

NURSES' PERCEPTIONS ON THE DETERMINANTS OF ABSENTEEISM AT TWO RURAL PROVINCIAL HOSPITALS IN THE WESTERN CAPE

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**Thesis presented for structured master's students
in fulfilment of the requirements for the
degree of Master of Nursing Science
in the Faculty of Medicine and Health Sciences,
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The crest of Stellenbosch University is centered behind the text. It features a shield with various symbols, including a book and a scale, topped with a crown. Below the shield is a motto scroll with the Latin text "Pectora coluntur cultus recti".

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DECLARATION

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“To understand God’s thoughts, one must study statistics... the measure of His purpose” Florence Nightingale.

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ABSTRACT

Background: The Department of Health in South Africa acknowledge that scheduled attendances at work are essential to accomplish strategic goals. Nursing absenteeism rates worldwide is concerning and are influenced by several factors. High level of absenteeism is associated with poor quality of patient care. Therefore, investigating factors that influenced absenteeism is essential and has not yet been investigated in the context of rural hospitals in the Western Cape.

Aim: The study aimed to investigate nurses' perceptions on the determinants of absenteeism at rural provincial hospitals in the Western Cape; in order to contribute towards quality patient care and nurses' well-being, productivity and reducing overtime.

The objectives were:

- 1) To determine the perceptions of nurses on the determinants of absenteeism at rural provincial hospitals in the WC province.
- 2) To analyse the relationships between the organisational, unit management, personal and social, and health and safety determinants of absenteeism of the above selected hospitals.
- 3) To recommend strategies to manage absenteeism at these hospitals.

Methods: A quantitative approach with a descriptive cross-sectional design was used. The target population for the study included nurses working at the two provincial hospitals (N=651). Stratified random sampling was applied to select 353 nurses in the different nursing categories who completed a self-report questionnaire. The questionnaire were developed by the researcher and experts to measure the perceptions of nurses of the factors influencing absenteeism in the various environments. The questionnaire demonstrated good reliability (Cronbach alpha of 0.74-0.95) for the subscales. Data was captured on Ms Excel, imported into the Statistical Programme for Social Sciences (SPSS) version 27, and analysed with the assistance of a biostatistician. Descriptive and inferential statistics were used.

Results: Out of a score of 4, the mean scores for factors in the environment were organisational (mean 3.0, SD 0.54); unit management (mean 2.6, SD 0.56); personal and social (mean 2.7, SD 0.54); health and safety (mean 2.6, SD 0.59). Within the organisational environment, the environment with the highest score, frequent factors influencing absenteeism included inadequate staff, nurse shortages, and unmanageable workload. In the unit management environment, the most frequent reported factor was favouritism by

nurse managers. In the personal and social environment, family responsibilities was the highest score and with regards to the health and safety environment, the most frequent factor was transport problems.

Conclusion: In the organisational environment the key finding was nurse shortages and following the guidelines of safe staffing levels could reduce absenteeism. In the unit management environment teamwork was lacking and a teamwork approach could be beneficial for diverse cultures. In the personal and social environment substance abuse was a concern and improving the control of substances contribute to combat the practice. Stress and burnout was a crucial factor in the health and safety environment and implementing stress management could alleviate the impact of risk for absenteeism.

Key words: Absenteeism, factors, health and safety environment, hospitals, nurses, nursing leadership, organisational environment, rural.

OPSOMMING

Agtergrond: Die Departement van Gesondheid in Suid-Afrika erken dat geskeduleerde bywonings by die werk noodsaaklik is om strategiese doelwitte te bereik. Afwesigheid van verpleegkundiges is wêreldwyd kommerwekkend en word deur verskeie faktore beïnvloed. Hoë vlak van afwesigheid hou verband met die swak gehalte van pasiëntsorg. Daarom is ondersoekfaktore wat die afwesigheid beïnvloed, het noodsaaklik geword en is nog nie ondersoek in die konteks van landelike hospitale in die Wes-Kaap nie.

Doelwitte: Die studie beoog om verpleegkundiges se persepsie oor die faktore van afwesigheid by provinsiale hospitale in 'n landelike gebied in die Wes-Kaap te ondersoek; ten einde by te dra tot kwaliteit pasiëntsorg en verpleegkundiges se welstand, produktiwiteit en die vermindering van oortyd.

Die doelstellings was:

- 1) Om die persepsie van verpleegkundiges oor die faktore van afwesigheid by provinsiale hospitale in 'n landelike gebied in die Wes-Kaap provinsie te bepaal.
- 2) Om die verwantskappe tussen die organisatoriese, eenheidsbestuur, persoonlike en maatskaplike en gesondheid en veiligheid faktore van afwesigheid van bogenoemde geselekteerde hospitale te ontleed.
- 3) Om strategieë aan te beveel om afwesigheid van bogenoemde geselekteerde hospitale te bestuur.

Metode: 'n Kwantitatiewe benadering met 'n beskrywende dwarsnitontwerp is gebruik. Die teikenpopulasie vir die studie het verpleegsters ingesluit wat by die twee provinsiale hospitale werk (N=651). Gestratifiseerde ewekansige steekproefneming is toegepas om 353 verpleegkundiges in die verskillende verpleegkategorieë te kies wat 'n selfverslagvraelys voltooi het. Die vraelys is deur die navorser en kundiges ontwikkel om die persepsies van verpleegkundiges te meet van die faktore wat afwesigheid in die verskillende omgewings beïnvloed. Die vraelys het goeie betroubaarheid getoon (Cronbach alfa van 0.74-0.95) vir die subskale. Data is met Excel vasgelê, en ingevoer in die Statistiese Program vir Sosiale Wetenskappe (SPSS) weergawe 27, en ontleed met die hulp van 'n biostatistikus en die gebruik van beskrywende en inferentia.

Resultate: Uit 'n telling van 4 was die gemiddelde tellings vir faktore in die omgewing organisatoriese (gemiddelde 3.0, SD 0.54); eenheidsbestuur (beteken 2.6, SD 0.56); persoonlik en sosiaal (beteken 2.7, SD 0.54); gesondheid en veiligheid (beteken 2.6, SD 0.59). Binne die organisatoriese omgewing was die omgewing met die hoogste telling,

gereelde faktore wat afwesigheid beïnvloed, onvoldoende personeel, verpleegstertekorte en onbeheerbare werkslading ingesluit. In die eenheidsbestuurs omgewing was die mees algemene gerapporteerde faktor begunstiging deur verpleegkundige bestuurders. In die persoonlike en sosiale omgewing, gesinsverantwoordelikhede was die hoogste telling en met betrekking tot die gesondheids- en veiligheidsomgewing, was die mees algemene faktor vervoerprobleme.

Gevolgtrekking: In die organisatoriese omgewing was die belangrikste bevinding tekort aan verpleegkundiges en die riglyne vir veilige personeelvlakke kan die afwesigheid verminder. In die eenheidsbestuursomgewing het spanwerk ontbreek en 'n spanwerkbenadering kan voordelig wees vir verskillende kulture. In die persoonlike en sosiale omgewing was dwelmmisbruik 'n bron van kommer en die verbetering van die beheer van afhanklikheidsmiddels dra by tot die bekamping van die praktyk. Stres en uitbranding was 'n belangrike faktor in die gesondheids- en veiligheidsomgewing, en die implementering van streshantering kan die impak van risiko vir afwesigheid verlig.

Sleutelwoorde: Afwesigheid, faktore, gesondheid en veiligheid omgewing, hospitaal, verpleegkundiges, organisatoriese omgewing, platteland, verpleeg leierskap.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of variance
B-NMDS	Belgian Nursing Minimum Data Set
CW	Cape Winelands
COIDA	Compensation for Occupational Injuries and Diseases Act
DAR	Daily Attendance Register
DoH	Department of Health
EAP	Employee Assistance Programme
GRD	Garden Route District
HELP	Health Engagement Lifestyle Productivity
HIV	Human Immuno-compromised Virus
HREC	Health Research Ethical Committee
HRM	Human Resource Management
IOS	Software Development Kit (iPhone, iPad, iPod)
KSA	Kingdom of Saudi Arabia
LMICs	Low and middle-income countries
LSM	Living Standard Measurement
NHS	National Health System
NIMS	Nursing Information Management System
NM	Nurse Manager
OHP	Occupational Health Practitioner
OHS	Occupational Health Service
OMg	Operational Manager general
OMs	Operational Manager specialist
PHC	Primary Health Care
PN	Professional Nurse
PSC	Public Service Commissioner

PUI	Person Under Investigation
RN	Registered Nurse
RWOEE	Remunerative Work Outside Employee Employment
RSA	Republic of South Africa
RHS	Rural Health Services
R&S	Recruitment and Selection
SA	South Africa
SES	Socioeconomic status
SPMS	Staff Performance Management System
UK	United Kingdom
UM	Unit Manager
US	United States
USA	United States of America
USSD	United State Dollars
WC	Western Cape
WCG	Western Cape Government

CHAPTER 1

FOUNDATION OF THE STUDY

1.1 INTRODUCTION

The punctuality of nurses' attendances forms the cornerstone of an organisation. Nurses being absent from work is a complex problem faced by the nurse manager daily whose responsibility it is to respond adequately to absenteeism (Duncombe, 2019:98). Absenteeism of nurses affects the quality and safety of patient care with insufficient time for the remaining nurses to execute additional duties (Mbombi, Mothiba, Malema & Malatji, 2018:4). Subsequently, nurse shortages due to absenteeism, result in patient safety incidents such as bed falls, medication errors and hospital acquired infections (Smith, Plover, McChesney & Lake, 2019:6). Addressing absenteeism is one of the accreditation criteria in order to promote a healthy and positive practice environment for patients and nurses (Burmeister, Kalisch, Kalisch, Doumit, Lee, Ferraresion, Terzioglu & Bragadóttir, 2019:151; Matsomoto, 2019:249, 251).

Improving quality person-centred health care for patients and well-being of nursing staff, is vital. The Magnet accreditation criteria by the American Nursing Credentialing Centre focus on the practice environment and organisational culture to improve quality care and patient satisfaction (Burmeister *et al.*, 2019:151). These criteria are perceived to have positive effects on both the nurse and the patient. The components include: (i) leadership and organisational culture transformation with positive outcomes; (ii) structural empowerment and sound professional practice; and (iii) the latest knowledge, inventions, innovations with improvements.

By introducing the Magnet status, nurses' autonomy, control, professional relationships, and leadership are empowered to positively influence workplace culture, and thus reducing absenteeism (Anderson *et al.*, 2018:25). Magnet hospitals promote a sustainable organisational culture by enhancing retention, recruitment, workload and reduce burnout in nurses (Anderson, Johnston, Massey & Bamford-Wade, 2018:17; El Hamed-El Fattah, El Ata & Morsy, 2018:153). Health services in rural areas are under-sourced in respect of human resources due to high absenteeism. Furthermore, nurse managers in the rural area face high nurse absenteeism rates in South Africa (SA) (Magobolo & Dube, 2019:3). This creates a serious challenge in achieving comprehensive healthcare delivery in the rural areas. Absenteeism in remote areas in the Western Cape (WC) may lead to adverse events, delayed patient diagnosis, treatment and extended hospital stay (Olivier, Kunneke, O'Connell, von Delft, Wates & Dramowski, 2018:419).

There are exactly two hospitals, and the name has exactly been kept anonymous. The study aimed to determine nurses' perceptions of the predictors of absenteeism and answer the research question, what are nurses' perceptions on the determinants of absenteeism at two rural provincial hospitals in the Western Cape?

1.2 SIGNIFICANCE OF THE PROBLEM

Absenteeism is a significant problem for nursing management since it compromises quality patient care and has financial implications for the organisations. Understanding the factors that may influence absenteeism in a particular context, in rural areas, is important to develop policies, thus alleviate absenteeism between nurses. The benefits of understanding the factors influencing absenteeism and introducing appropriate mitigation strategies include reducing financial cost by improving the low productivity of nurses (Duncombe, 2019:93, 98; Ticharwa *et al.*, 2019:110,115) and a decrease in overtime and hiring of agency nurses.

1.3 BACKGROUND AND RATIONALE

Absenteeism is a behavioural pattern and trend to stay away from work for no reason which include arriving late at work and poor time keeping, for example, leaving early. Absences include extended lunch and tea breaks and keeping one busy with private matters during working hours (South Africa, 2018a:2; Tumlinson, Gichane, Curtis & LeMasters, 2019:3-4; Shah, Uddin, Aziz, Ahmad, Al-Khasawneh & Sharaf, 2020:1-2). Excessive nursing absenteeism in the South African context is characterised by exceeding thirty-six days of sick leave for the three years cycle (RSA, 2018b:24-25; Vadgaonkara & Velhal, 2018:29408).

Voluntary absenteeism refers to where nurses take a day off for personal issues instead of coming to work. In this situation there is a lack of motivation and they stay away for other reasons than being sick, injured or circumstances beyond their control. Involuntary absenteeism means a nurse lacks control to attend the workplace, for example, in sickness, emergencies, and family responsibilities (Alreshidi, Alaseeri & Garcia, 2019:2; Duncombe, 2019:92-93).

Planned absenteeism refers to absences that are discussed with the manager and permission was given. Unplanned absenteeism occurs without permission, including withdrawal from the

workplace. It can be premeditated (planned) such as in the case of pre- and post-leave days or taking a night or day off (Duncombe, 2019:92; Ticharwa, Cope & Murray, 2019:111-112).

Scheduled absences refer to absences according to the daily, two-weekly, monthly, or yearly scheduled roster and absenteeism and includes, for example, annual leave (see Table 1.1). Unscheduled absenteeism are absences such as sick and family responsibility leave and may be due to other causes for example, shift type, as some nurses do not like to work night or day shifts (Ticharwa *et al.*, 2019:109). Scheduled and unscheduled absenteeism are classified in Table 1.1. Sick leave and family responsibility are categorised under unscheduled absenteeism, although it is claimed as paid leave.

Table 1.1: Causes for being absent from work

Types of absenteeism	Description of causes
Scheduled absenteeism	Vacation, prenatal and maternity, paternity, adoption
	Full-time study, attending classes, writing examinations
	Orientation, workshops, meetings, sport, job interviews
	Another job, substance abuse treatment, transfer (RSA, 2018c:12, 13).
	Official duty, union activities, unpaid leave for arrest
	Imprisonment, criminal sentence
Unscheduled absenteeism	Sick days, family responsibilities, truancy, personal issues
	Social reasons, rotation, double shifts, late on duty
	Leaving work early, rotation, fatigue, unpaid overtime
	Difficulties of shift, long hours, shift type, permission
	Heavy workload, no remedy for repeated absences
	Transport problems, low morale, lack of knowledge, and skills
	Procedures, nurse shortages, lack responsibility,
	Sick leave easy access, ignore rules and implementation
	Misunderstood sick leave policy and implementation.

(Alharbi, Almuzini, Aljohani, Aljohani, Albowini, Aljohani, & Althubyni, 2018:1787; RSA, 2018c:3-13; Ticharwa *et al.*, 2019:114-115).

There are challenges with several reasons for and patterns of absenteeism that have been mentioned amongst health professionals in the scientific literature. In Kenya, health professionals were absent at government institutions while moonlighting in private hospitals (Tumlinson, Gichane, Curtis & LeMasters, 2019:5-6). South African policy, in particular, the Remunerative Work Outside Employee Employment (RWOEE) in the Public Service Act (1994) as amended, allows nurses to earn additional income outside the workplace. The researcher in her capacity as a unit manager observed that nurses tend to work overtime, which resulted in more absenteeism. Literature supports that continuously working overtime e.g., double shifts, can be related to an increase in absenteeism (RSA, 2019:3; Ticharwa *et al.*, 2019:112).

The Steers and Rhodes absenteeism benchmarking model (Alreshidi *et al.*, 2019:2) creates the opportunity to compare various units and institutions with one another. This model can predict nurses' attendance behaviour at the workplace or conversely, absenteeism. Noteworthy, factors contributing to a nurse's ability to attend work includes for example, family responsibilities, attendance pressures, work group norms and being part of a friendship group (Steers & Rhodes, 1978:401; Alreshidi *et al.*, 2019:2). The importance of this model can be used when assessing attendance records and tracking absenteeism (Steers & Rhodes, 1978:403).

The calculation of employee absenteeism rate is also possible using a formula (Kurcgant, Passos, Oliveira, Pereira, & Costa, 2015:35; Anderson, 2018; de Luca, 2018:5). Such a formula includes the number of both sick days and working days per year. This study included a formulation in calculating absenteeism.

$$\text{absenteeism rate} = \frac{\text{Number of sickness absent days per year}}{\text{Number of working days per year}} \times 100$$

While working as a unit manager at one of the hospitals in the rural area, the researcher noticed that absenteeism rates exceeded acceptable limits. This was illustrated by the high absenteeism rate compared to the norms, many workdays lost and depleted sick days. The specialist outpatient's department had 21 staff members and an absenteeism rate of 3.73%, which is over the acceptable limit and is supposed to be 1.5% (Gouws, 2015:21). According to the absenteeism policy, the acceptable limit is thirty-six sick days per three-year cycle (RSA, 2018b:25; RSA, 2018c:4). Absenteeism equates to 11.28 days per staff member per year with 202 productive days lost annually due to sickness from June 2017 till July 2018. Subsequently,

the overall absenteeism rate of nurses at the hospital was 2.5% with 5209 lost working days which calculated to 15.6 sick days for each nurse per annum. Furthermore, a quarter of nurses had depleted their 36 sick days, and some were on the borderline of 30 sick days (Hospital statistics, 2018).

Absenteeism depicts all unscheduled sick absences, including excessive absenteeism by the same nurse. It was suggested to compare each ward or facility with its own absences or patterns of employee absences. Units and institutions cite different factors such as previous patterns of absenteeism and other causative factors, namely a nurse's health problems, working environment, personal or family problems and stress (Alreshidi *et al.*, 2019:4).

According to Ticharwa *et al.* (2019:111), absenteeism rates in a hospital in Australia revealed trends from 1666 to 2993 hours lost per month over one year. The authors identify Wednesdays (4751 hrs) and Thursdays (4766 hrs) with high incidence of absenteeism in a hospital with 300 beds. Ticharwa *et al.* (2019:111) suggested a high absenteeism rate in the general ward and a ward with a mixture of mentally ill patients needing lifting and turning. Speciality departments had the highest absence rates. In other studies, absenteeism was associated with sickness and longer holidays (Tempia, Moyes, Cohen, Walaza, Edeka, McMorrow, Treurnicht, Hellferscee, Wolter, von Gottberg, Nguweneza, McAnerney, Dawood, Variava & Cohen, 2019:491; Ticharwa *et al.*, 2019:114).

The Department of Health (DoH) in SA, recommends that scheduled attendances of staff at work are essential to accomplish the organisational objectives. Absenteeism should not exceed the average absenteeism rate, which means that in a healthy work place an employee should take an average of 3.75 days off sick per year (RSA, 2018b:39). Despite this, the habit of absenteeism amongst nurses is noticed in departments. Some staff members overreach their authorised total number of sick leave days for a cycle of three years (RSA, 2018b:23; Vadgaonkara & Velhal, 2018:29408). The phenomenon worsens when nurses utilise their maximum 36 days of sick leave, by the second year of the cycle.

Public hospitals in a rural area of the Western Cape, South Africa, experienced absenteeism of nurses (both scheduled and unscheduled) with multiple direct and indirect consequences. These consequences affected the health care delivery with unfavourable patient outcomes. The rural provincial hospital in the area was faced with additional costs due to the absenteeism of nurses (Hospital statistics, 2018).

The direct costs of absenteeism include salaries paid to absent workers on top of the cost of employing replacements, such as agency nurses. In South Africa, high absenteeism costs are reported in public hospitals in all provinces, making up a considerable percentage of the national health budget. Absenteeism cost includes payment of agency nursing staff to replace absent staff members (Rispel & Angelides, 2016:2). These expenditures could also reflect nurse shortages in health facilities in rural areas.

Absenteeism has several direct and indirect consequences that may compromise quality patient care and well-being and cause dissatisfaction amongst nurses. Indirect costs of absenteeism include, for example, training of replacement workers due to burnout of nurses (Van der Heijden, Brown Mahoney & Xu *et al.*, 2019:2).

Employers can reduce absenteeism, productivity losses and costs when they understand the different factors of absenteeism at their institutions (Gianino *et al.*, 2019:3). However, a study in Italy indicated that employers do not estimate the high cost of absenteeism (Gianino *et al.*, 2019:4).

Findings of increased costs related to absenteeism have been indicated in South African studies (Olivier *et al.*, 2018:419; Docrat, Besada, Clear, Daviaud & Lund, 2019:6-7). Regular nurses at the workplace are required for productivity and consequently, positive patient outcomes (Duncombe, 2019:97).

Various monitoring tools are available to control absenteeism such as the Daily Attendance Register (DAR) where nurses are required to sign their daily attendance and departure time. According to this tool, a nurse with a monthly absenteeism rate of one to five (5) days of sick leave, is at serious risk of depleting their thirty-six sick days (Alharbi *et al.*, 2018:1786). The monitoring of absenteeism in public hospitals in the Western Cape is comparable with international methods. For example, absenteeism is determined by monitoring daily attendance and patterns such as absenteeism on Mondays and Fridays, paydays, and regularly coming late for work, using a continuous tracking system.

Through this research the researcher endeavoured to determine nurses' perceptions of the determinants of absenteeism at the two rural hospitals under study challenged by this phenomenon. This study would inform the management of the hospitals so that strategies could be put in place to foster a healthy nursing workforce in rural areas.

1.4 CONCEPTUAL FRAMEWORK

A research framework provides meaning to a phenomenon by describing the relationships between variables that can be tested to build the body of knowledge (Brink, van der Walt & van Rensburg, 2018:196). The point of departure for this study was an adapted framework by Woolf (2018) that outlined the determinants of “health” (in this study referred to as absenteeism from the workplace).

Woolf’s framework consists of interrelated concepts such as behaviour/physical environments, and the social environment during the development of a person’s health from birth to adulthood. The framework was adapted to the interrelated environments in the workplace as key predictors of absenteeism.

A framework can be used for identifying and defining concepts and the relationships between them (Brink *et al.*, 2018:196; Duncombe, 2019:93-94; Alreshidi *et al.*, 2019:2). In this study, it depicts the different environments in relationship to absenteeism of nurses. The determinants of absenteeism in this study refer to the concepts of organisational environment, unit management, personal and social environments, and the health and safety environment of nurses. Figure 1.1, It was assumed that the environments determine the extent of absenteeism of nurses and will be fully described in Chapter 2, the literature review.

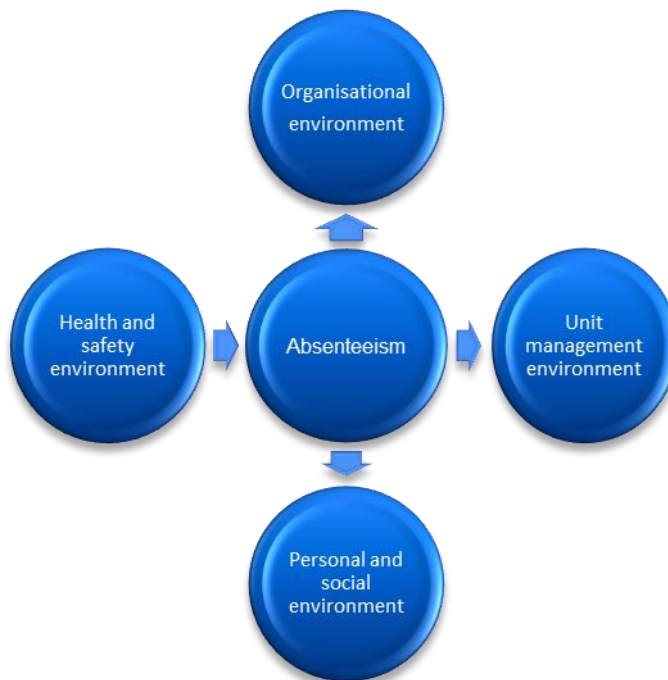


Figure 1.1: Determinants of absenteeism (adapted from Woolf, 2018)

1.4.1 The organisational environment

The organisational environment is determined by the surroundings and conditions of the organisation that affect the performance, operations, and resources in an institution (Burmeister *et al.*, 2019:151). The organisational environment includes inter alia the policies, operational procedures, and changes in the organisation (Ticharwa *et al.*, 2019:115).

