
	Competence	CC	-.003	.016	.062	.098
		Sig. (2-tailed)	.969	.816	.373	.158
		N	208	205	208	207
	Self-determination	CC	.078	.164*	.265**	.266**
		Sig. (2-tailed)	.264	.019	.000	.000
		N	208	205	208	207
	Impact	CC	.034	.212**	.248**	.196**
		Sig. (2-tailed)	.625	.002	.000	.005
		N	207	204	207	206

4.8.6. Structural empowerment and incivility

In Table 4.77, the highest moderate negative correlation between structural empowerment and incivility was seen in relation to access to resources and abusive supervision ($r = -0.250$; $p = 0.000$) and displaced frustration ($r = -0.240$; $p = 0.001$).

Table 4.77: Correlation matrix: Structural empowerment and incivility

CORRELATIONS BETWEEN STRUCTURAL EMPOWERMENT AND INCIVILITY						
			CWEQ-II			
Scale	Subscale		Access to opportunity	Access to information	Access to support	Access to resources
INCIVILITY	Hostile general	CC	.062	-.054	.000	-.063
		Sig. (2-tailed)	.378	.442	.998	.365
		N	207	204	207	206
	Hostile nurses	CC	-.072	-.126	-.080	-.123
		Sig. (2-tailed)	.301	.073	.253	.079
		N	207	204	207	206
	Inappropriate jokes	CC	-.053	-.186**	-.064	-.003
		Sig. (2-tailed)	.447	.008	.362	.969
		N	206	203	206	205
	Inconsiderate behaviour	CC	-.038	.044	.024	-.126
		Sig. (2-tailed)	.585	.529	.735	.072
		N	206	203	206	205
	Free riding	CC	-.063	.011	-.047	-.093
		Sig. (2-tailed)	.369	.875	.503	.182
		N	207	204	207	206
	Abusive	CC	-.023	-.093	-.177*	-.250**

CORRELATIONS BETWEEN STRUCTURAL EMPOWERMENT AND INCIVILITY						
			CWEQ-II			
Scale	Subscale		Access to opportunity	Access to information	Access to support	Access to resources
	supervisor	Sig. (2-tailed)	.746	.186	.011	.000
		N	206	203	206	205
	Abusive physician	CC	.050	-.025	-.103	-.099
		Sig. (2-tailed)	.479	.722	.140	.156
		N	206	203	206	205
	Lack of respect	CC	-.003	.020	-.046	-.055
		Sig. (2-tailed)	.967	.776	.510	.431
		N	206	203	206	205
	Displaced Frustration	CC	-.018	.037	-.173*	-.240**
		Sig. (2-tailed)	.799	.595	.013	.001
		N	206	203	206	205

4.8.7. Structural empowerment and bullying behaviour

The correlation coefficient between the access to resources and work-related bullying behaviour demonstrated the highest moderate correlation ($r = -0.306$; $p = 0.000$) and, to a lesser degree, to personal-related bullying behaviour ($r = -0.217$; $p = 0.002$). Access to support demonstrated a moderate negative correlation to work-related bullying behaviour ($r = -0.285$; $p = 0.000$) and personal-related bullying behaviour ($r = -0.270$; $p = 0.000$). Please see table 4.78.

Table 4.78: Correlation matrix: structural empowerment and bullying behaviour

CORRELATIONS BETWEEN STRUCTURAL EMPOWERMENT AND BULLYING BEHAVIOUR						
			CWEQ-II			
Scale	Subscale		Access to opportunity	Access to information	Access to support	Access to resources
NAQ-R	Work-related bullying behaviour	CC	-.091	-.141 [*]	-.285 ^{**}	-.306 ^{**}
		Sig. (2-tailed)	.195	.045	.000	.000
		N	206	203	206	205
	Personal-related bullying behaviour	CC	-.135	-.166 [*]	-.270 ^{**}	-.217 ^{**}
		Sig. (2-tailed)	.053	.018	.000	.002
		N	206	203	206	205
	Physical bullying behaviour	CC	-.001	-.061	-.133	-.121
		Sig. (2-tailed)	.994	.386	.057	.085
		N	204	201	204	203

4.8.8. Psychological empowerment and incivility

When evaluating table 4.79, no significant correlation coefficient between psychological empowerment and incivility was demonstrated.

Table 4.79: Correlation Matrix: Psychological empowerment and incivility

CORRELATIONS BETWEEN PSYCHOLOGICAL EMPOWERMENT AND INCIVILITY						
			PEI			
Scale	Subscale		Meaning	Compe- tence	Self- determination	Impact
NURSING INCIVILITY SCALE	Hostile general	CC	.071	.028	.054	.024
		Sig. (2-tailed)	.306	.689	.435	.731
		N	208	208	208	208
	Hostile nurses	CC	.021	.033	-.011	-.020
		Sig. (2-tailed)	.768	.633	.878	.779
		N	208	208	208	208
	Inappropriate jokes	CC	.133	.005	.105	.160 [*]
		Sig. (2-tailed)	.056	.946	.133	.021
		N	207	207	207	207
	Inconsiderate behaviour	CC	.069	.060	-.009	-.001
		Sig. (2-tailed)	.320	.390	.899	.991
		N	207	207	207	207
	Free riding	CC	.022	.092	.059	-.003
		Sig. (2-tailed)	.748	.185	.397	.967
		N	208	208	208	208
	Abusive supervisor	CC	-.054	-.075	-.064	.025
		Sig. (2-tailed)	.437	.282	.360	.721
		N	207	207	207	207
	Abusive physician	CC	.028	-.026	.056	.103
		Sig. (2-tailed)	.686	.710	.425	.140
		N	207	207	207	207

CORRELATIONS BETWEEN PSYCHOLOGICAL EMPOWERMENT AND INCIVILITY						
			PEI			
Scale	Subscale		Meaning	Compe- tence	Self- determination	Impact
	Lack of respect	CC	.021	-.082	-.007	.001
		Sig. (2-tailed)	.761	.239	.925	.990
		N	207	207	207	207
	Displaced frustration	CC	-.122	-.089	-.023	-.006
		Sig. (2-tailed)	.081	.201	.737	.931
		N	207	207	207	207

4.8.9. Psychological empowerment and bullying behaviour

As with incivility, psychological empowerment did not have any statistical significant correlation to bullying behaviour. (Please see Table 4.80.)

Table 4.80: Correlation Matrix: psychological empowerment and bullying behaviour

CORRELATIONS BETWEEN PSYCHOLOGICAL EMPOWERMENT AND BULLYING BEHAVIOUR						
			PEI			
Scale	Subscale		Meaning	Compe- tence	Self determi- nation	Impact
NAQ - R	Work-related bullying behaviour	CC	-.030	-.049	-.066	-.073
		Sig. (2-tailed)	.666	.485	.343	.298
		N	207	207	207	207
	Personal-related bullying behaviour	CC	-.095	-.108	-.083	-.118
		Sig. (2-tailed)	.172	.123	.232	.090
		N	207	207	207	207

CORRELATIONS BETWEEN PSYCHOLOGICAL EMPOWERMENT AND BULLYING BEHAVIOUR						
			PEI			
Scale	Subscale		Meaning	Compe- tence	Self determi- nation	Impact
	Physical bullying behaviour	CC	-.041	-.146*	.026	-.014
		Sig. (2-tailed)	.555	.037	.708	.843
		N	205	205	205	205

4.8.10. Incivility and bullying behaviour

All the subscales of incivility and bullying behaviour demonstrated weak to moderate correlation coefficients towards each other. Moderate to strong positive correlations exist between nurses being hostile and personal-related ($r = 0.439$; $p = 0.000$) work-related ($r = 0.384$; $p = 0.000$), and physical bullying behaviour ($r = 0.291$; $p = 0.000$). Inappropriate jokes correlated positively towards being bullied in the work place ($r = 0.278$; $p = 0.000$), personally ($r = 0.336$; $p = 0.000$) and physically ($r = 0.269$; $p = 0.000$). The highest correlation coefficients were found between abusive supervisor and the 3 subscales of the NAQ-R: abusive supervisor to personal-related bullying behaviour ($r = 0.413$; $p = 0.000$); abusive supervisor to physical bullying behaviour ($r = 0.407$; $p = 0.000$) and abusive supervisor to work-related bullying behaviour ($r = 0.345$; $p = 0.000$). Please see table 4.81 for all the correlation coefficients between incivility and bullying behavior

Table 4.81: Correlation Matrix: Incivility and bullying behaviour

CORRELATIONS BETWEEN INCIVILITY AND BULLYING BEHAVIOUR											
			NURSING INCIVILITY SCALE								
Scale	Subscale		Hostile general	Hostile nurses	Inappropriate jokes	Inconsiderate behaviour	Free riding	Abusive supervisor	Abusive physician	Lack of respect	Displaced frustration
NEGATIVE ACTS QUESTIONNAIRE - REVISED	Work-related bullying behaviour	CC	.199**	.384**	.278**	.282**	.247**	.345**	.264**	.286**	.336**
		Sig. (2-tailed)	.004	.000	.000	.000	.000	.000	.000	.000	.000
		N	207	207	206	206	207	206	207	207	207
	Personal bullying behaviour	CC	.196**	.439**	.336**	.305**	.302**	.413**	.235**	.289**	.309**
		Sig. (2-tailed)	.005	.000	.000	.000	.000	.000	.001	.000	.000
		N	207	207	206	206	207	206	207	207	207
	Physical bullying behaviour	CC	.108	.291**	.269**	.162*	.241**	.407**	.218**	.292**	.255**
		Sig. (2-tailed)	.122	.000	.000	.021	.001	.000	.002	.000	.000
		N	205	205	204	204	205	205	205	205	205

4.9. DEMOGRAPHIC DATA: SPEARMAN'S RANK CORRELATIONS

In the following section the correlations between certain demographic data and all the subscales measured will be discussed. Only correlation coefficients that are statistically and practically significant will be elaborated upon.

4.9.1. Demographic correlations and burnout

The “satisfaction with nursing career” had a moderate negative correlation with EE ($r = -0.344$; $p = 0.000$); thus, the more satisfied RNs were with their career choice, the less EE they experienced. Qualifications had a moderate positive correlation with EE ($r = 0.215$; $p = 0.003$), meaning that the more qualified the RNs were, the more EE they experienced. Satisfaction with nursing career ($r = -0.251$; $p = 0.000$) had a moderate negative correlation with Dp (Please see Table 4.82.)

Table 4.82: Correlation matrix: demographic data and burnout

DEMOGRAPHIC DATA								
Scale	Sub-scale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
MBI	EE	CC	-.020	-.058	.084	.136	-.344**	.215**
		Sig. (2-tailed)	.775	.419	.245	.070	.000	.003
		N	204	195	194	178	203	189
	PA	CC	-.038	.061	.032	.050	.017	-.040
		Sig. (2-tailed)	.591	.395	.662	.505	.807	.585
		N	204	195	194	178	203	189
	Dp	CC	-.076	-.099	.038	.067	-.251**	.188**
		Sig. (2-tailed)	.281	.168	.598	.377	.000	.010
		N	204	195	194	178	203	189

4.9.2. Demographic correlations and the practice environment

When interpreting the correlation coefficients between the demographic data obtained and the practice environment, the largest correlations were found between satisfaction with nursing and the practice environment. Satisfaction with nursing and “staffing and resource adequacy” had a moderate positive correlation between them ($r = 0.309$; $p = 0.000$). Satisfaction with nursing also had moderate positive correlation coefficients to participation in hospital affairs ($r = 0.265$; $p = 0.000$), leadership and support ($r = 0.246$; $p = 0.000$) and foundation for quality care ($r = 0.219$; $p = 0.002$). Please see table 4.83.

Table 4.83: Correlation matrix: demographic data and the practice environment

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
PES-NWI-R	Staffing and resource adequacy	CC	-.054	.078	-.167*	-.119	.309**	-.172*
		Sig. (2-tailed)	.447	.277	.020	.114	.000	.018
		N	204	195	194	178	203	189
	Collegial and nurse/physician relationships	CC	.031	-.072	-.040	.048	.135	-.041
		Sig. (2-tailed)	.660	.317	.583	.521	.055	.574
		N	204	195	194	178	203	189
	Leadership and support	CC	.058	-.026	-.018	.005	.246**	-.075
		Sig. (2-tailed)	.408	.715	.801	.946	.000	.306
		N	204	195	194	178	203	189
	Foundation for quality care	CC	.019	.126	-.117	-.065	.219**	-.123
		Sig. (2-tailed)	.787	.080	.103	.391	.002	.093
		N	204	195	194	178	203	189
	Participation in	CC	.025	.048	-.047	-.038	.265**	-.136

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
	hospital affairs	Sig. (2-tailed)	.728	.504	.514	.615	.000	.062
		N	204	195	194	178	203	189

4.9.3. Demographic correlations and structural empowerment

Evaluating the demographic data correlation coefficients in terms of structural empowerment, satisfaction with nursing demonstrated a moderate positive correlation to the access to resources ($r = 0.214$; $p = 0.002$). Please see Table 4.84 for the demographic data correlation coefficients to structural empowerment.

Table 4.84: Correlation Matrix: demographic data and structural empowerment

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
CWEQ-II	Access to opportunity	CC	-.028	-.017	-.037	-.123	.044	-.063
		Sig. (2-tailed)	.691	.809	.605	.104	.537	.389
		N	203	194	193	177	202	188
	Access to information	CC	.099	-.013	.010	.123	.143*	-.080
		Sig. (2-tailed)	.162	.859	.895	.105	.044	.279
		N	200	191	190	174	199	185
	Access to support	CC	-.034	.068	-.061	-.035	.116	-.182*
		Sig. (2-tailed)	.632	.349	.396	.644	.101	.012
		N	203	194	193	177	202	188

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
	Access to resources	CC	-.001	.049	-.108	-.047	.214**	-.166*
		Sig. (2-tailed)	.993	.499	.137	.536	.002	.024
		N	202	193	192	176	201	187

4.9.4. Demographic correlations and psychological empowerment

When evaluating Table 4.85, the age at which the RNs began their nursing careers had a moderate positive correlation to impact ($r = 0.259$; $p = 0.000$).

Table 4.85: Correlation matrix: demographic data and psychological empowerment

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
PEI	Meaning	CC	-.066	.058	-.091	-.071	.155*	.006
		Sig. (2-tailed)	.345	.424	.209	.343	.027	.939
		N	204	195	194	178	203	189
	Competence	CC	-.013	-.039	.035	.107	-.088	.111
		Sig. (2-tailed)	.855	.585	.633	.154	.212	.128
		N	204	195	194	178	203	189
	Self determination	CC	-.034	.189**	-.118	-.146	.053	.066
		Sig. (2-tailed)	.633	.008	.101	.052	.455	.365
		N	204	195	194	178	203	189
	Impact	CC	.024	.259**	-.058	-.038	.163*	-.021
		Sig. (2-tailed)	.737	.000	.422	.611	.020	.774
		N	204	195	194	178	203	189

4.9.5. Demographic correlations to incivility

The age when the participants began their nursing careers demonstrated a moderate positive correlation to abusive supervision ($r = 0.258$; $p = 0.000$). Please see Table 4.86.

Table 4.86: Correlation matrix: demographic data and incivility

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
NIS	Hostile general	CC	.110	-.048	.107	.118	-.083	.166*
		Sig. (2-tailed)	.119	.502	.137	.115	.239	.022
		N	204	195	194	178	203	189
	Hostile nurses	CC	-.029	.039	.052	.031	-.035	.136
		Sig. (2-tailed)	.675	.590	.468	.683	.616	.062
		N	204	195	194	178	203	189
	Inappropriate jokes	CC	-.052	.190**	-.098	-.088	.054	.015
		Sig. (2-tailed)	.464	.008	.177	.243	.442	.839
		N	203	194	193	177	202	188
	Inconsiderate behaviour	CC	-.016	-.084	.051	.098	.091	.047
		Sig. (2-tailed)	.823	.244	.481	.193	.197	.518
		N	203	194	193	177	202	188
	Free riding	CC	.048	.043	.024	.041	-.003	.087
		Sig. (2-tailed)	.498	.554	.738	.583	.963	.235
		N	204	195	194	178	203	189
	Abusive	CC	.041	.258**	-.023	-.052	.030	.012

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
	supervisor	Sig. (2-tailed)	.557	.000	.754	.489	.669	.874
		N	203	194	193	177	202	188
	Abusive physician	CC	.029	.036	.032	.006	.035	-.111
		Sig. (2-tailed)	.684	.613	.662	.937	.619	.130
		N	204	195	194	178	203	189
	Lack of respect	CC	.027	.194**	-.091	-.037	.054	.010
		Sig. (2-tailed)	.702	.007	.209	.624	.446	.889
		N	204	195	194	178	203	189
	Displaced frustration	CC	-.001	.097	-.015	.046	-.048	.084
		Sig. (2-tailed)	.991	.180	.831	.545	.494	.251
		N	204	195	194	178	203	189

4.9.6. Demographic correlations and bullying behaviour

The demographic correlation coefficients to bullying behaviour were, in general, not statistically significant in any way. Please see table 4.87.

Table 4.87: Correlation matrix: Demographic data and bullying behaviour

DEMOGRAPHIC DATA								
Scale	Subscale		Age in years	Age started nursing	Years as RN	Years in CCU	Satisfaction	Qualifications
NAQ-R	Work-related bullying behaviour	CC	-.003	.015	-.018	-.005	-.168*	.046
		Sig. (2-tailed)	.966	.831	.800	.947	.016	.526
		N	204	195	194	178	203	189
	Personal-related bullying behaviour	CC	-.042	.065	-.076	-.079	-.120	-.030
		Sig. (2-tailed)	.547	.366	.294	.297	.089	.686
		N	204	195	194	178	203	189
	Physical bullying behaviour	CC	-.014	.119	-.081	-.076	-.090	-.016
		Sig. (2-tailed)	.838	.098	.261	.316	.202	.825
		N	202	193	192	176	201	187

4.10. DEMOGRAPHIC DATA: T-TESTS AND ANOVAS

Due to the fact that not all participant demographic data could be analysed with correlation coefficients, some of the questions asked to the participants needed to be analysed differently. The independent-samples *t*-test was used to compare the mean score for two different groups of participants e.g. males and females, on some continuous variables. The one-way-between-groups ANOVA-test was used to analyse the marital status of the participants by evaluating the different mean values, *p*-values and effect size. When the *p*-value is less than, or equal to, 0.05 it provides an indication that there is a significant difference somewhere among the mean scores of the dependent variable from the 3 groups; namely, single, married or divorced (Pallant, 2010:253). The following guideline was used to determine the effect size (practical statistical significance): < than 0.38 = weak effect; > 0.38 to

0.69 = moderate effect and > 0.7 = a large effect. The *t*-tests will first be discussed, followed by the ANOVA test.

4.10.1. T-Tests

Independent-samples *t*-testing was done to compare the mean scores of the following demographic data:

4.10.1.1. Gender of participants

Referring to table 4.88, only access to support was statistically significant and had a small effect in practice between males and females, meaning that males felt that they had better access to support than females.

Table 4.88: T-test: Gender of participants

SUBSCALES	GENDER	N	MEAN	SD	P-VALUE	EFFECT SIZE
MASLACH BURNOUT INVENTORY						
Emotional Exhaustion	Male	23	22.40	14.288	0.563	0.13
	Female	181	24.22	12.378		
Personal accomplishment	Male	23	37.98	8.049	0.283	0.24
	Female	181	36.03	8.112		
Depersonalisation	Male	23	8.47	7.005	0.577	0.12
	Female	181	7.61	6.377		
PRACTICE ENVIRONMENT SCALE FOR NURSES WORK INDEX - REVISED						
Staffing and resource adequacy	Male	23	2.217	0.679	0.406	0.17
	Female	181	2.346	0.771		
Collegial and nurse/physician relationships	Male	23	2.479	0.869	0.991	0.00
	Female	181	2.481	0.760		
Leadership and support	Male	23	2.771	0.862	1.000	0.00
	Female	181	2.771	0.803		

SUBSCALES	GENDER	N	MEAN	SD	P-VALUE	EFFECT SIZE
Foundation for quality care	Male	23	2.943	0.583	0.805	0.05
	Female	181	2.911	0.592		
Participation in hospital affairs	Male	23	2.346	0.746	0.277	0.24
	Female	181	2.529	0.755		
CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE - II						
Access to opportunity	Male	23	16.00	3.08	0.966	0.01
	Female	180	15.96	3.66		
Access to information	Male	22	13.44	4.19	0.809	0.06
	Female	178	13.68	4.12		
Access to support	Male	23	14.36	2.60	0.014	0.38
	Female	180	12.72	4.24		
Access to resources	Male	23	11.88	3.87	0.965	0.01
	Female	180	11.92	4.08		
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT						
Meaning	Male	23	5.84	0.660	0.330	0.16
	Female	181	5.69	0.939		
Competence	Male	23	5.65	0.659	0.311	0.17
	Female	181	5.50	0.903		
Self determination	Male	23	4.92	0.937	0.996	0.00
	Female	181	4.92	1.117		
Impact	Male	23	4.79	1.008	0.282	0.21
	Female	181	4.54	1.198		
NURSING INCIVILITY SCALE						
Hostile general	Male	23	3.60	0.891	0.788	0.06
	Female	181	3.54	0.908		

SUBSCALES	GENDER	N	MEAN	SD	P-VALUE	EFFECT SIZE
Hostile nurses	Male	23	2.54	1.125	0.144	0.33
	Female	181	2.91	1.062		
Inappropriate jokes	Male	23	2.75	1.173	0.283	0.24
	Female	180	2.47	1.054		
Inconsiderate behaviour	Male	23	3.39	0.940	0.694	0.09
	Female	180	3.47	0.921		
Free riding	Male	23	2.65	1.046	0.337	0.20
	Female	181	2.88	1.115		
Abusive supervisor	Male	23	1.80	0.930	0.196	0.27
	Female	180	2.07	1.038		
Abusive physician	Male	23	2.91	1.109	0.364	0.20
	Female	181	3.14	1.096		
Lack of respect	Male	23	2.24	0.772	0.326	0.19
	Female	181	2.42	0.933		
Displaced frustration	Male	23	3.15	1.071	0.806	0.05
	Female	181	3.21	1.027		
NEGATIVE ACTS QUESTIONNAIRE - REVISED						
Work-related bullying behaviour	Male	23	1.75	0.634	0.905	0.03
	Female	181	1.76	0.673		
Personal-related bullying behaviour	Male	23	1.49	0.624	0.513	0.14
	Female	181	1.58	0.671		
Physical bullying behaviour	Male	23	1.42	0.440	0.392	0.13

4.10.1.2. Nursing as a first career choice

In Table 4.89, a borderline statistical significant difference was found in the mean PA scores for nursing being a first career choice and nursing not being a first career choice, but with a small effect in practice.