1.4.2 The unit management environment

The unit management environment is the physical workplace of nurses and is divided into different interdisciplinary units. Management is defined as the process of activities under the aegis of planning, organising, leading, and controlling nursing staff. These processes are integrated to render efficient and effective nursing care towards organisational goal achievement (Kinicki & Williams, 2018:5 in Kaehler & Grundei, 2019:10). The unit management environment covers, to elaborate, shift schedules, physician-nurse relationships and leadership style (Van den Heede, Bruyneel, Beeckmans *et al.*, 2020:21).

1.4.3 The personal and social environment

Personal and social environments refer to the nurse's home-life issues and social relationships. Social environment includes society, beliefs, behaviours, and practices. These environments may contribute to absenteeism. The personal environment entails interpersonal relationships at work, doing what colleagues are doing, and lack of close friends. The social environment comprises responsibilities outside the work, for example, attending funerals, caring for family, financial problems as well as substance abuse (Vadgaonkara & Velhal, 2018:294; Magobolo & Dube, 2019:3).

1.4.4 The health and safety environment

The health and safety environment refers to the conditions and surroundings at work that guarantee the means and opportunities for staff to maintain their physical and mental well-being and assist in prevention of adverse effects. The environment should include no danger, risks, incidents, or accidents and being safe at work (Thesaurus; Cambridge English Dictionary, 2020).

The domain contains both the physical and psychological safety of nurses. Adverse workplace conditions could include humiliation, verbal abuse, repeated criticism, unfounded allegations, intimidating behaviour, intention to leave, being excluded from meetings, insulted and the butt of offensive remarks (Serafin & Czarkowska-Pączek, 2019:4)

1.5 PROBLEM STATEMENT

Nurse's absences in providing continuity of care, could compromise patient care and lead to an increase in medical-legal hazards and health and safety incidents. There is a concern about the number of bed falls, medication errors, hospital-acquired infections, and bedsores, which may be related to absenteeism (Hospital statistics, 2018; Olivier *et al.*, 2018:4019; Maphumulo & Bhengu, 2019:2-3).

In the context of this study, the factors of the different environments, namely the organisational, unit management, personal and social environments and the health and safety of the nurses had not previously been explored. The study could provide guidelines for determining strategies addressing absenteeism. The focus of this study was to identify the determinants in the environments of the nurse that relate to absenteeism in the two rural provincial hospitals.

1.6 RESEARCH QUESTIONS

This research sought to address the following research questions:

- What were nurses' perceptions of the determinants of absenteeism occurring at two rural provincial hospitals in the Western Cape?
- What were the relationships between the organisational, unit management, personal and social, and health and safety determinants of absenteeism in the two selected hospitals?
- How can the management of the two rural hospitals address absenteeism of nurses in their institutions?

1.7 RESEARCH AIM

The study aimed at investigating the perceptions of nurses of the determinants of absenteeism at two rural provincial hospitals in the Western Cape in order to assist the nursing management of these hospitals to address absenteeism of nurses in these institutions, to benefit patient care, and staff well-being.

1.8 RESEARCH OBJECTIVE

This research include the following objectives:

- (i) To determine the perceptions of nurses on the determinants of absenteeism at two rural provincial hospitals of the WC province.

- (ii) To analyse the relationships between the organisational, unit management, personal and social, and health and safety determinants of absenteeism in the two selected hospitals.
- (iii) To describe recommended actions for nursing management of the two rural hospitals, to address absenteeism of nurses, to benefit patient care, and staff well-being.

1.9 RESEARCH METHODOLOGY

The methodology provides information for the testing and evaluation of the research process in order for the reader to critically appraise the study and evaluate results that can be trusted (Brink *et al.*, 2018:200). A detailed description of the methodology is provided in Chapter 3.

1.9.1 Research design

An exploratory-descriptive cross-sectional design was followed and aimed at investigating the determinants in the environments (variables) of staff related to absenteeism (phenomenon) and the relationship between the variables (Duncombe, 2019:93). The study employed a cross-sectional design within the quantitative approach. A cross-sectional research involves a systematic investigation at a specific point in time.

1.9.2 Study setting

The study was conducted at two rural provincial hospitals classified as Level 2 regional hospitals in the Western Cape. Level 2 hospitals are the referring point for level 1 or district hospitals.

1.9.3 Population and sampling

The total population consisted of all the categories of nurses in the two hospitals (N=651). Stratified random sampling was utilised to select a sample of 353 nurses from the two hospitals (183 nurses at hospital A; 170 nurses at hospital B) to approach for participation in the study (Brink *et al.*, 2018:203; Grove & Gray, 2019:482). All nurses who were working on contract or permanently were included in the study.

1.9.4 Method and instrumentation

A survey was conducted with a structured instrument. A survey is a method to collect self-reported data to determine the opinion and experiences (characteristics) of a population (Brink *et al.*, 2018:204).

A structured instrument is a measuring device using the same questions in the same manner to collect data of all the respondents (Brink *et al.*, 2018:203-204).

A 74-item self-administered questionnaire was developed on a four-point rating scale by the researcher. The instrument was developed from existing literature.

1.9.5 Pre-testing of the instrument

Pre-testing of the developed questionnaire was conducted. Fifteen nurses, from one provincial hospital participated in the pilot test. The data collected from these nurses were excluded from the main study, as corrections were made to the wording of some items in the questionnaire. The purpose of the pretesting was to determine the clarity and appropriateness of the components in the questionnaire before the main study commenced (Grove & Gray, 2019:478).

1.9.6 Validity and reliability

Validity of the instrument was ensured by developing the questionnaire based on the literature and conceptual framework for the study. Experts in nursing and research evaluated the content validity of the questionnaire. The internal reliability of the various scales in the questionnaire was assessed using the Cronbach's alpha coefficient.

1.9.7 Data collection

The researcher administered the research instrument at the two hospitals. Data were collected during a specific time as arranged with the nurse managers, after a monthly meeting, utilising the auditoria due to the Covid-19 pandemic restrictions, prohibiting the researcher to enter the units (Grove & Gray, 2019:470). The respondents had no symptoms of Covid-19 disease, worn a face mask, applied hand hygiene and adhere to social distancing of 2 meters.

1.9.8 Data analysis

Data were captured on an excel[®] spreadsheet and then transferred and analysed in *Statistical Package for the Social Sciences* (SPSS) Version 27 (IBM Corp, 2020). The researcher made use of an expert statistician and the study supervisor, to assist in analysis of the data. Analysis included descriptive and inferential statistics.

1.10 Ethical considerations

An expedited ethics approval review was provided by the Institutional Review Board (IRB) of the Stellenbosch University (HREC reference, S19/09/171; Appendix 1) preceding the commencement of the research (Stellenbosch, 2019:52). Subsequently, the proposal was submitted to the ethics committee of the Western Cape Department of Health for approval and authorisation to conduct the research in the two selected rural provincial hospitals with reference WC_202011_007, Appendix 2.

Participants' right to decide was respected by the fact that they were told they had the right to withdraw any time because participation in the study was voluntary. Confidentiality and anonymity was continuously sustained, and fieldworkers signed an agreement to abide by the principle. It was the responsibility of the researcher to protect the respondents from discomfort and harm. Respondents completed the questionnaires in their own time and place. They could, however, contact a designated professional psychiatric nurse if they experienced an uneasiness in completing the questionnaire. This study did not hold more than minimal risk for participants. A thorough account of the application of the ethical principles is produced in Chapter 3.

1.11 Definitions and terminology

Definitions for variable operational terminology, namely absenteeism, determinants, nurse, nurse manager, public hospital, relationships, rural, and unit manager were constructed:

1.11.1 Absenteeism

Absenteeism is defined as both planned and unplanned absences, or scheduled and unscheduled absences (Ticharwa *et al.*, 2019:115). **Patterns** can be defined as daily and monthly absenteeism of one to more than five days' absence, including frequent mid-week, Wednesday, Thursday, weekends, school holidays, etc, absence (Alharbi *et al.*, 2018:1786; Ticharwa *et al.*, 2019:114).

1.11.2 Determinants

Determinants are elements contributing to a particular result or situation. In this study they refer to the organisational environment, unit management environment, personal and social environments, and health and safety environment (Burmeister *et al.*, 2019:144).

1.11.3 Nurse

A nurse is a person who met the requirements of training to practice as a professional nurse according to the Nursing Act, 2005 (Act No. 33 of 2005) endorsed by the South African Nursing Council (SANC) (DoH, 2020:6, 10, 14). A professional nurse is independently accountable for their decisions and actions. While enrolled nurses and enrolled nurse auxiliaries provide fundamental nursing care they are supervised by the Registered nurse (RN). In this study a nurse includes the categories of a professional nurse, enrolled nurse, and enrolled nurse auxiliary. According to SANC (Act No.33 of 2005), a professional nurse is registered under section 31 (1) (a) and has a qualification as a midwife while a registered nurse does not have the requirements and training of midwifery.

1.11.4 Nurse manager

A nurse manager forms part of the middle-level nursing management structure. The manager coordinates and guides operational managers (nursing ward managers) and monitors the rendering of nursing care to patients in the different wards and clinics (Van den Heede *et al.*, 2020:44).

1.11.5 Public hospital

A public hospital is a government institution rendering promotive, preventative, curative and rehabilitative care and referred to as the two regional Level 2 hospitals (Vadgaonkar & Velhal, 2018:29406). A Level 2 Regional hospital is the referral point for level I, district hospitals.

1.11.6 Relationships

In this study 'relationships' refers to the significant associations between nurses' perceptions of the organisational environment, unit management, personal and social environments and health and safety environmental determinants of absenteeism (Duncombe, 2019:9).

1.11.7 Rural

Rural area refers to the countryside of a province. In this study 'rural areas' refer to a demarcated, geographical service area in a province, specifically in the non-metro area of the Western Cape (Olivier *et al.*, 2018:419).

1.11.8 Unit manager

The unit manager refers to the head nurse of a specific unit (ward) or department, also called an operational manager, and oversees the day-to-day operations.

1.12 Time Frame

The time frame for the study is explained in Table 1.

Table 1.2: Study time frame

Year	Month	Activity
2018-2021	Continuously	Literature review
2019	July	Submission of proposal to Ethics Committee
2019	September	First training of field workers
2020	May	Second submission to Ethics Committee
2020	November	Provincial / institutional permission / training of field workers
2020	December	Pilot test
2021	February and May	Data collection
2021	April and May	Data analysis
2020	September	Writing of thesis with continuous review by supervisor
2021	November	Editing
2021	02 December	Submission of thesis

1.13 Chapter outline

Chapter 1: Foundation of the study

The cornerstone of this study introduces the reader to the main reasons why the study was done.

Chapter 2: Literature review

The narrative review encompasses the appropriate literature pertaining to determinants of absenteeism among nursing staff.

Chapter 3: Research methodology

This methodology and method of design was described as well how data was collected, validity and reliability of the questionnaire and the importance of ethical principles in research studies.

Chapter 4: Results

Descriptive and inferential analysis interpreted data and quotes were elaborated including the different tests used to describe the data.

Chapter 5: Discussion, conclusions, and recommendations

A broad dialogue according to the study goals were concluded and a course of action proposed for a proper or favorable outcome.

1.14 SIGNIFICANCE OF THE STUDY

This study furnishes nursing science with worthwhile knowledge and insight to an understanding of the environments and reasons for nurse absenteeism in two rural regional hospitals. The findings can assist nurse managers to take remedial and preventive action in addressing absenteeism.

1.15 CONCLUSION

Absenteeism among nurses is a continuous challenge that organisations have to deal with on a daily basis. This research investigated the reasons behind the absenteeism of nurses at two rural regional provincial hospitals in the Western Cape. It was decided to conduct a survey with a structured self-administrative instrument. Data was gathered by the researcher and field workers. The instrument addresses the environments of the nurse in relation to absenteeism. The factors can be utilised to authenticate amendatory steps to decrease the inconsistency to reduce absenteeism. These determinants will be described in Chapter 2, the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 included the study background and an overview of the study methodology. In this chapter, the literature related to factors influencing absenteeism is presented.

Factors influencing absenteeism among nurses include inconsistent ability of the organisation to deter sick leave abuse, leadership styles, family responsibilities, stress, and burnout (Duncombe, 2019:98; Dyrbye, Shanafelt, Johnson *et al.*, 2019:5; Ticharwa *et al.*, 2019:114-115; Tweheyo *et al.*, 2019:6). There are many terms for absenteeism used by authors namely, withdrawal, staying away from work, and missing days. For this study, the term absenteeism is used throughout. The aim of this study was to explore the perceptions of nurses on the determinants of absenteeism within the organisational, unit management, personal and social, as well as health and safety environments. Previous studies focused on one to three domains in describing factors influencing absenteeism (Duncombe, 2019:92, 94; Ticharwa *et al.*, 2019:110). This study focussed on four domains that determine absenteeism.

The literature review includes global and local studies on the determinants influencing absenteeism within the environments described in the research framework (Duncombe, 2019:94; Magobolo & Dube, 2019:2-3; Mammbona & Mavhandu-Mudzusi, 2019:1; Ticharwa *et al.*, 2019:109; Tweheyo *et al.*, 2019:1). The literature review is written in a systematic manner under three main topics namely universal trends of absenteeism, determinants of absenteeism, and a more detailed description of the factors influencing absenteeism within the four environments.

2.2 Electing and reviewing the literature

The literature review process enables researchers to find and retrieve pertinent sources by searching the available databases or journals, then reading sources critically, afterwards the review report is written and evaluating the review report (Brink *et al.*, 2018:64; Polit & Beck, 2018:408). The literature review was used to synthesise sources to highlight patterns, themes, conflicting arguments, and gaps.

Various databases were searched including, PubMed, Cochrane library, EbscoHost, Google Scholar, Medline, Bio Med Central, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Science Direct. The bibliometric analysis included books (on management and human resources), peer review articles, conference proceedings, and unpublished research papers.

The search string included PICO elements: P= population (nurses), I= issue (absenteeism), C= comparison (Bonferroni comparison analysis) and O= outcome (absenteeism control) for evidence-based practice. Boolean operators (“AND” and “OR”) were used in the search string. Key words were absenteeism, nurses, factors, hospital, rural, organisational, health, safety, environment, nurse, and leadership. The search included articles published between 2017-2021 and resulted in 90 sources. Out of 90 sources three seminal studies were included to have an in-depth understanding of the topic and provide a transparent empirical base. The literature review was conducted in an objective, systematic manner so that it is replicable and reproducible. Additionally, grey literature such as policies, annual reports, and guidelines of the Department of Health (DoH), South Africa were searched at official government websites.

2.3 UNIVERSAL TRENDS OF ABSENTEEISM

Internationally, several high-income countries, such as Iceland, USA, and Australia, have been influenced by many factors that cause absenteeism among nurses in the workplace (Burmeister *et al.*, 2019:150). The highest absenteeism rate (operationalised as reporting workdays missed other than approved days off) amongst nurses was in Iceland with an absenteeism percentage of 74%, followed by Australia at 73%; in contrast, South Korea had the lowest absenteeism rate (10%). Nurses in the USA, with a 52% absenteeism rate (Burmeister *et al.*, 2019:148), were more likely to be compliant to be at work compared with Iceland and Australia.

In Bushenyi district Uganda, 48% nurses reported an absenteeism rate at public facilities in local government (Nyamweya *et al.*, 2017:1125; Mukasa *et al.*, 2019:6) and absenteeism was also cited in Tweheyo *et al.* (2019:5). Factors such as personal and family health and responsibilities may contribute to absenteeism in low-middle-income countries.

Health facilities in a rural area in the Western Cape, South Africa likely may face similar challenges and encounter difficulties to control absences. Among nursing students in Lejweleputswa district in South Africa, 72.4% of the participants agreed that absenteeism was due to physical illness and 97.3% due to covering for nurse shortages (Magobolo & Dube, 2019:3). No statistics on nurse absenteeism rates were available at these two rural institutions, hence the percentage here.

2.4 DETERMINANTS INFLUENCING ABSENTEEISM

Absenteeism results in a negative effect on quality patient care, nurses' productivity, and the available finances to operate an institution (Ferro, Zacharias, Fabriz *et al.*, 403; Mbombi *et al.*, 2018:1; Ticharwa *et al.*, 2019:110). There are four domains that influence absenteeism as depicted in the research framework (Chapter 1). Absenteeism is a multifaceted problem and reasons to be absent from the workplace may vary based on the context.

For this study, organisational environment, unit management environment, personal and social environment as well as health and safety environment as determinants related to absenteeism are explored and discussed. These factors may be interrelated.

2.5 INFLUENCE OF ORGANISATIONAL ENVIRONMENT ON RISK FOR ABSENTEEISM

The influence of organisational environment on the risk for absenteeism is explained by Herzberg's Motivation-Hygiene theory (Ozsoy, 2019:12). Herzberg Motivation-Hygiene theory suggests that a lack of extrinsic (hygiene) factors namely organisation policy, supervision, working conditions, salary, and job security, could influence the nurse's behaviour to be absent. Herzberg's posits that hygiene factors for job satisfaction are required but could lead to demotivation due to increased work pressure, workload, and staff shortages. However, it is also important to pursue organisational objectives and goals. For example, if mortality or morbidity rates are not achieved and motivation or morale are low, the impact on the organisation would be negatively affected, when nurses are demotivated. On the other hand, intrinsic (motivation) factors namely, achievement, recognition, responsibility, and growth possibilities encourage the nurse to perform better (de Juana-Espinosa & Rakowska, 2018:141-142; Ayalew, Kibwana, Shawula, *et al.*, 2019:7,8,9; Ozsoy, 2019:17). Experiencing growth possibilities and promotion at work allows professional growth, making the work challenging and motivating an employee. Under the circumstances of limited growth possibilities dissatisfied nurses inevitably have high absenteeism and vice versa. Although hygiene factors appear to be important contributors to job-satisfaction, Burmeister *et al.* (2019:148) did not find an association between job satisfaction and absenteeism in a study conducted in seven countries.

Another important organizational factor is the manager's leadership style. Authority over two-weekly, and monthly off-duty schedules, and being given split days off makes the work environment more stressful. When requests are not honored by nurse managers it leads to

interference with home-life arrangements, making absenteeism more likely (Duncombe, 2019:97; Ticharwa *et al.*, 2019:113).

Other organisational factors found to influence absenteeism in countries such as the United Kingdom, Bahamas, and Australia include scheduling disputes, staff discouragement, sick benefits, sick leave abuse, and organisational culture failure (Drennan & Ross, 2019:4,5,6; Duncombe, 2019:93,94,96; Ticharwa *et al.*, 2019:113). In the African context, Tweheyo *et al.* (2019:1) observed additional factors which includes time-tables changing each week, amended patient schedules, a lack of monitoring and tracking of absenteeism, inappropriate transfers, lack of control and unsupported supervision of doctor's work to nurses. Furthermore, sick leave abuse cannot be excluded in the South African context as nurses reported covering (substitute) for their colleagues who were absent (Mbombi *et al.*, 2018:4; Magobolo & Dube, 2019:4).

The absenteeism behaviour of nurses is explored within the domain of organisational environment discussed under i) elements of the organisational environment; ii) organisational strategies; and iii) human resources management strategies with different sub-domains.

2.5.1 Elements of the organisational environment

Factors influencing absenteeism within the organizational environment comprise of: i) bureaucratic leadership, ii) nurse shortages, iii) skill mix, iv) nurse-patient-ratio, and v) workload.

Bureaucratic leadership refers to managers and the workforce in positions that are well-defined with specified duties, coordinated processes and standards determining methodology (Andreasson, Ljungar, Ahistrom, Hermansson, & Dellve, 2018:25). A bureaucratic leader tends to apply regulations when confronted with staff resistance and decreased productivity to correct staff absenteeism (Belrhiti, Van Damme, Belalia & Marchal, 2020:8). Effective leadership is important to maintain adequate staff for a manageable workload to prevent absenteeism. Hierarchical leadership styles may influence absenteeism through improper scheduling practices, lack of incentives, improper staffing, encouraging absenteeism abuse, encouraging absenteeism entitlement, and ineffective communication or collaboration (Duncombe, 2019:97; Belrhiti *et al.*, 2020:12). Apart from staff absenteeism, leaders may also contribute to staffing deficits. This could arise when, in conflicting decisions, leaders are placed in a quandary. For example, when decisions are made to discipline nursing staff with unnecessary repeated and excessive absenteeism, leaders are uncertain what to do or which way to go.

Another factor that could influence absenteeism is unfair discipline imposed on staff and disciplinary failure at the workplace (Vadgaonkar & Velhal, 2018:29407; Shah *et al.*, 2020:8). Furthermore, absenteeism may be amplified by hierarchical management on different coaching styles, negative-passive appraisal, and low autonomy with poor implementation strategies (Andreasson *et al.*, 2018:34). A negative-passive appraisal means to express negative thoughts towards change with no intention to implement the change. Hierarchical structure portrays overcontrolling behaviour, low motivation driving tension between unions, imparting mistrust between executive management and staff, increasing work pressure, and thus elevating absenteeism (Belrhiti *et al.*, 2020:10,12,13). Top-level leaders can increase compensation and awards, while absenteeism is aggravated by a lack of incentives. To decrease absenteeism, bureaucratic leadership, ambiguous policies, and procedures could be rectified in the organisation.

Nurse shortages are defined as inadequate numbers of nurses on duty for the required workload and refer to a demand for qualified nurses (Smith *et al.*, 2019:5). A study done in London revealed a worldwide shortage was estimated by WHO and the World Bank (2014). These shortages will impact the region of Africa (WHO, 2016; Scheffler, Campbell, Cometto *et al.*, 2018:3,4,5; Drennan & Ross, 2019:2), see Table 2.1. Burmeister *et al.* (2019:152) found that working full-time, working overtime, and a perception that staff levels are less than adequate were associated with absenteeism. The need, demand, and supply in the lower-middle-income countries have the greatest human resources needs.

Table 2.1 Prediction of need, demand, and supply of health workers

Human resources		Need			Demand			Supply		
Country	2013	2030	% Change	2013	2030	% Change	2013	2030	% Change	
Africa	5891071	8910473	51%	1106183	2404907	117%	1874830	3066666	64%	
Eastern Mediteranean	3797769	6246463	15%	3057524	6201515	103%	2690443	4611408	71%	
Southeast Asia	12433083	14712987	18%	3057524	6201515	105%	5772250	10168591	76%	
Lower-middle	17605293	21940256	25%	10897535	21682581	99%	9867919	17958943	82%	

(Scheffler, Campbell, Cometto, Maeda, Lui, Bruckner, Arnold & Evans, 2018:4-5).

Magobolo and Dube (2019:4-5) in a quantitative and descriptive exploratory study of student nurses in clinical areas in South Africa, found that 97.3% of participants agreed that absences were due to staff shortages; 95.4% due to family problems; 89.4% was work overload; compared to 54% avoiding sick patients. At a South African rural hospital, nurse shortages were exacerbated by absenteeism when enrolled nurses found it overwhelming to care for HIV-patients without adequate proper human resources (Mammbona & Mavhandu-Mudzusi, 2019:144). A paediatric consultant at a major tertiary hospital mentioned that nurse shortages is a major problem in quality care. It is argued that staff shortages led to increased adverse events and hospital acquired infections. Furthermore, nurse managers do not recognise the dilemma of nurse shortages (Appel, 2018; Olivier *et al.*, 2018:4019; Smith *et al.*, 2019:7-8). Some of the staff shortages were further declining in these rural areas, but that may have been counterbalance to some degree by staff moving into the independent or private sector. Therefore, nurse shortages contribute to absenteeism.

Skill mix is enumerated by a proportional cost-effective hour of all categories (RN's, EN's, ENA's) of nurses (Van den Heede *et al.*, 2020:23). The ratio in category contained in the skill mix should be determined by the patient acuity level. In a retrospective study in England, registered nurse shortages versus that of enrolled nurse auxiliaries were analysed. Although enrolled nurse auxiliaries play a role in patient safety incidents, they cannot be treated equal to absent registered nurses when staff requirements are assessed. There are consequences and repercussions to employing nurses who have less training, knowledge, and skills in workforce (Griffiths, Maruotti, Saucedo, Redfern, Ball, Briggs, Dall'Ora, Schmidt & Smith, 2018:616; Buchanan, Charlesworth, Gershlick & Seccombe, 2019:13; Drennan & Ross, 2019:7,10). Consequently, enrolled nurses draw blood, insert intra-venous lines, and even administered intra-venous medicine when registered nurses are absent (Mammbona & Mavhandu-Mudzusi, 2019:144). An inappropriate skill mix may lead to nurses perceiving that staff in the unit is inadequate, resulting in absenteeism.

The nurse-patient-ratio is the ratio of nurses to the number of patients under their direct care (Van den Heede *et al.*, 2020:23). Drennan and Ross (2019:10) suggested that there is limited of an ideal nurse-to-patient evidence at a national level due to incomplete data. The data of nurses focus on activities of history and not projected (Drennan & Ross, 2019:10). The researcher developed the table from various authors according to the literature review. Table 2.2 indicates the recommended nurse-patient-ratio for each nurse plus an in-charge nurse on each shift. See references of Table 2.2. According to various authors high nurse-patient-ratios of 1:8 or above

ascribed to absenteeism is consistently associated with worse patient or nurse outcomes (Sharma & Rani, 2020:2633; National Institute for Health and Care Excellence (NICE), 2020:21-22 cited in Van den Heede *et al.*, 2020:19, 21-22, 58; Martínez, Moraga, Paredes, Vásquez & Villarroel, 2020:245). Due to absenteeism a high patient-ratio is evident in wards with an unsafe work environment (Sharma & Rani, 2020:2633; Burmeister *et al.*, 2019:148). In South Africa, it was noticed that data on nurse-patient-ratios in wards. The nurse-patient ratio is lower in tertiary than general hospitals and larger in district hospitals. See Table 2.2.

Table 2.2 Nurse-patient-ratio by country

nurse-patient-ratio				
Country	Tertiary	General	Emergency	ICU
Japan		1:7		1:2
South Africa			1:4	1:2
India	1:3	1:6	1:1 or 1:2	1:2
Europe (Finland)	1:4	1:8.3	1:3	1:2
Belgium	1:6.8	1:8 (am); 1:10 (pm) 1:11 (night)	1:3	1:1
USA, UK, Australia, Canada	1:4	1:4 (am); 1:5 (pm); 1:8 (night)	1:3	1:1 or 1:3

Bester, 2018:20,46; Burmeister *et al.*, 2019:148; Drennan & Ross, 2019:3; Matsomoto, 2019:50; Sharma & Rani, 2020:2635, 2636; Van den Heede *et al.*, 2020:19, 74, 225, 254.

Nursing workload is the quantity of work that a nurse carries out in a specific time as well as hours needed to accomplish the duties (Van den Heede *et al.*, 2020:23). In Lebanon and Italy, a high workload and inadequate staffing predicted absenteeism and the likelihood to resign (Burmeister *et al.*, 2019:148). Risks of long and short periods of absences among nursing staff are increased when heavy workload is experienced. Additionally, co-workers endure increased unplanned heavy workload that leads to work pressure, being overworked, tiredness, absenteeism, and monthly resignations (Alharbi *et al.*, 2018:1787; Mbombi *et al.*, 2018:3-4; Alreshidi *et al.*, 2019:2; Mammbona & Mavhandu-Mudzusi, 2019:142; Tweheyo *et al.*, 2019:4).

Heavy workload was mostly the reason for absenteeism and work overloads result in arguments amongst nurses who cover for the absentee (Alreshidi *et al.*, 2019:2, 7).

2.5.2 Organisational strategies

Organisational strategy is a dynamic long-term plan that is a roadmap towards an organisation's objectives, goals, and vision to achieve a particular purpose (Afolabi, Fernando & Bottiglieri, 2018:609). The Cambridge English dictionary (2020) defines organisational strategy as organisational plans developed to manage changing markets. Organisational factors effected employee motivation and included incentives, career advancement, favourable working environment, and approaches of management and leadership (Afolabi *et al.*, 2018:609). Organisational strategy includes: i) intrinsic and extrinsic motivation, ii) working conditions, iii) psycho-social working conditions, iv) human resource management strategies.

2.5.2.1 Internal and external motivation

Motivation is also described as an internal (intrinsic) drive, a prototype of autonomous choice and activity. With intrinsic motivation the individual pursues a goal because the activity gives inherent pleasure, enjoyment, and satisfaction (Messineo, Allegra & Seta, 2019:3). Lack of motivation, specifically external motivation, was the lowest on the rank list contributing to absenteeism and diminished productivity (Duncombe, 2019:96, 98). A lack of motivation intrinsic and/or extrinsic was reported by nurses in Bahamas and Uganda. If an organisational strategy is providing external motivation such as, good working conditions, affordable houses, career development (Ayalew *et al.*, 2019:2); and outfits, footgear, and notepads (Mukasa *et al.*, 2019:9); it could uplift and encourage nurses to decrease absenteeism. Some authors highlighted motivation and demotivation, including poor and non-conducive working conditions, and psycho-social working conditions as negative and a contributor to absenteeism (Alreshidi *et al.*, 2019:4; Duncombe, 2019:96; Mukasa *et al.*, 2019:9; Wagner *et al.*, 2019:3). Also, in SA, Egypt and KSA in a study among nurses' demotivation was indicated in non-appearance at work, being absent and nurses remaining on duty were disengaged when colleagues are absent (Mbombi *et al.*, 2018:3; Alharbi *et al.*, 2018:1786; Alreshidi *et al.*, 2019:4). Working conditions and psycho-social conditions will be discussed in the following section.

2.5.2.2 Working conditions

Working conditions: There is no definite definition of conditions of work, but Thesaurus (2021) defines it as the operational environment and composite of conditions and circumstances, also capabilities and the manager is responsible for the decisions. Further, it refers to be actively engaged in paid work and a process of common circumstances that influence the performance or outcome. Working conditions that negatively influence absenteeism include long working hours, evening shifts, working on Sundays or holidays, difficult positions, doing work that is repetitive or monotonous and a lack of child-care facilities. Additional factors include intensive and excessive working pace and supervisory control, which impacted absenteeism. All these could cause accidents and affect certain diseases (Vadgaonkar & Velhal, 2018:29405, 29406; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:113-115). Additional factors include intensive, and excessive working pace and supervisory control, which impacted absenteeism, and all could cause accidents, and affect certain diseases (Vadgaonkar & Velhal, 2018:29405, 29406; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:113-115). Unconducive working environments can also be due to a lack of pharmaceutical or stock supplies, wheelchairs, unsuitable furniture (Ferro *et al.*, 2018:403; Mammbona & Mavhandu-Mudzusi, 2019:143, 145). However, stock, and quarterly asset management procedures could be adhered to.

2.5.2.3 Psycho-social working conditions

Psycho-social working conditions are associated to absenteeism. A cross-sectional study at university hospitals in Germany investigated the perspectives of healthcare professionals of their working conditions (dilemmas), leadership, and safety climate. Quantitative demands, psychological pressure, ethical dilemma, job dispute, psycho-somatic symptoms and stressful situations were identified negatively as adverse psycho-social working conditions (Mammbona & Mavhandu-Mudzusi, 2019:144; Wagner, Rieger, Manser *et al.*, 2019:3, 6; Tweheyo *et al.*, 2019:5,6). Strategies for psycho-social conditions and well-being of nurse' should be implemented, for example, anxiety, depression, work-place-privacy, violence, and stress management.

Each person should be cared for holistically, e.g., physical (body), psychological (spirit/emotional), social (togetherness) and spiritual (soul) well-being. The holistic well-being of patients and nurses are the pinnacle in these policies. According to South African government policies, yearly accreditation of Quality Assurance system (QA); Office of Health Standard Compliance (OHSC); occupational health risk audits; and infection prevention control inspections and audits should be applied (Maphumulo & Bhengu, 2019:3; WCG, 2019:5).

Furthermore, the macro-level factors affecting absenteeism include policy, financial, traditions, technical, judicial, and surrounding circumstances. These factors are influenced by instability, weaknesses, unrest, inferior position, unemployment, inadequate job circumstances, and limited options of professional advancement (Drennan & Ross, 2019:6).

2.5.2.4 Human resource management strategies

Human Resource management (HRM) refers to methods or practices in an organisation of managing people to build a nursing practice environment and include norms and policies (Matsomoto, 2019:244). Therefore, absenteeism is a significant concern in the field of human resource management.

HRM in nursing comprises of four components namely recruitment, selection and remuneration; training and development; performance appraisal and reward systems; and career planning and promotion.

i) Recruitment and selection and remuneration

Recruitment and selection provide best managerial practices, identifying and filling a position and selecting the best qualified person for the job (Public Service Commissioner, 2018:29). Workplace absenteeism could be predicted by reflecting employee's behaviour prior to hiring using the algorithms of Deep Neural Network (DNN). DNN is a useful mechanism or method to predict the nurse' behaviour and absenteeism patterns towards punctuality. Factors that predicted absenteeism before hiring include sickness or emergencies, social smoking, age, social drinking, and body mass index (Shah *et al.*, 2020:8). Improper reference checking influences habitual absenteeism patterns. Utilising DNN algorithms helps to filter those candidates with excessive absenteeism prior to interviews (Shah *et al.*, 2020:10). DNN algorithms is a step-by-step mathematical computer program which calculate and give the answer to a specific problem (absenteeism) or research question.

The first paragraph addresses the recruitment criteria and in this paragraph the recruitment process is streamlined. In addition, specialised skills might be lost with turnover of nurses causing additional training cost and time of new employees being absent from work. One such example is, that the National Health System (NHS) changed the immigration policies and examining the second language of foreign nurses, and that led to the reduce inflow of nurses in

Europe (EU). So, the focus was to rather recruit foreigners due to EU nurse shortages and high exodus (Buchanan *et al.*, 2019:6).

This paragraph refers to the human resource processes and appointments that may be delayed which can cause absenteeism and further financial costs. In Uganda, absenteeism was observed to be high especially when commencing employment because of delayed payment and it could take even up to one year to join the payroll (Tweheyo *et al.*, 2019:4). South African studies indicated a lack in hiring replacement nurses, rather than absenteeism. This led to poor quality care and increased financial costs resulting in more absenteeism (Mammbona *et al.*, 2018:4; Mammbona & Mavhandu-Mudzusi, 2019:143). To provide in basic needs, salary is the most important aspect to come to work. Poor remuneration is a contributor to absenteeism as illustrated by several studies in Brazil, Jordan, South Africa, Poland, Uganda, and Turkey (Ferro *et al.*, 2018:40; Jarrad, Hammad, Shawashl & Mahmoud, 2018:5; Mammbona & Mavhandu-Mudzusi, 2019:144; Marć *et al.*, 2019:14; Mukasa *et al.*, 2019:7; Özsoy, 2019:17; Tweheyo *et al.*, 2019:4). For example, in Jordan and Poland nurses are paid less than the average remuneration in the country and less in comparison with other countries (Jarrad *et al.*, 2018:5; Marć *et al.*, 2019:14).

Besides, grievances arise due to salary cuts and refusal of employers to pay overtime (Marć *et al.*, 2018:6; Marć *et al.*, 2019:14). Similarly, in Brazil and Uganda, low and delayed remuneration contributed to absenteeism as nurses perceived a lack of payment as injustice and did not have funds for transport to work (Ferro *et al.*, 2018:40; Mukasa *et al.*, 2019:7; Tweheyo *et al.*, 2019:4). In Turkey, when testing the Herzberg theory among public workers, salary was the strongest motivating factor and individuals are normally motivated by unmet needs. In South Africa, higher salaries could be offered for hard work and exposure to risks (Mammbona & Mavhandu-Mudzusi, 2019:144; Özsoy, 2019:17). Thus, salary was the most important factor and highest in testing the Herzberg theory, ensuring a decent salary, an individual must have job security.

ii) Insufficient training and development

Training and development have been associated with absenteeism (Choi, Kim & Kim, 2018:104; Ajuebor, McCarthy, Li, Al-Blooshi, Makhanya & Comett, 2019:6; Drennan & Ross, 2019:6). Factors that contribute to absenteeism incorporate the absence of career plans (Ferro *et al.*, 2018:407) insufficient mentoring (Burmeister *et al.*, 2019:152), poor or unequal access to continuous professional development (Choi, Kim & Kim, 2018:104; Buchanan *et al.*, 2019:6; Van der Heever, Van der Merwe & Crowley, 2019:10), or lack of further training (Mammbona &

Mavhandu-Mudzusi, 2019:143). There is a lack of investment in continuing professional development (Buchanan *et al.*, 2019:6).

iii) Performance appraisal and reward system

Performance Management System (PMS) is a process of ongoing monitoring, continuous reviews and assessing nurses' activities and achievement according to institutional objectives continuously within a realistic timeframe (Madlabana, Mashamba-Thompson & Petersen 2020:3). A systematic scoping review amongst nurses in primary health care settings were conducted on performance management procedures and the application of the PMS . This was in order to comprehend the implications amidst nurses in PHC clinics. The performance review aids nurse managers in administer impetus rewards towards satisfactory accomplishments or identify a gap for mediocre effectiveness to develop or improve abilities (Ferro *et al.*, 2018:407; Madlabana *et al.*, 20020:3). Mediocre performance may be an indicator of absenteeism and related to productivity loss, increased productivity costs, and adverse opinions held by clients and patients. Based on good performance, incentives and appraisal or a thank you note could be given to improve nurses' morale.

Effective performance management systems may assist to manage absenteeism. For example, by recognising undue absenteeism records as poor performance and providing recognition for hard work (Afolabi *et al.*, 2018:608; Alharbi *et al.*, 2018:1785; Alreshidi *et al.*, 2019:2; Duncombe, 2019:97-98; Mammbona & Mavhandu-Mudzusi, 2019:145; Mukasa *et al.*, 2019:9). Enhancing positive recognition by giving complements, rather than criticism and blame for the work done.

iv) Lacking career planning and advancement opportunities

Career planning is a self-evaluation and planning done by an individual to have a professional career path. On the other hand, advancement opportunities mean the promotion of an individual in rank or status in a reasonable time. Advancement opportunities refer to the promotion of an individual in rank or status within a reasonable time. Promotion is an important motivating factor because it is perceived as growth, advancement and recognition, leading to improved self-esteem and self-actualisation and a pay rise (Afolabi *et al.*, 2018:608).

A lack of career planning and advancement opportunities was associated with increased absenteeism (Ferro *et al.*, 2018:403). Burmeister *et al.* (2019:148), in their cross-sectional study that included seven countries, found that current position was associated with absenteeism.

Other studies in Brazil, UK and SA found that career planning trajectory and advancement opportunities influenced absenteeism (Ferro *et al.*, 2018:403; Drennan & Ross, 2019:6; Du Plessis, 2019:34; Van der Heever *et al.*, 2019:10). A lack of advancement opportunities were associated with absenteeism (Ferro *et al.*, 2018:403). Other studies in Brazil, UK and SA found that career planning trajectory and advancement opportunities influenced absenteeism (Ferro *et al.*, 2018:403; Drennan & Ross, 2019:6; Du Plessis, 2019:34; Van der Heever *et al.*, 2019:10). This is supported with this quote *“To this day we are awaiting a career plan... it is very sad because we get discouraged”* (Ferro *et al.*, 2018:403).

2.6 INFLUENCE OF UNIT MANAGEMENT ENVIRONMENT ON RISK FOR ABSENTEEISM

The unit management environment entails continuous planning, organising, leading and the importance of controlling nursing staff for effective and efficient nursing care rendered. In this environment e.g., work allocation on a daily or weekly basis; scheduling shifts; interactions and relationships between the patient, doctors, nurses, and allied personnel, among others are observed, monitored, and evaluated. The domain entails the various leadership styles, strengthening of leadership, favouritism, job performance and accountabilities. The components include:

- Leadership styles
- Strengthening leadership, governance, and management
- Favouritism
- Job performance and accountabilities

2.6.1 Leadership styles

Leadership is of importance in managing the unit to foster a healthy work environment. Poor support and supervision are reasons for absenteeism for it affects engagement at work. Offering guidance, direction and giving regular feedback, motivates employees. A lack of feedback demotivates a worker; someone thought to be hardworking without feedback decides to withdraw (Mukasa *et al.*, 2019:9). Nurse managers should lead by example and be committed to their institution to reduce absenteeism in nurses (Ticharwa *et al.*, 2019:115). However, there is no power like the power of an example. The leader should have the power to combat horizontal violence in a unit to reduce absenteeism. Horizontal violence means nurse-to-nurse hostility, it could be overtly or covertly and related with absenteeism. These aspects relate to an unhealthy, inefficient, and unsustainable work environment and leadership. Additionally, the hostile atmosphere can be sensed by and projected on patients withholding communication and affect interaction with patients. Malevolence (harm) can ruin the benevolence (good) and well-being in working environments and result in interpersonal relationships and negative team unit atmosphere (Jarrad *et al.*, 2018:5; Zhang & Xiong, 2019:289,293). Notwithstanding, unskilled leaders, and supervisors could unwittingly contribute to nurses' poor work performance cause stress and absences leading to turnover. The following leadership styles tend to increase absenteeism and should rather be avoided.

Autocratic, laissez-faire and transactional leaders contribute to higher absenteeism (Straw, 2018:32; Musinguzi, Namale, Rutebemberwa, Dahal, Nahirya-Ntege & Kekitiinwa, 2018:27; Belrhiti et al., 2020:4). Autocratic managers do not involve nurses in participative processes and enforce their decisions. Autocratic leadership leads to dissatisfaction of nurses with attributes perceptions of knowing more, lacking listening skills, frustrations and lack in supervision, misuse of power, victimisation, and grievances. Nurses could not speak out and kept quiet to hold the peace (Bester, 2018:62; Straw, 2018:32; Du Plessis, 2019:131). Passive and avoidant management by exception refers to laissez-faire leadership (Goh, Ang & Della, 2018:206) with no interest in subordinates; allowing them to do as they please without offering guidance and direction. Laissez-faire leadership decreases perceived organisational support, staff enthusiasm, autonomy, competence, and relatedness (Belrhiti, Van Damme & Belalia, 2020:9). Furthermore, it effects teamwork building negatively (Musinguzi et al., 2018:27) with increased role conflicts about job responsibilities and training among nursing staff and clinicians (Bester, 2018:48). Contingent rewards and active management by exception are defined as transactional leadership (Goh et al., 2018:206). Transactional leaders impair adequate working conditions, increase demotivation, increase work pressure, and increase organisational commitment (Belrhiti et al., 2020:4, 13). As a result, everyone obtains the same salary, despite working different hours (Mukasa et al., 2019:8). Transactional leaders focus on group performance, supervision, organisation, and use rewards and punishment for subordinates to be compliant (Moletsane, 2018:27). Leadership styles, inaugurate a robust and shared governance in organisations. The following section includes transformational leadership, favouritism, job performance and accountabilities.

ii) Strengthening leadership, governance, and management

All the below leadership styles tend to lower absenteeism and are ideal for implementation. Transformational leadership refers to a leader's propensity to impact others towards obtaining collective goals (Goh *et al.*, 2018:205) and involves nurses in the decision-making. Transformational leaders decrease absenteeism and burnout. The incorrect practicing of transformational leadership practices could articulate a less meaningful goal and ensure an unsafe environment. Conservation of nurses' energies result in more absences, namely physical, cognitive, and emotions are fully disengaged in performing their roles at work (Lai, Tang, Lu, Lee & Lin, 2020:4) by demolishing a strong bridge between followers and leaders (Al Khajeh, 2018:3). Leaders should ideally display these four concepts: 1). *Idealised influence* in attributes and behaviour of subordinates to perform exemplary work and display ethical conduct,

role modelling, integrity, trust, and respect. 2). *Inspirational motivation* changes nursing practices and are inspiring, enthusiastically, optimistically, have future vision, and reach followers full potential. 3). *Intellectual stimulation* enhanced the intellect; improve employee engagement and job satisfaction, understanding different angles of problems, problem-solving ways, and creative ways to complete different tasks. 4). *Individualised consideration* is supportive, compassionate, spend time in clinical teaching, strong social competencies, developing strengths to get things accomplish (Vadgaonkar, Dasila & Velhal, 2018:75180; Shung-King *et al.*, 2018:7-9; Al Amiri, Daradkeh & Al Kaabi, 2019:26; Du Plessis, 2019:151). These four key attributes of transformational leadership have a positive influence on absenteeism (Vadgaonkar, Dasila & Velhal, 2018:75180; Shung-King *et al.*, 2018:7-9; Al Amiri, Daradkeh & Al Kaabi, 2019:26; Du Plessis, 2019:151; Belrhiti *et al.*, 2020:12,13; Lai *et al.*, 2020:4). Participative managers strengthen the voice and the involvement of the staff but also enabled a constructive discussion between nurses and managers. Participative leaders encompass respect to open communication, staff participation and cooperation with another departments in achieving corporate goals. Nurses job satisfaction and performance are promoted, thus decreasing absenteeism. Moreover, participative leadership style had the most substantial impact with little absenteeism, while autocratic and laissez-faire had the lower to lowest correlation (Al Amiri *et al.*, 2019:27; Belrhiti *et al.*, 2020:8). Autonomy and participative management in combination reduce absenteeism.

iii) Favouritism

Favouritism means the act of unfairly treating an individual better than others because you like them better. Fairness, equality, and the provision of constructive feedback enables stronger affective commitment between staff members for the promotion of esprit de corps (brotherhood) (Alreshidi *et al.*, 2019:7). The likelihood to absenteeism is increased through perceived unfairness, unfriendliness, nepotism, controversially friendly relations, hand-picked applications, and tips given to the interviewee for promotion (Duncombe, 2019:98; Van der Heever *et al.*, 2019:9-10). The result of favouritism at work leads to animosity and conflict between nurses because leaders do not easily discipline their favourites, but protect them (Moletsane, 2018:87). Favouritism impacts employee engagement and performance negatively, hurt team spirit, affects talent retention, and risk claims of discrimination (Duncombe, 2019:98; Van der Heever *et al.*, 2019:1,2,9,10-12). Engagement refers to be connected to do something and related to a particular job.

iv) Job performance

In this section job performance is discussed and how it influences absenteeism. Job performance refers to processes of acts or interactions to perform a task and can be to an extent of worse or better. Job performance was identified as having a risk on absenteeism in various countries (Bester, 2018:46; Drennan & Ross, 2019:6; Duncombe, 2019:96; Dyrbye *et al.*, 2019:9; Marc *et al.*, 2019:14). For example, what may lead to nurses being absent from work are being allocated additional duties namely non-nursing tasks, doctors paperwork, referrals, and performing functions of the clerk, porter, cleaning, and basic nursing care (Bester, 2018:46; Drennan & Ross, 2019:6; Duncombe, 2019:96; Marc *et al.*, 2019:14). Besides, work patterns, physical and emotional intensity of work, the type of activities, physical effort, lifting and turning patients, caring for patients with cancer and co-morbidities impact the psychological well-being of nurses (Dall'Ora, Ball, Redfern, Recio-Saucedo *et al.*, 2018:5; Vadgaonkar & Velhal, 2018:29405; Dall'Ora, Griffiths, Redfern *et al.*, 2019:24; Drennan & Ross, 2019:6; Mammbona & Mavhandu-Mudzusi, 2019:144; Ticharwa *et al.*, 2019:114; Martinez, Moraga, Paredes, Vásquez & Villarroel, 2020: 246, 247).

The study of workload measurement in Brazil among nurse technicians in ICU found no statistical association with workload and absenteeism. The highest workload and absenteeism were measured in the morning in relation to statistically significant in other shifts. The highest proportion of absences was in ICU group 2 and compared to remarkable difference in ICU group 1. Autumn and winter had the highest absenteeism, while least absences were in June (Feldhaus, de Souza, Fernandes, Carvalho, Bordin & de Oliveira, 2019:7-8).