Table 4.89: T-test: Nursing as a first career choice

NURSING AS A FIRST CAREER CHOICE		N	MEAN	SD	P-VALUE	EFFECT SIZE
MASLACH BURNOUT INVENTORY						
Emotional Exhaustion	Yes	118	24.16	13.043	.785	0.04
	No	84	23.68	12.009		
Personal accomplishment	Yes	118	35.48	8.607	.053	0.25
	No	84	37.62	6.968		
Depersonalisation	Yes	118	7.88	6.818	.605	0.07
	No	84	7.41	5.971		
PRACTICE ENVIRONMENT SCALE FOR NURSES WORK INDEX - REVISED						
Staffing and resource adequacy	Yes	118	2.41	0.792	.066	0.25
	No	84	2.22	0.710		
Collegial and nurse/physician relationships	Yes	118	2.50	0.788	.705	0.05
	No	84	2.46	0.743		
Leadership and support	Yes	118	2.87	0.757	.078	0.24
	No	84	2.66	0.846		
Foundation for quality care	Yes	118	2.95	0.575	.370	0.13
	No	84	2.87	0.603		
Participation in hospital affairs	Yes	118	2.58	0.776	.127	0.21
	No	84	2.42	0.711		

NURSING AS A FIRST CAREER CHOICE		N	MEAN	SD	P-VALUE	EFFECT SIZE
CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE						
Access to opportunity	Yes	118	4.04	0.970	.339	0.12
	No	83	3.92	0.781		
Access to information	Yes	116	3.45	1.072	.605	0.07
	No	82	3.37	0.976		
Access to support	Yes	118	3.20	1.050	.601	0.07
	No	83	3.27	1.010		
Access to resources	Yes	117	2.99	1.065	.934	0.01
	No	83	2.98	0.928		
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT						
Meaning	Yes	118	5.73	0.979	0.967	0.00
	No	84	5.72	0.696		
Competence	Yes	118	5.47	0.958	0.161	0.17
	No	84	5.63	0.654		
Self-determination	Yes	118	4.92	1.123	0.885	0.02
	No	84	4.94	1.004		
Impact	Yes	118	4.61	1.291	0.703	0.05
	No	84	4.55	0.991		
NURSING INCIVILITY SCALE						
Hostile general	Yes	118	3.58	0.907	.778	0.04
	No	84	3.55	0.855		
Hostile nurses	Yes	118	2.88	1.107	.760	0.04
	No	84	2.83	1.017		
Inappropriate jokes	Yes	117	2.48	1.069	.666	0.06
	No	84	2.54	1.071		

NURSING AS A FIRST CAREER CHOICE		N	MEAN	SD	P-VALUE	EFFECT SIZE
Inconsiderate behaviour	Yes	117	3.43	0.929	.659	0.06
	No	84	3.48	0.908		
Free riding	Yes	118	2.81	1.179	.525	0.08
	No	84	2.90	0.999		
Abusive supervisor	Yes	118	2.05	1.084	.632	0.06
	No	83	1.98	0.902		
Abusive physician	Yes	118	3.19	1.166	.284	0.14
	No	84	3.03	0.982		
Lack of respect	Yes	118	2.45	0.963	.211	0.16
	No	84	2.30	0.827		
Displaced frustration	Yes	118	3.16	1.078	.543	0.08
	No	84	3.25	0.955		
NEGATIVE ACTS QUESTIONNAIRE - REVISED						
Work-related bullying behaviour	Yes	118	1.77	0.688	.541	0.08
	No	84	1.72	0.626		
Personal-related bullying behaviour	Yes	118	1.59	0.691	.333	0.13
	No	84	1.51	0.574		
Physical bullying behaviour	Yes	117	1.55	0.764	.057	0.08
	No	83	1.39	0.424		

4.10.1.3. *Being critical-care trained or experienced*

EE was statistically significant, but had a small effect in practice between being critical care trained and critical-care experienced. Although moderate levels of EE are experienced by both groups, the mean value of the trained CCNs is higher than being critical-care experienced. Dp was also, statistically, significantly different, but

also with minimal practical value. Critical-care trained participants experience Dp at a higher level than critical-care experienced participants. Staffing and resource adequacy indicated both statistical and practical significance between being critical care trained and experienced participants. Critical-care trained participants experience inadequate staffing and resource adequacy as being less acceptable than critical care experienced RNs do. The “foundation for quality care” indicated theoretical and practical statistical significance between being critical-care trained or experienced. Critical-care experienced participants agreed more often with the fact that quality care is provided within their units than critical care trained participants did. To conclude, the critical-care trained participants experienced higher levels of feeling competent than experienced participants with practical value being confirmed. Please see Table 4.90.

Table 4.90: 7-test: Critical Care Trained or Experienced

TRAINED OR EXPERIENCED		N	MEAN	SD	P-VALUE	EFFECT SIZE
MASLACH BURNOUT INVENTORY						
Emotional Exhaustion	Trained	85	26.82	12.830	.008	0.38
	Experienced	111	22.00	12.145		
Personal accomplishment	Trained	85	35.73	8.611	.411	0.11
	Experienced	111	36.71	7.710		
Depersonalisation	Trained	85	9.00	6.822	.010	0.36
	Experienced	111	6.56	5.942		
PRACTICE ENVIRONMENT SCALE FOR NURSES WORK INDEX - REVISED						
Staffing and resource adequacy	Trained	85	2.14	0.636	.002	0.41
	Experienced	111	2.47	0.794		
Collegial and nurse/physician relationships	Trained	85	2.39	0.764	.268	0.16
	Experienced	111	2.51	0.769		
Leadership and support	Trained	85	2.71	0.797	.406	0.12
	Experienced	111	2.80	0.804		
Foundation for quality	Trained	85	2.76	0.569	.002	0.44

Trained or Experienced		N	Mean	SD	P-value	Effect Size
Care	Experienced	111	3.02	0.579		
Participation in hospital affairs	Trained	85	2.37	0.692	.020	0.32
	Experienced	111	2.61	0.766		
Conditions for Work Effectiveness Questionnaire						
Access to opportunity	Trained	85	15.40	3.83	.074	0.25
	Experienced	110	16.32	3.41		
Access to information	Trained	84	13.88	4.13	.536	0.09
	Experienced	108	13.48	4.08		
Access to support	Trained	85	12.64	4.08	.284	0.15
	Experienced	110	13.24	4.11		
Access to resources	Trained	84	11.20	3.72	.046	0.27
	Experienced	110	12.32	4.18		
Psychological Empowerment Instrument						
Meaning	Trained	85	5.75	0.892	.491	0.10
	Experienced	111	5.66	0.925		
Competence	Trained	85	5.71	0.798	.005	0.38
	Experienced	111	5.36	0.913		
Self determination	Trained	85	5.00	1.137	.199	0.18
	Experienced	111	4.80	1.031		
Impact	Trained	85	4.72	1.307	.148	0.19
	Experienced	111	4.47	1.067		
Nursing Incivility Scale						
Hostile general	Trained	85	3.65	0.801	.102	0.21
	Experienced	111	3.44	0.984		
Hostile nurses	Trained	85	2.93	1.039	.408	0.11
	Experienced	111	2.80	1.114		
Inappropriate jokes	Trained	85	2.33	0.972	.087	0.23
	Experienced	111	2.59	1.120		

TRAINED OR EXPERIENCED		N	MEAN	SD	P-VALUE	EFFECT SIZE
Inconsiderate behaviour	Trained	85	3.47	0.978	.831	0.03
	Experienced	111	3.44	0.902		
Free riding	Trained	85	2.87	1.100	.604	0.07
	Experienced	111	2.79	1.107		
Abusive supervisor	Trained	85	1.93	1.041	.375	0.13
	Experienced	110	2.06	0.982		
Abusive physician	Trained	85	3.16	1.076	.692	0.06
	Experienced	111	3.10	1.133		
Lack of respect	Trained	85	2.24	0.988	.048	0.27
	Experienced	111	2.50	0.854		
Displaced frustration	Trained	85	3.24	0.996	.624	0.07
	Experienced	111	3.16	1.074		
NEGATIVE ACTS QUESTIONNAIRE - REVISED						
Work-related bullying behaviour	Trained	85	1.68	0.547	.208	0.16
	Experienced	111	1.80	0.706		
Personal-related bullying behaviour	Trained	85	1.45	0.481	.027	0.26
	Experienced	111	1.64	0.740		
Physical bullying behaviour	Trained	85	1.40	0.615	.107	0.22
	Experienced	109	1.55	0.673		

4.10.1.4. *Permanent employment*

Participants who are not permanently employed experienced that they have more access to resources than permanently employed participants with good theoretical and practical significance. Please see table 4.91.

Table 4.91: T-test: Permanent employment or not

PERMANENT EMPLOYMENT OR NOT		N	MEAN	STD. DEVIATION	P-VALUE	EFFECT SIZES
MASLACH BURNOUT INVENTORY						
Emotional exhaustion	Permanently employed	151	24.87	12.691	.096	0.26
	Not permanently employed	53	21.59	12.054		
Personal accomplishment	Permanently employed	151	36.36	7.735	.769	0.05
	Not permanently employed	53	35.94	9.163		
Depersonalisation	Permanently employed	151	8.30	6.451	.023	0.36
	Not permanently employed	53	6.00	6.146		
PRACTICE ENVIRONMENT SCALE FOR NURSES WORK INDEX - REVISED						
Staffing and resource adequacy	Permanently employed	151	2.26	0.720	.038	0.33
	Not permanently employed	53	2.53	0.843		
Collegial relationships	Permanently employed	151	2.42	0.778	.060	0.29
	Not permanently employed	53	2.64	0.730		
Leadership and support	Permanently employed	151	2.70	0.812	.039	0.32
	Not permanently employed	53	2.96	0.772		
Foundation for quality care	Permanently employed	151	2.86	0.575	.067	0.29
	Not permanently employed	53	3.04	0.616		
Participation in hospital affairs	Permanently employed	151	2.47	0.723	.259	0.18
	Not permanently employed	53	2.61	0.834		
CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE						
Access to opportunity	Permanently employed	151	15.84	3.74	.364	0.13
	Not permanently employed	52	16.32	3.13		
Access to information	Permanently employed	148	13.44	4.01	.293	0.17
	Not permanently employed	52	14.20	4.42		
Access to support	Permanently employed	151	12.88	3.99	.789	0.04
	Not permanently employed	52	13.04	4.51		
Access to resources	Permanently employed	150	11.40	3.99	.002	0.50
	Not permanently employed	52	13.36	3.90		

PERMANENT EMPLOYMENT OR NOT		N	MEAN	STD. DEVIATION	P-VALUE	EFFECT SIZES
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT						
Meaning	Permanently employed	151	5.72	0.881	.753	0.05
	Not permanently employed	53	5.67	1.003		
Competence	Permanently employed	151	5.49	0.854	.515	0.10
	Not permanently employed	53	5.59	0.951		
Self-determination	Permanently employed	151	4.91	1.024	.772	0.04
	Not permanently employed	53	4.96	1.289		
Impact	Permanently employed	151	4.62	1.159	.317	0.16
	Not permanently employed	53	4.43	1.231		
NURSING INCIVILITY SCALE						
Hostile general	Permanently employed	151	3.53	0.877	.564	0.09
	Not permanently employed	53	3.61	0.984		
Hostile nurses	Permanently employed	151	2.84	1.038	.535	0.10
	Not permanently employed	53	2.96	1.174		
Inappropriate jokes	Permanently employed	151	2.39	0.988	.030	0.34
	Not permanently employed	52	2.81	1.232		
Inconsiderate behaviour	Permanently employed	151	3.55	0.842	.036	0.33
	Not permanently employed	52	3.20	1.086		
Free riding	Permanently employed	151	2.85	1.066	.960	0.01
	Not permanently employed	53	2.86	1.227		
Abusive supervisor	Permanently employed	151	2.06	1.000	.658	0.07
	Not permanently employed	52	1.98	1.113		
Abusive physician	Permanently employed	151	3.14	1.094	.542	0.10
	Not permanently employed	53	3.03	1.114		
Lack of respect	Permanently employed	151	2.36	0.875	.341	0.15
	Not permanently employed	53	2.51	1.026		
Displaced frustration	Permanently employed	151	3.26	1.013	.205	0.20
	Not permanently employed	53	3.04	1.071		

PERMANENT EMPLOYMENT OR NOT		N	MEAN	STD. DEVIATION	P-VALUE	EFFECT SIZES
NEGATIVE ACTS QUESTIONNAIRE - REVISED						
Work-related bullying behaviour	Permanently employed	151	1.76	0.592	.948	0.01
	Not permanently employed	53	1.76	0.855		
Personal-related bullying behaviour	Permanently employed	151	1.54	0.580	.340	0.14
	Not permanently employed	53	1.67	0.863		
Physical bullying behaviour	Permanently employed	151	1.47	0.537	.508	0.10
	Not permanently employed	51	1.56	0.922		

4.10.2. ANOVA test: Marital status of participants

A one-way between-groups analysis of variance was conducted to explore the impact of marital status on the levels of burnout (MBI), experience of the practice environment (PES-NWI-R) being structurally (CWEQ-II) and psychologically empowered (PEI), and the experience of incivility (NIS) and bullying behaviour (NAQ-R). Marital status was divided into 5 groups but, because of the low response rate to being separated and being widowed, those two groups were excluded. The 3 groups left included being single, married or divorced. Although theoretical statistical significance between marital status and EE was not found, it had a moderate effect in practice where participants being married were more EE than those who were divorced. On the other hand, the theoretical statistical significance between marital status and PA was found at a *p*-value of 0.021, with divorced participants having moderately higher levels of PA than single and married participants. Although no statistical significance could be found in access to opportunity, a moderate effect size was found. This indicated that divorced participants reported that they were more exposed to opportunities than single or married ones. Although a moderate practical significance was found between abusive supervision and being single or divorced, no statistical significance could be provided. This indicates that participants who are divorced reported that they experience more uncivil behaviour towards them from

their direct supervisor within the practice environment than single participants. Please refer to Table 4.92.

Table 4.92: ANOVA: Marital status of participants

MARITAL STATUS		N	MEAN	SD	P-VALUE	EFFECT SIZE	
						1 with	2 with
MASLACH BURNOUT INVENTORY							
Emotional Exhaustion	Single	72	23.65	11.443			
	Married	87	25.23	12.874		0.12	
	Divorced	29	20.13	12.494	0.155	0.28	0.40
	Total	188	23.84	12.343			
Personal Accomplishment	Single	72	35.54	6.725			
	Married	87	36.10	8.858		0.06	
	Divorced	29	40.20	6.496	0.021	0.69	0.46
	Total	188	36.52	7.882			
Depersonalisation	Single	72	7.83	6.274			
	Married	87	7.54	6.446		0.05	
	Divorced	29	6.93	6.267	0.810	0.14	0.10
	Total	188	7.56	6.327			
PRACTICE ENVIRONMENT SCALE FOR NURSES WORK INDEX - REVISED							
Staffing and resource adequacy	Single	72	2.34	0.699			
	Married	87	2.27	0.773		0.08	
	Divorced	29	2.40	0.797	0.700	0.08	0.16
	Total	188	2.32	0.747			
Collegial relationships	Single	72	2.56	0.668			
	Married	87	2.40	0.873		0.18	
	Divorced	29	2.58	0.739	0.355	0.02	0.20
	Total	188	2.49	0.780			

MARITAL STATUS		N	MEAN	SD	P-VALUE	EFFECT SIZE	
						1 with	2 with
Leadership and support	Single	72	2.81	0.734			
	Married	87	2.70	0.867		0.13	
	Divorced	29	2.81	0.835	0.655	0.00	0.13
	Total	188	2.76	0.811			
Foundation for quality care	Single	72	2.91	0.582			
	Married	87	2.87	0.605		0.05	
	Divorced	29	3.00	0.519	0.595	0.17	0.21
	Total	188	2.91	0.582			
Participation in hospital affairs	Single	72	2.56	0.734			
	Married	87	2.44	0.789		0.16	
	Divorced	29	2.52	0.688	0.571	0.06	0.11
	Total	188	2.50	0.752			
CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE - II							
Access to opportunity	Single	72	15.72	3.69			
	Married	86	15.64	3.63		0.01	
	Divorced	29	17.36	2.65	0.064	0.45	0.47
	Total	187	15.92	3.56			
Access to information	Single	70	13.00	4.22			
	Married	86	13.68	3.85		0.16	
	Divorced	28	14.00	4.32	0.462	0.23	0.07
	Total	184	13.48	4.06			
Access to support	Single	72	13.44	3.66			
	Married	86	12.16	4.10		0.31	
	Divorced	29	13.08	4.71	0.141	0.08	0.19
	Total	187	12.80	4.06			

MARITAL STATUS		N	MEAN	SD	P-VALUE	EFFECT SIZE	
						1 with	2 with
Access to resources	Single	71	12.36	4.00			
	Married	86	11.44	3.94		0.23	
	Divorced	29	12.56	3.96	0.232	0.06	0.29
	Total	186	11.96	3.98			
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT							
Meaning	Single	72	5.65	0.756			
	Married	87	5.75	1.003		0.10	
	Divorced	29	5.75	1.147	0.788	0.09	0.00
	Total	188	5.71	0.937			
Competence	Single	72	5.50	0.762			
	Married	87	5.54	0.921		0.03	
	Divorced	29	5.41	1.122	0.807	0.09	0.11
	Total	188	5.50	0.895			
Self-determination	Single	72	4.84	1.158			
	Married	87	4.94	1.119		0.09	
	Divorced	29	4.98	1.029	0.782	0.13	0.04
	Total	188	4.91	1.117			
Impact	Single	72	4.45	1.159			
	Married	87	4.72	1.237		0.22	
	Divorced	29	4.60	0.990	0.359	0.13	0.10
	Total	188	4.60	1.173			
NURSING INCIVILITY SCALE							
Hostile general	Single	72	3.61	0.791			
	Married	87	3.49	1.025		0.12	
	Divorced	29	3.68	0.840	0.527	0.09	0.19

MARITAL STATUS		N	MEAN	SD	P-VALUE	EFFECT SIZE	
						1 with	2 with
	Total	188	3.56	0.912			
Hostile nurses	Single	72	3.07	1.075			
	Married	87	2.71	1.134		0.32	
	Divorced	29	2.94	0.903	0.106	0.12	0.20
	Total	188	2.88	1.086			
Inappropriate Jokes	Single	72	2.67	1.071			
	Married	87	2.45	1.065		0.21	
	Divorced	28	2.58	1.124	0.425	0.08	0.12
	Total	187	2.55	1.075			
Inconsiderate behaviour	Single	72	3.49	0.891			
	Married	87	3.42	0.959		0.07	
	Divorced	28	3.47	0.928	0.898	0.03	0.04
	Total	187	3.45	0.924			
Free riding	Single	72	3.00	1.060			
	Married	87	2.70	1.221		0.24	
	Divorced	29	3.04	0.958	0.173	0.04	0.28
	Total	188	2.87	1.129			
Abusive supervisor	Single	71	1.84	0.853			
	Married	87	2.03	1.061		0.18	
	Divorced	29	2.33	1.077	0.083	0.45	0.27
	Total	187	2.01	0.998			
Abusive physician	Single	72	3.14	1.072			
	Married	87	3.11	1.159		0.03	
	Divorced	29	3.15	1.075	0.981	0.00	0.03
	Total	188	3.13	1.108			

MARITAL STATUS		N	MEAN	SD	P-VALUE	EFFECT SIZE	
						1 with	2 with
Lack of respect	Single	72	2.27	0.777			
	Married	87	2.44	1.007		0.17	
	Divorced	29	2.52	1.050	0.363	0.24	0.07
	Total	188	2.39	0.933			
Displaced Frustration	Single	72	3.16	0.918			
	Married	87	3.22	1.139		0.05	
	Divorced	29	3.29	0.992	0.847	0.13	0.06
	Total	188	3.21	1.032			
NEGATIVE ACTS QUESTIONNAIRE - REVISED							
Work-related bullying behaviour	Single	72	1.67	0.563			
	Married	87	1.78	0.656		0.17	
	Divorced	29	1.83	0.766	0.421	0.20	0.06
	Total	188	1.75	0.640			
Personal-related bullying behaviour	Single	72	1.54	0.593			
	Married	87	1.53	0.611		0.02	
	Divorced	29	1.76	0.859	0.245	0.25	0.26
	Total	188	1.57	0.650			
Physical bullying behaviour	Single	71	1.41	0.462			
	Married	87	1.50	0.646		0.15	
	Divorced	29	1.63	0.847	0.248	0.27	0.15
	Total	187	1.49	0.622			

4.11. STRUCTURAL EQUATION MODELLING BETWEEN ALL SCALES AND THE MBI

The standardised regression weights, p -values, and goodness of fit between all the scales (PES-NWI-R, CWEQ-II, PEI, NIS and NAQ-R) and the MBI will be elaborated on in the next few pages. The SEM will be discussed first, and thereafter the standardised regression weights, p -values and goodness of fit between each scale and the MBI will be discussed.

4.11.1. Standardised regression weights and p -values of SEM

When evaluating the standard regression weights and p -values of all the scales against the MBI in Table 4.93, no statistical significance was found.

Table 4.93: Standardised regression weights and p -values of SEM

			Standardised regression weights	p -values
MBI: EE	<---	PES-NWI-R	5.999	.146
MBI: EE	<---	CWEQ-II	-6.554	.121
MBI: EE	<---	PEI	-.106	.785
MBI: EE	<---	NIS	.651	.224
MBI: EE	<---	NAQ-R	-.650	.340
MBI: PA	<---	PES-NWI-R	-2.829	.188
MBI: PA	<---	CWEQ-II	3.016	.171
MBI: PA	<---	PEI	.335	.110
MBI: PA	<---	NIS	-.128	.636
MBI: PA	<---	NAQ-R	.237	.494
MBI: Dp	<---	PES-NWI-R	9.380	.162
MBI: Dp	<---	CWEQ-II	-9.879	.150
MBI: Dp	<---	PEI	-.081	.889
MBI: Dp	<---	NIS	.854	.298
MBI: Dp	<---	NAQ-R	-.922	.388

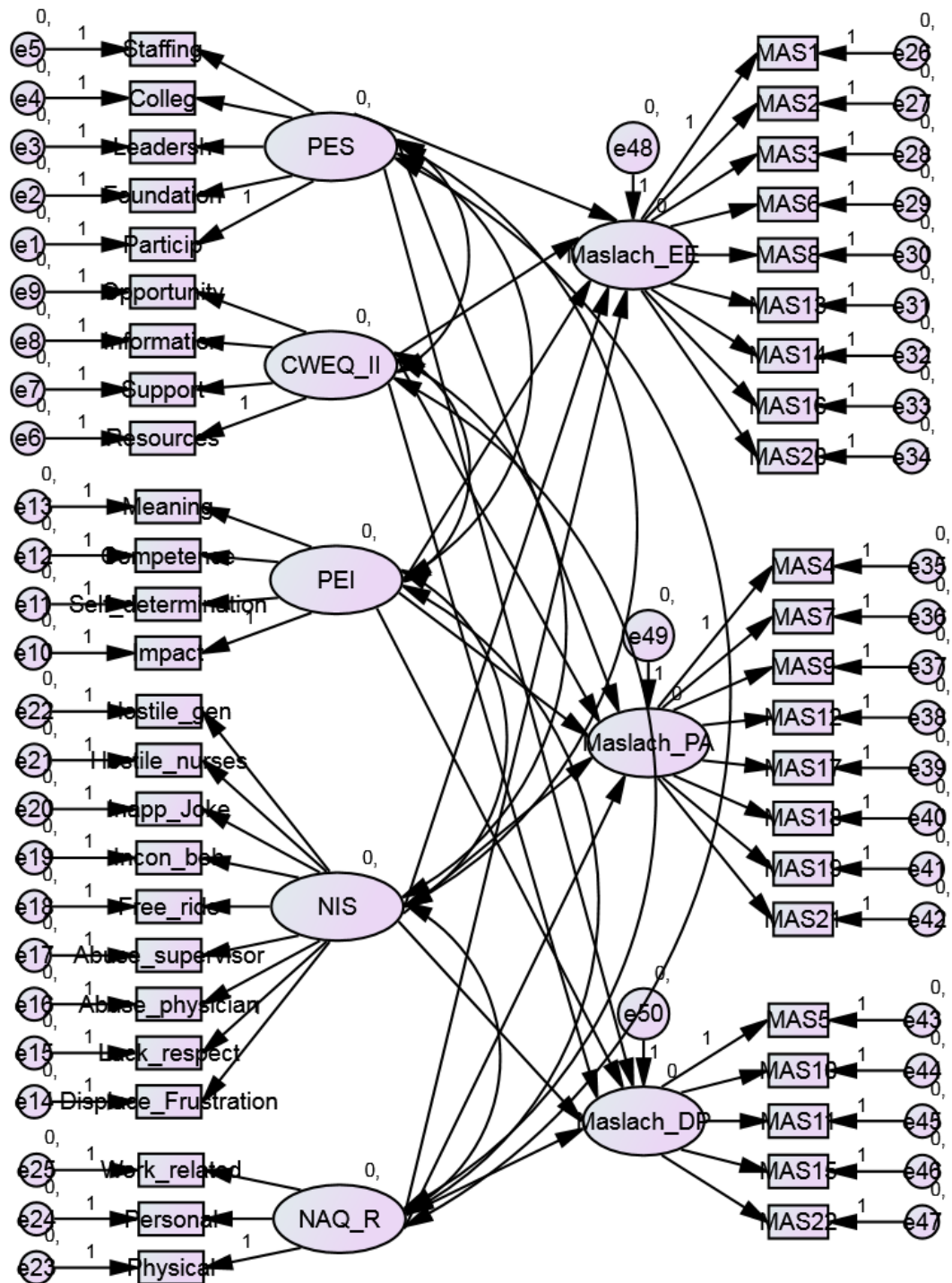


Figure 4.21: Pattern matrix of all scales and the MBI

4.11.2. Correlation coefficients of SEM

The highest correlation coefficients were found between the practice environment and structural empowerment (.991). This means that the two instruments are similar, and because of this high correlation, relationships between all the instruments are suppressed in such a way that the effect of each on burnout is not very clear. The lowest correlation was loaded between psychological empowerment and incivility (.040).