This paragraph expounds the influence of job performance on absenteeism according to nursing students' views. Factors that make students ignore clinical practice and leads to poor performance include reporting late (not on duty on time); absenteeism from duty; lacking self-confidence; anxiety; too many patients; lacking basic equipment and supplies (Vadgaonkar & Velhal, 2018:29405; Gemuhay *et al.*, 2019:5,6,8; Magobola & Dube, 2019:4). According to the nursing students they felt that they have better possibilities and favourable clinical settings for education and how to apply it in practice (Gemuhay *et al.*, 2019:5,6,8; Magobola & Dube, 2019:4). The low economic status of a family effected the students' clinical practice as indicator for absenteeism, seeking for fees. Low economic conditions affect the accountabilities and work performance of a unit. Job performance and accountabilities are influencing the nature of work and mentally affect the personal and social well-being of nurses.

v) Accountabilities

In this paragraph accountabilities and how they may influence absenteeism are elucidated. Accountabilities refer to the responsibility for a nurse's decisions, omissions and actions being carried out. The nurse should explain any decisions, omissions, and actions of the expected work not being carried out. Absenteeism leads to autonomy, inflexible schedules, the need for training to complete work, and lack of responsibility (Serafin & Czarkowska-Pączek, 2019:4). For example, there is a lack of consensus amongst nurses concerning the conceptualisation of independence, and what it compose to work independently. However, when nurses have conversations about working independently, they link it to the ward team instead to the achievement of professional status (Brayer & Marcinowicz, 2018:5; Oshodi *et al.*, 2019:13). Autonomy is inconsistently applied to deliver nursing care; therefore, participative management could be beneficial in units to empower nurses. Satisfaction score for Australia and USA were similar (Burmeister *et al.*, 2019:151) with less hierarchical structure and nurses work more independently and participate in decisions.

This paragraph proceeds from autonomy to time, pressure on time and long hours was tested and influence absenteeism among health care workers. Absenteeism was predicted by time pressure; time autonomy and long hours indicated a *triple-match-principle* effect. Time pressure refers to when nurses are compelled to cope to reach their work-related goals, while time autonomy means having the liberty within the scope of time. Thus, absenteeism by time pressure and time autonomy revealed a stress process is involve when an absenteeism behaviour is due to sickness, while a disengagement avenue with less satisfied employees who are not zealous to work was no justifiable prognosticator of absenteeism (Kottwitz, Schade, Burger, Radlinger & Elfering, 2018:112-113). The re-balance of work with elevation of time autonomy and decreased of time pressure could subsided absences in units at hospitals. Undoubtedly, long hours and shift work predict absenteeism. Shift work and longer work hours (e.g., double and night shifts) result in absenteeism, thus failing to attend work because of tiredness. Responsibilities, clinical support and level of teamwork are determinants of nurse shortages and thus absenteeism (Kottwitz *et al.*, 2018:112; Dall'Ora *et al.*, 2019:4; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:114). Nevertheless, Vedaa, Pallesen, and Erevik *et al.* (2019:1) confirmed in a study that long hours could be a balancing factor for extra days off in a healthy shift worker. Exposure to more than 12 hrs and night shift reduced future sick leave absenteeism whereas evening shifts was significantly associated with long hours. Working hours, flexible shifts, allowing time off duty for appointments are encouraged. Long hours and

shift work leading to fatigue could influence patient and nurse risks, and also the risk on absenteeism.

In this paragraph fatigue influencing absenteeism are denoted. In fact, fatigue was prevalent among nurses who undertook shift works and long shifts, especially in the public sectors compared to private (Dall’Ora, Ball, Redfern, Recio-Saucedo *et al.*, 2018:5; Dall’Ora, Griffiths, Redfern *et al.*, 2019:4; Mammbona & Mavhandu-Mudzusi, 2019:145; Ticharwa *et al.*, 2019:114). General fatigue was correlated positively with higher absenteeism (Martinez, Moraga, Paredes, Vásquez & Villarroel, 2020:245). Responsibilities, clinical and managerial support are determinants that affect nurse shortages and fatigue and thus absenteeism. All be it, in a high-complex facility, occupational fatigue was analysed. Occupational fatigue refers to short-term inability to perform a job and includes physical and cognitive fatigue (Martinez, Moraga, Paredes, Vásquez & Villarroel, 2020:244). Physical, and cognitive fatigue was significant risk factors for absenteeism and revealed predominant absenteeism of 11-29 days. Furthermore, seniority above 5 years, working in the same ward or clinical area suffer from physical fatigue. Role conflicts, job demands, general, physical and cognitive fatigue were manifested in nurses with 3 or more children and heads of homes with home-work responsibilities. While nurses with less children were less absent and experience decreased physical fatigue (Martinez *et al.*, 2020:245, 246, 247).

2.7 INFLUENCE OF PERSONAL AND SOCIAL ENVIRONMENT ON RISK FOR ABSENTEEISM

Personal and the social environment is concerned with personal, home and social life at work, home and in the society. These aspects include day-day life experiences and are influenced by relationships, illnesses, lifestyle and social practices impacted absenteeism.

This domain is divided in three core components:

- i) Interpersonal relationships
- ii) Personal environment- illnesses and lifestyle effects
- iii) Social environment- family responsibility, inequality, financial constraints, substance abuse

2.7.1 Interpersonal relationships

Interpersonal relationships in nursing care compose of a number of elements that combine to allow goal attainment at work and at home between two or more individuals. This is theorised in Imogene King's Model (Borges, Moreira, Silva, Loureiro, Meneses, Carvalho & Florêncio, 2019:2). The genesis of this section is nine elements of interpersonal relationships as defined: interaction, perception, communication, transaction, role, stress, growth and development, time and space. After this, absenteeism will be discussed because interpersonal relationships affect workgroup cohesion.

Interaction refers to actions of two or more people who spend time which reveal the thoughts and feelings for the other person, and the perceptions, deeds, expectations, and reactions of one another (Bezerra, Guedes & da Silva, 2020:2). *Perception* is thoughts and feelings that allow individual existence. *Communication* refers to an indirect or direct process of expressing ideas or feelings or giving information to one another. Communication can be in different forms: it can be face-face or via online or via social media platforms (Bezerra *et al.*, 2020:2).

Transaction refers to a life situation where messages are sent by a messenger and then a receiver responds to it. As a result of these experiences change takes place between the parties (Bezerra *et al.*, 2020:2-3). *Role* is the function of performance in space and expectations in a particular category (e.g., manager) in an organisation. *Stresses* are responses and can be environmental, social or traumatic, to interactions in the environment with different degrees of intensity. These experiences of stress change the individual's perceptions negatively or positively, constructively, or destructively and the impact depends on the coping mechanism (Bezerra *et al.*, 2020:3). *Growth and development* involve biological changes resulting from stages of conception, birth to adulthood or old aged. These stages involve biological, physical, behavioural and social environments, and are interrelated. *Time* is the duration of events experienced by an individual (e.g., in days, etc.). It is an interval and relationship between one event and another and only individuals that experienced it can define it (Bezerra *et al.*, 2020:3). *Space* exists in a universal area and known as a territory according to the individual's behaviour. Space can also be defined as all directions (width or length) and places (small or large) and is the extent of a person perceptions (Bezerra *et al.*, 2020:3). The effect of interpersonal relationships can be positive and negative related to workgroups.

Interpersonal relationships with incoherent teams tend to evolve in conflict and absenteeism (Alreshidi *et al.*, 2019:4). The predominant gender in nursing is female and most nurses overreact to minor and complex things and are more sensitive and emotional. These feelings

result in intensive interpersonal relationships and conflicts with high absenteeism (Zhang & Xiong, 2019:292). Alharbi *et al.* (2018:1787), Wagner *et al.* (2019:6) and Tweheyo *et al.* (2019:4) argued increased role conflict adversely affect absenteeism, whereas positive interpersonal relations such as, problem-solving, good employee relationships, social support and teamwork decreases absenteeism. This argument was contrasted to Zhang and Xiong which rated low (an increased) in interpersonal relationships (Zhang & Xiong, 2019:289). Managerial leadership styles that encourage workgroup cohesion are more effective to reduce absenteeism and the intent to leave (Drennan & Ross, 2019:7). Overt (openly) and covert (hidden) incivility impact interpersonal conflict negatively and is a main cause for absenteeism (Bloom, 2019:77). Healthy work units in the practice environment may reduce incivility (Bloom, 2019:80).

Subsequently, through the practice environment, the most effective goal of managers is to improve the job satisfaction and to minimise nurses' tendency to leave. Hostility (nurse-to-nurse violence) is a cause of interpersonal conflicts among nurses. However, the relationships between direct supervisors and nurses, as well as their social contacts and colleagues at work were rated low in Alrawahi *et al.* study (Alrawahi *et al.*, 2020:5). Although, interpersonal relationships are rated the lowest, organisations could still strengthen teamwork, building relationships, and ameliorate mutual respect.

2.7.2 Personal environment- illnesses and lifestyle effects

In this section the personal and social environment are demystified and impact the risk on absenteeism. The personal environment encompasses illnesses and lifestyle effects on health influencing the risk on absenteeism.

Health promoting behaviours such as, vaccination may have a positive effect on absenteeism. A retrospective cohort study was conducted about influenza vaccination coverage and the effects on absenteeism. Despite strong recommendations, vaccination is inadequate in many countries although evidence indicated the effectiveness to prevent absenteeism. Vaccination is related to less absenteeism but there was a difference among those hesitant to be vaccinated. Males were more compliant than females, while the auxiliary nurses and midwives were not adherent. The purpose was to target nurses for the protection of patients, simultaneously preventing patients from acquiring influenza and being a positive example for the community (Antinolfi, Battistella, Brunelli, Malacarne, Bucci, Celotto, Cocconi & Brusaferrò, 2020:3, 5, 6). Personal illness and lifestyle factors influence absenteeism. A multicohort study in the UK, France, and

Finland found that lifestyle factors such as smoking, alcohol consumption, obesity and illnesses such as musculoskeletal, heart and lung disorders are connected with high absenteeism rates. These diseases are because of an unbalance diet, low exercise and lifestyle factors. More specifically, high volume alcohol consumption or heavy drinking episodes were associated with sickness absences due to digestive illnesses (Virtanen, Ervasti, Head *et al.*, 2018:550, 551, 552). In this study high volume consumption of neither alcohol nor heavy episode drinking were associated with sickness absences due to digestive illnesses, but it is evident that alcohol consumption is a risk for digestive illnesses (Virtanen *et al.*, 2018:552). In India, Shah *et al.* (2020:8) investigated a similar study concerning alcohol misuse and its effect on absenteeism. According to Shah *et al.*, (2020:8) organisations could utilised DNN algorithms to analyse the patterns of nurses for the improvement of quality of life and further reduce absenteeism. In Brazil, Dias *et al.* (2019) conducted an integrative review concerning the main diseases of absenteeism among nursing professionals. The major causes were musculo-skeletal, depression and stress, respiratory, and infectious parasites. The other anatomical disorders are, for example, pregnancy complications, accidents at work, among others have an effect to influence absenteeism (Dias, Pagano, Gomes, Souza *et al.*, 2019:12238-12239).

Other personal factors that may influence absenteeism are age and gender. Younger nurses may be more absent due to less commitment to the organisation whereas older nurses are more likely to be absent due to illness (Ticharwa *et al.*, 2019:112). Family health and conflict has been reported as a factor influencing absenteeism (Nyamweya *et al.*, 2017:1125; Mukasa *et al.*, 2019:6; Tweheyo *et al.*, 2019:6). To elaborate, in Uganda, a total of 53% of respondents agreed that family conflict was a personal factor contributing to absenteeism (Nyamweya *et al.*, 2017:1125). Absenteeism has been associated with sickness and family responsibilities (Nyamweya *et al.*, 2017:1125; Mukasa *et al.*, 2019:6; Tweheyo *et al.*, 2019:5). Caring for HIV/AIDS patients, could impact the physical health and psychological well-being of nurses, influencing absenteeism (Mammbona & Mavhandu-Mudzusi, 2019:144; Mukasa *et al.*, 2019:6). If nurses are present, it shows their commitment to the organisation and also their loyalty to colleagues. However, sickness presenteeism is noted as a serious problem in the work place and could be costlier than absenteeism due to diminish productivity. In addition, both absenteeism and sickness presenteeism among nurses should be measured, especially in safety-critical environments (Morneau Shepell's Report, 2016:48). A dearth of organisational support to mental wellness could predict presenteeism. The social environment will be illuminated in the following section.

2.7.3 Social environment- family responsibility, inequality, financial constraints, substance abuse

Social environment pertains to the socioeconomic status and behavioural practices impacting absenteeism. The social environment incorporates family responsibility and social reasons, inequality, financial problems, and substance abuse.

2.7.3.1 Family responsibility and social reasons

Factors contributing to absenteeism in the social environment include illness of self, husband, children, in-laws and demands on care. Other social factors include celebration of festivals, children's exams, transport, and a lack of childcare facilities (Alharbi *et al.*, 2018:1787; Vadgaonkar & Velhal, 2018:29407; Alreshidi *et al.*, 2019:2,4; Drennan & Ross, 2019:6,11). According to Ticharwa *et al.* (2019:115) nurses need some time for unforeseen living conditions, for example, for sickness and family matters. However, absenteeism also has impacts on colleagues and the workplace.

In the African context, HIV status, fear, and stigmatisation contributed to absenteeism and nurses attended other health services when being sick or having an appointment (Musaka *et al.*, 2019:6; Tumlinson *et al.*, 2019:6). Family challenges and attending funerals was excuses for being absent (Magobolo & Dube, 2019:3; Ticharwa *et al.*, 2019:111). Bona fide sickness or attending funerals are surpassing the nurse' instant prepotency and recount to involuntary absenteeism.

2.7.3.2 Inequality

It is envisaged that gender equality, better work conditions and reduced inequalities could decrease nurse shortages and absenteeism (Ajuebor *et al.*, 2019:6). Women's age, their status, the status of nursing and positional power has an impact on absenteeism. To elaborate, especially Black, referring to African, Mixed race (Coloured) and Asian nurses, might experience or have perceived racial imbalances with regards to employment and limited opportunities to advance to higher management positions (Shung-King *et al.*, 2018:11; Drennan & Ross, 2019:6; Van der Heever *et al.*, 2019:9-10). The limitation of employment discrimination can be improved with economic inclusion for marginalised people through economic growth, social justice, and environmental sustainability.

2.7.3.3 Financial constraints

Financial constraints may impact absenteeism. This may be due to a lack of money to afford transport to work (Alreshidi *et al.*, 2019:2; Mukasa *et al.*, 2019:7; Shah *et al.*, 2020:8), demotivation due to poor remuneration and incentives (Afolabi *et al.*, 2018:607; Alharbi *et al.*, 2018:1785; Alreshidi *et al.*, 2019:2; Duncombe, 2019:97-98; Mammbona & Mavhandu-Mudzusi, 2019:145; Maré *et al.*, 2019:14; Mukasa *et al.*, 2019:8; Tumlinson *et al.*, 2019:6) were mentioned in most of the studies as reason for not coming to work. In organisational structure a lack in hiring replacement nurses, incentives for personal, lack of finances to afford learning material, personal and family needs (Mbombi *et al.*, 2018:4; Gemuhay *et al.*, 2019:5-6; Mammbona & Mavhandu-Mudzusi, 2019:143; Tumlinson *et al.*, 2019:5-6) were key financial constraints. Absenteeism increases when nurses want to disappear from an undesirable working environment because of acuity of patients.

Withdrawal behaviour cause nurses to indulge in substance and alcohol abuse when socialising with friends.

2.7.3.4 Substance and Alcohol abuse

Substance and alcohol abuse have been associated with increased absenteeism since it causes dysfunctional behavioural pattern and may impact cognitive function and mood (Jarrad *et al.*, 2018:3). A descriptive cross-sectional study in Jordan and mixed-method studies in Indiana, USA include factors such as cigarette smoking, sleeping pills, power drinks, anti-depressants, and anti-anxiety drugs, caffeine, alcohol, over-the counter drugs. Additional factors include prescribed drugs, alcohol concoctions, indigenous plants, solvents, inhalants and illicit drugs, stimulants (amphetamines), analgesic drugs, crystal methamphetamine (tik), cannabis and cocaine intoxication. Moreover, Ativan and benzodiazepines, for example, Valium; benelyn and hallucinogens are taken from patient's medicine supplies to sleep well. In addition, drugs, and injections (e.g., morphine) are written in substance control register, if patients refused it and taken by RNs to inject themselves. These incidences took place at bedsides of patients, counting substance control drugs and because of adverse childhood experiences, and psychological trauma (Jarrad *et al.*, 2018:3; Foli, Reddick, Zhang & Krcelich, 2020:68; Foli, Zhang & Reddick, 2021:11,19). Although cannabis is seen as a substance abuse drug, it is also relevant and useful for medical diseases as stated in the following section. Medical cannabis is also used in 2016 by the Compassionate Care Act of New York to allow it for diseases. To elaborate, cancer, Parkinsonism, HIV and AIDS, inflammatory bowel disease and multiple sclerosis to enhance the quality of life. The post-traumatic disorder and the inclusion of opioids

were added in 2018 as certified medical diseases. The medical conditions are in most of the states the same although some may fluctuate in where cases of medical cannabis were licensed (Palace & Reingold, 2018:95).

Globally, illness and life expectancy lead to social acclivity for people of lower socioeconomic status (SES) to be at higher risk of premature death. Life expectancy at birth is estimated in 2019 at 61,5 years for males and females 67,7 years in SA. In SA alcohol attributable deaths in 2015 were 529,400, it related to 1:10 deaths due to alcohol and 60% of deaths were in the lower SES group. Another study in the rural area of SA reported even youths were affected by the availability of alcohol daily. The negative effects after alcohol and drug intoxication includes risky behaviours, HIV, and violence (Probst, Parry, Wittchen & Rhem, 2018:4; Letsela, Weiner, Gafos & Fritz, 2019:180). This indicated that there is a serious need to put strategies and policies in place to empower the youth, schools, and the community with positive lifestyles and inhibit the use of alcohol and drugs.

The Basic Conditions of Employment Act 75 of 1997, as amended (BCEA) stated when an employee should submit a medical certificate to the employer. For instance, a worker could be absent for more than two consecutive days or in an eight-week period for more than two occasions. These factors need to be studied to implement interventions for nurses (Jarrad *et al.*, 2018:5, 6).

2.8 INFLUENCE OF HEALTH AND SAFETY ON RISK FOR ABSENTEEISM

Factors within the health and safety environment influences absenteeism. SANC (Act No.33 of 2005); BCEA (Act No. 75 of 1997) and OHS Act, 1993, (Act, No.5 of 1993) as amended stipulate that all employees have the right to work in a safe environment. This is imperative to have a healthy and safe environment (OHS, 2019:18; SANC, 2021:5) in providing high-quality patient care (SANC, 2021:5). These aspects are also applicable in the context of the Western Cape.

The domain comprises of two components such as:

- i) Personal circumstances affecting the health and safety environment
- ii) Workplace circumstances affecting the health and safety environment

These components have an impact on the patient and nurse health and safety environment.

2.8.1 Personal circumstances affecting the health and safety environment

Personal circumstances include transport, work-home-life balance, and stress management.

In this paragraph transport is explain and how important it is to impact the risk of absenteeism. According to Alharbi *et al.* (2018), about 57.4% nurses at a maternity and child hospital were absent because of the long distance between home and their workplace and 33.6% live within 30-60 minutes' drive. Musaka *et al.* (2019) also reported, in primary health care clinics about transport problems and late taxis (Alharbi *et al.*, 2018:1787; Vadgaonkar & Velhal, 2018:29406; Alreshidi *et al.*, 2019:2; Mukasa *et al.*, 2019:6-7). Shah *et al.* (2020:8) also confirmed the distance from residence to work caused absenteeism among couriers, and how seasons and money could affect transportation to work. Similar, reasons e.g., money, seasons and transport problems influencing absenteeism among nursing staff. The following factor is work-home-life balance that influence absenteeism.

In this paragraph work-home-life balance is defined and the importance emphasised, also, how it influences absenteeism. Work-home-life balance is the ability of the nurse to have equilibrium and maintain a healthy work and personal life balance. A work-home-life is important to prioritise what is important in life to prevent stress and conflict between personal and work-life. Work-home-life could result in burnout if not well managed and cause absenteeism. Young nurses have a better *work-home-life balance* than older nurses and older nurses resent it. Factors

influencing home-work-life balance are generational differences, inflexible scheduling and rostering patterns, advocating childcare and family time, and job performance were supported by various authors (Dall'Ora *et al.*, 2018:6; Shung-King *et al.*, 2018:9; Bloom, 2019:80; Dyrbye *et al.*, 2019:2; Ticharwa *et al.*, 2019:115; Van der Heijden, Mahoney & Xu, 2019:3).

In this paragraph stress is discussed and is divided into two types of stress namely, work stress and personal stress which influence absenteeism. Firstly, stress is defined followed with work stress and then personal stress. Afterwards, the reason why stress is important is explained and how stress influences absenteeism. Stress is caused by stimuli and leads to tension and could potentially develop into instability if the individual is unable to cope. Stress many times evolves into deep-rooted illnesses and detachment from work (Ticharwa *et al.*, 2019:110; Tweheyo *et al.*, 2019:4). Work stress is a state of pressure that a nurse experiences at work and could be many reasons for example, physical strain, emotional strain and psychological strain (Anand & Mejid, 2018:264; Bester, 2018:56; Rindu *et al.*, 2018:355; Alreshidi *et al.*, 2019:2,4; Drennan & Ross, 2019:7; Dyrbye *et al.*, 2019:6; Ticharwa *et al.*, 2019:109; Fontova-Almató, Suñer-Soler, Salleras-Duran *et al.*, 2020:10; Martinez *et al.*, 2020:245). Personal stress is a state of moral distress that a person at home is dealt with and could also be various reasons for example, intra-personal (conflict), interpersonal (family, etc.); marital, financial, personal or family matters, death and dying, etc., inability to cope under pressure (Dall'Ora *et al.*, 2018:5; Dall'Ora, Griffiths, Redfern *et al.*, 2019:4; Mammbona & Mavhandu-Mudzusi, 2019:145; Ticharwa *et al.*, 2019:114). Stress has an impact on the risk of burnout and applying stress management effectively reduces burnout and absenteeism (Dyrbye *et al.*, 2019:6). Stress management is important to have a well-balanced life and to prevent burnout, depression, and mental health illnesses. Stress could negatively or positively affect the individual depending on the coping mechanism. Through transforming the work environment, stress and burnout could be minimised, and thus reducing absenteeism, consequently fostering a shared governance. A supportive culture for learning includes professional growth, improved well-being, job compassion satisfaction and longer tenure for nurses (Kelly & Adams, 2018:1; McCright *et al.*, 2018:7). Work stress was the predominant factor reported in studies. In the following section workplace circumstances influencing absenteeism will be reviewed.

2.8.2 Workplace circumstances affecting the health and safety environment

Factors within the workplace circumstance influence absenteeism. Workplace environments include physical workplace surroundings, burnout, bullying, healthy environment, patient and nurse safety culture and violence. The following paragraph clarifies the workplace circumstances and factors impacting the risk on absenteeism. Firstly, workplace surroundings are mentioned, then a brief discussion on each factor for example: burnout, bullying, healthy environment, patient and nurse safety and violence are explicated.

2.8.2.1 Physical workplace surroundings

The physical workplace surroundings of facilities include working conditions such as the total work, space, ventilation, equipment, temperature (heat or cold), and safety (Ferro *et al.*, 2018:403-405; Vadgaonkar & Velhal, 2018:29407; Alreshidi *et al.*, 2019:2; Feldhaus *et al.*, 2019:7; Musaka *et al.*, 2019:6; Bezerra *et al.*, 2020:3). To illustrate, heavy rain can affect the nurse who walks to work.