Table 4.94: Correlation coefficients of SEM

			Correlation coefficient	<i>p</i> -value
PES-NWI-R	<-->	CWEQ-II	.991	***
PES-NWI-R	<-->	PEI	.299	***
PES-NWI-R	<-->	NIS	-.193	.022
NAQ-R	<-->	PES	-.262	.001
CWEQ-II	<-->	PEI	.294	.004
CWEQ-II	<-->	NIS	-.193	.043
NAQ-R	<-->	CWEQ-II	-.340	***
PEI	<-->	NIS	.040	.628
NAQ-R	<-->	PEI	-.074	.353
NAQ-R	<-->	NIS	.564	***

4.11.3. Measures of goodness of fit model: SEM

Regarding the goodness of fit model, acceptable measures of fit were found. See table 4.95.

However, the suppression effect caused by the high correlation values between the practice environment and structural empowerment necessitates that each scale should be evaluated against burnout separately.

Table 4.95: Measure of goodness of fit model: SEM

	Goodness of Fit Values	SEM
CMIN/DF	2 - 5	1.810
CFI	>0.9	0.817
RMSEA 95% CI	< 0.1	0.062 (0.058 – 0.067)

4.11.4. Standardised regression weights and *p*-values of the PES-NWI-R and the MBI

The strongest link was found between EE (-.505) and the PES-NWI-R. These standardised regression weights indicate that when the practice environment is positive, the experience of EE and Dp decreases, and PA increases. Please see Table 4.96 and Figure 4.22.

Table 4.96: Standardised regression weights and *p*-values of the PES-NWI-R and MBI

			Standardised regression weights	<i>p</i> -value
MBI: EE	<---	PES-NWI-R	-.505	***
MBI: PA	<---	PES-NWI-R	.207	.021
MBI: Dp	<---	PES-NWI-R	-.399	***

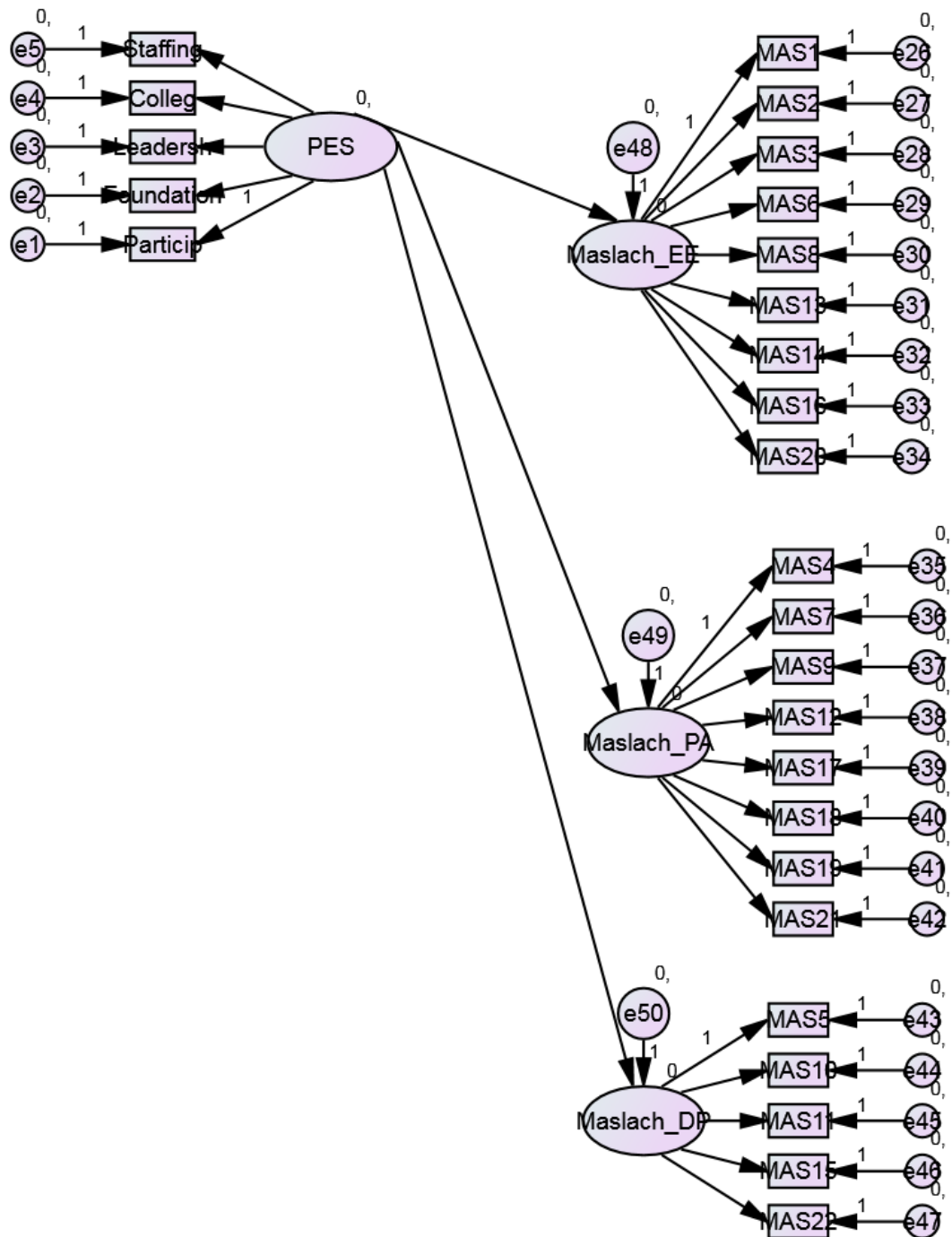


Figure 4.22: Pattern Matrix of the PES-NWI-R and the MBI

4.11.5. Measure of goodness of fit model for the PES-NWI-R and the MBI

When evaluating Table 4.97, an acceptable CMIN/DF of 2.173 was found, with a reasonable CFI of 0.846. Together with the RMSEA of 0.075, all values were acceptable for a good model fit between the PES-NWI-R and the MBI.

Table 4.97: Measures of goodness of fit model: PES-NWI-R and the MBI

	Goodness of Fit Values	PES-NWI-R AND THE MBI
CMIN/DF	2 - 5	2.173
CFI	> 0.9	0.846
RMSEA 95% CI	< 0.1	0.075 (0.067; 0.083)

4.11.6. Standardised regression weights and *p*-values of the CWEQ-II and the MBI

The strongest link was found between EE (-.691) and CWEQ-II. This implies that when structural empowerment is in place, CCNs experience less EE and Dp, and experience higher levels of PA. Please see the table below and Figure 4.23.

Table 4.98 Standardised regression weights: CWEQ-II and the MBI

			Standardised regression weights	<i>p</i> -value
MBI: EE	<---	CWEQ_II	-.691	***
MBI: PA	<---	CWEQ_II	.411	***
MBI: Dp	<---	CWEQ_II	-.659	***

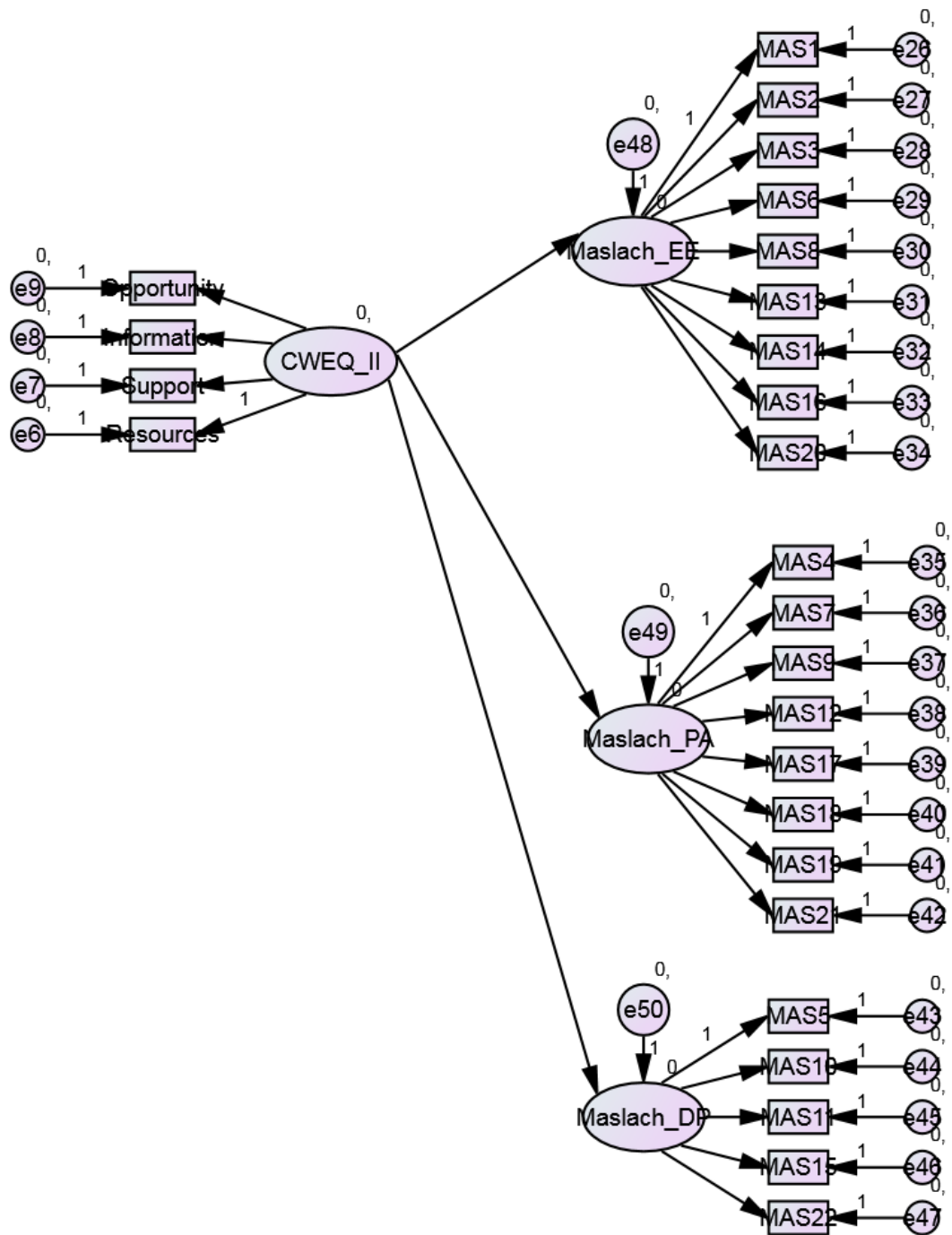


Figure 4.23: Pattern Matrix of the CWEQ-II and the MBI

4.11.7. Measures of goodness of fit model of the CWEQ-II and the MBI

When evaluating Table 4.99, an acceptable CMIN/DF of 2.196 was found, with a reasonable CFI of 0.825. Together with the RMSEA of 0.076, all values were acceptable for a good model fit between the CWEQ-II and the MBI.

Table 4.99: Measures of goodness of fit model: CWEQ-II and the MBI

	ACCEPTABLE VALUES	CWEQ-II AND THE MBI
CMIN/DF	2 - 5	2.196
CFI	> 0.9	0.825
RMSEA 95% CI	< 0.1	0.076 (0.068 - 0.084)

4.11.8. Standardised regression weights: PEI and MBI

The strongest link was found between PA (.369) and the PEI. This implies that being psychologically empowered positively influences the experience of PA. In Table 4.100, it is thus clear that Dp are not influenced by the experience of psychological empowerment. Please also see Figure 4.24.

Table 4.100: Standardised regression weights and *p*-values of the PEI and MBI

			Standardised Correlation weights	<i>p</i> -value
MBI: EE	<---	PEI	-.192	.019
MBI: PA	<---	PEI	.369	.001
MBI: Dp	<---	PEI	-.124	.157

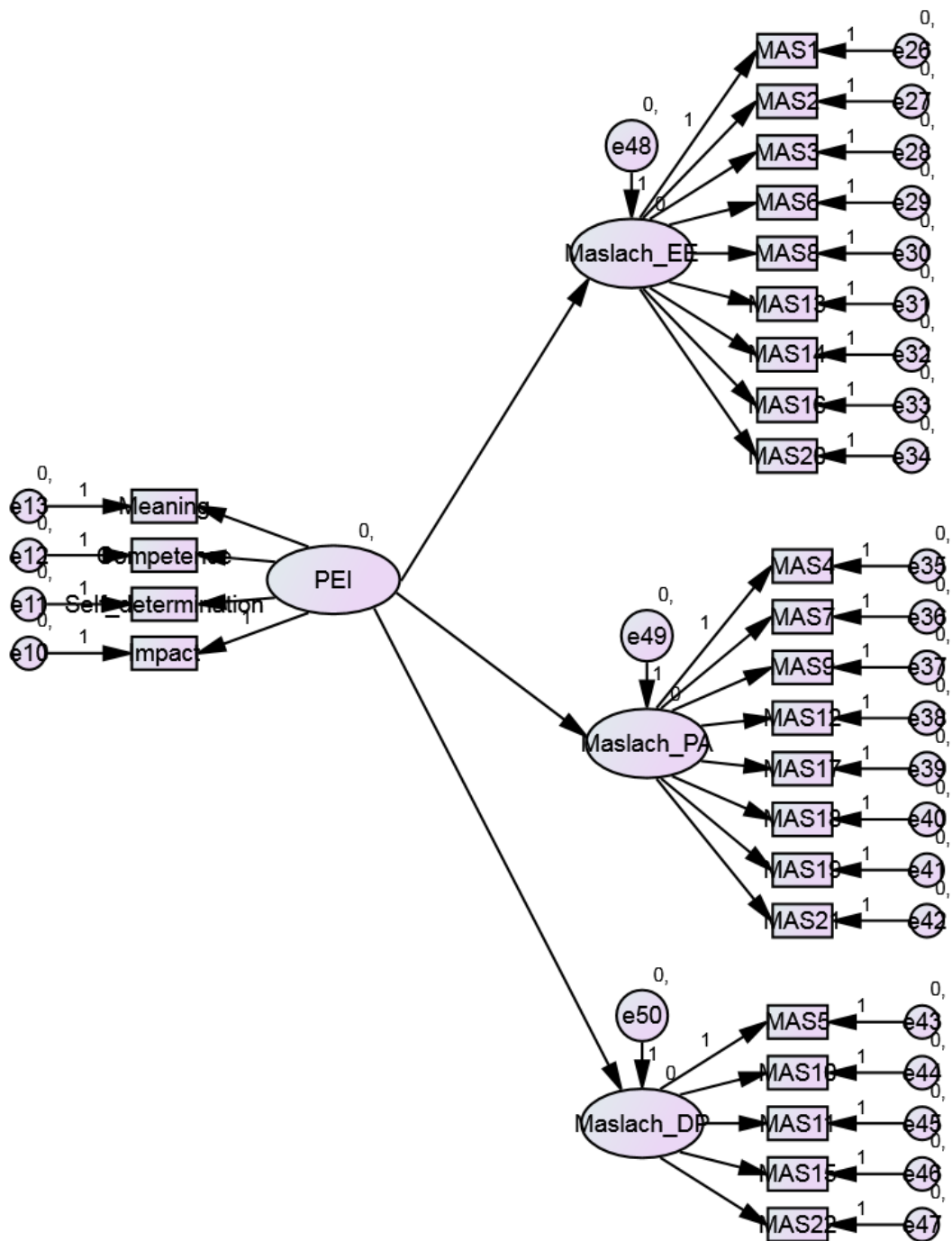


Figure 4.24: Pattern Matrix of the PEI and the MBI

4.11.9. Measures of goodness of fit model of the PEI and the MBI

For the PEI, an acceptable CMIN/DF of 2.510 was found, with a slightly unacceptable CFI value of 0.789. The CMIN/DF value, together with the RMSEA of 0.085, was acceptable for a good model fit between the PEI and the MBI. Please see Table 4.101.

Table 4.101: Measures of goodness of fit model: PEI and the MBI

	ACCEPTABLE VALUES	PEI AND THE MBI
CMIN/DF	2 - 5	2.510
CFI	>0.9	0.789
RMSEA 95% CI	< 0.1	0.085 (0.078 – 0.093)

4.11.10. Standardised regression weights and p -values: NIS and MBI

The strongest link was found between Dp (.515), EE (.471) and the NIS. This implies that when incivility is experienced within the practice environment, participants experience more Dp and EE. The experience of PA is not influenced by the presence of uncivil behaviour. Please see the table below and the pattern matrix in Figure 4.25.

Table 4.102: Standardised regression weights and p -values: NIS and MBI

			Standardised Regression Weights	p -value
MBI: EE	<---	NIS	.471	***
MBI: PA	<---	NIS	-.078	.376
MBI: Dp	<---	NIS	.515	***

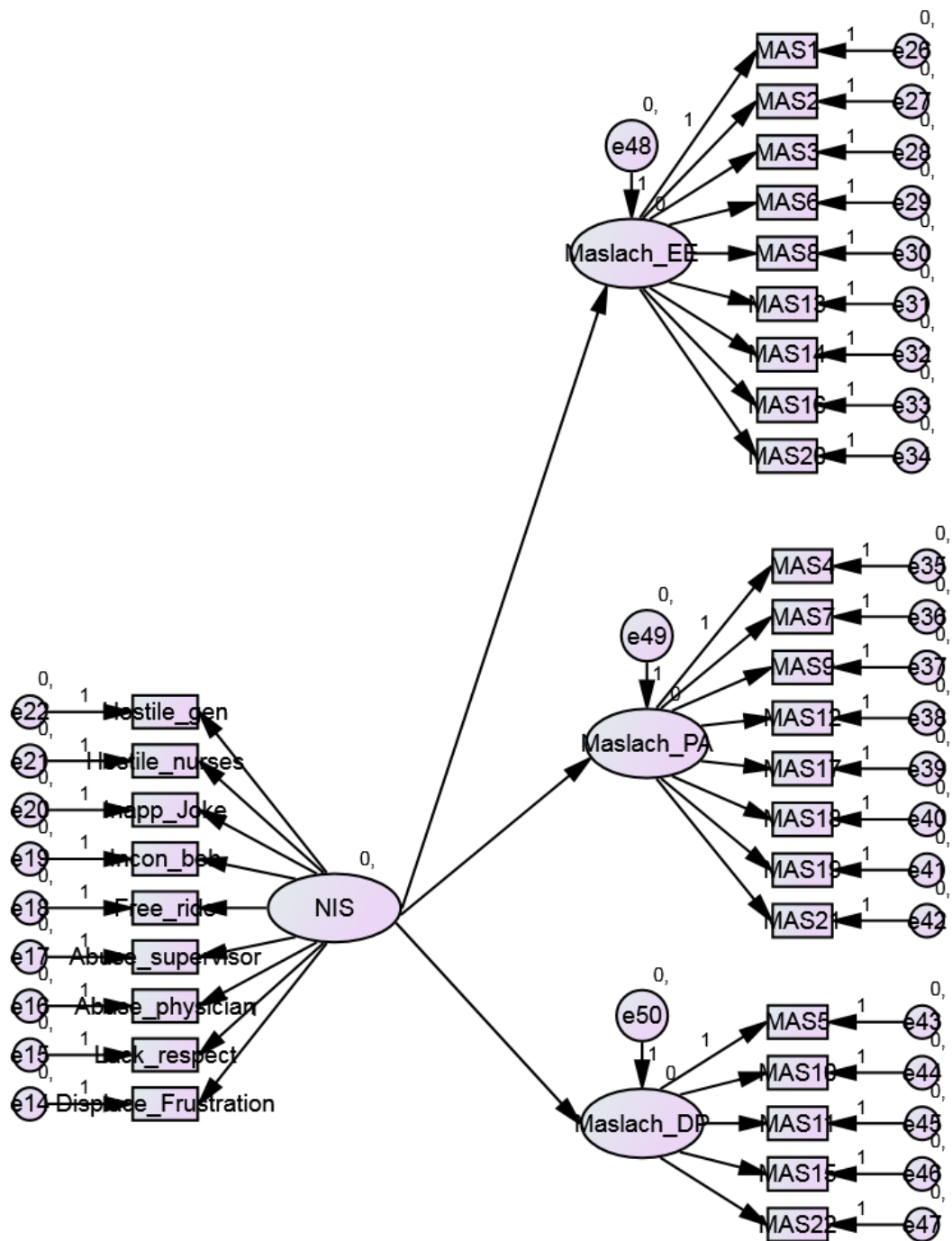


Figure 4.25: Pattern Matrix of the NIS and the MBI

4.11.11. Measures of goodness of fit model: NIS and MBI

When evaluating Table 4.103, an acceptable CMIN/DF of 2.095 was found with a slightly unacceptable CFI of 0.798. The CMIN/DF together with the RMSEA of 0.073, was acceptable for a good model fit between the NIS and the MBI.

Table 4.103: Measures of goodness of fit model: NIS and MBI

	ACCEPTABLE VALUES	NIS AND THE MBI
CMIN/DF	2 - 5	2.095
CFI	>0.9	0.798
RMSEA 95% CI	< 0.1	0.073 (0.066 – 0.079)

4.11.12. Standardised regression weights and *p*-values: NAQ-R and MBI

The strongest link was found between Dp (.513), EE (.425) and the NAQ-R. This implies that when participants are bullied, their experience of EE and Dp will increase, but bullying behaviour does not influence the levels of PA that is experienced.

Table 4.104: Standardised regression weights and *p*-values of the NAQ-R and the MBI

			Standardised regression weights	<i>p</i> -value
MBI: EE	<---	NAQ-R	.425	***
MBI: PA	<---	NAQ-R	-.165	.057
MBI: Dp	<---	NAQ-R	.513	***

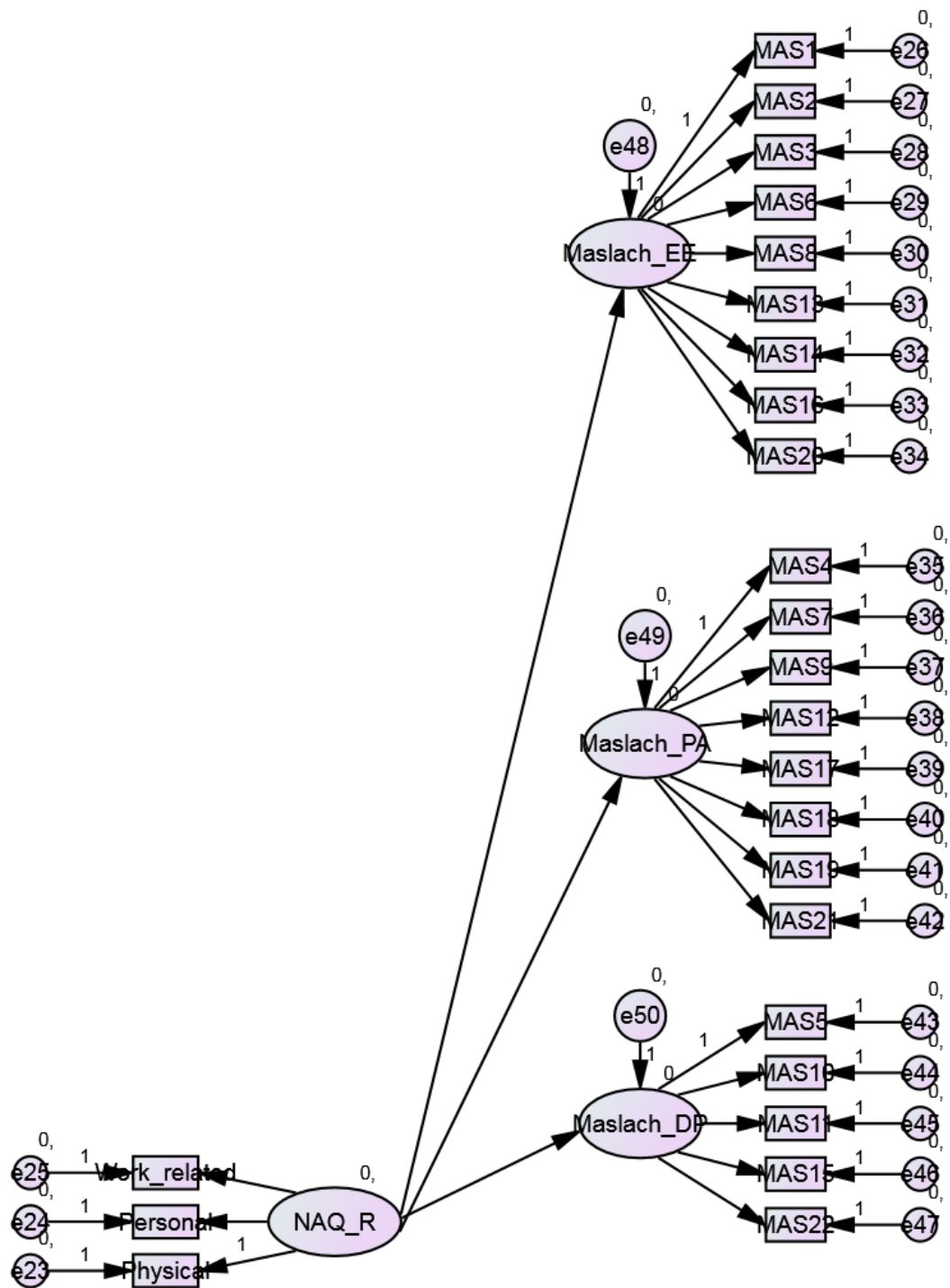


Figure 4.26: Pattern Matrix of the NAQ-R and the MBI

4.11.13. Measures of goodness of fit model: NAQ-R and MBI

Table 4.105 indicates that an acceptable CMIN/DF of 2.248, together with a reasonable CFI of 0.847, is found. Together with the good RMSEA value, goodness of fit between the NAQ-R and the MBI is confirmed.

Table 4.105: Measures of goodness of fit model: NAQ-R and MBI

	ACCEPTABLE VALUES	NAQ-R AND THE MBI
CMIN/DF	2 - 5	2.248
CFI	>0.9	0.847
RMSEA 95% CI	< 0.1	0.077 (0.069 – 0.086)

4.12. DISCUSSION OF RESULTS

The results of this study show that the participants experience moderate levels of burnout, and therefor rejects the H_0 hypotheses that no relationship exists between empowerment, workplace relationships, status of the practice environment and burnout levels in CCNs. In this research study, 15 private hospitals, with a total of 20 adult CCUs, participated during the data collection process. With regard to the *demographic data* obtained, most of the participants were female (87%), SANC mid-year estimates of 2013 indicated that a total of 129 015 RNs were registered with SANC, of which 91.6% (118 198) were females and 8.4% (10 817) were males. Of these, 24.4% of the total population of female RNs, and 19.4% of the total population of male RNs were located in the Gauteng province (SANC, 2013). In this study, a total of 66% of the participants were between the ages of 31 – 50 years. SANC statistics (SANC, 2013) indicated that 59% of all RNs are between the ages of 40 to 59, which bodes well for this hospital group, where at least 40% (88/209) of participants are under the age of 40 years. The majority of the participants were either married (41.6%) or single (34.4%). These findings stand in contrast with the large study done by AMN Healthcare (AMN Healthcare, 2013:22), where the nurses

indicated that 64% were married and only 11% were single. Most participants (78.9%) started their nursing career between 16 – 25 years of age. Participants indicated that 70.7% had been practising as RNs for the past 20 years. More than half of all the participants (51.8%) had been working in a CCU for the past 10 years. For 56.5%, nursing was a first career choice, and 81.8% responded that they were satisfied with being a nurse. This correlates with a large international survey study, where AMN Healthcare conducted research among more than 3000 nurses and where more than 90% stated that they were satisfied with being a nurse (AMN Healthcare, 2013:5). On the other hand, a large study done in China by You *et al.* (2013:157) stated that approximately 50% of the participants were not satisfied with being a nurse.

The highest qualification obtained was a doctoral degree (0.5%), with 65.1% qualified with diplomas in nursing. Qualifications had a moderate positive correlation with EE, indicating that the more qualified the participants were, the more EE they experienced. Research done by Harwood *et al.* (2010:16) indicated that education in nursing is indeed a predictor for the experience of higher levels of burnout. The researchers concluded that nurses who were degree-prepared experienced higher levels of EE. In the current study 41% of all participants were critical-care trained RNs, and more than 70% were permanently employed. This data corresponds well with data from the AMN Healthcare study, where participants also indicated that 79% were permanently employed (AMN Healthcare, 2013:18).

With regard to the *MBI*, participants experience moderate levels of EE ($M = 24.30$), moderate levels of PA ($M = 36.19$) and moderate levels of Dp ($M = 7.85$). These moderate levels of EE, PA and also Dp were confirmed in previous research done by Klopper *et al.* (2012:693). 42.1% of the CCNs in the current research study experienced high levels of EE, and 23.4% experienced high levels of Dp. Almost half of all the participants in the current research study (43%) felt that they work too hard at their jobs, of which 21.5% felt like that on a daily basis. Matlakala *et al.* (2014:4) confirmed the fact that the workload within South African CCUs is too heavy to tolerate. Some participants feel that they are emotionally hardened by their jobs

(53.6%), feeling used up at the end of their working day (35.4%) and being emotionally drained (33%).

The practice environment of the CCNs can be seen as positive, except for aspects of **inadequate staffing and resource availability** within the units (M = 2.33). This confirms the previous findings of Klopper *et al.* (2012:690) in this regard. Matlakala *et al.* (2014:4) also indicated that the unit managers of larger CCUs in Gauteng province experience severe problems in the provision of trained or experienced RNs within their units. Awases *et al.* (2013:5) also specified a severe staff shortage in Namibia. The current research study indicates that 73.2% of participants responded that there are not enough RNs on the staff to provide quality patient care, of which 63.2% of the participants also stated that there is insufficient staff to get all the work done. Draper *et al.* (2008:6) stated that the shortage of nurses is a major challenge for hospitals, because not only does it impact on the RNs ability to provide adequate coverage for patient care, but also to provide adequate nursing resources (Khamisa, *et al.*, 2015:661) for quality patient care. Support services are not experienced as adequate by almost half (40.2%) of the participants, a finding again confirmed by Matlakala, *et al.* (2014:5). Thus, the participants are unable to spend enough time with their patients. The time and opportunity to discuss patient care problems with other nurses are seen to be insufficient by a third (39.3%) of participants. Bekker *et al.* (2014:5) conducted a large study within medical-surgical units nationally and the data indicated that more than 50% RNs reported that comfort/talk with patients (62.2%) was a nursing task left undone, together with educating patients and family (57.9%) and developing or updating nursing care plans/pathways (51.6%).

Although the other subscales of the PES-NWI were above the mean of 2.5, indicating that the characteristics of the practice environment were experienced positively, some items were rated rather negatively and deserve further discussion. Almost two-thirds (61.3%) of participants felt that physicians do not hold them in high esteem, and more than half (52.2%) felt that they were not **respected** by physicians as professionals. In contrast with these results, Johnson and Kring (2012:345) conducted a large study in the USA with Medical-Surgical and CCU nurses and found that 76% of the participants felt that the physicians respected the decisions

they made in the CCU. Furthermore, CCNs in the present study felt that physicians did not **value their observations and judgment** or their contribution to patient care (47.4%). In line with these results, Johnson and Kring (2012:345) again confirmed that physicians do not understand what nurses do for the patients. According to 41.2% of the participants in the present study, good **team work** was not prevalent in the CCU and collaboration between nurses and physicians was not experienced (41.1%). This result is in contrast with research done by Johnson and Kring (2012:345), where 75% of participants indicated that they satisfied with the relationship between nurses and physicians. On the other hand, Conn *et al.* (2014:8) agreed with the fact that collaboration between nurses and physicians was poor or inadequate.

Regarding **leadership and support** within the practice environment, almost half of the participants (49.3%) in the present study indicated that they do not receive praise and recognition for work well done. These findings are similar to Bruce and Sangweni (2012:101) and Awases *et al.* (2013:4) who indicated that RNs do not receive recognition for good work performance. More than a third (37.3%) of all the participants indicated that they were not supported by their nurse managers during decision-making and conflict with physicians. Coetzee *et al.* (2013:169) confirmed that nurses are not confident about management's problem-solving skills.

With regard to the results of **quality of care**, almost half of the participants (46%) felt that they work with clinically incompetent nurses. It is difficult to interpret this result, but the fact that 42% of the participants have been in the nursing profession for less than 10 years might have an influence on the participant's perception of being competent. Another factor that needs to be taken into consideration is the fact that 53.1% of the participants were experienced in critical-care nursing. Important to note here is that the term "experienced" only indicates that the participant is not critical-care trained. Being experienced can range between one week of practice in a CCU to 40 years in a CCU. This specific result regarding incompetent nurses is in contrast with research done by Awases *et al.* (2013:6), where 61.8% of the participants disagreed with the identification of incompetent nurses within their practice environment. According to more than a third (37.3%) of the participants, there is no

active quality assurance programme within their units. To strengthen this result, Coetzee *et al.* (2013:170) stated that 1 out of 5 nurses within SA hospitals perceive their quality of care as poor or only fair, but Klopper *et al.* (2012:693) confirmed a positive practice environment regarding quality of care ($M = 2.93$) among CCNs in SA. A third of the participants also felt that there was not a preceptor programme for newly hired nurses within their practice environment. Muir *et al.* (2013:637) agreed with the fact that a preceptor programme within an organisation would benefit any new staff member entering the organisation or any specific specialty area.

The results regarding **participation in hospital affairs** revealed that 64.2% of participants do not agree that they have the opportunity to participate in policy decisions, and that they do not experience involvement in the internal governance of the hospital (60.8%). In recent research, Ditlopo *et al.* (2014:5) confirmed that nurses are not allowed to participate in policy decision-making within the South African context, whereas Klopper *et al.* (2012:693) confirmed a positive practice environment regarding CCNs' participation within hospital affairs ($M = 2.63$). More than half (55%) of the RNs feel that management does not listen or respond to their concerns. Research done by Holland *et al.* (2013:3157) confirmed that nurses experience decreased levels of burnout when management was responsive to their concerns. In the current study, participants do not experience the NSM as being highly visible and accessible to staff (46.4%), and the NSM is also perceived as being inferior in power and authority to other top level hospital executive (34%). The opportunity for advancement was not experienced by more than a third of the CCNs (39.7%) and this was confirmed by Bruce & Sangweni (2012:101) and You *et al.* (2013:157). In the current research study, career development opportunities are not experienced by a third of the RNs (34.5 %). This is in line with research done by Awases *et al.* (2013:4). Klopper *et al.* (2012:693) also state that the main reason for high levels of burnout in South African CCNs is associated with the opportunity for advancement within their practice environment.

When evaluating the results with regard to being **structurally empowered**, the participants experience **access to information** as being moderate ($M = 13.60$). 49.3% do not experience access to information with regard to the current state of the

hospital. Awases *et al.* (2013:6) contradict this, with participants in their research indicating that they always know of any changes within the hospital setting. In the present study, 63.6% of participants indicated that they do not have information regarding the values of top management, whereas 55.5% do not know what the goals of top management are. **Access to support** is also experienced at a moderate level (M = 12.87). Correlating well with the results from the practice environment above, participants do not receive information when they excel at work (65.5%), and neither are they supported in solving problems (62.6%). More than half (56%) are also not sure about things which they need to improve, as no specific comments are provided in this regard. Participants also experience **access to resources** at a moderate level (M = 11.91). Not even a quarter (20.6%) of all the participants had enough time to do their necessary paperwork. This finding concurs with Matlakala, *et al.* (2014:5) who state that nursing personnel have insufficient time to complete administrative work. Again correlating with the discussion of the results of the practice environment above, 70.8% did not have enough time to accomplish their job requirements. This was confirmed by Gandi *et al.* (2011:192). Participants are also not able to acquire temporary help when needed (66.5%).

Incivility is prevalent within the practice environment. A hostile climate exists in general in the hospitals (M = 3.53). **General incivility:** more than half the participants experience a hostile climate within the general practice environment. This hostility concurs with research done by Elmblad *et al.* (2014:441) where two thirds of participants (67.4%) stated that people blame each other for their own mistakes and offences. This blame-shifting was also confirmed in recent research done by Ekici and Beder (2014:28). **Nurse incivility:** more than half the participants indicated that hospital employees raise their voices when frustrated and that personal verbal attacks on other employees are experienced during basic disagreements. Judkins-Cohn (2010) states that verbal abuse from other nurses happens 41% of the time. Participants experience inconsiderate behaviour towards them (M = 3.46) and 79.5% experience an inappropriately high noise level in their CCUs. Johansson *et al.* (2012:273) confirmed that noise levels in CCUs are too high. Almost half (46%) of the participants agreed with the fact that people take things without asking. 42.1% stated that other employees display argumentative body language. 52.1% of nurses

gossip about one another, and 47.9% indicated that nurses gossip about their supervisors. Within the workplace people are bad-mouthed by others, as indicated by almost half of the participants (45.5%). Almost half (40.7%) of the participants responded that nurses expect to receive credit for working on projects to which their contribution was negligible. More than half (59.8%) of the participants responded that **physicians** are verbally abusive. Judkins-Cohn (2010) confirmed the fact that the main source of verbal abuse is experienced from physicians (74.7%). Physicians yell at nurses regarding matters that are not important, as indicated by almost half of the participants (47.3%). 43.5% of all the responses indicated that participants experience that physicians take their feelings such as anger and stress out on CCNs. More than a third (40.2%) of the participants stated that when they make mistakes, the physician will yell or shout at them. Conn *et al.* (2014:8) confirmed that physicians yell at nurses in such a way that nurses do not discuss matters with the physician again. Participants responded that the **patient and/or family** take their frustrations out on nurses (55.5%). Half of the participants (50.3%) stated that patients and/or family show that they are irritated or impatient. Nurses are treated as if they are inferior and stupid by patients and/or family, as indicated by almost half the participants (47.8%). More than a third (41.7%) of participants feel that the patients and/or family make insulting comments to them. This was confirmed by Judkins-Cohn (2010), but a third of the participants (35.4%) felt that the family and patients posed unreasonable demands towards the CCNs.

Consistent with previous research, nurses are being **bullied** (Berry, *et al.*, 2012:82; Farrell and Shafiei, 2012:1428; Laschinger, *et al.*, 2012:1271; Laschinger, *et al.*, 2010:2737). These findings confirm the fact that participants in the current research study experience **work-related bullying** behaviour now and then, with a mean score of 1.77. 12.1% of these participants feel that they are exposed to an unmanageable workload which 4.3% experience on a daily basis. These results are confirmed by Simons (2008:E52) and Ekici and Beder (2014:29). To add to this, 10.5% of the participants felt that important information affecting their performance was being withheld from them. Simons (2008:E52) and Trepanier *et al.* (2012:5) confirm that this is prevalent within the practice environment. The participants also experience **personal-related bullying** behaviour now and then (M = 1.59). Laschinger *et al.*

(2012:1271) confirm that personal-related bullying behaviour is experienced in the practice environment. In the present study, participants reported that they are being humiliated (10.5%), ridiculed in connection with their work (8.6%) and having areas of responsibility removed (7.7%) on a weekly basis. Ekici and Beder (2014:28) confirm that nurses experience humiliation at work to a high degree. A small percentage of participants also feel that they are constantly reminded of their errors or mistakes (7.2%), that gossiping and rumours about them are prevalent (6.2%), that they are ignored (5.3%) insulted (6.2%) and given hints to quit their jobs (5.3%). The participants experienced **physical bullying** behaviour now and then ($M = 1.50$) which included the experience of threats of violence and of physical abuse (1.4%), being shouted at or being the target of spontaneous anger (2.4%) on a daily basis. Berry *et al.* (2012:83) found that 37.3% of nurses have been exposed to physical bullying behaviour within the practice environment. The SEM showed that all the dependent variables are related to burnout and concluded the following: When the practice environment is positive, the experience of EE and Dp decreases and PA increases. When participants experience being structurally empowered they also experience less EE and Dp. Being psychologically empowered positively influences the experience of PA. When the participants experience uncivil behavior and bullying behaviour within their practice environment they also experience more Dp and EE. 75 problems were identified and staffing and resource adequacy, work-related bullying behaviour, access to resources and displaced frustration contributed the most towards the development of burnout.

4.13. SUMMARY

In conclusion, the chapter comprehensively analysed the collected data. A demographic profile of the CCUs and participants were provided in detail, supplemented by visual illustrations. Confirmatory factor analysis of the MBI and PES-NWI-R was done first in order to confirm construct validity. Exploratory and confirmatory factor analysis of the CWEQ-II, PEI, NIS and NAQ-R was undertaken, and thereafter the reliability of all the subscales was confirmed. The descriptive statistics revealed quite interesting results, confirming that participants in general are moderately burned out, of which 4.3% experienced high levels of burnout.

Inadequate staffing and resources are available within the practice environment and professional relationships are not adequately maintained. Participants are moderately structurally empowered and psychologically well empowered. Participants experience general hostility in their practice environment, together with being treated inconsiderately. With regard to bullying behaviour participants experience work-related bullying behaviour, personal bullying behaviour and physical bullying behaviour on a daily basis in their practice environment. The correlation between variables was determined and the H_0 hypothesis was rejected, as all the variables investigated influenced experienced burnout levels of the participants. Of these, staffing and resource adequacy, access to resources, displaced frustration and work-related bullying behaviour had the highest correlations to burnout. Correlations between other variables were also determined and the demographic data correlations to burnout were provided. Lastly, SEM between all the scales and the MBI was performed. The standardised regression weights and p -values of all the scales to the MBI had no statistical significance due to the high correlation values between the practice environment and structural empowerment, and therefore each scale was evaluated separately against burnout. This then again confirmed the rejection of the H_0 hypothesis that no relationship was present between burnout and structural empowerment, psychological empowerment, incivility, bullying and the practice environment. Finally, the chapter was concluded with a discussion of the results obtained.

CHAPTER 5

INTERVENTION PROGRAMME TO DECREASE BURNOUT

"We can change the world and make it a better place.

It is in your hands to make a difference"

Nelson Mandela

CHAPTER 5:

INTERVENTION PROGRAMME TO DECREASE BURNOUT

5.1 INTRODUCTION

The previous chapter provided a detailed analysis and interpretation of all the research data collected. The purpose of this chapter is to portray the development of an intervention programme to decrease the levels of burnout among CCNs in a selected private hospital group in the Gauteng Province of SA. The chapter commences with an overview of the research objectives, and then the process applied in the development of the intervention programme is discussed. Thereafter, the intervention programme to decrease the levels of burnout among CCNs is discussed with regard to the vision, mission, values, principles, assumptions, programme objectives, proposed interventions and actions. The chapter concludes with a discussion of the implementation of the intervention programme for CCNs in a selected private hospital group in Gauteng Province. Table 5.1 gives an orientation of the objectives and phases that constitute this research study.

Table 5.1: Objectives and phases of the research study

PHASE 1	PHASE 2
Objective 1 To describe and discuss burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment through an in-depth literature review	Objective 4 To develop an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.

PHASE 1	PHASE 2
Objective 2 To describe the levels of burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the status of the practice environment according to CCNs in a private hospital group in the Gauteng Province of SA;	
Objective 3 To examine the nature of the relationship between burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment of CCNs in a private hospital group in the Gauteng Province of SA.	

5.2. THE PROCESS OF THE DEVELOPMENT OF THE INTERVENTION PROGRAMME TO DECREASE THE LEVELS OF BURNOUT AMONGST CCNS

To provide an overview, in Chapter 1, the research problem was identified. In Chapter 2, the concepts of burnout and structural empowerment, psychological empowerment, incivility, bullying behaviour and the practice environment was discussed, and the relationship between the independent and dependent variables highlighted (Objective 1). In Chapter 4, the levels of burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the status of the practice environment amongst the CCNs in a private hospital group in the Gauteng Province of were described (Objective 2 [Please see Section 4.6]). From this objective, the level of burnout was detailed, and 75 problems contributing to burnout were identified. Please see Table 5.3 for the identified problems. Thereafter, the nature of the relationship between burnout and structural

empowerment, psychological empowerment, incivility, bullying and the status of the practice environment was examined through model-testing (Objective 3 [please see Section 4.7]). These analyses allowed for the setting of objectives and prioritisation thereof for the intervention programme. A graphical presentation of the process applied in the development of the intervention programme is presented in Figure 5.1. Please refer to Chapter 3 section 3.7.2 for the discussion of the research method applied to the development of the intervention programme.