2.8.2.2 Burnout

In this paragraph burnout is defined, afterwards the literature review findings, and the effect of burnout on absenteeism is explain.

Burnout refers to feelings of energy exhaustion and imbalances, cynicism by a nurse work and decreased efficiency from chronic work-related stress (Dyrbye *et al.*, 2019:2). The literature review has mixed findings on the relationship of burnout and absenteeism. For example, in a cross-sectional study among American nurses no association was found between burnout and absenteeism, whereas in a cohort study across seven countries prevalence of absenteeism related to burnout was reported (see Burmeister *et al.*, 2019:148; Dyrbye *et al.*, 2019:6). A longitudinal study in the Netherlands was conducted among RNs at three healthcare institutions on job demands, resources, burnout, turnover, and age. Burnout was positively correlated with work-home-life balance and job resources and turnover and impacted the risk for absenteeism (Van der Heijden, Mahoney & Xu, 2019:9). Fontova-Almató, Suñer-Soler, Salleras-Duran *et al.* (2020:9) in a cross-sectional study in Spain, analysed the comparison of studies in 2012 and 2018 in health professionals on the relationship between burnout, satisfaction, and motivation. Scores were higher in 2018 and depersonalisation was associated with and is a risk for absenteeism by burnout; dissatisfaction with management, salary, possibilities for advancement were high in 2018 compared to 2012. Conversely, relationships with leaders and colleagues were the lowest in dissatisfaction and health and safety the highest 16% (Alrawahi *et al.*,

2020:5). Burnout has an impact on the risk of depression and implementing a good practice environment could reduce burnout, depression, and absenteeism (McCright *et al.*, 2018:7; Matsomoto, 2019:249; Ticharwa *et al.*, 2019:114; Fontova-Almató *et al.*, 2020:9). Organisations should address occupational pressures contributing to nurse burnout and absenteeism to improve work performance.

The following factor described the phenomenon bullying. Bullying refers to negative acts over a period of time that a nurse is exposed to or experiences or witnessed and has a high risk influence on absenteeism. The first factor on the rank list is: 'Withholding of information' to affect one's performance was deliberately done and intentional with attributes of refusing assistance, and delaying the progress (Zhang & Xiong, 2019:291). Bullying has a risk on the impact of burnout and implementing a workplace bullying policy could reduce work-related bullying, burnout and absenteeism (Zhang & Xiong, 2019:291). Bloom (2019) examined in an online survey in seventy-six hospitals, nurses' experiences to horizontal violence and the effect on job performance. Bullying was associated with absenteeism which affected the nurses by means of factors of high turnover, increased illness, lower productivity, and poor-quality care of the patient (Bloom, 2019:77-78). High workload and stress were stated as the cause for nurse-to-nurse hostility. The risks expose to laboratory workers cause them to be off sick with viral infection for three weeks due to lack of infectious biohazard labels on specimens because of the negligence of nurses (Alrawahi *et al.*, 2020:3,5). The themes and categories used are similar with the factors influencing the risk on absenteeism in the researcher' study.

However, Dall'Ora *et al.* (2018:6) assert that the well-being of nurses can be impacted by organisational factors and how institutions react to workplace bullying which cause absenteeism. Management plays a vital role in effective organisational communication and culture safety. Organisational activities could be of either in betrayal or support of nurses reporting bullying and leaders are perceived as contributors that affect nurse well-being (Dall'Ora *et al.*, 2018:6). Organisational betrayal and support are significantly related to well-being. Prolonged exposure to negative behaviours, sabotage, criticism, social exclusion, anxiety, and fatigue are predictors to bullying and absenteeism. The study findings suggest organisational disloyalty increases the likelihood of burnout, job satisfaction and absenteeism, and support potential discontentment (Brewer, Oh, Kitsantas & Zhao, 2020:149,155). Person-related bullying has an impact on psychological stress, burnout and ultimately absenteeism. Fostering a healthy work environment could reduce person-related bullying, psychological stress, burnout and absenteeism (Serafin & Czarkowska-Pączek, 2019:4; Van der Heijden,

Mahoney & Xu, 2019:17). Evidence-based findings in nursing work environments are vital for the well-being of nurses.

Additionally, Zang and Xiong (2019:292) found twenty-four forms of horizontal violence conducted among nurses. Horizontal violence impacted the psychological well-being and could result in burnout and absenteeism. Implementing a zero-bully-free working environment could reduce psychological stress, burnout and absenteeism. Horizontal and lateral violence, a lack of ethics to expressed please and/or thank you, disparaging remarks, taking credit for others work, and spreading rumors at work predict absenteeism. Nurses should abide and not question supervisors even if conduct is autocratic. Singaporeans were more bullied than Australians and seems like a national cultural phenomenon. Organisations should practice a zero-tolerance culture for bullying, harassment, and incivility at the workplace (Loh, Thorsteinsson & Lui, 2019:2,3,7,19). In the following section a healthy work environment is discussed.

2.8.2.4 Healthy environment

In this paragraph a healthy environment is addressed that reduces absenteeism. Factors impacting a healthy work environment are the attributes of effective leaders such as strong verbal and written communication skills, the holistic care and well-being of patients and staff needs (Brunt & Bogdan, 2019:2). Poor patient safety culture and unhealthy work environment could impact the risk for absenteeism and missed nursing care. The inabilities of nurse managers to address inadequate staff and resources could be developed. Ineffective leadership could increase missed nursing care and therefore, safety culture in units. Issues of missed nursing care can be addressed by nursing organisations to create strategies from the above-mentioned matters such as manager's leadership, resources, and staffing. Strategies need to be composed of skilled staff with the right skill mix and managing nurses and resources effectively (Kim *et al.*, 2018:125). The responsibility and accountability of nurses and departments consisted effective communication, teamwork, management support to improve effective handover at bedsides. Inadequate coordination, insufficient verbal communication, poor writing or missing patient records cause prolonged waiting time for treatment, procedures, care, and compromised patient safety culture, also contributing to increased absenteeism (Piper, Lea, Woods & Parker, 2018:10,11; Maphumulo & Bhengu, 2019:2-3). A worker is more motivated with basic physical safety and job security in rural areas compared to urban areas.

Besides, nurse managers can pay attention to missed nursing care and identify reasons for the oversight that is overlooked daily by bedside nurses and propose and design a system that is workable to reduce its occurrence. Missed nursing care leads to medical errors and are related to absenteeism due to feelings of futility. Nurses must be aware of the cause and type of missed nursing care and ensures a patient safety culture within the unit. A work system and proactive and open communication could be improved (Kim *et al.*, 2018:125). There are multiple factors, thus the biggest factor is missed nursing care due to absenteeism.

2.8.2.5 Workplace violence

In this section workplace violence is discussed that impacts the risk to absenteeism.

A purposive sampling method was employed at nine tertiary public hospitals, selecting four provinces in China. There are many factors influencing turnover intention and comprise of the different forms of physical and psychological struggles (Lui, Zhao, Shi *et al.*, 2018:2; Cheung, Ching, Cheng & Ho, 2019:2-3; Pien, Cheng, & Cheng, 2019:1). Physical violence including hitting, shooting, kicking, slapping, pushing, biting, pinching, wounding using sharp objects and psychological violence including verbal abuse, threats and harassment influenced turnover (Lui, Zhao, Shi *et al.*, 2018:2; Cheung, Ching, Cheng & Ho, 2019:2-3; Pien, Cheng, & Cheng, 2019:1). Workplace violence affected job satisfaction, and job satisfaction on burnout negatively, and burnout positively affect the intention to leave (Lui *et al.*, 2018:1). Being expose to workplace violence increases the risk of high absenteeism. Institutional support such as the deployment of a mediator between staff involved in workplace violence addressing work satisfaction, burnout and attrition tendency have a notable contributing factor on turnover tendency (Liu *et al.*, 2018:10; Burmeister *et al.*, 2019:144; Cheung *et al.*, 2019:5).

Like absenteeism, bullying and mobbing are complex problems and composed of different fields in nursing such as psychology, sociology and political influences. Preventative and intervention strategies are encouraged to establish rumour- and bully-free work environments. Policies and frameworks are necessary in organisations and educational institutions to implement best practices (Pheko, 2018:14; Hollis, 2019:13). It is the responsibility of the nursing management, chairs, deans or heads of universities to keep all employees and students free from harm and ensure a safe environment for them.

2.9 CONCLUSION

The four environments were concluded in this section:

In the organisational environment: Absenteeism is still high globally, irrespective of the Daily Attendance Registers in place and inconsistent monitoring and tracking of the Register renders it useless in reducing absenteeism. Nurse shortages and heavy workload was a universal concern caused absenteeism. In some Sub-Saharan countries, where DAR is not in place, and similarly also in PHC clinics. Nurse shortages and heavy workload were universal concerns causing absenteeism. In this environment there are still too many issues to address that cause absenteeism. Several studies investigated only one to three environments and did not have a comprehensive approach to absenteeism.

In the unit management environment: Teamwork was highlighted in myriad studies, despite the continuous role conflicts between health professionals that cause absenteeism. Leadership styles were mostly not addressed in absenteeism studies. Factors to be addressed, for example, are unresolved issues, shifting of work especially in the Sub-Saharan countries where RNs have to cope on their own, long hours and shifts that cause fatigue and absenteeism.

In the personal and social environment: Family responsibilities and attending a friend's funeral or social functions, festive season, were frequent factors in studies and associated with absenteeism. Personal illness, substance and alcohol abuse are a universal concern and generate absenteeism.

In the health and safety environment: Burnout was a main factor, work stress and work-home-life balance that contribute to burnout were crucial factors in this environment and often a cause of absenteeism. Another factor that affected absenteeism here was transport problems to attend work had a risk on absenteeism. Bullying and workplace violence was lacking in studies on absenteeism and was studied separately but an indicator for absenteeism. Missed nursing care was a major factor in units to create a healthy work environment and impacted absenteeism.

Gaps: Studies did not focus on a comprehensive approach to absenteeism. The lower-middle income countries revealed few studies in absenteeism within the recent five years. Mediocre performance management and nurse-patient-ratio is an indicator for absenteeism but lack in South African studies.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter 2 included a literature review on the determinants influencing absenteeism. In this chapter, a detailed description of the methodology applied is provided.

3.2 AIM AND OBJECTIVES

The aim of the study was to investigate nurses' perceptions on the determinants of absenteeism at provincial hospitals in a rural area in the Western Cape; in order to contribute towards quality patient care and nurses' well-being, productivity and reducing overtime.

The objectives were:

- (i) To determine the perceptions of nurses on the determinants of absenteeism at rural provincial hospitals in the WC province.
- (ii) To analyse the relationships between the organisational, unit management, personal and social, and health and safety determinants of absenteeism of the above selected hospitals.
- (iii) To recommend strategies to manage absenteeism of the above selected hospitals.

3.3 RESEARCH SETTING

The present study was conducted in a natural setting at two provincial hospitals in a rural area in the Western Cape, South Africa. Both hospitals are the referral point for district hospitals in the geographical service area and classified as Rural Health Services (RHS). The hospitals consisted of the different inter-disciplinary fields of health and medicine science.

Public hospitals can be defined as a government institution rendering health care services to the public. Services are free for the low socio-economic patients, but middle and high-income patients are billed according to their income (RSA, 2019:46).

There are 69 primary health care (PHC) facilities of which 32 are fixed facilities and 37 mobile clinics in district 'A'. In district 'B' are 79 PHC facilities and 45 are fixed and 33 non-fixed clinics. The catchment area where the study was conducted (see Figure 3.1) included 10 district hospitals, four regional hospitals and four Tuberculosis (TB) hospitals (WCG, 2018:11; Cape Winelands District (CWD), 2019:14; Grove & Gray, 2019:481; GRD, 2020:25).

Hospital 'A' is a 279-bed facility and composed of units such as an emergency centre, specialist outpatient's department, intensive care units, theatre and an eight-hour day ward. The various wards include obstetric units, paediatric, orthopaedic, gynaecology, surgical, psychiatry, medical, and generic wards. The hospital in district 'A' includes seven sub-districts in the geographical service area. Hospital 'A' serve a large population of 622 664 inhabitants or people (GRD, 2020:23).



Figure 3.1 Diagrammatic area where the study was conducted (Google maps, 2022).

Hospital 'B' is a 277-bed facility and comprises the same wards as mentioned above. The surroundings form part of the Breede River catchment area. Hospital 'B' serves 179 550 inhabitants or people (WCG, 2018). Regional state hospitals provide secondary level of care to patients and refer patients with complex co-morbidities to the third level of care known as a tertiary, central or specialist hospitals.

3.4 RESEARCH DESIGN

The design is the blueprint and overview plan of the study which increases control over the factors that could influence the results of the study. The study employed a quantitative approach with an exploratory-descriptive cross-sectional design. Quantitative research targeting population samples envisions gaining responses to access knowledge about a topic or problem. Choosing a quantitative approach enables variables of interest to be measured objectively. The selection of a quantitative approach allowed the researcher to describe the variables, for example, the determinants of absenteeism, in a structured manner and assesses the relationships between the variables (Brink *et al.*, 2018:181; Duncombe, 2019:93-94; Martinez *et al.*, 2020:244).

A descriptive study was conducted as the primary purpose of this study to describe the phenomenon of interest (factors influencing absenteeism) and component variables in a particular setting and to examine relationships. The descriptive part of the study made use of the research framework, identified current practice problems of absenteeism among nurses and made judgments about practices. In the descriptive design, variables such as the unit management environment and personal and social environment, are not manipulated (Brink *et al.*, 2018:198). A descriptive cross-sectional design allows for the measurement of two or more variables at one point in time to determine the relationships and explain the nature of the relationships between the variables.

Protection against bias is prevented by operational definitions and a rigorous sampling plan. The researcher also made use of two field workers to issue and collect questionnaires to prevent researcher bias.

3.5 POPULATION AND SAMPLING

According to Duncombe (2019:94), a target population is all persons of interest for the researcher, that meet the criteria to be included in the study. A sample is a proportionate number selected from the population. The overall population for the study is the total number of nurses, N=651, working on a permanent and contract basis at the two provincial hospitals in the rural area. Hospital 'A' has a total of 338 (52%) nurses and hospital 'B' has a total of 313 (48%) nurses (Table 3.1).

Table 3.1: Population and Sample size

Hospital	Population: N / %	Sample: n / %	Final sample: n / %
Hospital A	338 (52%)	183 (52%)	191 (52%)
Hospital B	313 (48%)	170 (48%)	180 (48%)
Totals:	N=651 (100%)	n=353 (100%)	n=371 (100%)

Table 3.2: Population and sample per categories

Population per category:	Population per category: N / %	Population per category: n / %	Final sample: n / %
Professional nurses	217 (33.3%)	118 (33.4%)	173 (46.6%)
Enrolled nurses	217 (33.3%)	118 (33.4%)	89 (23.9%)
Enrolled auxiliary nurses	217 (33.3%)	117 (33.1%)	101 (27.2%)
Totals:	N=651 (100%)	n=353 (100%)	n= 363 (97.8%)

The final sample size in the fourth column remains the same, hospital A (52%) and hospital B (48%). The sample size was larger to make provision for the non-respondents by using the table of Krejcie and Morgan (1970). The sample of the study included professional nurses (including operational managers), enrolled nurses and enrolled auxiliary nurses. The method of sampling was chosen with the assistance of the biostatistician. As advised by the statistician, stratified random sampling was utilised because the sample was most likely to be representative of the population and participants had an equal chance to be selected in the study (Duncombe, 2019:94). Professional nurses (n=173, 46.6%), enrolled nurses (n=89, 23.9%) and enrolled nurse auxiliaries (101, 27.2%) were selected because the health facilities do not have enough enrolled nurses in employment. The professional nurses have different categories e.g., operational, general, specialist and community also, both of the enrolled and auxiliary nurses also refused participation in the study. The viewpoint included more professional nurses because they are dealing with nurse absenteeism and have an in-depth information about clinical practices. In stratified random sampling the following criteria was used: demographic data e.g., marital status, age, gender and education were included to have the thoughts and

feelings of respondents on absenteeism. Furthermore, to divide the population into subgroups and public hospitals and size (e.g., level 2), (Brink *et al.*, 2018:122).

Grove and Gray (2019:479, 468) indicate that probability sampling reduces bias and inferential statistics can be correctly used by the researcher. Probability sampling investigates the likelihood that a condition, for example, absenteeism, take place under particular situations such as variables in the unit management environment. Bias defines the chance that there can be influences that give a skew reflection of the results. The researcher prevented bias by selecting two hospitals in the rural area without prior knowledge of the situations at both hospitals.

Inferential statistics address the determinants influencing absenteeism, examine relationships between variables such as the organisational and unit management environment, and test the strength of relationships. Findings can be generalised from a particular occurrence to the common truth; factor to the whole; what is existing to a hypothesis and from what is familiar to the unfamiliar. The advantage of generalising the findings to a larger population make probability a good sampling method. Judgments can be generalised from a large sample to the whole population (Grove & Gray, 2019:474; Antinolfi *et al.*, 2020:3; Martinez *et al.*, 2020:245).

The researcher obtained a list from the Human Resource Department of all permanent and contract employed nursing staff and coded the list to utilise it in stratified random sampling. Nurses were coded according to each rank order (e.g., OMs, OMg, RNs, etc.), ward placement and ages in proportionate totals from 01 to 371. The questionnaires were coded with a number until the required 371 participants were achieved for the sample (Mbombi *et al.*, 2018:3; Polit & Beck, 2018:397). By the sampling method, each person, male and female was selected to reduce bias (Jarred *et al.*, 2018:4,7; Mbombi *et al.*, 2018:3; Polit & Beck, 2018:397; Grove & Gray, 2019:470).

Proportional samples were selected firstly from each rank, then stratified random sampling within each stratum were used by selecting every fifth nurse for the sample. Participants had an equal chance to participate in the study (Mbombi *et al.*, 2018:3; Ticharwa *et al.*, 2019:114).

The minimum sample size to generalise the findings of the study was $n=353$, which was adequate according to the confidence intervals for one proportion from a finite population (Duncombe, 2019:94). A sample size 353 from a population of the respondents were compared, then the descriptors from the different responses were integrated to create an absolute 651. This produced a two-sided 95% confidence interval with a precision (half-width) of 0.0100 when the actual proportion was near 0.0250. The sample size was estimated around the

prevalence of absenteeism in the population of the rural area regional hospitals (Machin *et al.*, 2009). The sample size was estimated at 2.5% based on known absenteeism prevalence in one hospital. With a finite population size 651 in both hospitals, the 95% confidence interval around an estimate of 2.5% has a precision of lower than 1% around this estimate, i.e., 1.5% to 3.5% for a worst-case scenario. Therefore, a sample size of a minimum of 353 will achieve a very high level of precision to estimate this parameter in the population. The stratified random sample was selected from the entire accessible population, according to the Excel sheet, to participate from both hospitals (Mbombi *et al.*, 2018:3; Feldhaus *et al.*, 2019:4; Grove & Gray, 2019:482). The excel sheet consists of rows, cells and columns to enter data, sort, store and organise information. Mathematical functions e.g., formulas, accounting, filtering, formatting and analytics are neatly in one easy-to-read space. Graphs, pies and charts are created in various ways. The sample size was determined by the table of Krejcie and Morgan (1970) utilised the Confidence Level (95%), and with a 5% margin of error. The researcher increased the sample size to consider for the non-respondents by calculating a 5% non-response rate, i.e., $5/100 \times 353 = 17.65$ which was 18 respondents. Therefore, the researcher used a sample size of 371 (refer to Table 3.2 on pg 51) .

A total of $n=191$ nurses were selected at hospital A and $n=180$ at hospital B. The nurses who were on study, maternity, long-term sick, and annual leave were replaced with those on the personnel list according to the stratified random sampling method. Three hundred and sixty three (363), fully completed the questionnaires while 8 were incomplete.

3.5.1 Inclusion criteria

Nurses were selected from a list of all permanent and contract staff that were working at the time of the study at the two provincial hospitals.

3.5.2 Exclusion criteria

The excluding criteria included the 15 nurses from one hospital who participated in the pilot test. Nurses who were on leave (annual, maternity, study, and long-term sick) during the period of the data collection were excluded. Senior managers were also excluded from the study because they are not front-line workers.

3.6 INSTRUMENTATION

Grove and Gray (2019:474) construe a questionnaire as a self-reported form to generate knowledge concerning the views, assumptions, experiences, and thoughts of the participants. Firstly, questionnaires were chosen to collect the data because it is more cost effective and allow for samples to be geographically distributed. Secondly, questionnaires were anonymous when obtaining data which is key to protect participant's views and characteristics. The researcher developed a questionnaire as no existing questionnaire could be found. The researcher made use of nursing experts to validate the content of the questionnaire as explained in Section 3.8. The questionnaire was discussed with the statistician who advised the researcher to determine the Cronbach alpha of the instrument during the pilot test.

The researcher used the information from the literature review and research framework to develop the questionnaire for suitability in the study. A structured, self-administered questionnaire was used for the study which included 73 questions (see Annexure A). Section 'A' included socio-demographic questions with twelve items:

The researcher used the information from the literature review and research framework to develop the questionnaire for suitability in the study. A structured, self-administered questionnaire was used for the study which included 73 questions (see Annexure A). Section 'A' included sociodemographic questions with twelve items:

- Age and marital status
- Gender and race
- Education level and experience of years in the profession
- Position in rank and employment
- Ward of placement and nurse-patient-ratio
- Shift type and dependents

Section 'B' questions were scored based on a four-point Likert scale and divided into four sub-sections: organisational environment included 20 items; unit management environment 19 items; personal and social environment consisted of seven items; and health and safety environment 28 items.

Organisational environment is related to attributes of the organisation. This domain involves nurse shortages, changes in organisation, policies, promotion, and salaries. Training, bursaries, labour relations procedures, equipment, work-related bullying, and dissatisfaction are included as determinants. All questions related to factors influencing absenteeism among nurses.

Unit management environment is related to attributes to the manager and work. The manager, job performance and accountabilities as sub-domains are covered. This domain comprises of type of work, ward overloads, overtime, type of shift, inflexible shifts, unrealistic workloads, intimidation-related bullying, and work group cohesion.

Personal and social environment relate to attributes of the nurse. The sub-domains such as interpersonal relationships and social environment are incorporated. This domain entails personal problems, family responsibility, inequality, finances, and substance abuse.

Health and safety environment relate to the negative attributes of the manager, colleagues, patients. The sub-domains consist of personal and workplace circumstances. This domain includes verbal abuse, conflict management, inadequacy of communication, stress and burnout, and management characteristics. Personal, work, and intimidation-related bullying were included.

Questions were scored based on a four-point Likert scale to express the participant's viewpoint on the topic and assigned perceptions in a numeric score of strongly disagree to strongly agree (Polit & Beck, 2018:408; Duncombe, 2019:94; Grove & Gray, 2019:475). A five-point Likert scale was not utilised so that respondents did not agree on 'neither agree'. The responses code for the questionnaire in this study is formatted in the terminology of strongly disagree (1), disagree (2), agree (3), strongly agree (4). Summative scores of the items clustered in each domain were constructed and the scores were expressed as mean scores (maximum 1 and minimum 4) for each scale. Section 'C' included one open ended question at the end of the questionnaire to explore other causes thought to influence absenteeism.

The questionnaires were available in Afrikaans, English, and Xhosa. The questionnaire was professionally translated from English to Afrikaans and Xhosa using standard forward and backward translation methods (Appendix, 7). Reliability and validity of the instrument are discussed under Section 3.8. The researcher's telephone number was displayed on the questionnaires if anyone needed assistance. The research office telephone number was available for respondents on the informed consent form. Respondents received a copy of the informed consent form. The researcher explained to the respondents the telephone numbers and that they could contact the Research office with any complaint.

3.7 PILOT TEST

A pilot test prior to the actual research study investigated the data-collection instrument for possible ambiguous questions in order to refine the methodology (Brink *et al.*, 2018:161). The goal of the pilot test was to measure the validity and reliability of the instrument tool. In this study, the self-reporting questionnaire was tested. The researcher utilised the same questionnaire in the study. The pretesting of the questionnaire was done with fifteen nurses from one of the selected provincial hospitals (Grove & Gray, 2019:478). Participants in the pilot test were conveniently selected with the nursing management team of the hospital.