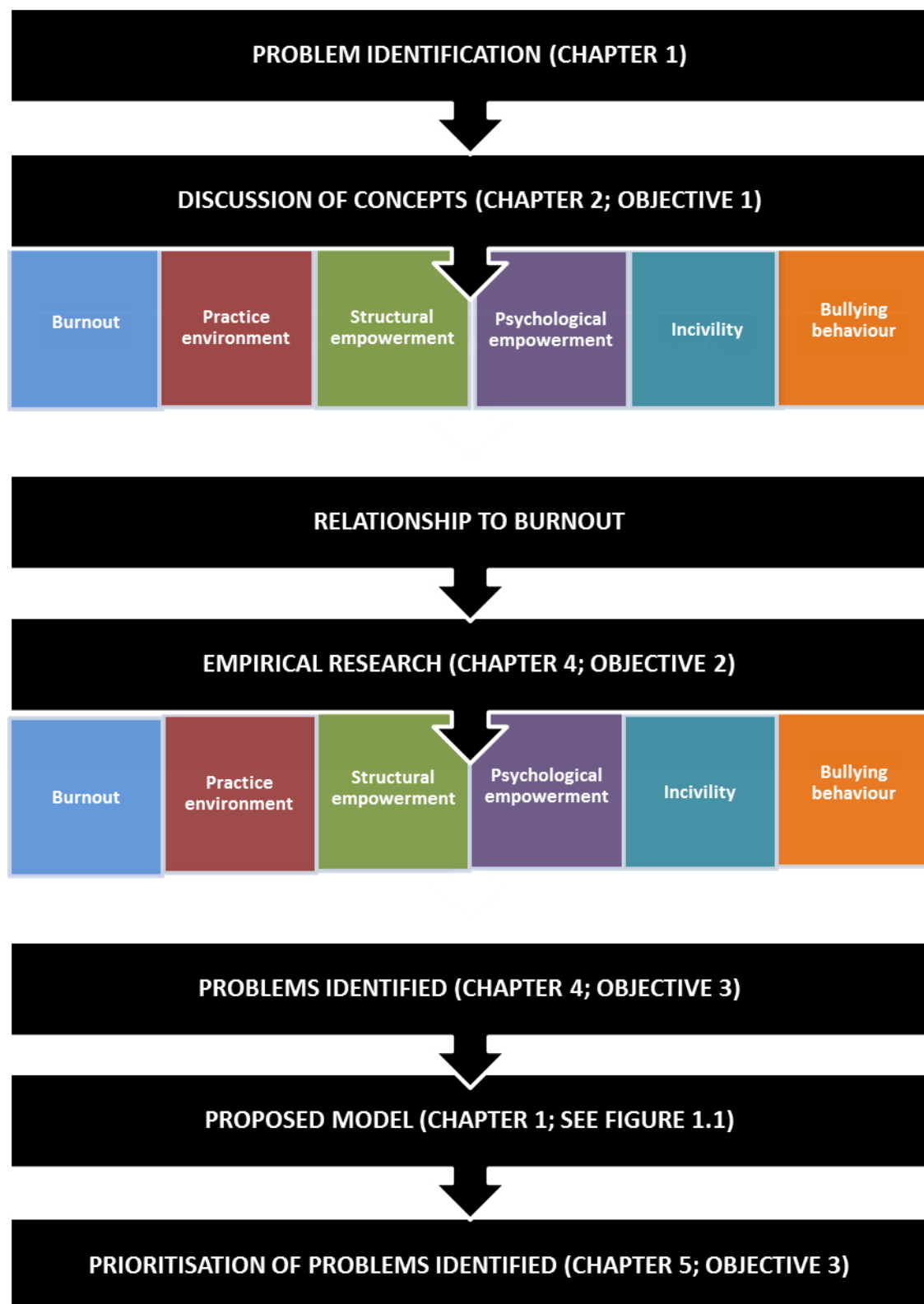


Figure 5.1: Process for developing an intervention programme to decrease burnout amongst CCNs empirical clarification of concept

5.3. INTERVENTION PROGRAMME TO DECREASE THE LEVELS OF BURNOUT AMONGST CCNS IN A PRIVATE HOSPITAL GROUP IN THE GAUTENG PROVINCE OF SA

As previously mentioned in Chapter 3, Section 3.7.2, the method of curriculum development of Uys and Gwele (2005:27) and the strategy development of Ehlers and Lazenby (2010:7) were utilised in developing the intervention programme to decrease the levels of burnout amongst CCNs in the Gauteng Province of SA. The researcher first had to develop a vision, mission, certain values, principles and assumptions prior to problem identification. After the identification of the 75 problems for the programme, objectives were set and prioritised. Setting the objectives aided in proposing the interventions and actions for the intervention programme. Lastly the intervention programme needs to go through the process of implementation and evaluation.

5.3.1. Vision

A vision can be defined as the daily work towards achieving a desired identity within an organisation (Kukkurian, *et al.* 2012:869). According to the Oxford Advanced Learners Dictionary (2010:1661), a vision can be perceived as “*an idea or a picture in your imagination or the ability to think about or plan the future with great imagination and intelligence*”. In order to develop an intervention programme to decrease burnout among CCNs in a selected private hospital group in Gauteng Province, the researcher first had to develop a vision and mission statement: to assist the researcher, vision and mission statements of global nursing organisations were reviewed:

The vision of **STTI** (Honour Society of Nursing, Sigma Theta Tau International) *is to create a global community of nurses who lead in using knowledge, scholarship, service and learning to improve the health of the world's people* (STTI, 2015). The vision of the **ICN** is: “*the nurses of all nations speak with one voice. We speak as advocates for all those we serve, and for all the unserved, insisting that social justice, prevention, care and cure be the right of every human being. We are in the vanguard of health care progress, **shaping health policy** around the world through our*

expertise, the **strength of our numbers**, our strategic and economic contributions, the alignment of our efforts, and our **collaboration** with the public, health professionals, other partners, and individuals, families, communities for whom we provide care” (ICN, 2013). The **AACN** provides a vision where they are “dedicated to creating a healthcare system driven by the needs of patients and families where acute and critical care nurses make their **optimal contribution**” (AACN:2015b) The **WHO** visualises people everywhere to have access to a **skilled**, motivated and **supported** health worker, within a robust health system (WHO, 2015).

When viewing the visions provided by the three private hospital groups within the South African context, the following visions were found: the vision statement of **Mediclinic** is to be respected internationally for the delivery of measurable **quality clinical outcomes**, for continuous growth as a successful international healthcare group, for enforcing good **corporate governance** and for acting as a responsible corporate citizen. The Mediclinic Group also aims to be the preferred hospital group within the South African context for the delivery of excellent patient care, ensuring **aligned relationships** with doctor communities, for being an employer of choice, appointing and retaining **competent staff**, for building constructive **relationships** with all stakeholders and for being a valued member of the community (Mediclinic, 2015). Netcare provided a vision to develop and implement successful solutions to provide *quality*, affordable healthcare to the people of SA and globally by inspiring their people, creating new healthcare horizons and delivering value to all stakeholders. Netcare visualise themselves to be a leading corporate citizen, proud of their heritage and what they give to society, striving for excellence in a unique brand of patient care delivered by people who are passionate about the sanctity of life, **personal respect** and **dignity**, to invest in people, infrastructure, technology and establish lasting partnerships with healthcare professionals (Netcare, 2015). Lastly, LifeHealth stated that their vision is to “be a world-class provider of **quality healthcare for all**” (LifeHealth, 2015).

The vision for the intervention programme for burnout among CCNs in a selected private hospital group in Gauteng Province is stated as follows:

“To eradicate the experience of burnout among CCNs”

5.3.2. Mission

The mission statement represents the philosophy, values, identity, character and priorities of service delivery of an organisation and also reflects the image the organisation wants to mirror. The mission is the task, together with the drive, that clearly indicates the actions to be taken and the reasons for these (Pearce & Robinson, 2007:63-68).

A few international organisations provide the following mission statements: the mission of the **STTI** is *“to support the learning, knowledge and professional development of nurses committed to making a difference in health worldwide”* (STTI, 2015). The **WHO** (WHO, 2015a) has a mission where the organisation *“advocates and catalyses global and country actions to resolve the **human resources** for health crisis, to **support** the achievement of the health-related millennium development goals and health for all”*. The **ICN** represent nursing worldwide, advancing the profession and influencing health policy (ICN, 2015). The **ANCC** has a mission to promote excellence in nursing and health care globally through credentialing programs (ANCC, 2015a)

The South African Department of Health developed a strategic plan for 2014/2015 and provided a mission statement for the country; namely, to improve health status through the prevention of illness, disease and the promotion of **healthy life-styles**, and to consistently improve the healthcare delivery system by focusing on **access, equity, efficiency, quality and sustainability** (DoH, 2015). The SANC stated that their mission is: to serve and protect healthcare users by ensuring **quality nursing** and midwifery care, through **collaborative** partnerships and facilitating an enabling environment (SANC, 2015a).

The mission of **Netcare** is to become the leading African healthcare group best known for: delivering innovative, quality healthcare solutions to patients on every continent of the world, successfully broadening access to affordable, quality healthcare to as many South Africans as possible (Netcare, 2015). The mission statement for the intervention programme includes the following:

The mission of the intervention programme to decrease burnout is to contribute to “healthy nurses” who are physically, intellectually, emotionally, spiritually and professionally prepared to contribute optimally to quality patient care.

5.3.3. Values

Values are enduring beliefs or attitudes about the worth of a person, object, idea or actions and influence decisions and actions including nurses' ethical decision-making (Berman & Snyder, 2012:81). The APA dictionary of psychology (2007:975) also describes a value as: “a moral, social, or aesthetic principle accepted by an individual or society as a guide to what is good, desirable or important”. To be able to achieve the above vision and mission of the intervention programme to decrease burnout levels in the adult CCUs, the following values serve as basis for the intervention programme:

Respect: The Concise English Oxford Dictionary (2011:1225) describes respect as “regard for the feelings or rights of others, to avoid harm or interfering with”. All humans should be treated equally. This includes acceptance and understanding of people to create an effective trustworthy relationship (Houser & Thomas, 2013:227).

Collaboration: The word “collaboration” was first described in 1892 – 1949 by a U.S psychiatrist, and is seen as “the act or process of two or more people working together in order to obtain an outcome desired by all, an interpersonal relationship in which the parties show cooperation and sensitivity to the other's needs” (APA dictionary of psychology, 2007:193). The AACN also provides a description of collaboration: collaboration is the working with others (e.g., patients, families, healthcare providers) in a way that promotes/encourages each person's contributions toward achieving optimal/realistic patient/family goals; involves intra- and inter-disciplinary work with colleagues and community (AACN, 2015). Collaborative relationships are professional relationships based on collegial and reciprocal actions and behaviour that aims to achieve certain jointly agreed goals (ICN, 2012:10)

Leadership: leadership is the processes involved in leading others, including organising, directing, coordinating and motivating their efforts towards achievement of certain group or organisational goals (APA dictionary of psychology, 2007:528). The WHO defines leadership as the provision of direction to, and gaining commitment from, partners and staff; facilitating change; and achieving better health services through efficient, creative and responsible deployment of people and other resources (WHO, 2015).

Participation: Participation usually involves taking part in activities that involve others in joint endeavour. It can also be seen as the interaction of two or more systems that mutually influence each other (APA dictionary of psychology, 2007:675)

Empowerment: Empowerment is the promotion of skills, knowledge and confidence needed to take greater control of a person's life. Being empowered provides people with a sense of achievement and furthers the realisation of abilities and ambitions (APA dictionary of psychology, 2007:328). The RNAO (2013:17) states that empowered practice environments have access to information, support, resources, and opportunities to learn and grow, in settings that support professional autonomy and strong networks of collegial support.

5.3.4. Principles

The APA dictionary of psychology (2007:732) provides a good description of what a principle entitles: a principle is “a fundamental rule, standard or precept especially in matters of morality or personal conduct”. The principles for this research study are in line with the 14 forces of magnetism provided by the global organisation ANCC (2015c). The 14 forces are attributes or outcomes that exemplify nursing excellence and are described as the heart of the Magnet Recognition Program®. The full expression of the Forces of Magnetism is required to achieve Magnet designation and embodies a professional environment guided by a strong and visionary nursing leader who advocates and supports excellence in nursing practice. These principles are provided in Chapter 1, section 1.6.2.9, Table 1.2 and will now be tabulated together with their application in this research study.

Table 5.2: Application of the 14 forces of magnetism (ANCC, 2015c)

The 14 FORCES OF MAGNETISM	APPLICATION OF THE FORCES
FORCE 1: Quality of nursing leadership	The organisation needs to provide knowledgeable and supportive leaders within the practice environment of the CCN.
FORCE 2: Organisational structure	The organisation needs to adopt a decentralised decision-making approach and be receptive to change, with nursing personnel forming part of the organisational committees and the Nursing Service Manager (NSM) reporting directly to the CEO.
FORCE 3: Management style	At organisational and hospital levels, leaders need to create an environment conducive to participation. Feedback from all staff must be encouraged, valued and incorporated at all levels. The nursing service manager of each hospital needs to be visible, accessible and committed to effective communication.
FORCE 4: Personnel policies and programmes	Each hospital needs to provide adequate competent nursing personnel for each CCU with competitive salaries and benefits. At organisational level, the CCU RNs are involved with policy decisions, and opportunities for professional growth are provided.
FORCE 5: Professional models of care	On organisational level adequate and skilled personnel are employed to provide continuity of patient care
FORCE 6: Quality of care	Hospital management needs to provide a positive practice environment where the nursing personnel are enabled to provide quality patient care at all times.
FORCE 7: Quality improvement	The organisation must provide quality improvement programmes to all hospitals to ensure that patient care is of a high standard.

The 14 FORCES OF MAGNETISM	APPLICATION OF THE FORCES
FORCE 8: Consultation and resources	At organisational and hospital levels, the nursing personnel must be provided with access, not only to resources, but also to support and opportunities within their practice environment. The organisation must also encourage the involvement of nursing personnel on hospital committees and within professional organisations.
FORCE 9: Autonomy	The organisation needs to provide nursing personnel with the opportunity to practise autonomously, as consistent with professional standards. Independent judgment within the interdisciplinary and multidisciplinary environment is vital to patient care.
FORCE 10: Community and health care organisation	The organisation needs to build a relationship of trust and respect towards the client, family and friends and the rest of the community in the development of strong partnerships that support improved client outcomes and the health of the community.
FORCE 11: Nurses as teachers	Each hospital is provided with a mentoring program for staff, with the presence of preceptors for all levels of nursing personnel.
FORCE 12: Image of nursing	The services provided by nurses are characterised as essential by other members of the healthcare team. Nurses are viewed as integral to the health care organisation's ability to provide patient care. Nursing effectively influences system-wide processes.
FORCE 13: Interdisciplinary relationships	At organisational, hospital and unit levels, collaboration between all nursing personnel and physicians is supported, with mutual respect and trust as the foundation for these relationships. The organisation provides nursing personnel with the assurance that zero tolerance for uncivil and bullying behaviour will be exercised at all times.

The 14 FORCES OF MAGNETISM	APPLICATION OF THE FORCES
FORCE 14: Professional development	The organisation provides all nursing personnel with the opportunity for professional growth and development.

5.3.5. Assumptions

The APA dictionary of psychology (2007:78) defines an assumption as “the premise or supposition that something is fact”. The following assumptions are integral to the intervention programme:

- The programme is developed for one private hospital group in Gauteng Province of SA.
- The focus is on RNs within adult CCUs and
- Specifically on their experienced levels of burnout, levels of being empowered (structural and psychological), their experience of relationships (incivility and bullying) within their CCUs and lastly the practice environment itself.
- Proposed interventions and actions are aimed not only at unit level, but also at hospital and organisational level.
- Through the improvement of the practice environment on all levels, nurse outcomes will be improved
- The programme is based on the ANCC's 14 Forces of Magnetism

5.3.6. Problems Identified

Through the situation analysis provided by the literature review and empirical research data obtained, 75 problems were identified which formed the evidence base for the development of an intervention programme for CCNs in a selected private hospital group in Gauteng Province. Table 5.3 presents a list of the problems identified that contribute to the experience of burnout. The problems are listed per sub-scale of each respective instrument.

Table 5.3: Problems identified for intervention

CRITERIA	SUB-CRITERIA	PROBLEMS IDENTIFIED FOR INTERVENTION
PES-NWI-R	Staffing and resource adequacy	1. Almost three quarters (73.2%) of participants indicated that there are not enough RNs on the staff to provide quality patient care. 2. Almost two thirds (63.2%) of the participants stated that there are inadequate staff to get all the work done. 3. Support services are not experienced as being adequate by almost half (40.2%) the participants. 4. The time and opportunity to discuss patient care problems with other nurses is seen as insufficient by more than a third of participants (39.3%).
	Collegial and nurse/physician relationships	5. Two thirds (61.3%) of RNs do not agree that physicians hold nurses in high esteem. 6. More than half the participants (52.2%) feel that they are not respected as professionals by physicians. 7. Almost half (47.4%) of the participants indicated that physicians do not value their observations and judgments and do not recognise nurses' contribution to patient care. 8. More than a third of the RNs (41.2%) do not experience good team work between nurses and physicians. 9. 41.1% of all participants do not experience collaboration between nurses and physicians. 10. A third of the participants (33.5%) indicated that there is not a good relationship between physicians and nurses.
	Leadership and support	11. Almost half of the RNs (49.3%) indicated that they do not receive praise and recognition for work well done. 12. More than a third (37.7%) of all the participants indicated that they do not receive back-up from their nurse managers during decision-making and conflict with physicians.

CRITERIA	SUB-CRITERIA	PROBLEMS IDENTIFIED FOR INTERVENTION
		13. A third of all the participants (33.5%) responded that supervisory staff is not supportive towards them.
	Foundation for quality of care	14. Almost half of the participants (46%) felt that they work with clinically incompetent nurses. 15. More than a third (38.3%) feels that continuity of patient care is not maintained. 16. More than a third (37.3%) of the participants stated that there is not an active quality assurance programme within their units. 17. A third of the participants felt that there is not a preceptor programme for newly hired nurses present within their practice environment. 18. Almost a third (31.1%) of participants stated that nursing is built on a medical rather than a nursing model. 19. Almost a third of the participants (29.2%) stated that nursing care plans are not experienced as being up-to-date.
	Participation in hospital affairs	20. Almost two-thirds of the participants (64.2%) indicated that they do not have the opportunity to participate in policy decision-making. 21. Almost two-thirds of participants (60.8%) do not experience involvement in the internal governance of the hospital. 22. More than half (55%) of RNs feel that management do not listen or respond to their concerns. 23. Almost half of the participants (46.4%) indicated that they do not experience an NSM who is highly visible and accessible to staff. 24. The opportunity for advancement was not experienced by more than a third of the RNs (39.7%). 25. More than a third (39.8%) also indicated that they do not have opportunities to serve on hospital and nursing committees. 26. Career development opportunities are not

CRITERIA	SUB-CRITERIA	PROBLEMS IDENTIFIED FOR INTERVENTION
		experienced by a third of the RNs (34.5%). 27. More than a third (34%) of the RNs indicated that a NSM is inferior in power and authority to other top-level hospital executives.
CWEQ-II	Access to opportunity	28. 42.6% of the participants indicated that they do not have the opportunity to gain new skills and knowledge in their jobs. 29. More than a third (34.6%) feel that they do not perform tasks where they can use all their own skills and knowledge. 30. A third (32%) of the RNs experiences no challenge within their practice environment.
	Access to information	31. Half of the participants (49.3%) do not experience access to information with regard to the current state of the hospital. 32. Almost two thirds of the RNs (63.6%) do not have access to information regarding the values of top management. 33. 55.5% indicated that they do not have information regarding the goals of top management.
	Access to support	34. Two-thirds of the participants (65.5%) seldom receive information about things they do well. 35. Almost two-thirds (62.6%) of the participants do not receive the necessary support regarding how to solve problems. 36. More than half (56%) are also not sure about things they can improve on, as no specific comments are provided in this regard.
	Access to resources	37. Not even a quarter (77.5%) of the participants had enough time to do their necessary paperwork. 38. 70.8% did not have enough time to accomplish their job requirements.

CRITERIA	SUB-CRITERIA	PROBLEMS IDENTIFIED FOR INTERVENTION
		39. Two thirds (66.5%) of the RNs indicated that they are not able to acquire temporary help when needed.
NIS	Hostile climate	40. Two-thirds of participants (67.4%) stated that people blame each other for their own mistakes and offences. 41. Hospital employees raise their voices when frustrated, as indicated by more than half the participants (55.5%). 42. More than half of the participants (53.6%) indicated that personal verbal attacks on other employees are experienced during basic disagreements.
	Inconsiderate behaviour	43. More than three-quarters (79.5%) of the participants experience an inappropriately high noise level in the CCUs. 44. Almost half (46%) of the participants agreed to the fact that people take things without asking. 45. 42.1% stated that other employees display argumentative body language.
	Gossips/Rumors	46. Half of the participants responded that nurses gossip about one another (52.1%). 47. Almost half (47.9%) of the RNs also indicated that nurses gossip about their supervisors at work. 48. Within the workplace people are bad-mouthed by others, as indicated by almost half of the participants (45.5%). 49. A third of the participants (33.5%) indicated that people spread rumours within their CCU.
	Free riding	50. Almost half (40.7%) of the participants responded that nurses expect to receive credit for working on projects to which they made little contribution. 51. 33% agreed with the fact that nurses take credit for work that they did not do.

CRITERIA	SUB-CRITERIA	PROBLEMS IDENTIFIED FOR INTERVENTION
	Abusive supervision	52. More than half (59.8%) of the participants agreed that physicians are verbally abusive. 53. Physicians yell at nurses regarding matters that are not important, as indicated by almost half of the participants (47.3%). 54. 43.5% of all the responses indicated that physicians take their feelings like anger and stress out on the RNs. 55. More than a third (40.2%) of the participants stated that when they make mistakes, the physician will shout at them.
	Lack of respect	56. More than a third (39.2%) indicated that physicians treat them as if nurses' time is not important. 57. More than a third (35%) also indicated that physicians do not respond to their concerns in a timely manner. 58. 35.4% of the participants feel that family and patients make unreasonable demands on them.
	Displaced frustration	59. Participants responded that the patient and/or family take out their frustrations on them (55.5%). 60. Half of the participants (50.3%) stated that patients and/or family show that they are irritated or impatient. 61. Nurses are treated as if they are inferior and stupid by patients and/or family, as indicated by almost half of the participants (47.8%). 62. More than a third (41.7%) of the participants feel that patients and/or family make insulting comments to them.
NAQ-R	Work-related bullying behaviour	63. 12.1% of these participants feel that they are exposed to an unmanageable workload. 64. 11% feel that they work below their level of competence. 65. Information affecting performance is withheld from 10.5% of all the participants.

CRITERIA	SUB-CRITERIA	PROBLEMS IDENTIFIED FOR INTERVENTION
	Personal-related bullying behaviour	66. 10.5% of participants experience being humiliated or ridiculed in connection with their work, of whom 8.6% experience this weekly. 67. Areas of responsibility are removed or replaced with more unpleasant tasks (9.6%). (7.7% experience this on a weekly basis.) 68. 7.2% of participants feel that they are constantly reminded of their errors or mistakes. 69. 6.7% indicated that people spread gossip and rumours about them. 70. 6.2% of these participants responded that they experience insulting remarks regarding their person, attitudes and private life. 71. 5.3% indicated that they are ignored or faced with hostile reactions on a weekly basis. 72. 5.3% also experience hints or signals that they should quit their jobs.
	Physical bullying behaviour	73. Being shouted at or being a target of spontaneous anger is indicated by 6.2% of participants. In 2.4% this occurs on a daily basis. 74. Intimidating behaviour is experienced by 3.4% of the participants on a weekly to daily basis. 75. 1.4% of participants are in the presence of threats of violence or physical abuse or actual abuse on a daily basis.

5.3.7. Intervention programme objectives

An objective is something that is to be obtained or worked towards (APA dictionary of psychology, 2007:636), “a goal or an aim” (Concise Oxford English dictionary, 2011:986). The intervention programme objectives were prioritised according to the correlations found between the independent variables and the dependent variables (structural empowerment, psychological empowerment, incivility, bullying and the practice environment (see section 4.7). The staffing and resource adequacy

subscale of the PES-NWI-R had the highest correlation towards EE (-.470), followed by the work-related bullying behaviour subscale of the NAQ-R to Dp (.456), thirdly, the access to resources sub-scale of the CWEQ-II to EE (0.425) and finally, the displaced frustration subscale of the NIS to EE (0.350).

Furthermore, the intervention programme objectives were determined in line with the vision, mission, values, principles and assumptions of the intervention programme for burnout among CCNs in adult CCUs in a selected private hospital group in Gauteng Province. The six intervention programme objectives for burnout are presented in Table 5.4. Each intervention programme objective is stated, with the problems identified.

Table 5.4: Objectives and problems identified

OBJECTIVES	PROBLEMS IDENTIFIED FOR INTERVENTION
Provide adequate and competent nursing personnel (RNs, ENs, ENAs and care workers) and support personnel (ward secretary, stock controllers, cleaners, etc.)	1, 2, 3, 4, 14, 15, 17, 37, 38, 39, 63,
Enhancing nursing personnel's involvement within hospital governance and participation with regard to policy decisions	16, 18, 20, 21, 24, 25, 26, 27, 31, 32, 33,
Ensuring effective nurse leadership	11, 12, 13, 19, 22, 23, 28, 29, 30, 34, 35, 36, 64, 65,
Ensure civil behaviour amongst personnel in the CCU	40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 66, 67, 68, 69, 70, 71, 72, 74, 75
Ensure a collaborative and respectful relationship between physicians and nursing personnel	5, 6, 7, 8, 9, 10, 52, 53, 54, 55, 56, 57, 73,
Establish mutual trust and respect between RNs and patient and family/friends	58, 59, 60, 61, 62,

5.3.8. Proposed interventions

The term “intervention” was described in Chapter 3, Section 3.7.1 and the proposed interventions (Table 5.5) for this study were developed from the intervention programme objectives (see Table 5.4), which were based on the problems identified (See Table 5.3). The interventions are further applied to the ANCC 14 Forces of Magnetism which is the theoretical framework of the study (please see Section 1.6.2.9, Table 1.2).

Table 5.5: Objectives and proposed interventions

INTERVENTION PROGRAMME OBJECTIVES	PROPOSED INTERVENTION	THEORETICAL FRAMEWORK (FORCES OF MAGNETISM APPLIED)
1. Provide adequate and competent nursing personnel (RNs, ENs, ENAs and care workers) and support personnel (ward secretary, stock controllers, cleaners, etc.)	1. Ensure that there are adequate and competent RNs employed in the CCU 2. Ensure that there are adequate and competent EN's, ENA's and care workers employed in the CCU 3. Ensure that there are adequate and competent support staff employed in the CCU	Force 8, Force 11, Force 14
2. Enhancing nursing personnel's involvement within hospital governance and participation with regard to policy decisions	4. The presence of an active quality assurance programme 5. Adequate opportunities to participate in internal governance of the hospital 6. Adequate opportunities to participate in policy decisions 7. Opportunities for advancements, career development 8. Regular feedback from top management regarding the current state of the hospital 9. Regular feedback regarding the values	Force 2, Force 4, Force 5, Force 6, Force 7

INTERVENTION PROGRAMME OBJECTIVES	PROPOSED INTERVENTION	THEORETICAL FRAMEWORK (FORCES OF MAGNETISM APPLIED)
	and goals of top management 10. A NSM equal in power to the rest of top management	
3. Ensuring effective nurse leadership	11. Ensure that the NSM is visible and accessible to the nursing personnel 12. Ensure that nurse leaders at all levels are supportive of nursing personnel 13. Ensure that nurse leaders at all levels develop their nursing personnel 14. Ensure that nursing personnel are recognised and rewarded for good work	Force 1, Force 3
4. Ensure civil behaviour amongst personnel in the CCU	15. Eliminate uncivil behaviour in the CCUs 16. Eliminate all forms of verbal and physical abuse in the CCU	Force 9, Force 12, Force 13
5. Ensure a collaborative and respectful relationship between physicians and nursing personnel	17. Create an environment of mutual respect between nursing personnel and physicians 18. Enable a collaborative work environment between nursing personnel and physicians 19. Eliminate all forms of verbal abuse by physicians in the CCU	Force 9, Force 10. Force 13

INTERVENTION PROGRAMME OBJECTIVES	PROPOSED INTERVENTION	THEORETICAL FRAMEWORK (FORCES OF MAGNETISM APPLIED)
6. Establish mutual trust and respect between RNs and patient and family/or friends	20. Encourage patients to give praise and recognition to nursing personnel 21. Create an opportunity where patients can complain about service 22. Empower nursing personnel with skills to handle patient abuse	Force 10

5.3.9. Proposed actions

Actions are a self-initiated sequence of movements, usually with respect to some goal the process of doing something to achieve an aim (Concise Oxford English dictionary, 2011:13). In this study, actions were developed to implement the proposed intervention. Table 5.6 presents the proposed actions to be taken to decrease the measured levels of burnout experienced by the RNs within the CCU environment.

Table 5.6: Proposed interventions and proposed actions

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
1. Ensure that there are adequate and competent RNs employed in the CCU 2. Ensure that there are adequate and competent EN's, ENA's and care workers employed in the CCU 3. Ensure that there are adequate and competent support personnel employed in the CCU	A. NURSING PERSONNEL (RNs, ENs, ENAs and care workers) UNIT LEVEL <i>The unit manager needs to plan and provide for adequate nursing personnel levels within the unit through monthly, weekly and daily planning in the following manner:</i> a. Monthly planning • Provide all nursing personnel with the opportunity of 2 requests regarding their off-duties on a monthly basis. By doing this, the unit manager attempts to accommodate nursing personnel's private lives and prevent absenteeism from work due to private events. • The unit manager needs to complete off-duties by the 15th of the current month for the next month's shifts to be worked so as to make off-duties for the next month available to nursing staff for any possible changes up to the 20th of the month prior to the shifts to be worked. • Provide known and competent agency nursing personnel with permanent shifts on a monthly basis and only cancel when patient occupancy changes. This will provide agency nursing personnel with stability and commitment to the CCU.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	<i>b. Weekly planning</i> - Unit managers need to take into consideration the specific days of the week for certain major surgery planned. Planning for more nursing personnel on high occupancy days will decrease the work load experienced by nursing personnel and enhance the quality of care provided, as well as nursing personnel's ability to help each other. - Plan personnel levels ahead for the week, together with the Nursing Agency, so as to ensure adequate nursing personnel in all the different categories for each shift. <i>c. Daily planning</i> - Nursing personnel for the next shift need to be arranged well in advance. Predicting and ensuring enough staff early in the morning prior to the night and next day shift will prevent agency personnel from being booked by other CCUs. - Maintain a balance between permanently employed nursing personnel and agency nursing personnel for each 12-hour shift. - Apply a 1:1 ratio for each critically ill patient at all times and a 1:2 ratio to high care patients. Critically ill patients require time-consuming interventions and complex nursing care. - A care worker/ENA needs to be allocated to certain bed areas during each shift to assist with basic nursing care of patients and to alleviate the work pressure experienced by the RNs and ENs.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	- Implement a buddy-system within the unit on a daily basis where nursing personnel are allocated to a certain area to help each other when indicated. <i>Ensure competent and well experienced nursing personnel within each unit. The following actions are suggested:</i> <i>a. Orientation of new nursing personnel</i> - Implement an orientation programme, not only for newly employed permanent nursing personnel, but also for new agency nursing personnel. Orientation will enhance faster adaption towards the CCU routine and more efficient patient care will be provided. - Nursing personnel within the CCU need to be empowered with the necessary training based on how to support and assist newly employed personnel when needed. This may be done through the provision of a tick list specifying exactly what the newly employed nursing personnel member needs to know or needs to be exposed to during the first 3 to 6 weeks within the unit. - Newly appointed nursing personnel need to be provided with adequate time to work alongside the clinical facilitator or preceptor within the unit to gain optimal exposure to the orientation and adjustment process. - Provide all policies and procedures applicable within the CCU in electronic format to all newly appointed nursing personnel to allow them to read through important aspects in their own time. This will empower them to adjust to the unit dynamics much more quickly.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• The relevant Nursing Agency needs to employ a clinical facilitator/preceptor available to orientate agency nursing staff entering the CCU for the first time. This means that the preceptor appointed by the Nursing Agency needs to be familiar with the specific CCUs. b. Formal training • Create a positive attitude within nursing personnel regarding continuous learning through active encouragement to attend workshops, short courses and other relevant training to improve their knowledge base and practical skills and to gain CPD (Continuous Professional Development) points. • Re-enforce the imperative that a certain amount of CPD points need to be obtained within a one-year period for optimum annual performance appraisal scores. When nursing personnel know that enhancing their knowledge base and clinical skills will also improve their income on an annual basis, it might motivate them to continue to learn. • Programmes that promote formal education, professional certification and career development must be evident within each unit; for example, a diploma in critical care, 6-month certificate in critical care nursing, not only for RNs but also for ENs and then: • All nursing staff needs to be aware of all the different courses provided within the organisation through active advertisements. Information regarding courses provided within the organisation might motivate personnel to enroll for them.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	- All nursing personnel must be provided with the opportunity to complete either a certificate or a diploma in critical care nursing to ensure an excellent knowledge base and skilled performance (depending on the different category of nurses). c. In-service training within the CCU - When representatives of companies who provide equipment and different kinds of stock to the unit want to offer in-service training regarding their products, the time scheduled for this type of event must be arranged in such a way that most of the nursing personnel on duty can attend the session. Certain times within the CCU do not allow for in-service training and the opportunity to enhance knowledge and clinical skills will be lost if not well planned. - A permanently employed clinical preceptor for each discipline CCU needs to be a priority so as to maintain and improve nursing personnel's clinical skills within the unit and to accompany all nursing students entering the CCU on a temporary basis. - Monthly nursing and medical ward rounds can be implemented for discussion of critically ill and interesting patients to improve critical thinking skills within nursing personnel and to provide a better understanding regarding the complexity of the patients' condition and indications for medical management. - Provide nursing staff with workshops dealing with how to decrease their work load through efficient time management, prioritising their nursing actions and working in co-operation with other colleagues in the unit. This will enable nursing personnel to spend optimal time in their patients' presence.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	B. SUPPORT PERSONNEL - Each CCU needs to have a competent, ward secretary who is willing to work hard in order to support nursing personnel with regard to answering the telephone, taking messages, handling of administrative work, etc. - A stock controller needs to be present on a 24-hour basis in the large CCUs to prevent stock loss due to time pressure experienced by nursing personnel. This position can be filled by permanently employed care workers. - Stock controllers need to assist with the billing of used stock during time pressure experienced by nursing staff, resuscitations and newly admitted patients so as to decrease further work pressure on the nursing personnel during high pressure patient care times. - Support personnel need to be aware of any workshops or formal training that they can attend to optimise their functioning within the units. - Each CCU needs to have a designated general cleaner within the unit to ensure a clean and safe environment at all times. HOSPITAL LEVEL - Ensure that each hospital adheres to the minimum nursing staff level standard through the use of a predetermined calculation in this regard. Each hospital must have a specific system to determine how many nursing personnel within each category are needed within the CCU on a daily basis according to the bed occupancy rate and predetermined patient acuity scores.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• The unit manager of each CCU needs to meet with the HR manager of the hospital on a monthly basis to discuss open vacancies regarding nursing personnel and specific requirements for each post available and/or experience required. • Unit managers need to be part of the interview panel when considering candidates for available posts. This will ensure her/his involvement in the selection process pertaining to new nursing personnel within the CCU. ORGANISATIONAL LEVEL • On an organisational level, there needs to be optimum planning, implementation and evaluation of staffing and workload practices at all three levels of decision-making, resulting in staffing that facilitates the delivery of safe and competent patient care (RNAO, 2007:31). This can be done through an aligned budget with required staffing levels to accommodate replacements, orientation and professional development of nursing and support staff, ensuring a full-time/part-time ratio of 70 / 30%, not only to ensure continuity of care, but also to optimise patient safety (RNAO, 2007:31). • The organisation needs to ensure that all nursing personnel have the necessary resources and support present within each CCU to be able to develop their unique expertise to the best of their abilities. • Ensure that there is a positive way of collaborating with the specific Nursing Agencies utilised by the hospital group so as to guarantee the placement of competent and experienced nursing staff at all times for each shift.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• The organisation needs to have a development and mentoring programme for preceptors for all levels of students and new nursing staff to ensure quality with regard to their orientation and training. • On an organisational level, management needs to value and support all personal and professional growth and development of personnel through constant encouragement and through the provision of growth opportunities within the organisation.
4. The presence of an active quality assurance programme	UNIT LEVEL • All hospitals and CCUs need to cultivate a philosophy of quality patient care through the utilisation of Best Practice Guidelines and the initiation of Magnet Recognition within the South African context. • A quality assurance representative needs to be present within each unit to ensure that all nursing personnel adhere to quality basic nursing care and other quality assurance measures as set out by management. • All nursing personnel need to engage with the quality assurance programme at their hospital by providing quality nursing care at all times. HOSPITAL LEVEL • Hospital management needs to cultivate a sense of quality improvement within nursing personnel through the use of posters or an SMS/Whatsapp message/E-mail with quality assurance hints on a weekly or monthly basis. This might lead to better compliance.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• A quality assurance nursing personnel member needs to be employed by the hospital to maintain and enhance quality patient care provided through in-service training regarding quality matters, workshops, visits to the units, etc. • Implement competitions between the units regarding certain quality assurance matters; for example: the unit with the lowest absenteeism rates for the month gains points. The unit with the highest points at the end of the year receives a reward. Adding excitement to the quality assurance programme might enhance a positive attitude and compliance by nursing personnel. ORGANISATIONAL LEVEL • Programmes for improving the quality of care and services need to be present within the organisation, together with structures and processes for measuring quality care. • Within the organisation, a positive practice environment with adequate resources, support and opportunity needs to be provided by nurses in leadership positions to be able to influence patient outcomes positively. • Attach a quality assurance leaflet to each nursing personnel's pay slip on a monthly basis to ensure that they are aware of all the quality assurance activities happening within the hospital setting. • Models of care need to be present within the organisation to ensure that the patients' unique needs are considered at all times, to provide continuity of patient care at all times, and so that nursing personnel take responsibility and authority for direct patient care and are held

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	accountable for their own practice and for the co-ordination of care.
5. Adequate opportunities to participate in internal governance of the hospital	UNIT LEVEL • To provide each unit with copies of the hospital group magazine where all the information regarding the economical markets, shares, events at other hospitals and other relevant information regarding hospital affairs is provided. • This is an easy way of ensuring that nursing personnel know what is happening within the organisation in which they are employed. • Each unit manager needs to provide feedback from management regarding all aspects within the organisation on a weekly/monthly basis. This can be done in the form of a “management” communication book where all staff can read and sign the area where information is provided, so as to acknowledge the fact that they received the relevant information. HOSPITAL LEVEL • All nursing personnel need to have the ability to communicate their opinions and concerns to top management on a regular basis. • This can be employed through the use of a suggestion box at management office or within each unit, or through the implementation of a 3-monthly general staff meeting with hospital management.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	- When personnel know that they can provide their opinions and concerns to management without being judged or discriminated against, they will feel freer to do so. ORGANISATIONAL LEVEL - The organisation needs to provide all personnel with a “survey” prior to any important decision-making within the organisation. When the organisation intends to change the type of uniform that the nursing staff are wearing, then nursing staff need to be provided with all the information in this regard. They need to be able to provide all their input into the design and colour of these uniforms as they will be wearing them.
6. Adequate opportunities to participate in policy decisions	UNIT LEVEL - For CCNs to have the opportunity to participate within policy decisions, they need to expand their knowledge base through the reading of scientific literature, in an attempt to understand current policy decision- making within their specific hospitals. - Within each unit, a policy and procedure file needs to be present and updated. Within the file, a signature sheet for all unit staff needs to be present prior to each policy statement. Each staff member needs to sign when they have read a policy so as to confirm that they are knowledgeable about it. - Within each policy file, a designated area can be created where staff can write down suggestions with regard to policies that are actively implemented in the unit. These suggestions can then be forwarded to management on a monthly or three-monthly basis.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	HOSPITAL LEVEL • Management needs to be positive in welcoming and creating opportunities for employees to provide feedback and input into work-related issues so as to be able to make appropriate and accurate policy decisions. • To ensure active participation in policy development, all nursing staff needs to be provided with the “concept” of a policy and be allowed to participate in its design. Work with regard to designing any nursing-related policies should be divided between staff to ensure equity and group involvement. • Nursing staff then implement the policy to assess its viability and amend it as required. • The design, implementation and amendment of any policies by nursing staff can form part of their performance appraisal to ensure active participation by everyone. ORGANISATIONAL LEVEL • The organisation needs to provide personnel policies and programmes that are supportive of professional nursing practice and the delivery of quality patient care.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
7. Opportunities for advancements, career development	UNIT LEVEL - CCNs who excel within the unit with regard to clinical practice need to be identified and promoted to senior CCN posts within the unit. This will involve a higher salary and greater responsibilities within the unit. HOSPITAL LEVEL - Implement a bulletin board centrally situated in the hospital with advertisements of all the posts available in the hospital group and specifying all the requirements for each post. - Provide nursing personnel with Internet access with an e-mail regarding all career possibilities within the hospital group on a monthly basis. This will ensure that personnel have detailed information regarding possibilities in advancing their career development. ORGANISATIONAL LEVEL - Management needs to provide nursing personnel with the opportunity to take study leave during examination periods. This will increase nursing personnel's willingness to develop within their careers. Competitive salaries and benefits need to be provided by the organisation.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
8. Regular feedback from top management regarding the current state of the hospital	UNIT LEVEL - Each unit can have a “Whatsapp” group where all important matters within the unit and hospital are communicated to all staff members by the unit manager and senior personnel within the CCU. HOSPITAL LEVEL - Hospital management might incorporate a monthly meeting with all unit managers to provide an update regarding hospital related issues. Unit managers can then provide relevant important feedback to their own personnel via a communication book or through a communication board situated within each unit. - Management needs to ensure the transparency of all information regarding the values, goals and current state of the hospital that are important to nursing staff. This information needs to be available at any time at the management office of each hospital. ORGANISATIONAL LEVEL - Distribute newsletters regarding important hospital matters on a three- monthly basis to all hospitals within the group. - This will ensure that personnel who are interested in knowing what is happening within the hospital group have the necessary information at hand.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
9. A Nursing Service Manager equal in power to rest of top management	UNIT LEVEL: - All CCU personnel must provide the NSM with the necessary respect. This implies standing up when s/he enters the unit staff's immediate environment, being polite and friendly. HOSPITAL LEVEL: - All managers need to know that they are all dependent on each other as they are engaged in a common goal within the broader organisation. - Feedback regarding all management decisions within the hospital needs to be provided to the NSM with the opportunity to provide her / his opinion and advice in this regard. - All policies must be approved by the NSM prior to implementation with her / his relevant input in this regard. ORGANISATIONAL LEVEL - For the NSM to be equal in power to the rest of top management a relationship of trust needs to be established between all relevant parties. This may be done through workshops regarding inter-personal-relationships, ethics, team-building sessions, etc.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
10. Ensure that the NSM is visible and accessible to the nursing personnel	UNIT LEVEL • The NSM must at all times have a consistent presence throughout the hospital through daily or weekly visits to the different units. • This means that, if possible, management needs to visit night shift nursing personnel on a monthly basis and rotate between shifts to make sure all personnel are included. • When nursing personnel experience the presence of management on a weekly basis, it might enhance their feelings of commitment to the hospital. HOSPITAL LEVEL • Ideally the Nursing Service Manager needs to be a CCN herself to have a better understanding and knowledge of all aspects. • The NSM needs to convey knowledge, strength and the ability to take risks in the day-to-day operations of nursing services. • The NSM needs to deliver a strong sense of advocacy and support to all nursing personnel and patients. She must therefore provide personnel with the assurance that they can approach her/him regarding any work-related matters during office hours by means of an appointment. • The NSM also needs to remain objective and fair when nursing personnel approach her regarding work-related matters.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
11. Ensure that nurse leaders at all levels are supportive of nursing personnel	UNIT LEVEL - The unit manager must be willing to practise participative management skills and therefore encourage nursing staff to voice their feelings and concerns within the units. This will indicate to the personnel that they are important and that they will be supported at all time. This can be done through monthly ward meetings or an open door policy allowing nursing staff to drop in and share concerns at any time. - The unit manager needs to be visible and accessible at all times and, when possible, be involved in direct patient care so as to gain the respect and support from her/his personnel. This will also help the unit manager to get to know her nursing staff better. HOSPITAL LEVEL - The HR department needs to ensure that unit managers attend workshops in relation to how to support their nursing personnel physically and emotionally with regard to all the situations that occur within the CCU environment. - An authentic leadership style needs to be adopted within the hospital setting. Nurse leaders will then be fair and supportive of all personnel and a positive climate will be created within the hospital setting. ORGANISATIONAL LEVEL - Nurse leaders (NSMs) need to be the advocate and support for nursing personnel during important organisational decision making and act as a spokesperson on their behalf.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
12. Ensure that nurse leaders on all levels develop their nursing personnel	UNIT LEVEL • Please see no 1 “formal training” in this table. HOSPITAL LEVEL • The Training Department in each hospital needs to inform unit managers of all CCUs regarding courses available and actively provided within the organisation so that unit managers can encourage their nursing personnel to develop in this regard. ORGANISATIONAL LEVEL • Nurse leaders within the hospital need to be aware of any courses or workshops available within the organisation at all times. This might be provided via e-mail so as to inform nursing and support personnel in this regard on a monthly basis.
13. Ensure that nursing personnel are recognised and rewarded for good work	UNIT LEVEL • Verbal recognition within the CCU by fellow colleagues and the unit manager when appropriate. • Monthly communication between the unit manager of each CCU and the CNO, specifically with regard to personnel in the unit who excel in their practice environment. ORGANISATIONAL LEVEL • Performance appraisals need to be individualised on a 6-monthly basis and nursing personnel must have the opportunity to complete a self-evaluation tool regarding their own

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	performance. Individual performance appraisal enhances the employee's professional development. - Employee of the month rewards can be implemented to indicate recognition and praise for work well done. This type of reward system can balance out nursing personnel's job demands and protect them against the experience of burnout. HOSPITAL LEVEL - Reward systems in the form of financial remuneration for good work over a period of years. This will also encourage the good worker to remain employed within the organisation - The unit manager and other members of hospital management need to reward nursing personnel with the necessary respect through daily/weekly/monthly communication regarding work performance.
14. Eliminate uncivil behaviour in the CCUs	UNIT LEVEL - It is extremely important for each CCU to consider what they value and promote as acceptable behaviour and to set rules and regulations regarding such behaviour and norms in writing. This can be done through brainstorming sessions at monthly meetings or even during occasional debriefing sessions in the CCU. - Unit managers need to receive continuous training on a six-monthly basis regarding the importance of being highly conscious regarding the development of uncivil behaviour within their respective CCUs and how to maintain an attitude of zero tolerance in this regard.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	<i>The following actions are suggested for the high noise levels in the CCUs:</i> <i>a. Decreasing operational sounds (generated by the staff or equipment in CCU) (Konkani & Oakley, 2012:552.e3)</i> • Encourage personnel to answer all activated alarms whether from the cardiac monitor, infusion pumps or ventilators immediately to prevent prolonged noise levels. • All nursing personnel need to have formal orientation and training regarding the correct way of setting alarms on the cardiac monitor and ventilators to decrease the possibility of unnecessary alarm activation, but at the same time ensuring that the patient remains 100% safe. • Implement the buddy system where two personnel members work together in such a way that when the one person is on a lunch or tea break, the second person will attend to alarms during that time. • With alert and mobile patients, attend to the patient bell immediately. • The secretary of the CCU needs to respond to all calls as quickly as possible and to inform the shift leader when she leaves the CCU for any reason so that personnel can attend to the door bell and telephone calls knowing that she/he is not in the CCU. • In large CCUs, all personnel need to know how to transfer calls between phones (if not near to each other).