Nurses from each category such as operational managers, professional nurses, enrolled nurses, and enrolled nursing auxiliaries were included. Permission was obtained from the CEO to conduct the pilot test and main study. Arrangements were made to book a venue for a period of 2 hours, between 12h00-14h00 on an available date. Respondents were requested to be available during their lunch time for a period of thirty minutes to complete the questionnaires and not to jeopardise services. The respondents took 15-20 minutes to complete English and Afrikaans questionnaires and 25 minutes to complete Xhosa questionnaires. Indigenous languages to exemplify, Zulu, Venda, and Sotho were discovered as primary languages of some of the participants. Most Xhosa speaking nurses requested to complete an English questionnaire. Refreshments were served to the respondents during their lunch times.

During the pilot testing ambiguous questions were revised and redundant questions were removed in the main study. For example, question category A1 of >65 years were removed as none of the respondents were older than 65; question A12 was initially only one column and subsequently divided into two columns to include children and adults. In the Afrikaans questionnaire, question B61 was revised to improve the clarity, understanding and interpretation. The information collected during the pilot test was not utilised in the main study (Brink *et al.*, 2018:161).

3.8 VALIDITY AND RELIABILITY

Validity is an estimate of how well an instrument compares with a gold standard and establishes if the instrument measures what it needs to measure. Validity concerns the soundness of evidence and is an important criterion in measuring variables and evaluating the methods which measure the variables (Brink *et al.*, 2018:205; Grove & Gray, 2019:485). The study was controlled by utilising a valid and reliable instrument and data collection procedures (Brink *et al.*, 2018:195). The questionnaire also included the assessment of factors thought to influence absenteeism and measured the variables what it is supposed to measure.

3.8.1 Face Validity

Face validity concerns the feasibility, readability, and clarity of content at face value. The questionnaire was reviewed by nursing experts and language editors prior to conducting the pilot test. The researcher had regular interventions with the writing and language centre to assist with concise writing, grammar, and language. The questionnaire was constructed in Afrikaans, English and Xhosa and respondents could ask questions if the questionnaire were unclear. The supervisor, researcher, experts, biostatistician and language editors perused the questionnaire. Lastly, the questionnaire was pilot tested and the feedback from the respondents were that the questionnaire was valid, relevant and could be easily completed (Brink *et al.*, 2018:198; Polit & Beck, 2018:578).

3.8.2 Content Validity

Content validity measures a variable by assessing how well the instrument represents all components being studied. A self-developed tool was utilised, and content validity was assessed. The researcher, supervisor and nurse experts reflected on the breadth and depth of the factors contained in various sub-sections of the tool and helped to adapt the questionnaire to verify that the tool is in line with the review of literature. The supervisor and nurse experts assessed that the sub-sections of the questionnaire contained all the relevant questions to measure that particular sub-section. Moreover, the research framework also addressed the factors influencing absenteeism (Polit & Beck, 2018:576; Grove & Gray, 2019:469).

3.8.3 Internal Validity

Internal validity is the validity of conclusions drawn within the context of this particular study and that the effects identified were a true reflection of reality rather than the result of extraneous variables. All eligible respondents were asked by the researcher at the selected hospitals to participate in the study. Bias was reduced by stratified random sampling in this study and the researcher also employed two field workers. The field workers assisted with the issuing of the questionnaires and consent forms, signing consent forms and checking that the captured data were correct. The role of the researcher was to inform the respondents about the aspects of the research, sign the consent forms; and capture all data, and checked the captured data with the field workers.

Questionnaires were issued during the day at 12-14h00 and at night from 19h00-21h00 to include the two different shifts, and were then collected two days later at the same time from

these two shifts. Questionnaires were collected at 15h00 from those respondents who worked until 16h00 (Brink *et al.*, 2018:200; Polit & Beck, 2018:578; Grove & Gray, 2019:474).

3.8.4 External Validity

External validity refers to the extent to which the results of the study can be generalised to and across other situations, people, stimuli, and time. External validity is enhanced by making use of two hospitals. Mathematical analysis determined the feasibility of generalisation across diverse populations, through statistical and computerised methods that produced valid generalisations. Questionnaires were provided with a self-sealed return envelope and numbered individually to prevent outside influences. The factors to enable external validity can enhance the utilisation of findings in other studies (Brink *et al.*, 2018:198; Polit & Beck, 2018:578; Grove & Gray, 2019:472).

3.8.5 Reliability

Reliability refers to the degree that results are accurate and consistent if used repeatedly by two different researchers. Reliability is assessed by evaluating the methods that were used for measuring the variables and interpreting statistical analyses. Statistics are reliable when the same results are obtained in the case of subjects in a new sample. The same results would then be accurately reflected in a wider group than with the respondents of a study (Polit & Beck, 2018:582; Grove & Gray, 2019:481). The questionnaire was discussed and reviewed by the nursing and research experts and the statistician from the Biostatistics Unit at the University of Stellenbosch for their expert point of view.

The most commonly used measure of reliability is the Cronbach's alpha coefficient that established internal consistency and should be at least 0.8. However, a Cronbach's alpha coefficient of 0.7 is indicated as acceptable reliability (Pallant, 2016:104; Burmeister *et al.*, 2019:145; Gehumay *et al.*, 2019:4). Cronbach alpha was determined for the sub-scales of section B in the pilot test, (0.87; 0.90; 0.86; 0.94). The questionnaire indicated a high reliability with a Cronbach alpha of 0.97 for the total scale. All questions related to factors influencing absenteeism among nurses.

The lowest Cronbach alpha is 0.74 compared to the highest value of 0.95. The Cronbach alpha for all the sections of the questionnaire obtained is illustrated in Table 3.3.

Table 3.3: Cronbach Alpha Coefficient

	Sub-scales			
Cronbach's alpha	Organisational Environment (20 items)	Unit Management Environment (18 items)	Personal and Social Environment (7 items)	Health and Safety Environment (28 items)
Main study	0.90	0.91	0.74	0.95
Pilot study	0.87	0.90	0.86	0.94

The Cronbach values confirmed the high reliability of the questionnaire. Accuracy and consistency of the measurement tool indicate a higher coefficient (Polit & Beck, 2018:301-302; Burmeister *et al.*, 2019:145; Martínez *et al.*, 2020:245).

3.9 DATA COLLECTION

The collection of data pertains to obtaining information in an authentic and standardised way. The data were collected in a systematic manner and is applicable to the aim, the question, specific objective of the study (Polit & Beck, 2018:577).

The study was conducted according to the rules, guidelines, and policies of Stellenbosch University and the Department of Health during the COVID-19 pandemic and level one protocols. A response to modifications letter was sent to the HREC committee about the benefit risks analysis, risk-mitigation plan (inclusive of PPE), reason for in person survey and not online, and motivation for continuing research. Refer to Annexure B for the risk mitigation plan.

After obtaining permission from the participating hospitals, the researcher communicated proposed dates and times to secure the venue. The venue was reserved and could take 10 people at a time due to infrastructure changes at the facility. The collection of data took place at both provincial hospitals in a venue that allowed social distancing.

Data was collected between February 2021 and May 2021 over one and a half months. Due to Covid-19 restrictions the researcher, field worker, and respondents were always expected to wear cloth or surgical masks. Pre-screening for Covid-19 was done before entering the premises. The researcher assured that wearing of masks, hand hygiene, list of symptoms (ask if any symptoms), and social distancing were adhered to. The researcher was prohibited to

entering the units due to Covid-19 restrictions. The researcher approached the unit managers and gain access to the change list to consult the nurses in their tea room. Permission was obtained from the nursing manager to enter the wards to find the nurses who was unable to come to the venue.

The field worker and the researcher collected the data at hospital B and at hospital A the researcher collected the data. The researcher explained the procedures and principles of the study to the respondents. Personal information was kept confidential, and respondents completed questionnaires anonymously. A sealed envelope was given to respondents and to place envelopes in a sealed box. The researcher and fieldworkers were respectful towards the respondents. Interaction and conduct with the respondents were amicable and no complaints were raised.

Participants were informed that the benefits of the research could result in patient centred care and safety, less complaints from dissatisfied patients, and improved quality of care to patients. The respondents could also benefit from the research, which can assist nursing management in meeting their needs if the causes of absenteeism are known, thereby enhancing the well-being of staff. No potential harm was foreseen. However, some questions might have been sensitive, and the respondents were informed that the employee counselling services, Metropolitan could be utilised when necessary. No money was offered, but refreshments were served during data collection times in the pilot and main study. The respondents did not incur any harm or injuries (Brink *et al.*, 2018:35-36; Grove & Gray, 2019:468).

An envelope with two consent forms and the questionnaire were handed to respondents. The signed consent was retained and the original consent with leaflet were given to the respondent. The field worker assistance contributed to the speedy completion of the data collection process. The fieldworkers were trained in their respective courses and the researcher trained the field workers. The researcher issued a copy of the necessary important information about research studies to the field workers.

Questionnaires, self-sealed return envelopes were issued, and sealed boxes were available to place the envelopes at 12-16h00 daytime, 19h00-21h00 nighttime. The completed questionnaires were collected the same time after two days on both shifts. Although ten (2.8%) respondents forgot to submit the consent forms, by returning the completed questionnaire it was assumed that consent was given. Minimal respondents did not signed the consent forms but completed a full questionnaire. After receiving the data, the researcher coded the data and entered the data as soon as possible into a computerised system using the statistical package,

SPSS version 27 (IBM Corp, 2020) for analysis (Polit & Beck, 2018:279-282; Duncombe, 2019:94; Martinez *et al.*, 2020:245).

3.10 DATA ANALYSIS

Descriptive statistics is defined as the description and summary of data. With descriptive statistics the sample and the key variables in the study were described. The relationships between the variables, and group differences were identified using inferential statistics. Inferential statistics address the objectives and research question in a study and enable the researcher to infer from a sample to a large population (Brink *et al.*, 2018:197,199; Grove & Gray, 2019:470; Magobolo & Dube , 2019:).

3.10.1 Organising and coding data

The analysis of data gives meaning to numerical data gathered by reducing and organising it. A number was assigned to each questionnaire and data were captured and then analysed in SPSS version 27 (IBM Corp, 2020). To organise the data into categories according to measurement levels, a coding system was applied to each variable. Each respondent was captured on a single row in SPSS; biographical data were captured into nominal scales and the factors influencing absenteeism in ordinal scales of strongly disagree to strongly agree (Polit & Beck, 2018:397; Grove & Gray, 2019:468). The open-ended responses in the questionnaire, were read and reread often times to analyse the data and coded through classifying recurrent themes or concepts (Brink *et al.*, 2018:181; Duncombe, 2019:95).

The open-ended question was augmented firstly, in a phrase or story and transcribed verbatim and analysed in SPSS 27 using content and conversational analysis. After transcription, the next step was data coding. Then defining, finding, marking in the text, excerpt phrases that have relevant themes, incidents, examples, names, or places. Themes identified were placed in groups according to attributes, consequences, and responses. Finally, excerpts of the participants were compared, then the descriptors from the different responses were integrated to create an absolute picture. This is a stepwise analysis from the data obtained in the recording of answers to the research questions.

The researcher checked the captured data twice and made use of a second person to code and capture the data to determine the reliability of the data by agreeing on the encoded data. After capturing the data, the researcher emailed the spread sheet to the statistician who assisted in

analysing the data. The researcher had appointments with the statistician during the process of writing the proposal, the pilot test and analysis of data for the thesis.

3.10.2 Descriptive statistics

Descriptive statistics includes percentages and frequency distribution of nurse attributes and mean deviation scores of each scale. *Percentage* distribution is the percentage of the sample whose scores fall in a subgroup or category to a total group and are expressed in a range of 0-100%. *Frequency* distribution records all measures of a variable and count each data on the tally sheet and refer to the number of times that a result happens (Brink *et al.*, 2018:199-202; Grove & Gray, 2019:470).

The *standard deviation* (SD) measure variance or variability of scores around the mean and is defined as a square root of variance. A *normal curve* is the symmetrical bell-shaped curve and is illustrated graphically in a normal frequency distribution of scores with the greatest height at the mean (Brink *et al.*, 2018:173, 204; Grove & Gray, 2019:476, 483). The *mean* measure central tendency is the value by adding all the scores divided by the total number of scores that was summed. The *median* is defined as the middle score in a group of data that is ranked from lowest to the highest. The *mode* is the score that appears most frequently in a distribution. Distributions can be described as one mode or unimodal, two modes or bimodal, and more than two modes or multimodal (Brink *et al.*, 2018:172-173; Grove & Gray, 2019:475, 476). *Histograms* are graphical presentations of the frequency distribution of variables at the interval or ratio level. *Bar graphs* represent frequency and percentages distributions of nominal or ordinal data. Frequency tables, histograms, bar graphs, and figures were used to present the data.

3.10.3 Inferential statistics

Inferential statistics enable inference from study samples to target larger populations to estimate the population's parameter (Magobolo & Dube, 2019:4).

Non-parametric tests

Non-parametric tests are defined as inferential statistics and applied to data where no assumptions regarding normal distribution of the target population are made (Brink *et al.*, 2018:179).

Chi square (X^2) tests determine whether there is a relationship between two variables but does not indicate the direction of the relationship. Chi square tests were applied to nominal and ordinal data and the significant relationships were judged by using a 1% and 5% statistical level ($p < 0.01$, $p < 0.05$). Therefore, an exact probability, ($p < 0.03$) or a probability below threshold ($p < 0.05$) value are reported by researchers (Feldhaus *et al.*, 2019:4; Grove & Gray, 2019:468; Magobolo & Dube, 2019:3-4).

3.10.4 Parametric measurement

Parametric tests are a type of inferential statistics which concern population parameters to make assumptions (Brink *et al.*, 2018:202). *Pearson's correlation* coefficient was used to determine the positive [1] or negative [-1] relationships and magnitude of relationships between the environments scores (objective 2). *Pearson product-moment* correlation examines the correlation between the continuous variable (the environments) that may influence absenteeism. *Bivariate correlation* measures the strength of the linear relationship between two variables e.g., organisational environment with health and safety environment (Liu *et al.*, 2018:5; Feldhaus *et al.*, 2019:4; Magobolo & Dube, 2019:3-4). *Scatter plots* illustrated the relationships graphically, focusing on correlation analysis to examine relationships among variables. The purpose of the scatter plots was to establish a best-fit line that will best indicate the values on the scatter plot. *Linear regression* analysed data with two independent variables. The symbol for dependent variable (organisational environment) is Y and for independent variable (unit management environment) is X (Brink *et al.*, 2018:179; Grove & Gray, 2019:476, 482, 485).

The *t-test* determined differences between two groups, for example male and female and within more than two groups, such as professional nurses, enrolled nurses, and enrolled nursing assistants, the analysis of variance (ANOVA) was used. The *t-test* and ANOVA test are similar, but the ANOVA do not test each mean separately (Brink *et al.*, 2018:178; Grove & Gray, 2019:484). *Analysis of variance* (ANOVA) was used to determine the differences in the environment scores among two or more groups comparing the variability between and within groups among socio-demographic variables (Brink *et al.*, 2018:178; Grove & Gray, 2019:467; Martínez *et al.*, 2020:245). *Bonferroni* posthoc analysis determined the differences in scores across the socio-demographic variables for example age, gender, and nurse category.

3.11 ETHICAL CONSIDERATIONS

The research was guided by the development of research guidelines of the Scientific reviewing committee of Stellenbosch University (SU, 2019:52). The principles of ethics are discussed under:

- (i) information leaflet and informed consent
- (ii) respect and autonomy
- (iii) confidentiality and privacy
- (iv) beneficence and non-maleficence
- (v) fair treatment and equality

3.11.1 INFORMATION LEAFLET AND INFORMED CONSENT

Guidelines regarding the procedure for informed consent was followed in this research (Brink *et al.*, 2018:38-39). Informed consent forms were available in the three languages namely, Afrikaans, English, and Xhosa. The information leaflet and consent form entailed that the respondents were informed of the research study and their necessary permission to participate in the study obtained. Secondly, the researcher explained the motive for the study, any possible long-term goals, as well as the reason participants were chosen to take part in the study. Thirdly, the process of the research was explained. Lastly, participants were informed and assured that their names will not be revealed; that they can ask questions; The respondents were asked to sign two copies of written consent to participate in the study (Brink *et al.*, 2018:31-32; Duncombe, 2019:94; SU, 2019:52).

3.11.2 RESPECT AND AUTONOMY

The researcher and field workers showed continuous respect towards respondents throughout the study. Participants were free to make their own choices to participate or withdraw at any time and not being compelled to continue at any time with the study.

3.11.3 CONFIDENTIALITY AND PRIVACY

The field workers knew how to keep information private. The two field workers were acquainted with the principles of research and received training in their respective basic and masters' degree in cancer research courses. Both fieldworkers were extensively retrained by the researcher. The first student is enrolled for a masters' degree in Bachelor of Science (BSc) at Stellenbosch University, and the second completed a Bachelor of Commerce in Management (BComM) degree at the University of the Western Cape. Information will be kept safe by the supervisor at Stellenbosch University for five years (Burmeister *et al.*, 2019:2; Grove & Gray, 2019:467, 469). Analysed data will be kept for 5 years at Stellenbosch University in an archive or repository at the Library and afterwards destroyed. Software should be used to permanently

erases research data or the Information Technology Division can be consulted for recommendations.

3.11.4 BENIFICENCE AND NON-MALEFICENCE

The researcher ensured that good was done and no harm was inflicted on respondents throughout the study. The participants were reimbursed for their time with refreshments. The researcher anticipated no risks of emotional or psychological harm for this study. However, questions asked in the questionnaire might be experienced as sensitive to respondents. Respondents were advised to seek help at the government employee counselling services, Metropolitan (Brink *et al.*, 2018:30; Serafin & Czarkowska-Pączek, 2019:4). This information is relevant because sensitive data about bullying, work place violence, victimisation, etc. was reported. The questionnaire contains one open-ended question, that were the respondents own words or phrases, that reflected qualitative responses. In the case of immediate support, the referral pathway for a respondent was to the occupational health practitioner, then to the emergency centre. No incidences of emotional and psychological harm occurred. Covid-19 precautions were adhered to and no respondent were tested positive and needed to be followed-up during the period of data collection. See pg. 59 under data collection for the method of pre-screening of Covid-19 precautions. The respondents also received a copy of the Covid-19 precautions leaflet, to read. The respondents could contact the researcher for anything happened to them, even at home after the data collection. The researcher received no phone calls from respondents after 14 days of data collection.

3.11.5 FAIR TREATMENT AND EQUALITY

All respondents were treated fairly and equally with no discrimination against race, religion, education, age, gender, or social status. Everyone had an equal chance of being selected to participate in the study (Brink *et al.*, 2018:30-31).

3.12 SUMMARY

The design, population, sampling, collection of data, data analysis, instrumentation and pilot test were discussed. Validity and reliability of the instrument were emphasised. A descriptive cross-sectional design was used to describe nurses' perceptions on the determinants of absenteeism at provincial hospitals in a rural area in the Western Cape; in order to contribute towards quality

patient care and nurses' well-being, productivity and reducing overtime. The researcher applied various methods to strengthen the validity and reliability of the measurement instrument and subsequently the study results. The results are reported in Chapter 4.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

Chapter 3 outlined the research design and methodology employed in this study. It delineated the aim and objectives, research setting, population and sampling, pilot test, validity and reliability, data collection and analysis and ethical considerations.

A total of 363 nurses responded out of 371 participants. In this chapter descriptive and inferential analysis, and interpretation of the data are presented. The following descriptive statistics for continuous variables were applied: median, mean, standard deviation (SD), range (min-max), kurtosis and skewness. Descriptive statistics for categorical variables are presented in frequency tables, and frequency or percentage distribution bar or pie charts. To test for relationships between the organizational, unit management, personal and social, and health and safety environments scores, Pearson correlations were used. To explore associations between the environment scores and demographic variables, one-way ANOVA with Bonferroni multiple comparison analysis, was used. The level of significance was set at $p \leq 0.05$. The responses of the open-ended question are presented in a narrative form.

4.2 SECTION A: BIOGRAPHICAL DATA

Section A comprises of twenty questions and twenty variables that required socio-demographic data from the respondents. The socio-demographic data were explored to describe the sample and analyse differences in the scores measuring nurses' perceptions of the factors influencing absenteeism across these variables. Biographic information comprises of the following variables:

- Language
- Age and marital status
- Gender and race
- Current position and employment
- Highest qualification and experience
- Ward placement and nurse-patient ratio
- Shift type and dependants

4.2.1 Language

Language was an added variable according to the respondents' preference for completing either an English, Afrikaans, or Xhosa questionnaire. The response rate to the question was (n=363, 98%). According to Figure 4.1, most respondents (n=213; 58.7%) completed questionnaires in Afrikaans, followed by English (n=140; 38.6%), and the minority (n=10, 2.8%) isiXhosa.

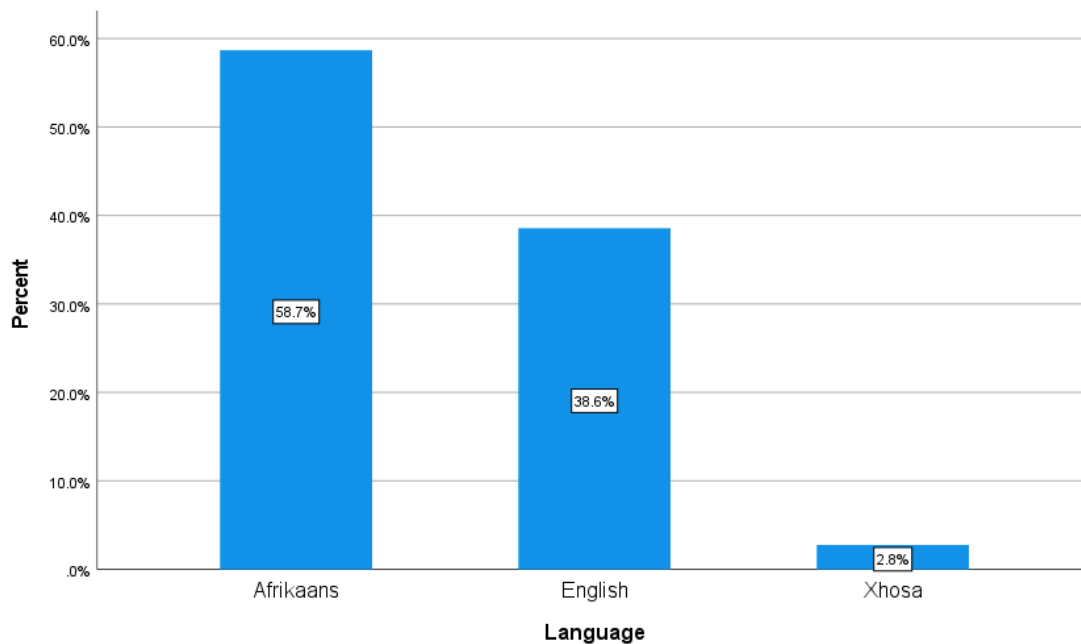


Figure 4.1: Attributes of respondents' language

There was a significant difference in the organisational ($F(2, 363)=5.8, p=0.003$), unit management ($F(2, 363)=7.1, p=0.001$), personal and social ($F(2, 363)=10.9, p<0.001$), and health and safety environment ($F(2, 363)=4.0, p=0.02$) scores for the three language groups. Respondents who completed the isiXhosa questionnaires consistently had the lowest mean scores in all the environments, whilst those who completed Afrikaans questionnaires consistently had the highest scores. A higher mean score (range 1 – 4) in the environment is indicative of agreement that the factors within that environment influence absenteeism.

4.2.2 Question A1: Age (How old are you?)

Respondents were requested to indicate their age group. The different age groups for the study included 20-30 years = Generation Y, 31-40 = Millennials, 41-50 = Generation X, while 51-65

years = Baby boomers. The median age was 40.5 and mean age 45.4. (Figure 4.2). The majority respondents were Millennials (n=118; 32.5%), followed by Generation X (n=91; 25.1%), Generation Y (n=83; 22.9%) and Baby boomers (n=71; 19.6%).

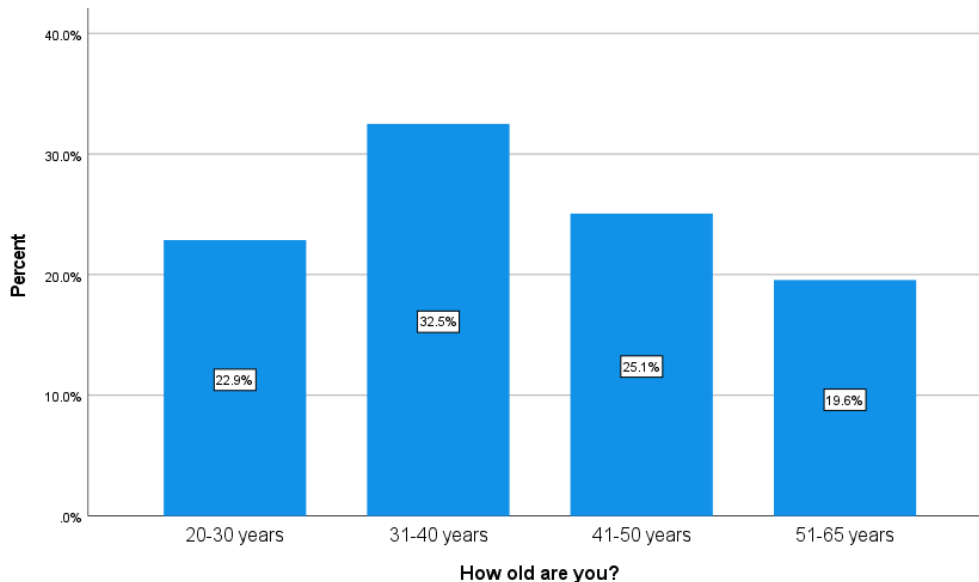


Figure 4.2: Attributes of respondents' age

The results indicated a statistically significant difference between Generation Y and Baby boomers in the health and safety environment ($F(3, 363)=3.56, p=0.02$). The generation Y respondents had higher mean scores (mean 2.75, SD 0.53) in the health and safety environment compared to the Baby boomers (mean 2.47, SD=0.6). This means that those within the age group 20-30 were more likely to indicate that factors within the health and safety environment contributed to absenteeism, compared with those in the age group 51-65.

4.2.3 Question A2: Marital status (Indicate your marital status?)

Most respondents indicated that they are single (n=161; 44.4%), compared to 42.4% (n=154) that are married. The minority respondents indicated that they are divorced (n=22; 6.1%) or living together (n=18; 5.0%) or separated (n=1; 0.3%) (Figure 4.3).

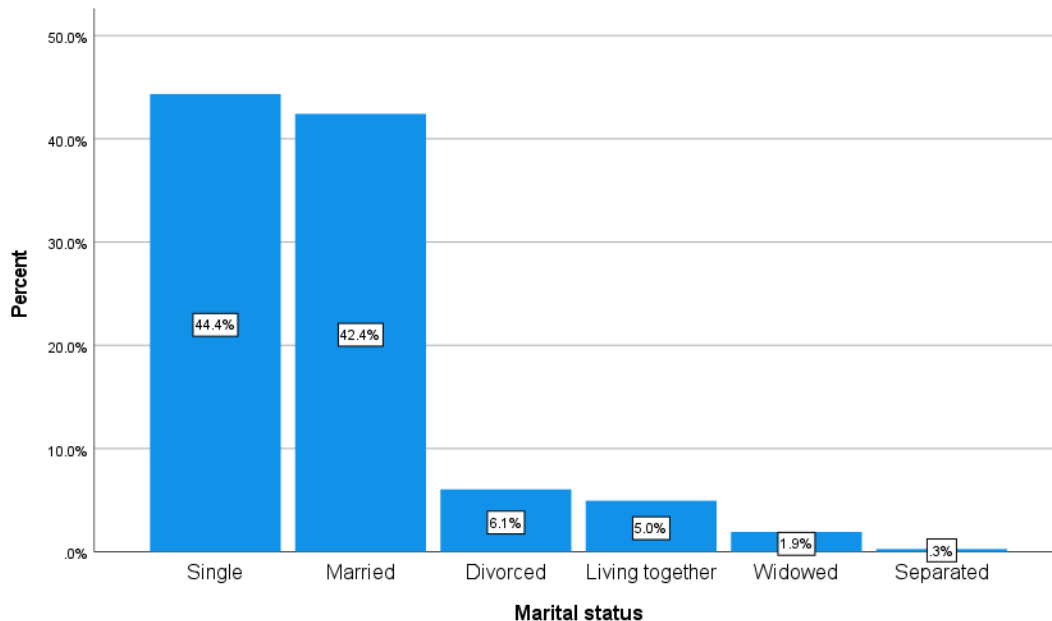


Figure 4.3 Attributes of respondents' marital status

No statistically significant differences were found in the environment scores across categories of marital status.

4.2.4 Question A3: Gender (Indicate your gender?)

Respondents indicated their gender as coded by [1] male, [2] female and [3] other. The respondent requested the item to be on the questionnaire because this was the respondent preferred gender. Less than 1/5 of the respondents were males ($n=47$; 12.9 %) while the majority of respondents were females ($n=315$; 86.8%). Figure 4.4 indicates that one respondent (0.3%) identified as 'other'.

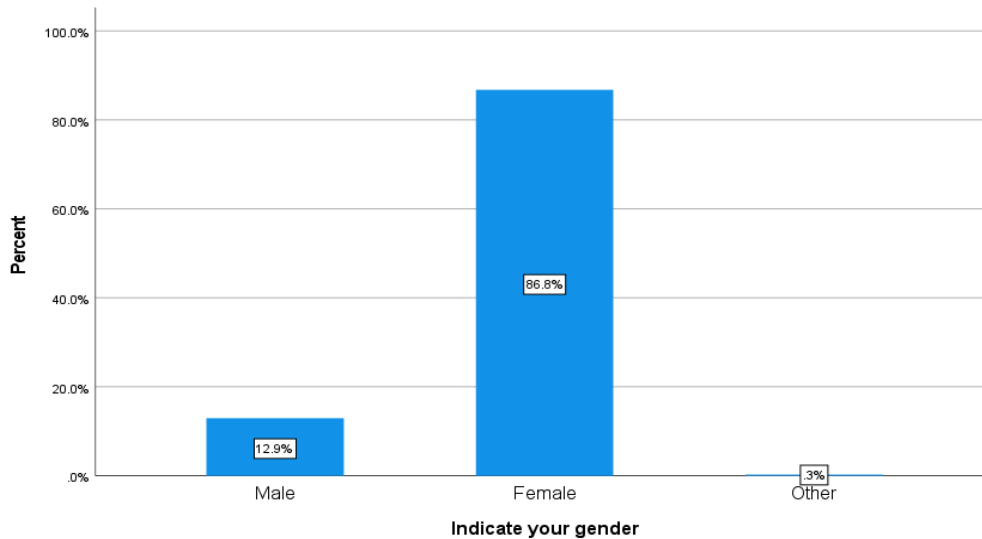


Figure 4.4: Attributes of respondents' gender

There was a statistically significant difference between males and females with regards to the organisational ($F(3, 363)=3.1, p=0.026$), personal and social environment ($F(3, 363)=4.9, p=0.003$) scores. Females had a higher mean score in the organisational environment compared to males (mean 2.96 vs 2.94), whilst males had a higher mean score in the personal and social environment (mean 2.83 vs 2.71).

4.2.5 Question A4: Race (Indicate your race?)

Congruent with the demographic profile of the Western Cape, most respondents in the present study were Coloured ($n=220, 60.6%$) or Black ($n=106, 29.2%$) as illustrated in Figure 4.5.

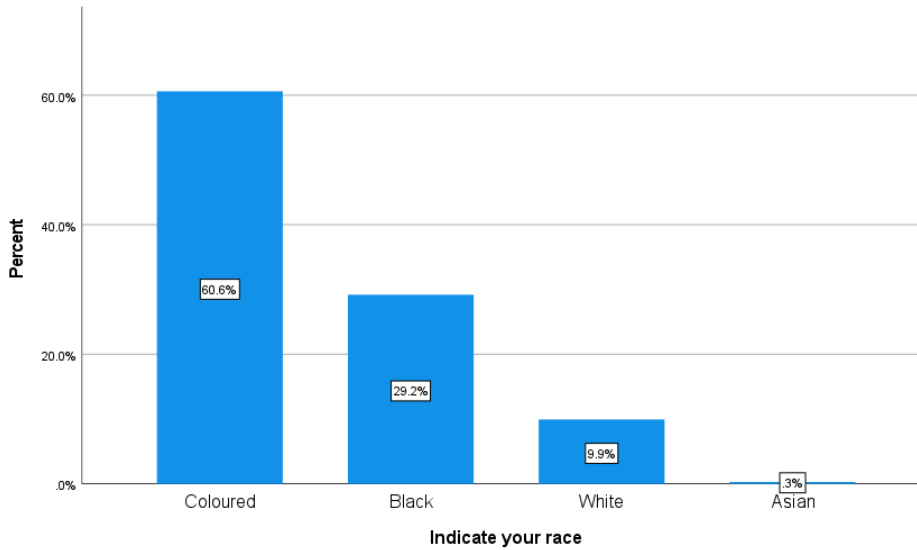


Figure 4.5 Distribution of respondent race

Significant differences were found between the Coloured and Black race in the scores for the organisational ($F(2, 363)=4.6, p=0.01$), unit management ($F(2, 363)=3.7, p=0.03$) and personal and social environment ($F(2, 363)=6.4, p=0.002$). Coloured respondents consistently had higher mean scores (3.03 vs 2.86) in the dispersion across all the environments compared to Black respondents.

4.2.6 Question A5: Current employment position (Indicate your current position?)

Registered nurses were highly represented and classified in their respective categories such as operational manager (specialist) ($n=8, 2.2%$); operational manager (general) ($n=9, 2.5%$); registered nurse (community) ($n=9, 2.5%$); registered nurse (specialist) ($n=62, 17.1%$); and registered nurse (general) ($n=85, 23.4%$). Enrolled nurses ($n=89; 24.5%$) and enrolled nursing auxiliaries ($n=101; 27.8%$) in combination were the highest respondents ($n=190, 52.3%$).

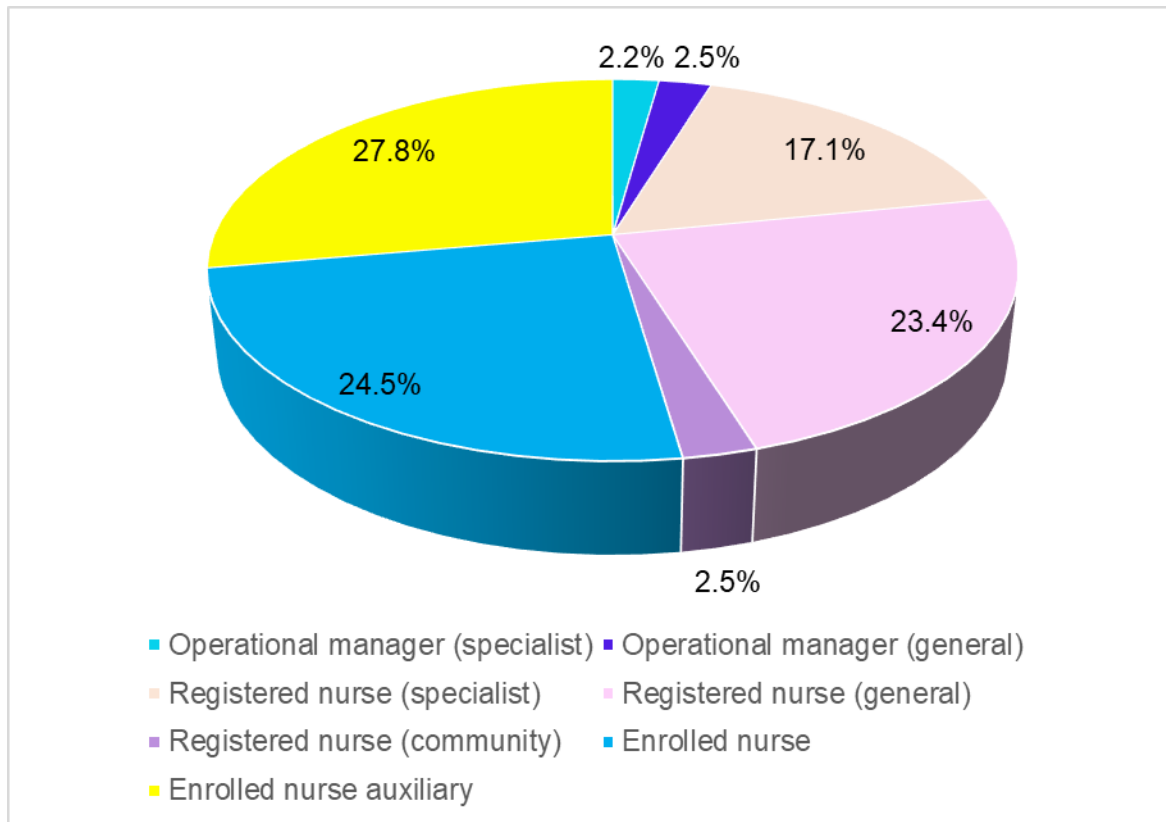


Figure 4.6 Attributes of respondents' current position

There were significant differences in the organisational ($F(6, 362)=4.8, p<0.001$) and unit management environment ($F(6, 362)=4.6, p<0.001$) scores across categories of current position. The enrolled nurses had the highest mean score in the organisation and unit management environments (mean 3.1, SD, 0.54; mean 2.7, SD, 0.58), whilst the operational managers had the highest mean score in the personal and social environment (mean 2.9, SD, 0.40); the registered nurse (community) had the highest mean score in the health and safety environment (mean 2.7, SD, 0.49).

4.2.7 Question A 6: Employment (Are you permanently employed?)

The minority of respondents reported that they were employed on a contract basis ($n=36, 9.9\%$) and the majority ($n=327, 90.1\%$) were permanently employed (Figure 4.7).

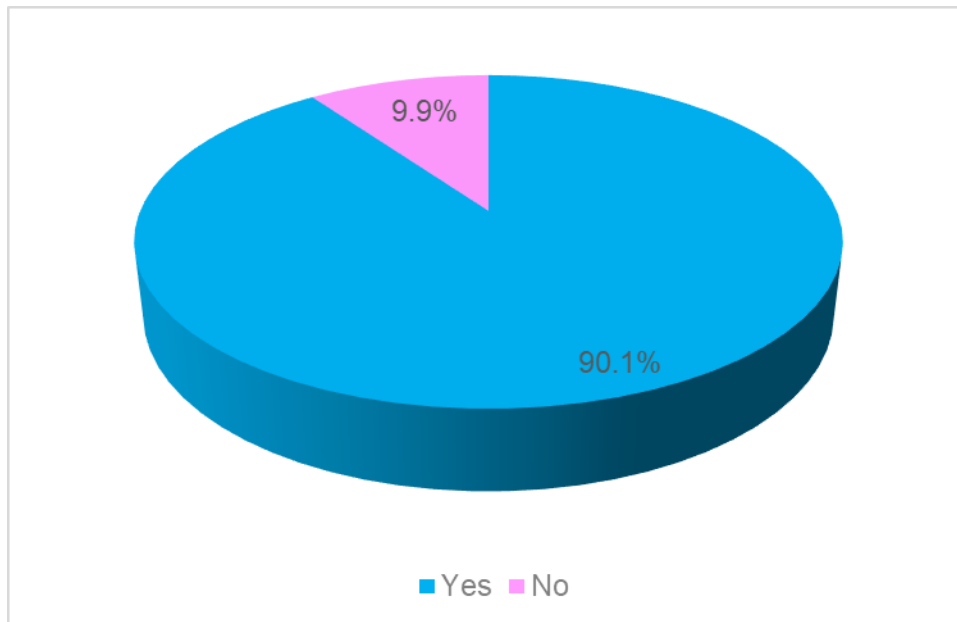


Figure 4.7 Attributes of respondents' employment

In this study there was a significant difference in the health and safety environment score across categories of employment ($F(1, 363)=3.9, p=0.05$) at 0.049. Nurses who were not permanently employed had higher mean scores (mean 2.79, SD 0.49) compared to those who were permanently employed (mean 2.58, SD 0.6). The higher mean scores imply that nurses who are not permanently employed were more likely to indicate that factors within the health and safety environment contributed to absenteeism compared to those permanent employed.

4.2.8 Question A 7: Highest nursing qualification (How many years of experience you have in the nursing profession?)

Figure 4.8 indicates the highest nursing qualifications of respondents: certificate ($n=188, 51.8\%$); diploma ($n=76, 20.9\%$); advanced diploma ($n=51, 14\%$); bachelor's degree ($n=46, 12.7\%$); and master's degree ($n=2, 0.6\%$). No respondents were PhD qualified, while one is a candidate for PhD, and suggested the advancing of clinical doctorate degree courses in the profession. No differences between the environment scores across categories of highest qualification were found.

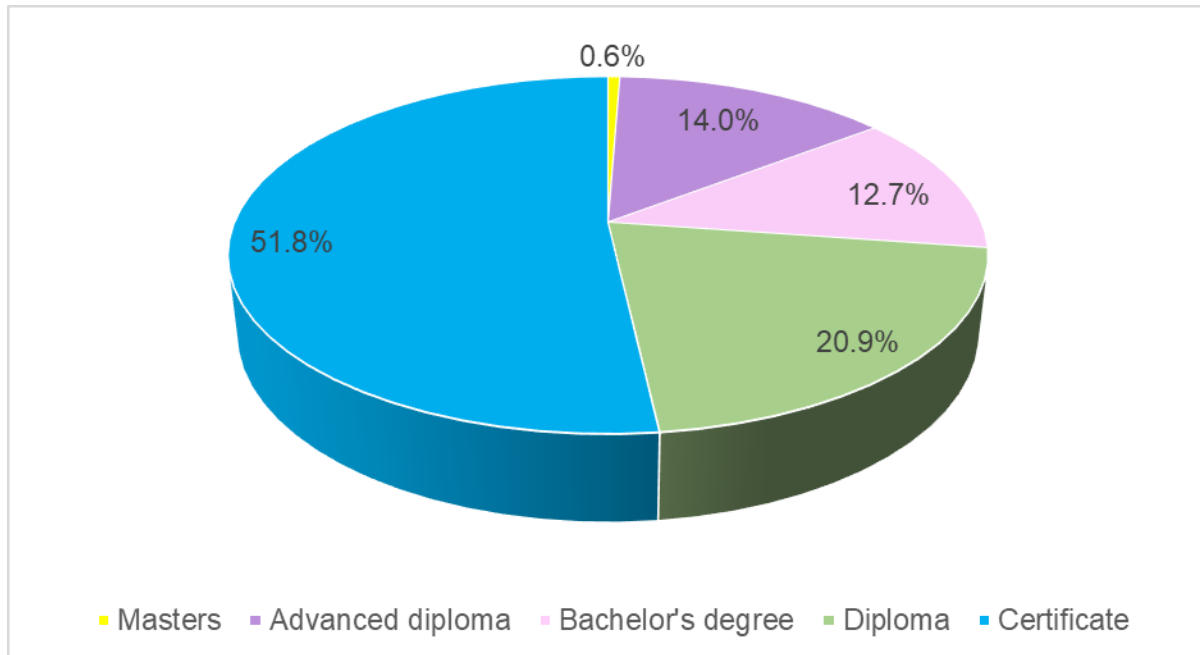


Figure 4.8 Attributes of respondents' qualification

4.2.9 Question A 8: Years of experience in nursing (How many years of experience do you have in the nursing profession?)

Figure 4.9 illustrates the number of years of service in the nursing profession. The highest proportion of respondents fell in the category of 0-5 years ($n=106$, 29.2%), followed by 6-10 years ($n=98$, 27%). After, the retiring group ($n=66$, 18.2%), then category 11-15 years ($n=47$, 12.9%). Lastly, 21-25 years ($n=19$, 5.2%) were the lowest. Most of the respondents are still young in the profession i.e., 0-10 years. There was no significant difference in the environment scores across categories of years of experience.

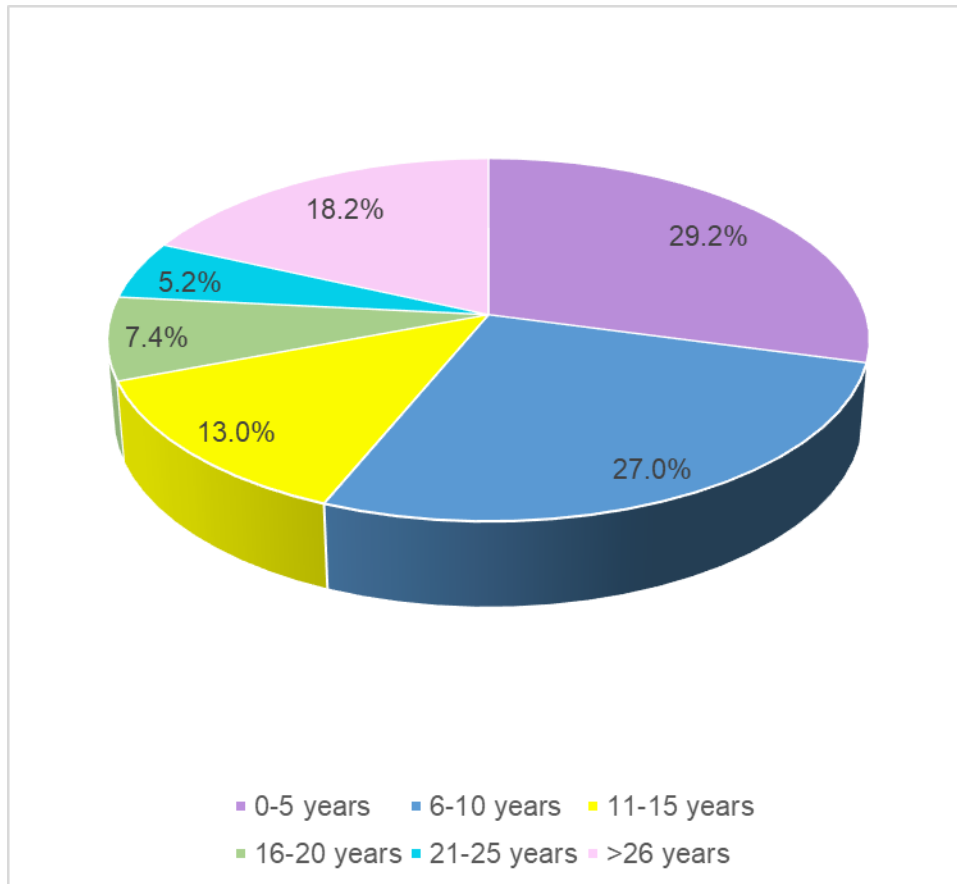


Figure 4.9 Attributes of respondents' years of experience

4.2.10 Question A9: Current ward placement (Indicate your current ward placement?)

The different interdisciplinary wards are displayed in Table 4.1. The highest proportion of participants worked in a medical ward (n=53, 14.6%), followed by emergency department (n=38, 10.5%) and ICU (n=31, 8.5%). In the maternity ward (n=28, 7.7%) responded; followed orthopaedic ward (n=27, 7.4%), then neonatal ICU (n=26, 7.2%), while the paediatric ward indicated (n=23, 6.3%) respondents. The generic ward had the highest mean scores in the organisational, unit management, personal and social and health and safety environments, indicating that nurses in the generic ward indicated that factors in these four environments contribute to absenteeism.