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• Decrease the sound level of telephones during the night to ensure that patients do not wake up unnecessarily. • Implementation of a sound indicator within the CCU might be considered for times when a certain sound level is exceeded. • Apply a “resting/quiet” time period during the day; for example between 12:00 – 14:00 in the unit, where the lights are dimmed and patients are resting. This kind of behaviour might be a good way of reminding personnel to be quiet within the CCU. • Lights need to be off at 22h00 at night. This will again remind all nursing personnel to decrease their tone of voice when speaking. • Limit private conversations to lunch and tea breaks. • Paper towel dispensers causing the minimum noise at each basin need to be installed in each CCU. <i>b. Decreasing structural sounds (sounds that are generated by the building, e.g. sounds generated by ventilation, air conditioning systems and doors) (Konkani & Oakley, 2012:552.e3).</i> • Only use chairs with wheels in the CCU to limit the sound made by moving a chair on the floor, especially at night. • Ensure that all entrances and exit doors (including the sluice door, stock room, etc.) are maintained in such a way that noise is limited when they are opened.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• Keep ventilators that are not in use (being tested and ready for use) switched off but plugged in. HOSPITAL LEVEL • Management needs to promote the idea of retreat events outside the work place for CCU personnel on a 6-monthly basis so that personnel can get to know each other better by relaxing together. • It might be an important intervention in the mitigation of uncivil behaviour to implement exit interviews for all personnel leaving the organisation. Any incivility might be identified through such interviews and attended to appropriately. People do feel more willing to reveal the reasons for leaving the company then rather than while they are employed. ORGANISATIONAL LEVEL • The organisation should establish clear and defined standards regarding interpersonal interactions so as to facilitate civil relationships within the practice environment. • The organisation must ensure that they are aware of national legislation regarding uncivil behaviour within the practice environment and at all times adhere to this legislation with regard to any incidences of incivility. Thus national legislation needs to be used to support all nursing personnel in the provision of a safe practice environment.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
15. Increase civil behaviour amongst staff	UNIT LEVEL • All nursing personnel need to strengthen their psychological resources/subjective well-being within the organisation by attending workshops or courses in this regard. Workshops or courses can include ➤ conflict management, ➤ skilled communication workshops, ➤ effective decision-making workshops and ➤ Interpersonal skills' workshops ➤ Cultural safety training Communication between all personnel needs to be open in order to foster much needed mutual respect and honesty between the team members. HOSPITAL LEVEL • The Human Resources department can provide civility awareness campaigns within the hospital setting on a 6-monthly basis to reinforce CIVILITY rather than focusing on INCIVILITY. • All personnel within the hospital need to receive the necessary respect and support within their practice environment so that they have the ability to express their opinions and feelings without worrying about retribution.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	- Each hospital needs to adopt the attitude that “being treated in a civil manner is not part of the job, it IS the job”. - Implementation of a RN satisfactory survey on a 6-monthly basis to ensure that civility is still prevalent within the CCU setting. ORGANISATIONAL LEVEL - Within the organisation, nurses’ contributions must be seen as essential to other members of the healthcare team because of the fact that nursing personnel form an integral part in the healthcare organisation’s ability to provide quality patient care. Therefore, 1 day a year needs to be dedicated to the “nurse” on “Nurses Day” and the organisation needs to implement certain activities to increase the nurses’ experience of being valued.
16. Eliminate all forms of verbal and physical abuse in the CCU	UNIT LEVEL - Each unit must establish a zero tolerance policy regarding verbal and physical abuse in their respective units. - Any form of verbal or physical abuse within the CCUs needs to be reported to the unit manager and dealt with immediately. - The unit managers of each CCU need to build an effective control mechanism to prevent report and punish bullying behaviour within the CCU. This can be done through setting clear expectations with regard to policy development in relation to verbal and physical abuse in the CCU. - Nursing personnel exposed to verbal and physical abuse need to receive counselling

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	sessions with a psychiatrist or psychologist after exposure to bullying behaviour so as to aid a full recovery. • All employees need to be held 100% accountable for their unacceptable behaviour with regard to verbal and physical abuse in the CCU. • A team approach on how to manage unacceptable behaviour like verbal and/or physical abuse within the CCU can be of great value. The occurrence of this kind of bullying behaviour can be investigated and analysed by the CCU team together through brain-storming. • Nursing personnel might need to apply some reflective practices where s/he keeps a journal regarding incidences of bullying behaviour, with all the details regarding the incidents to be used for future reference. • Personnel exposed to this kind of bullying behaviour need to look after themselves with regard to nutrition, good sleep and relaxing exercises. This will increase their physical and mental capacity to remain professional in all situations at all times. • Each unit needs to have a “doctors round” book. Within this book, all requests will be written for each patient by the shift leader or unit manager accompanying each doctor on patient rounds. In this way, possibilities for errors are kept to the minimum and the possibility of verbal abuse is also minimised to some extent.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	HOSPITAL LEVEL - Employee performance needs to be evaluated on a 6-monthly basis to ensure the identification of any incivility-related problems within the CCUs. A performance appraisal/evaluation tool needs to be available to ensure consistency regarding evaluation of all nursing personnel. - Management needs to provide compulsory training of nursing managers in developing effective managerial skills to prevent bullying behavior on the part of nurse managers. - Hospital management needs to investigate and attend to all complaints of verbal and physical abuse, as any form of bullying behaviour might lead to financial implications for the hospital in terms of: - Increased absenteeism rates of nursing personnel - High staff turnover rates - Liability towards safety of employees - Legal costs - The person guilty of verbal and/physical abuse needs to receive corrective measures from management to prevent the re-occurrence of such events. - Hospital management needs to be very attentive to identifying nursing staff who suddenly demonstrates avoidance behaviour or withdrawal from work activities, as this might be the only indication of bullying behaviour in the practice environment. This kind of behaviour needs to be followed up immediately by management.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	- The management of each hospital needs to be conscious and fully aware of all labour legislation regarding bullying behaviour within the workplace and adhere to it at all times. ORGANISATIONAL LEVEL - The organisation needs clearly to convey its organisational culture of “zero tolerance” in relation to verbal and physical abusive behaviour to all employees through policy and protocol statements. Thus the organisation increases its control over the situation of verbal and physical abuse.
17. Create an environment of mutual respect between nursing personnel and physicians	UNIT LEVEL - Open communication skills need to be practised by nursing personnel and physicians, such as continuous eye contact during conversations, no arm crossing when talking to each other, no raised voice tone during conversations. - Nursing personnel and physicians need to value the unique contribution that each one brings into the practice environment on a daily basis through recognition when indicated and by treating each other with respect at all times. - The unit manager should be an advocate for her/his nursing staff when exposed to disrespectful behaviour towards them by handling situations where respect is violated immediately, either verbally or in writing. - To obtain mutual respect between nursing personnel and physicians, very clearly defined boundaries regarding interpersonal behaviour need to be set out in writing, and all parties

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	need to acknowledge that they are aware of these boundaries regarding their interpersonal behaviour. • All nursing personnel need to be optimally trained and skilled within their specific scope of practice in order to gain the necessary respect from physicians entering the CCU environment. Therefore, all nursing personnel need to be provided, not only with the opportunity, but also with the necessary support and time to complete all training which enhances their performance within the CCU. • Physicians, on the other hand, also need to be optimally competent, skilled and knowledgeable regarding all aspects within the CCU environment in order to gain the necessary respect as a professional from nursing personnel. • Nursing personnel need to be allowed to enact their full scope of practice and not be treated as “puppets-on-a-string” by physicians. HOSPITAL LEVEL • Ensure that unequivocal policy statements and a strong code of conduct regarding unprofessional behaviour are in place in each hospital and that all doctors and nursing personnel have a copy available so as to ensure their knowledge in this regard. • Each hospital needs to provide physicians and nursing personnel with “sensitivity training” relating to each other’s unique role within the patients’ stay in hospital. ORGANISATIONAL LEVEL

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
18. Enable a collaborative work environment between the nursing personnel and physicians	UNIT LEVEL - Suggest counselling sessions for physicians and nursing personnel after exposure to a traumatic event in CCU – debriefing sessions on a 3-monthly basis. HOSPITAL LEVEL - Management needs to encourage physicians to attend stress management courses on a 6 – 12 monthly basis to reinforce coping-skills and inter-personal contact with other team members. - Physicians and nursing personnel might need to consider attending a course regarding mindful communication with nursing personnel in order to enhance collaboration between both parties. - Nursing personnel need to be able to use their independent judgment within the environment of interdisciplinary and multidisciplinary approaches to patient care. ORGANISATIONAL LEVEL - Management needs to control all organisational factors that might increase the stress that physicians might experience; for example, exposure to faulty equipment and inexperienced or incompetent nursing personnel so as to ensure positive collaboration between nursing personnel and physicians.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
19. Eliminate all forms of verbal abuse by physicians in the CCU	UNIT LEVEL • All nursing personnel need to empower themselves with knowledge regarding the Employment Equity Act in order to raise their awareness regarding bullying behaviour and to report this type of behavior STAT to their immediate supervisor. • Encourage all nursing staff to be assertive and to report unprofessional behaviour experienced from physicians in a professional manner by providing nurses with specific guidelines regarding the reporting process and the reinforcement of professional behaviour from physicians. • Nursing personnel need to take time out and walk away from any verbal abuse situation if possible. • Do deep breathing exercises and put things into perspective prior to any negative verbal comments within the CCU. HOSPITAL LEVEL • The management of each hospital needs to be conscious of all labour legislation regarding bullying behaviour within the workplace and adhere to it at all times. ORGANISATIONAL LEVEL • The organisation as an entity needs to adopt a policy of zero tolerance towards verbal abuse

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	by physicians. The policy in this regard needs to be understood and signed by all physicians practising within each hospital within the organisation.
20. Encourage patients to give praise and recognition to nursing personnel	UNIT LEVEL - Nursing personnel need to be optimally skilled in their daily work practice for patients to be able to give recognition accordingly. Personnel need to have the opportunity and time to improve their skills as mentioned before within this intervention programme. HOSPITAL LEVEL - Provide patients and family/friends with an evaluation questionnaire regarding their stay and nursing experience within the CCU upon discharge to the ward or home. - These patient evaluation questionnaires need to reach the PRO of the hospital and nursing personnel need to receive recognition for good nursing care through a reward system. This may include an “excellent caring” certificate on a three-monthly basis, a special tea for nominated candidates, etc. ORGANISATIONAL LEVEL - The organisation needs to establish relationships with the public (patient, family and friends) to develop strong partnerships supportive of improved patient outcomes and the health of the community they serve.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
21. Create an opportunity where patients can complain about service	UNIT LEVEL - Nursing personnel should be provided with the opportunity to attend workshops dealing with conflict management, communication skills and inter-personal-skills-development on a yearly basis. This will help them to be able to deal with any complaints in a professional manner. HOSPITAL LEVEL - Patient and family support groups might be implemented by hospital management so that families can voice their concerns and frustrations in an orderly and respectful manner. - A small chapel needs to be present within the hospital setting where family and friends can spend quiet spiritual time. ORGANISATIONAL LEVEL - The organisation need to adapt visiting time schedules in such a way that family can spend optimum quality time with their sick family member in the CCU.
22. Empower nursing personnel with skills to handle patient abuse	UNIT LEVEL Nursing personnel need to be provided with the opportunity to attend workshops dealing with the management of abusive behaviour, conflict management, communication skills and inter-personal-skills-development on a yearly basis.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	• Nursing personnel also need to be provided with interactive training regarding “real life situations” and how to handle such situations in a professional manner. • Nursing personnel need to make it clear to the patient when abusive behaviour are experienced that such behaviour will not be tolerated at any time. • Adequate nursing personnel levels need to be maintained, as discussed in previous sections to ensure the safety of nursing personnel within the unit at all times. With adequate staffing levels the frustrations of the patients might decrease, as the nursing personnel will be able to spend quality time at the patient's bedside and access help when needed more readily. • During admission of patients to the ward, it is important to take a complete patient history in order to identify possible abusive behaviour during hospital stay; for example, daily consumption of alcohol or a history of aggressive behaviour. • Nurses need to learn to observe verbal and non-verbal communication from patients that might lead to abusive behaviour, such as the patient's tone of voice or clenching of fists. • Nursing staff must be allowed to restrain patients to the bed, not only for their own safety, but also to protect the patient against injuries. • Nursing personnel need to keep accurate records of all interventions with their patients at all times. This will protect them legally when documents need to be used as evidence in court cases.

PROPOSED INTERVENTIONS	PROPOSED ACTIONS
	HOSPITAL LEVEL • Hospital management must ensure that their hospital can be regarded as a patient facility of a high standard in order to decrease the frustration that patients and family experience. • The security system within the hospital setting must be set up in such a way that nursing staff can call for support at any time. • All people entering the hospital need to be screened through metal detectors to ensure that no weapons enter the hospital environment, as this might lead to a very dangerous situation. • After any abusive incidents, the patient's file should be flagged in such a way that when admission is needed in the future, all nursing personnel are aware of the patient being a possible risk to their safety. ORGANISATIONAL LEVEL • Nursing personnel need to be provided with the necessary support services from the organisation; for example, counselling and debriefing sessions and medical services when needed in case of injuries due to patient abuse. • Organisational management should ensure that patients are provided with activities that may reduce frustration and boredom; for example, providing a functioning TV at each bed with a variety of TV channels to be selected.

5.4. PROCESS FOR IMPLEMENTATION

The process for implementation of the intervention programme to decrease burnout will include the following: a trial version of the programme will be provided to top management of the relevant hospital group for evaluation of the content. As the implementation of the intervention programme will depend on approval from organisational management, an appointment will be made with the relevant person to discuss the possibility of implementing the programme within their adult CCU practice environment. One hospital will be selected as a “pilot” for intervention programme implementation. An appointment with the Nursing Service Manager and the unit manager of the pilot hospital will be made to discuss, not only the detail of the programme, but also to determine what aspects of the programme are already present within the practice environment. The researcher will utilise a tick list for all the interventions and actions proposed in the intervention programme to determine which of the actions are already utilised and to identify the problem areas within the specific hospital. The focus then will be on reinforcing the actions that are already in place within the CCU and from there to provide intervention ideas with regard to the problem areas identified. All nursing personnel within the pilot unit will be encouraged to participate in the implementation of the programme. For example, how to decrease the noise level in the ICU: nursing and support staff can participate together with regard to this problem. Posters can be created by personnel with reminders to keep quiet in the unit and advice as to how to limit operational sounds like ventilator alarms, monitor and infusion pump alarms. There could be an employee of the month reward for the person attending to the noise levels the best. An evaluation of all actions employed can be performed through a short questionnaire to patient, family and nurses in the unit.

5.6. SUMMARY

Chapter 5 focused on the intervention programme to decrease the levels of burnout amongst CCNs in the Gauteng Province of SA. At first the objectives and phases of the research study were provided. The process for the development of the intervention programme was provided through the use of all the research objectives

and the researcher provided a visual illustration of the process for the development of the intervention programme. After exploring the vision and mission of some global organisations, the researcher developed a vision and mission for the intervention programme. Values included respect, collaboration, leadership, participation and empowerment. Principles were provided and included the 14 Forces of Magnetism applicable to the research study. 75 problems were identified for the intervention programme and intervention objectives were set out accordingly. Proposed interventions for the study were developed from the intervention programme objectives. Proposed actions were developed to implement suggested interventions in an attempt to decrease the levels of burnout in the CCUs. Lastly, the process for implementation was provided. Within Chapter 6 an evaluation of the study will be provided together with limitations that were identified. Recommendations for practice, education, research and policy will also be provided.

CHAPTER 6

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

*“Everyone can rise above their circumstances
and achieve success if they are dedicated to
and compassionate about what they do”*

Nelson Mandela

CHAPTER 6:
EVALUATION OF THE STUDY, LIMITATIONS AND
RECOMMENDATIONS FOR PRACTICE, EDUCATION, RESEARCH
AND POLICY

6.1 OVERVIEW OF THE CHAPTER

In Chapter 6, the researcher will evaluate the study with regard to the achievement of the objectives that were delineated in Chapter 1. The limitations of the study will be provided, together with recommendations for clinical practice, nursing education, nursing research and policy development.

6.2. INTRODUCTION

The aim of this research study was to examine the relationship between burnout, empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment in order to develop an intervention programme to decrease burnout for CCNs in a private hospital group in the Gauteng Province of South Africa. With this in mind, the objectives for the study were set out as follows:

6.2.1. Phase 1

Objective 1: To describe and discuss burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment through an in-depth literature review

Objective 2: To describe the levels of burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the status of the practice environment according to CCNs in a private hospital group in the Gauteng Province of SA;

Objective 3: To examine the nature of the relationship between burnout and empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment of CCNs in a private hospital group in the Gauteng Province of SA.

6.2.2. Phase 2

Objective 4: To develop an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group in the Gauteng Province of SA.

6.3. EVALUATION OF THE STUDY

The study will be evaluated in the following few sections in relation to the achievement of the objectives outlined above.

6.3.1. Evaluation: achievement of objectives

Figure 6.1 below provides a visual illustration of the different objectives required for developing an intervention programme to decrease burnout for CCNs in a selected private hospital group in the Gauteng Province of SA. Phase one of the study included the first three objectives where a comprehensive literature reviews was conducted to describe and discuss the different variables in the research study. Through data collection and analysis, the levels of burnout, structural empowerment, psychological empowerment, incivility, bullying behaviour and the status of the practice environment were described in objective two. Objective three involved determining the nature of the relationship between the different measured variables. Phase two of the study identified 75 problems from the data analysis and provided the basis for the development of an intervention programme to decrease the levels of burnout amongst CCNs in a private hospital group of the Gauteng Province of SA.

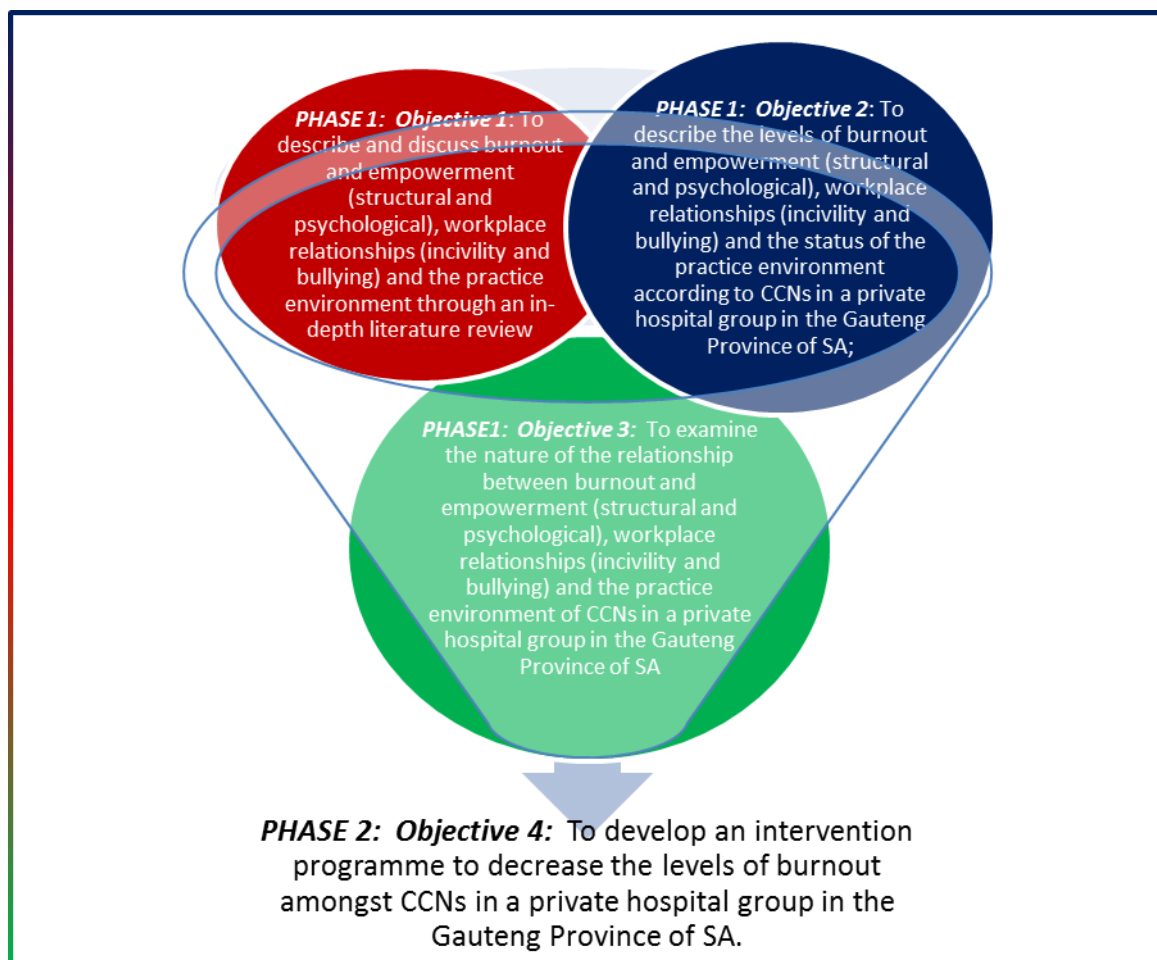


Figure 6.1: Visual illustration of the phases and objectives of the research study in developing an intervention programme for burnout.

6.3.1.1. Phase 1: Objective 1 – 3

Objective one of the research study involved a comprehensive literature review pertaining to describing and discussing all the different variables (please see Chapter 2, Section 2.3 to 2.6). By means of the literature review, all the relevant variables were not only conceptually defined, but the antecedents and consequences of the variable were also discussed. Recent national and international research conducted on each variable was provided, along with the relationship of each variable to burnout. Objective two was achieved through the use of internationally validated instruments, where the participants needed to indicate their responses on different

Likert scales. Please see Chapter 3 section 3.3.2 for the different instruments used to determine the experienced levels of burnout, structural empowerment, psychological empowerment, incivility, bullying and the practice environment of the participants. In reaching objective 3, the relationship of all the variables to burnout and to each other were determined and discussed in detail in Chapter 4 of the study (Chapter 4, section 4.7 to 4.8).

6.3.1.2. Phase 2: Objective 4

Objective 4 involved the development of an intervention programme to decrease the levels of burnout through deductive and inductive reasoning (Chapter 3, Figure 3.2). To be able to develop this programme, the researcher first provided a vision (Section 5.3.1), a mission (Section 5.3.2), values (Section 5.3.3), principles (Section 5.3.4) and assumptions (Section 5.4.35) prior to the formation of the 75 problems identified for the intervention programme (Table 5.3). From all the problems identified, six objectives for the programme were developed (Chapter 5, Table 5.4). These objectives were then expanded as proposed interventions (Table 5.5) which then formed the basis for the development of proposed actions (Table 5.6). The proposed interventions were also developed in accordance with the 14 Forces of Magnetism which provided the theoretical framework for the research study.

The researcher succeeded in meeting the research goals, in that the literature review provided detailed information with regard to defining the different variables, finding sufficient antecedents, establishing the consequences and investigating recent research regarding all the variables. Through the literature review, it was confirmed that national research regarding structural empowerment, psychological empowerment, incivility and bullying were still lacking, thereby supporting the rationale for the research study. Objective two indicated that participants were experiencing moderate levels of burnout; participants were only moderately structurally empowered; they experienced uncivil behavior within their practice environment, and were also bullied to some degree. The practice environment could

be seen as positive, except for inadequate staffing and resource availability, as well as collegial and nurse/physician relationships that were not adequately maintained. Objective three established a relationship between burnout and each of the variables, and also between all the other independent variables. In reaching objectives one, two and three, objective four could be met and an intervention programme to decrease burnout developed.

6.3.2. Hypothesis testing

Based on the discussion above, the hypotheses of the study as listed in Chapter 1 are presented.

6.3.2.1. H_{01} – There is no relationship between the levels of burnout and structural empowerment in CCUs in a private hospital group in the Gauteng Province of SA:

This hypothesis is rejected. A lack of access to resources and access to support negatively affected EE and Dp, whereas when participants experienced increased access to opportunities and resources, this enhanced their experience of personal accomplishment.

6.3.2.2. H_{02} - There is no relationship between the levels of burnout and psychological empowerment in CCUs in a private hospital group in the Gauteng Province of SA:

This hypothesis is rejected. Although the correlations between EE and psychological empowerment were only moderate in nature, results did indicate that when participants experienced adequate levels of psychological empowerment within their practice environment with regard to impact and self-determination, EE would be experienced to a lesser degree. When participants experienced meaning within their practice environments, their levels of PA were also enhanced.

6.3.2.3. *H₀₃ - There is no relationship between the levels of burnout and incivility in CCUs in a private hospital group in the Gauteng Province of SA*

This hypothesis is rejected. The research study confirmed that burnout levels are affected by the experience of incivility within the practice environment. When participants are exposed to aspects like displaced frustration, not being respected, treated with hostility by other nurses, free riding and abusive supervision, they will experience higher levels of EE and Dp.

6.3.2.4. *H₀₄ - There is no relationship between the levels of burnout and bullying behaviour in CCUs in a private hospital group in the Gauteng Province of SA*

This hypothesis is rejected. A very strong to moderate relationship exists between EE and Dp and workplace bullying, personal bullying behaviour and physical bullying behaviour. This indicates that when any form of bullying is experienced in the practice environment, participants experience higher levels of EE and Dp.

6.3.4.5. *H₀₅ - There is no relationship between the levels of burnout and the practice environment in CCUs in a private hospital group in the Gauteng Province of SA*

This hypothesis is rejected. This research study confirmed that a relationship between being burned out and the practice environment of the CCNs was prevalent. When participants experience a deficiency in staffing and resource adequacy, leadership and support provided to them, inadequate foundations for quality of care and a lack in participation within hospital affairs, their experience of EE and Dp are increased. In addition, poor relationships between the participants, physicians and other colleagues also cause higher levels of EE. When there are adequate foundations for quality of care, the participants also experience higher levels of personal accomplishment.

6.3.4.6. *H₀₆ - There is no relationship between structural empowerment, psychological empowerment, incivility, bullying behaviour and the practice environment in CCUs in a private hospital group in the Gauteng Province of SA*

This hypothesis is rejected. A very strong relationship exists between the participants' practice environment and them feeling structurally empowered. The experience of psychological empowerment is enhanced in a positive practice environment. Only the level of competence bears no relation to aspects of the practice environment. A strong relationship exists between collegial and nurse/physician relationships and abusive physicians, with a moderate relationship to hostile nurses. When participants experience a hostile nursing environment, they cannot provide quality patient care, and abusive supervision negatively affects the participants' view of leadership and support. Collegial relationships, leadership and support, the ability to provide quality patient care and participation in hospital affairs are negatively affected by being bullied in the practice environment. When participants do not feel structurally empowered, they experience less meaning and impact within their practice environment. Participants also encountered uncivil behaviour towards them when there was a lack of access to resources in the form of abusive supervision and displaced frustration. Participants were also exposed to a lack of support and resources when they experienced work and personal-related bullying. ***No significant relationship was experienced between psychological empowerment and incivility and bullying behaviour.*** When participants experienced uncivil behaviour towards them, they also experienced being bullied.

6.4. LIMITATIONS OF THE STUDY

- This research study was conducted in the South African private health care sector, limiting the findings to this context.
- Because this is a cross-sectional design, it is difficult to make causal inferences.

- With a cross-sectional design, the research study might have yielded different results if another time-frame had been chosen.
- The length of the questionnaire for data collection might have lessened the participants' willingness to partake in the study.
- The intervention programme to reduce burnout levels can only be implemented in the Gauteng Province, while previous research has indicated that CCU RNs are experiencing high burnout levels nationally.
- This study is purely quantitative. Adding a qualitative aspect to it through the use of interviews with a few participants might have strengthened the quantitative data analysis.
- There is a lack of information regarding turnover and absenteeism rates of RNs so as to determine the correlation with the burnout levels experienced.

6.5. RECOMMENDATIONS

Recommendations are made for practice, education, research and policy development in order to reduce and mitigate burnout levels experienced by RNs.

6.5.1. Recommendations for practice

- The intervention programme needs to be optimally implemented to protect CCNs in the practice environment against burnout and the detrimental effect of this on their daily functioning in the CCU, therefore:
- Thorough communication needs to take place between the researcher and management personnel prior to the implementation of the programme. During these communication sessions, the most important aspects of the intervention programme need to be explained and discussed.
- An organisational, rather than a person-directed approach needs to be followed with regard to the implementation of the intervention programme. This will ensure that the organisation applies and implements changes throughout the company.

- Ideally, the organisation should recognise the need for this intervention programme to decrease burnout and make it available to all employees.
- Because of the risk of counter-productiveness, the implementation of the programme needs to take the specific needs of participants into consideration at all times.

6.5.2. Recommendations for education

- Provide a course to undergraduates with regard to burnout, empowerment and how to manage incivility and bullying within the nursing profession in a professional manner, utilising the intervention programme that was developed.
- Protect newly graduate CCNs in the practice environment against incivility and bullying behaviour, whether from fellow nurses or physicians, and empower them through proper orientation programmes concerning interventions to prevent burnout.
- Empower all RNs in CCU with excellent skills and knowledge in relation to the critical care patient and environment.
- Provide newly employed personnel with burnout intervention training within the first 6 months of employment.
- Offer refresher courses at appropriate intervals after the end of the programme so as to enhance the wellbeing of CCNs.

6.5.3. Recommendations for research

- After implementation of the burnout intervention programme, conduct a follow-up research study to determine the effectiveness of the programme with regard to burnout, empowerment, incivility and bullying behaviour.
- Due to the limitations of a cross-sectional correlational design, it might be necessary to perform a longitudinal study with representative samples and sufficiently long investigation periods with a view to long-term aspects in future projects.

6.5.4. Recommendations for policy

- Invest in a lateral organisational structure, where CCNs in clinical practice can participate in policy development and implementation.
- Interventions for burnout need to be embedded within policy development and implementation on an organisational and hospital level.
- Invest in a South African version of a magnet recognition programme to ensure the safety, not only of nursing staff, but also of patients and families.

6.6. SUMMARY

This brings the researcher to the end of this research study. Chapter 6 provided an overview of the aim and objectives of the study and confirmed that the objectives for this study were achieved. The null hypotheses were rejected and reasons for this rejection discussed. Recommendations for practice, education, research and policy were provided.

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ADDENDUM A:
ETHICAL CLEARANCE: NWU



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2013-10-31

ETHICS APPROVAL OF PROJECT

The North-West University Ethics Committee (NWU-EC) hereby approves your project as indicated below. This implies that the NWU-EC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project Title: "An intervention program for burnout among critical care nurses in a private hospital group in the Gauteng Province"

Project Leader: Dr. Knobloch-Coetzee

**Ethics
number:**

N W U - 0 0 1 2 1 - 1 3 - A 1
Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Approval date: 2013/10/31

Expiry date: 2018/10/30

Special conditions of the approval (if any): None

General conditions:

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

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

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

Yours sincerely

Prof Amanda Lourens
(chair NWU Ethics Committee)

ADDENDUM B:
ETHICAL CLEARANCE: PRIVATE
HOSPITAL GROUP

27 February 2014

ATTENTION: ANNEMARIE VAN WYK

APPROVAL FOR RESEARCH STUDY

TITLE: An intervention program for burnout amongst critical care nurses in a private hospital group in the Gauteng province of South Africa.

Our previous correspondence refers.

The Research Committee of _____ has granted permission for your study to be conducted within the company's facilities.

We look forward to seeing the results of your research once it is completed.

Yours sincerely



ADDENDUM C: INFORMATION LETTER

An intervention program for burnout amongst critical care nurses in a private hospital group in the Gauteng province of South Africa

CONSENT TO BE A RESEARCH PARTICIPANT

I am Ms. Annemarie van Wyk from the North-West University working on research that focuses on burnout, empowerment and relationships within the critical care environment and we would like to invite you to give consent and to participate in the study. To follow is information about the study so that you can make an informed decision.

1. PURPOSE OF THE STUDY

The purpose of this study is to examine the relationship between burnout, empowerment (structural and psychological), workplace relationships (incivility and bullying) and the practice environment in order to develop an intervention programme for critical care nurses in a private hospital group in the Gauteng province of South Africa. You are being asked to participate in this study because you are a registered nurse currently working within an adult critical care unit within the Gauteng province and your experiences, feelings and perceptions regarding burnout, being empowered and your workplace relationships are very valuable to us.

2. PROCEDURE

If you agree to be in this study you will be expected to do the following:

- Read through this information letter;
- Complete the consent form accompanying this information letter;
- To complete the questionnaire by circling each of the relevant answers (please answer all the questions; do not leave any open spaces).
- Completion of the questionnaire will take approximately 20 minutes of your time.

3. RISKS/DISCOMFORTS

No foreseeable risks to you as participant are predicted. Within your critical care unit a non-accessible box will be provided for the signed consent form and completed questionnaire (both documents to be sealed within the envelope provided). Your name will never be made known and your data will be handled as confidential. No individuals identifiers will be used in any publications resulting from this study and only the team of researchers will work with the information that you shared. All sensitive information will be protected by a lock-up system and stored on a password protected computer.

4. BENEFITS

No direct benefits will be present to you as participant. After completion of this study a written report will be provided to all units regarding the results and the intervention programme will be tested during post-doctoral degree studies. The benefits to the larger community in the future might be the retention of registered nurses in the reduction and elimination of high burnout levels within critical care units.

5. COSTS

There will be no cost to you as a result of your participation in this study.

6. PAYMENT

You will receive no payment for participation.

7. QUESTIONS

You are welcome to ask any questions to the researcher before you decide to give consent. You are also welcome to contact the researcher, Ms Annemarie van Wyk if you have any further questions concerning your consent at 071 876 9205.

8. FEEDBACK OF FINDINGS

The findings of the research will be shared with you if you are interested. You are welcome to contact the researcher regarding the findings of the research. She will be sharing the findings with you as soon as it is available.

ADDENDUM D: CONSENT FORM

CONSENT FORM

PARTICIPATION IN THIS RESEARCH IS VOLUNTARY.

You are free to decline to be in this study, or to withdraw at any point even after you have signed the form to give consent without any consequences.

Should you be willing to participate you are requested to sign below:

I _____ hereby voluntarily consent to participate in the above mentioned study. I am not coerced in any way to participate and I understand that I can withdraw at any time should I feel uncomfortable during the study. I also understand that my name will not be disclosed to anybody who is not part of the study and that the information will be kept confidential and not linked to my name at any stage. I also understand what I might benefit from participation as well as what might be the possible risks and should I need further discussions someone will be available.

Date

Signature of the participant

Date

Signature of the person obtaining consent

ADDENDUM E:
MASLACH BURNOUT INVENTORY

MASLACH BURNOUT INVENTORY

Please mark the response that best describes how frequently you experience each feeling in relation to your current job in this hospital:

0 = Never	1 = A few times a year or less	2 = Once a month or less	3 = A few times a month	4 = Once a week	5 = A few times a week	6 = Every day

1. I feel emotionally drained from my work	0	1	2	3	4	5	6
2. I feel used up at the end of the work day	0	1	2	3	4	5	6
3. I feel fatigued when I get up in the morning and have to face another day on the job	0	1	2	3	4	5	6
4. I can easily understand how my patients feel about things	0	1	2	3	4	5	6
5. I feel I treat some patients as if they were impersonal objects.	0	1	2	3	4	5	6
6. Working with people all day is really a strain for me.	0	1	2	3	4	5	6
7. I deal very effectively with the problems of my patients	0	1	2	3	4	5	6
8. I feel burned-out from my work	0	1	2	3	4	5	6
9. I feel I'm positively influencing other people's lives.	0	1	2	3	4	5	6
10. I've become more insensitive toward people since I took this job	0	1	2	3	4	5	6
11. I worry that this job is hardening me emotionally	0	1	2	3	4	5	6
12. I feel very energetic	0	1	2	3	4	5	6
13. I feel frustrated by my job.	0	1	2	3	4	5	6
14. I feel I'm working too hard on my job.	0	1	2	3	4	5	6
15. I don't really care what happens to some patients.	0	1	2	3	4	5	6
16. Working directly with people puts too much stress on me	0	1	2	3	4	5	6
17. I can easily create a relaxed atmosphere with my patients	0	1	2	3	4	5	6

18. I accomplish many worthwhile things in this job.	0	1	2	3	4	5	6
19. I feel exhilarated after working closely with my patients	0	1	2	3	4	5	6
20. I feel like I'm at the end of my rope	0	1	2	3	4	5	6
21. In my work, I deal with emotional problems very calmly	0	1	2	3	4	5	6
22. I feel patients blame me for some of their problems	0	1	2	3	4	5	6

ADDENDUM F:
PRACTICE ENVIRONMENT SCALE OF THE
NURSE WORK INDEX - REVISED

PRACTICE ENVIRONMENT SCALE OF THE NURSE WORK INDEX – REVISED

Please indicate the extend to which you agree that each of the following features are 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	1	2	3	4
2. Physicians and nurses have good working relationships	1	2	3	4
3. A supervisory staff that is supportive of nurses	1	2	3	4
4. Active staff development/continuing education programs for nurses	1	2	3	4
5. Career development/clinical ladder opportunity	1	2	3	4
6. Opportunity for registered nurses to participate in policy decisions	1	2	3	4
7. Physicians value nurses' observations and judgments	1	2	3	4
8. Enough time and opportunity to discuss patient care problems with other nurses	1	2	3	4
9. Enough registered nurses on staff to provide quality patient care	1	2	3	4
10. A nurse manager who is a good manager and leader	1	2	3	4
11. A chief nursing officer who is highly visible and accessible to staff	1	2	3	4
12. Enough staff to get the work done	1	2	3	4
13. Physicians recognize nurses' contributions to patient care	1	2	3	4
14. Praise and recognition for a job well done	1	2	3	4
15. High standards of nursing care are expected by the management	1	2	3	4

16.	A chief nursing officer is equal in power and authority to other top level hospital executives	1	2	3	4
17.	A lot of team work between nurses and physicians	1	2	3	4
18.	Opportunities for advancement	1	2	3	4
19.	A clear philosophy of nursing that pervades the patient care environment	1	2	3	4
20.	Working with nurses who are clinically competent	1	2	3	4
21.	Physicians respect nurses as professionals	1	2	3	4
22.	A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician	1	2	3	4
23.	Management that listens and responds to employee concerns	1	2	3	4
24.	An active quality assurance program	1	2	3	4
25.	Registered nurses are involved in the internal governance of the hospital (e.g., practice and policy committees)	1	2	3	4
26.	Collaboration between nurses and physicians	1	2	3	4
27.	A preceptor program for newly hired nurses.	1	2	3	4
28.	Nursing care is based on a nursing rather than a medical model	1	2	3	4
29.	Registered nurses have the opportunity to serve on hospital and nursing committees	1	2	3	4
30.	Physicians hold nurses in high esteem.	1	2	3	4
31.	Written, up-to-date care plans for all patients	1	2	3	4
32.	Patient care assignments that foster continuity of care (i.e., the same nurse cares for the patient from one day to the next)	1	2	3	4

ADDENDUM G:
CONDITIONS FOR WORK EFFECTIVENESS
QUESTIONNAIRE - II

CONDITIONS FOR WORK EFFECTIVENESS QUESTIONNAIRE – II

To what extend is each of the following present in your current job:

1 = None	2	3 = Some	4	5 = Alot

1. Challenging work	1	2	3	4	5
2. The chance to gain new skills and knowledge on the job	1	2	3	4	5
3. Tasks that use all of your own skills and knowledge	1	2	3	4	5
4. The current state of the hospital	1	2	3	4	5
5. The values of top management	1	2	3	4	5
6. The goals of top management	1	2	3	4	5
7. Specific information about things you do well	1	2	3	4	5
8. Specific comments about things you could improve	1	2	3	4	5
9. Helpful hints or problem solving advice	1	2	3	4	5
10. Time available to do necessary paperwork	1	2	3	4	5
11. Time available to accomplish job requirements	1	2	3	4	5
12. Acquiring temporary help when needed	1	2	3	4	5

ADDENDUM H:
PSYCHOLOGICAL EMPOWERMENT INSTRUMENT

PSYCHOLOGICAL EMPOWERMENT INSTRUMENT

Listed below is a number of self-orientations that people may have with regard to their work role. Using the following scale, please indicate the extent to which you agree or disagree that each one describe your self-orientation:

A = Very strongly disagree	B = Strongly disagree	C = Disagree	D = Neutral	D = Agree	E = Strongly agree	F = Very strongly agree
1. I am confident about my ability to do my job					A B C D E F G	
2. The work that I do is important to me					A B C D E F G	
3. I have significant autonomy in determining how to do my job					A B C D E F G	
4. My impact on what happens in my unit is large					A B C D E F G	
5. My job activities are personally meaningful to me					A B C D E F G	
6. I have a great deal of control over what happens in my unit					A B C D E F G	
7. I can decide on my own how to go about doing my own work					A B C D E F G	
8. I really care about what I do on my job *					A B C D E F G	
9. My job is well within the scope of my abilities *					A B C D E F G	
10. I have considerable opportunity for independence and freedom in how I do my job					A B C D E F G	
11. I have mastered the skills necessary for my job					A B C D E F G	
12. My opinion counts in unit decision-making.*					A B C D E F G	
13. The work I do is meaningful to me					A B C D E F G	
14. I have significant influence over what happens in my unit					A B C D E F G	
15. I am self-assured about my capabilities to perform my work activities.					A B C D E F G	
16. I have a chance to use personal initiative in carrying out my work *					A B C D E F G	

* Questions excluded

ADDENDUM I:
NURSING INCIVILITY SCALE

NURSING INCIVILITY SCALE

Using the following scale, please indicate to what extend is each of the following present in your current job:

1 = Strongly disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly agree

For the following items, please consider all individuals you interact with at work, including doctors and other nurses or hospital personnel.

1. Hospital employees raise their voices when they get frustrated	1	2	3	4	5
2. People blame others for their mistakes or offenses	1	2	3	4	5
3. Basic disagreements turn into personal verbal attacks on other employees	1	2	3	4	5
4. People make jokes about minority groups	1	2	3	4	5
5. People make jokes about religious groups.	1	2	3	4	5
6. Employees make inappropriate remarks about one's race or gender	1	2	3	4	5
7. Some people take things without asking	1	2	3	4	5
8. Employees don't stick to an appropriate noise level (e.g., talking too loudly).	1	2	3	4	5
9. Employees display offensive body language (e.g., crossed arms, body posture).	1	2	3	4	5

The following describe your interactions with other nurses. Other nurses on my unit . . .

10. . . . argue with each other frequently	1	2	3	4	5
11. . . . have violent outbursts or heated arguments in the workplace	1	2	3	4	5
12. . . . scream at other employees	1	2	3	4	5
13. . . . gossip about one another	1	2	3	4	5

14. . . . Gossip about their supervisor at work.	1	2	3	4	5
15. . . . Bad-mouth others in the workplace.	1	2	3	4	5
16. . . . spread bad rumors around here	1	2	3	4	5
17. . . . make little contribution to a project but expect to receive credit for working on it	1	2	3	4	5
18. . . . claim credit for my work.	1	2	3	4	5
19. . . . take credit for work they did not do	1	2	3	4	5

Please think about your interactions with your direct supervisor (i.e., the person you report to most frequently) and indicate how strongly you agree with the following statements.

My direct supervisor ...

20. . . . is verbally abusive	1	2	3	4	5
21. . . . yells at me about matters that are not important	1	2	3	4	5
22. . . . shouts or yells at me for making mistakes.	1	2	3	4	5
23. . . . takes his/her feelings out on me (e.g., stress, anger).	1	2	3	4	5
24. . . . does not respond to my concerns in a timely manner	1	2	3	4	5
25. . . . is condescending to me.	1	2	3	4	5
26. . . . factors gossip and personal information into personnel decisions	1	2	3	4	5

This section refers to physicians you work with. Please indicate your level of agreement with the following statements:

27. Some physicians are verbally abusive	1	2	3	4	5
28. Physicians yell at nurses about matters that are not important	1	2	3	4	5
29. Physicians shout or yell at me for making mistakes	1	2	3	4	5
30. Physicians take their feelings out on me (e.g., stress, anger)	1	2	3	4	5
31. Physicians do not respond to my concerns in a timely manner	1	2	3	4	5
32. I am treated as though my time is not important	1	2	3	4	5
33. Physicians are condescending to me.	1	2	3	4	5

Please reflect on your interactions with the patients you care for and their family and visitors and indicate the extent to which you agree with the following statements:

Patients/visitors ...

34. . . . do not trust the information I give them and ask to speak with someone of higher authority.	1	2	3	4	5
35. . . . are condescending to me.	1	2	3	4	5
36. . . . make comments that question the competence of nurses.	1	2	3	4	5
37. . . . criticize my job performance.	1	2	3	4	5
38. . . . make personal verbal attacks against me.	1	2	3	4	5
39. . . . pose unreasonable demands.	1	2	3	4	5
40. . . . have taken out their frustrations on nurses.	1	2	3	4	5
41. . . . make insulting comments to nurses.	1	2	3	4	5
42. . . . treat nurses as if they were inferior or stupid.	1	2	3	4	5
43. . . . show that they are irritated or impatient.	1	2	3	4	5

ADDENDUM J:
NEGATIVE ACTS QUESTIONNAIRE - REVISED

NEGATIVE ACTS QUESTIONNAIRE-REVISED

Using the scale provided below, to what extent is the following present within your current job:

1 = Never	2 = Now and Then	3 = Monthly	4 = Weekly	5 = Daily

1. Someone withholding information which affects your performance	1	2	3	4	5
2. Being humiliated or ridiculed in connection with your work	1	2	3	4	5
3. Being ordered to do work below your level of competence	1	2	3	4	5
4. Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks	1	2	3	4	5
5. Spreading of gossip and rumours about you	1	2	3	4	5
6. Being ignored, excluded or being 'sent to Coventry'	1	2	3	4	5
7. Having insulting or offensive remarks made about your person (i.e. habits and background), your attitudes or your private life	1	2	3	4	5
8. Being shouted at or being the target of spontaneous anger (or rage)	1	2	3	4	5
9. Intimidating behaviour such as finger-pointing, invasion of personal space, shoving, blocking/barring the way	1	2	3	4	5
10. Hints or signals from others that you should quit your job	1	2	3	4	5
11. Repeated reminders of your errors or mistakes	1	2	3	4	5
12. Being ignored or facing a hostile reaction when you approach	1	2	3	4	5
13. Persistent criticism of your work and effort	1	2	3	4	5
14. Having your opinions and views ignored	1	2	3	4	5
15. Practical jokes carried out by people you don't get on with	1	2	3	4	5
16. Being given tasks with unreasonable or impossible targets or deadlines	1	2	3	4	5

17. Having allegations made against you	1	2	3	4	5
18. Excessive monitoring of your work	1	2	3	4	5
19. Pressure not to claim something which by right you are entitled to (e.g. sick leave, holiday entitlement, travel expenses)	1	2	3	4	5
20. Being the subject of excessive teasing and sarcasm	1	2	3	4	5
21. Being exposed to an unmanageable workload	1	2	3	4	5
22. Threats of violence or physical abuse or actual abuse	1	2	3	4	5

ADDENDUM K:
PARTICIPANT DEMOGRAPHIC DATA

PARTICIPANT DEMOGRAPHIC DATA

Please tell us a little about yourself and your workplace

1. What is your gender?

☐	Male	☐	Female

2. What is your age in years

22 - 30	31 - 40	41 - 50	51 - 60	61 - 70

3. What is your marital status?

☐	Single	☐	Married	☐	Seperated	☐	Widowed	☐	Divorced

4. What was your age in years when you first became a nurse? _____

5. How long have you worked as:

A registered nurse: Years: _____ As a critical care nurse: Years: _____

6. Was nursing your first choice of career?

☐	Yes	☐	No

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

☐	Very dissatisfied	☐	Little dissatisfied	☐	Moderately satisfied	☐	Very satisfied

8. What qualification do you have?

4 year diploma	4 year under-graduate degree	Post basic diploma	Post basic degreee	Masters degree	Doctoral degree

9. Are you:

Critical care trained	Critical care experienced

10. Are you working in this hospital full time

	Yes		No

Thank you for taking the time to complete and return this questionnaire

ADDENDUM L:
DEMOGRAPHIC CHECKLIST FOR
CRITICAL CARE UNITS

DEMOGRAPHIC CHECKLIST FOR CRITICAL CARE UNITS

DEMOGRAPHIC CHECKLIST		
<i>Please mark the appropriate response with an X</i>		
What type of Unit	Medical	1
	Surgical	2
	Trauma	3
	Cardiothoracic	4
	Multi-disciplinary	5
	Other	6
<i>Please write the number in the blank space</i>		
Number of beds in your unit		
Number of patients in your unit on that day		
Number of ALL nursing staff on that shift		
Full time registered nurses on that shift		
Part time registered nurses on that shift		
<i>Please mark the appropriate response with an X</i>		
Average of patient's acuity per month	16	1
	18	2
	20	3
	22	4
	>22	5
<i>Please write the number in the blank space</i>		
Critical care trained nurses working in your unit		
Critical care experienced nurses working in your unit		
Notes		