Table 4.1: Distribution of respondents' ward placement

Department	Frequency (n)	Percentage (%)
Medical	53	14.6
Emergency	38	10.5
ICU	31	8.5
Maternity	28	7.7
Orthopaedic	27	7.2
Maternity	28	7.4
Neonatal	26	7.2
Surgical	26	7.2
Orthopaedic	27	7.4
Surgical	26	7.2
Paediatric	23	6.3
Theatre	22	6.1
Postnatal	22	5.1
Psychiatry	18	5.0
Outpatients	17	4.7
Generic	17	4.7
Day ward	10	2.8
Gynaecology	5	1.4
Total	363	100.0

4.2.11 Question A10: Coping with nurse-patient-ratio (Can you cope with the current nurse-patient-ratio?)

More than a third of respondents (n=136, 37.5%) indicated that they can cope with the workload compared to almost two thirds (n= 227, 62.5%) that responded that they could not cope (Table 4.2).

Table 4.2: Distribution of respondents' perception on nurse-patient ratio

		Frequency (n)	Percent (%)
Can you cope with the current nurse-patient-ratio?	Yes	227	62.5
	No	136	37.5
	Total	363	100.0

The organisational (F (1, 363)=14.5, p<0.000), unit management (F (1, 363)=5.2, p=0.02) and personal and social environment (F (1, 363)=6.6, p=0.01) scores differed across categories

(Rn's, EN's and ENA's) of the perception of nurse-patient ratio. Respondents who reported not to cope with the current patient load had higher scores in these environments.

4.2.12 Question A11: Shift type (Indicate your type of shift?)

More than half of the nurses were working on dayshift 12 hours (n=183, 50.4%) and almost one third (n=118, 32.5%) nightshift 12 hours while less than a fifth of respondents (n=62, 17.1%) worked the traditional eight-hour shift as illustrated in Table 4.3.

Table 4.3 Attributes of respondents' shifts

		Frequency (n)	Percent (%)
Indicate your type of shift.	12-hour day	183	50.4
	12 hours (night)	118	32.5
	8-hour day	62	17.1
	Total	363	100.0

Organisational ($F(2, 362)=4.4, p=0.01$) and unit management ($F(2, 362)=8.9, p<0.001$) scores differed across categories of shift. The respondents who worked 12-hour night shift had the highest mean score in both environments; mean 3.04 (SD 0.54) and mean 2.78 (SD 0.52) respectively. More specifically, the significant differences were between the 12-hour night shift and the 8-hour day shift in the organisational environment and the 12-hour night shift and both the 8-hour day shift and 12-hour day shift in the unit management environment.

4.2.13 Question A12: Dependents (How many dependents do you have?) Include children and adults.

Most respondents (n=176, 48.5%) had one to two dependents while 31.4% (n=114) have three to four dependents, and 20.1% (n=73) have no dependents (Table 4.4).

Table 4.4 Distribution of respondents' dependants

		Frequency (n)	Percent (%)
How many dependents do you have?	None	73	20.1
	1-2	176	48.5
	3-4	114	31.4
	Total	363	100.0

The organisational environment score differed across categories of number of dependents ($F(2, 363)=3.1, p=0.05$). Respondents with 3-4 dependents had the highest mean score (mean 3.06, SD 0.57).

4.3 SECTION B: SUB-SECTIONS OF THE QUESTIONNAIRE

Section B of the questionnaire was analysed in the four different environments:

- i) The organisational environment
- ii) The unit management environment
- iii) The personal and social environment
- iv) The health and safety environment

4.3.1 Organisational environment

Table 4.5 indicates the frequency distribution of the items according to the respondent responses (strongly disagree to strongly agree) in the organisational environment as well as the mean and standard deviation (SD) for each of the items.

Table 4.5 Organisational environment

Nurses are absent from work because of ...	Strongly disagree n (%)	Disagree n (%)	Agree n (%)	Strongly agree n (%)	Mean (SD)
1. an inadequate number of staff members on duty, e.g., this makes the allocation of workload difficult.	19 (15.2)	54 (4.9)	150 (41.3)	140 (38.6)	3.93 (1.21)
2. bureaucracy in the workplace due to strict policies.	18 (6.6)	127 (35)	171 (47.1)	47 (17.9)	2.68 (0.76)
3. inconsistency in implementing the policy on absenteeism with all staff.	24 (6.6)	127 (35)	147 (40.5)	65 (17.9)	2.69 (0.84)
4. monitoring of staff reporting on duty is not done, for example no tracking system.	44 (12.1)	168 (46.3)	119 (32.8)	32 (8.8)	2.38 (0.84)
5. not addressing labour relations issues, e.g., type of leave, disciplinary matters, or grievances.	17 (4.7)	100 (27.5)	152 (41.9)	94 (25.9)	2.89 (0.91)
6. changes being implemented in the workplace without first consulting the nurses.	23 (6.3)	77 (21.2)	131 (36.1)	132 (36.4)	3.02 (0.91)
7. lack of time for in-service training or opportunities to attend courses.	22 (6.1)	92 (25.3)	141 (38.8)	108 (29.8)	2.92 (0.89)
8. lack of childcare facilities while at work.	21 (5.8)	50 (13.8)	150 (41.3)	142 (39.1)	3.14 (0.86)

9. lack of decentralisation of decision making to clinical areas, e.g., disciplining of nurses done by top level managers.	16 (4.4)	135 (37.2)	132 (36.4)	80 (22)	2.76 (0.84)
10. lack of opportunities for participative decision making on matters affecting staff, e.g., senior level managers make decisions on their own to take control of the unit.	13 (3.6)	81(22.3)	136 (37.5)	33 (36.6)	3.07 (0.85)
11. a lack of promotion opportunities to advance their career in their field of specialty.	21 (5.8)	95 (36.2)	136 (37.5)	111 (30.6)	2.93 (0.89)
12. unfair provision of opportunities, e.g., selection of training or allocation of study bursaries.	23 (6.3)	86 (23.7)	119 (32.8)	135 (37.2)	3.01 (0.93)
13. a lack of a fair reward system for excellent performance.	19 (5.2)	67 (18.5)	123 (33.9)	154 (42.4)	3.13 (0.90)
14. the inability of the institution to strongly discourage abuse of sick leave.	32 (8.8)	124 (34.2)	135 (37.2)	72 (19.8)	2.68 (0.89)
15. the differences in salaries paid to staff in certain categories, e.g., unqualified nurses receiving the salary of a qualified specialist nurse or vice versa.	50 (13.8)	132 (36.4)	105 (28.9)	76 (20.9)	2.57 (0.97)
16. being unfairly paid for the number of hours contributed to the organisation.	35 (9.6)	118 (32.5)	118 (32.5)	92 (25.3)	2.73 (0.95)
17. an inadequate skill mix in the unit, e.g., certain staff must complete the work of other incompetent staff members.	20 (5.5)	79 (21.8)	139 (38.3)	124 (34.2)	3.01 (0.89)
18. a shortage of nurses when support is needed, e.g., no additional staff available when someone is absent.	14 (3.9)	48 (13.2)	133 (36.6)	168 (46.3)	3.25 (0.83)
19. being exposed to an unmanageable workload.	11 (3)	59 (16.3)	137 (37.7)	156 (43)	3.20 (0.82)
20. a need for nurses to have a healthy work culture, e.g., deliver quality care in a unit.	14 (3.9)	61 (16.8)	155 (42.7)	133 (36.6)	3.12 (0.82)

Table 4.5 indicate that the items with the highest mean scores were:1, inadequate staff (3.93, SD 1.21); 18, nurse shortages (3.25, SD 0.83); 19, unmanageable workload (3.20, SD 0.82); 8, lack of child-care facilities (3.14, SD 0.86); 20, a need for a healthy work culture (3.12, SD 0.82); 12, unfair training and study bursaries (3.01, SD 0.93); 17, inadequate skill mix (3.01, SD 0.89); 11, lack of promotion opportunities (2.93, SD 0.89); 7, in-service training and attended courses (2.92, SD 0.96); and 9, lack decentralisation (2.76, SD 0.84). The items with the lowest scores were: 15, differences in salaries (2.57, SD 0.97) and 4, monitoring of staff through a tracking system (2.38, SD 0.84).

The mean organisational environment score was 2.96 (SD 0.54) with a normal distribution and peakedness of histogram (Figure 4.10).

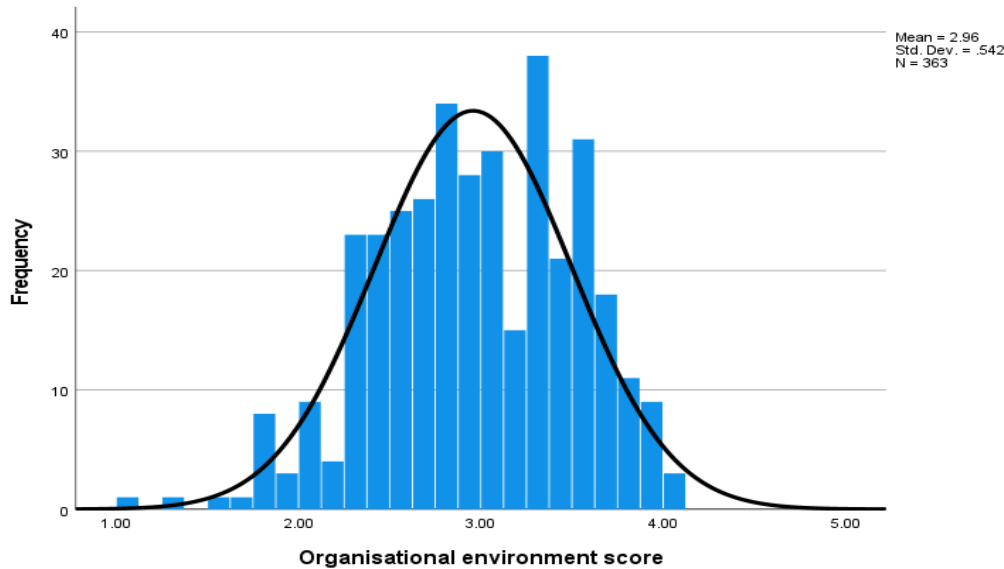


Figure 4.10: Histogram of organisational environment score

4.3.2 Unit management environment

Table 4.6 indicates the frequency distribution of the items according to the respondent responses (strongly disagree to strongly agree) in the unit management environment as well as the mean and standard deviation (SD) for each of the items.

Table 4.6 Unit management environment

Nurses are absent from work because of...	Strongly disagree n (%)	Disagree n (%)	Agree n (%)	Strongly agree n (%)	Mean (SD)
21. disliking the autocratic management style of the nurse manager, e.g., she or he does not listen to suggestions from nurses.	34 (9.4)	115 (31.7)	122 (33.6)	93 (25.3)	2.75 (0.94)
22. unresolved nurses' problems or concerns by the manager.	23 (6.3)	108 (29.8)	144 (39.7)	88 (24.2)	2.82 (0.87)
23. experiencing inadequate guidance from the nurse manager when executing advanced patient care.	27 (7.4)	161 (44.4)	103 (28.4)	72 (19.8)	2.61 (0.89)
24. the lack of respect, e.g., to have one's own opinions about matters.	24 (6.6)	127 (35.0)	122 (33.6)	90 (24.8)	2.77 (0.90)
25. favouritism exercised by nurse managers towards certain staff members, e.g., allowing some to leave the shift earlier.	25 (6.9)	96 (26.4)	113 (31.1)	129 (35.5)	2.95 (0.95)

26. the need to be complimented on work well-done.	26 (7.2)	110 (30.3)	131 (36.1)	96 (26.4)	2.82 (0.91)
27. disliking routine work, e.g., bed bathing and observations.	78 (21.5)	193 (53.2)	66 (18.2)	26 (7.2)	2.11 (0.82)
28. having insufficient opportunity to work independently.	58 (16)	207 (57)	67 (18.5)	31 (8.5)	2.20 (0.81)
29. disliking working in their allocated shift, e.g., day or night duty.	42 (11.6)	110 (30.3)	147 (40.5)	64 (17.6)	2.64 (0.90)
30. having to lift and turn patients when doing nursing care of patients.	67 (18.5)	187 (51.5)	79 (21.8)	27 (30 (8.3)	2.20 (0.83)
31. being allocated non-nursing tasks e.g., doing paperwork of doctors, referrals, administration, clerk or as a porter.	51 (14)	137 (37.7)	109 (30)	66 (18.2)	2.52 (0.95)
32. being expected to do extra duties, that e.g., demotivate them.	41 (11.3)	103 (28.4)	135 (37.2)	84 (23.1)	2.72 (0.94)
33. having to do a difficult task that requires more skills than trained for.	36 (9.9)	114 (31.4)	122 (33.6)	91 (25.1)	2.74 (0.95)
34. working long hours without being adequately remunerated.	32 (8.8)	108 (29.8)	119 (32.8)	104 (28.7)	2.81 (0.95)
35. inflexible working schedules, e.g., not being able to request a preferred weekend off.	34 (9.4)	103 (28.4)	121 (33.3)	105 (28.9)	2.82 (0.96)
36. have inadequate time to complete tasks to perform tasks correctly.	34 (9.4)	167 (46)	108 (29.8)	54 (14.9)	2.50 (0.86)
37. someone withholding information which affects one's performance.	36 (9.9)	159 (43.8)	105 (28.9)	63 (17,4)	2.54 (0.89)
38. their skills are under utilised that do not contribute to an interesting position.	31 (8.5)	171 (47.1)	108 (29.8)	53 (14.6)	2.50 (0.85)

As seen in Table 4.6, the items with the highest mean scores (above 2.5) included: numbers 25, favouritism (2.95, SD 0.95); 22, unresolved nurses problems (2.82, SD 0.87); 26, the need to be complemented (2.82, SD 0.98); 35, inflexible work schedules (2.82, SD 0.96); 34, working long hours (2.81, 0.95); 24, lack of respect (2.77, 0.90); 21, disliking autocratic management (2.75, SD 0.94); 33, to do difficult tasks that require more skills (2.74, SD 0.95); 32, expected to do extra duties (2.72, SD 0.94); 29, disliking working in allocated shifts (2.64, 0.90); 23, inadequate guidance from nurse manager (2.61, SD 0.89); 37, someone withholding information (2.54, 0.89); 31, being allocated non-nursing tasks (2.52, SD 0.95); 36, inadequate time to complete tasks (2.50, 0.86); and 38, their skills are underutilised (2.50, 0.85). The lowest mean scores are: 28, insufficient opportunity to work independently (2.20, SD 0.87); 30, lifting and turning patients (2.20, SD 0.83); and 27, disliking routine work (2.11, SD 0.82).

The mean score for unit management environment was 2.6 (SD 0.56) and a symmetrical (normal) distribution of scores (Shapiro-Wilk, $p=0.07$). (See Figure 4.11). The 95% CI is 2.5 – 2.7, with a minimum score of 1 and a maximum of 4.

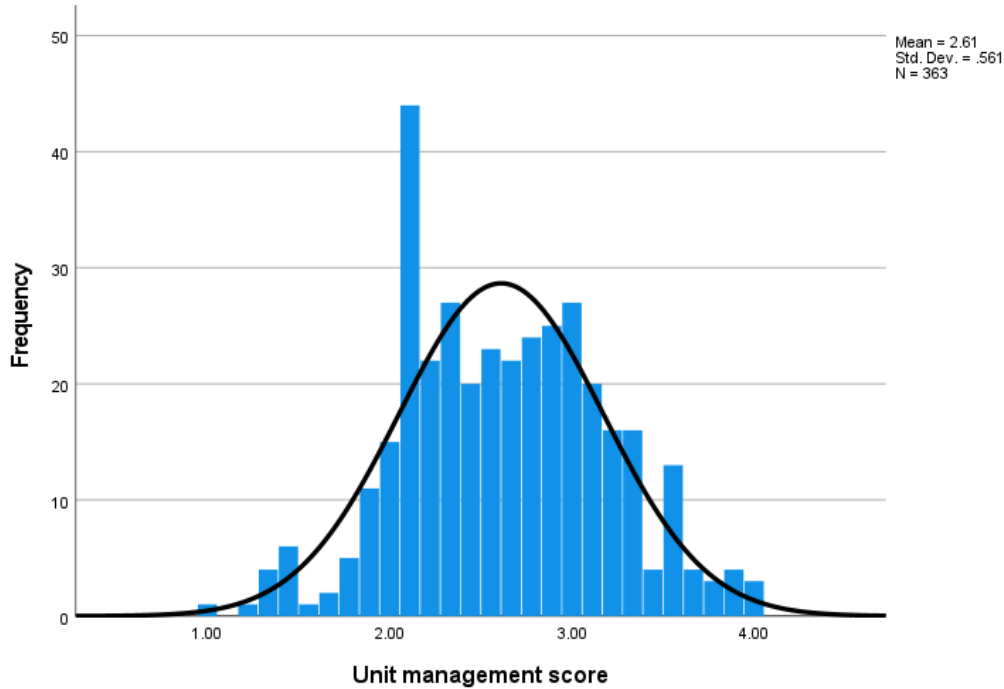


Figure 4.11: Histogram of unit management environment score

4.3.3 Personal and social environment

Table 4.7 indicates the frequency distribution of the items according to the respondent responses (strongly disagree to strongly agree) in the personal and social environment as well as the mean and standard deviation (SD) for each of the items.

Table 4.7 Personal and social environment

Nurses are absent from work because of...	Strongly disagree n (%)	Disagree n (%)	Agree n (%)	Strongly agree n (%)	Mean (SD)
39. doing what colleagues do in the workplace, e.g., stay away from work regularly.	45 (12.4)	111 (30.6)	136 (37.5)	71 (19.6)	2.64 (0.93)
40. lacking personal relations within the workgroup, e.g., they do not talk to the workgroup members.	36 (9.9)	139 (36.6)	135 (37.2)	59 (16.3)	2.60 (0.88)
41. lacking close friends at work, with whom to share personal problems.	64 (17.6)	177 (48.8)	88 (24.2)	34 (9.4)	2.25 (0.86)
42. having problems e.g., regarding the abuse of alcohol, or drugs.	53 (15.2)	112 (30.9)	129 (35.5)	67 (18.5)	2.57 (0.96)
43. having financial problems e.g., doing additional jobs for financial gain.	33 (9.1)	122 (33.6)	139 (38.3)	69 (19)	2.67 (0.89)

44. having to look after family members e.g., mother, or sick child.	8 (2.2)	47 (12.9)	183 (50.4)	120 (34.4)	3.17 (0.73)
45. having to attend funerals of relatives, e.g., grandmothers or friends outside the workplace.	15 (4.1)	50 (13.8)	164 (45.2)	134 (36.9)	3.15 (0.81)

The items of Table 4.7 are indicated from the highest to the lowest mean scores: 44, family responsibilities (3.17, SD 0.73) and 45, attending funerals (3.15, SD 0.81); 43, financial problems (2.67, SD 0.89); 39, doing what colleagues are doing at work to be absent (2.64, SD 0.93); 40, lacking personal relationships in the workgroup (2.60, SD 0.88); and 42, having problems with alcohol and substance abuse (2.57, SD 0.96). The lowest mean score was 41, lacking close friends at work (2.25, 0.86).

The histogram in Figure 4.12 indicates a mean of 2.7 (SD 0.54). The median is 2.7, with minimum (1) and maximum (4) values. The 95% confidence interval around the mean is 2.7-2.8. The histogram indicated an almost normal distribution of scores and a normal curve.

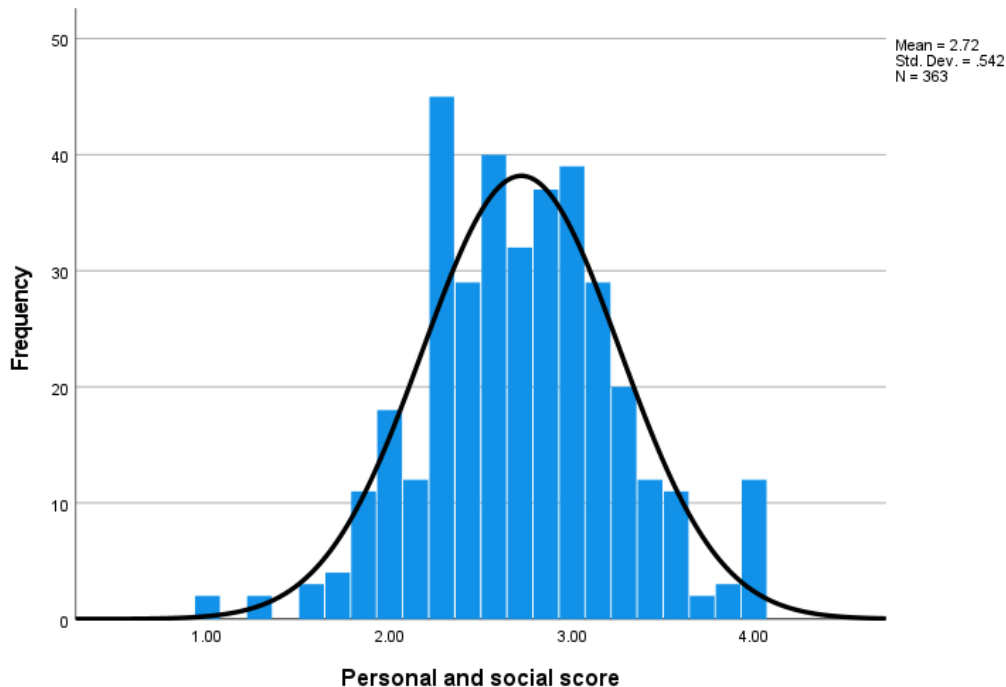


Figure 4.12: Histogram of personal and social environment score

4.3.4 Health and safety environment

Table 4.8 indicates the frequency distribution of the items according to the respondent responses (strongly disagree to strongly agree) in the health and safety social environment as well as the mean and standard deviation (SD) for each of the items.

Table 4.8 Health and safety environment

Nurses are absent from work because of...	Strongly disagree n (%)	Disagree n (%)	Agree n (%)	Strongly disagree n (%)	Mean (SD)
46. experiencing domestic conflict e.g., arguments at home.	37 (10.2)	144 (39.7)	130 (35.8)	52 (14.3)	2.55 (0.86)
47. having transport problems, e.g., getting to work by bus, taxi.	19 (5.2)	77 (21.2)	171 (47.1)	96 (26.4)	2.94 (0.83)
48. taking sick leave when staff is actually healthy.	44 (12.1)	123 (33.9)	119 (32.8)	77 (21.2)	2.64 (0.95)
49. having lost an interest in their work.	38 (10.5)	112 (30.9)	139 (38.3)	74 (20.4)	2.69 (0.91)
50. seeking new work opportunities elsewhere.	33 (9.1)	101 (27.8)	152 (41.9)	77 (21.2)	2.76 (0.89)
51. prolonging weekends without asking for the weekend off.	41 (11.3)	115 (31.7)	134 (36.9)	73 (20.1)	2.66 (0.92)
52. being affected by bad weather, e.g., rain.	60 (16.5)	193 (53.2)	81 (22.3)	29 (8.0)	2.21 (0.81)
53. taking 'mental health' days for sickness.	45 (12.4)	119 (32.8)	146 (40.2)	53 (14.6)	2.57 (0.89)
54. being unable to cope with job demands (stress) e.g., acuity of patients.	35 (9.6)	112 (30.9)	151 (41.6)	53 (14.6)	2.68 (0.88)
55. the work interfere with family commitments, and they experience burnout.	26 (7.2)	78 (21.5)	166 (45.7)	93 (25.6)	2.90 (0.86)
56. being humiliated or ridiculed in their workplace, e.g., someone uttering an unkind word or making fun of others.	43 (11.9)	118 (32.6)	119 (32.9)	82 (22.7)	2.66 (0.96)
57. being ignored when approaching the senior in the unit.	37 (10.2)	138 (38)	109 (30)	79 (21.8)	2.64 (0.93)
58. facing a hostile reaction from a colleague when they are asked for assistance with a patient, e.g., showing anger or being unfriendly.	39 (10.7)	136 (37.5)	111 (30.6)	77 (21.2)	2.63 (0.93)
59. suffering from verbal abuse e.g., from the patients, doctors, managers, or colleagues.	33 (9.1)	118 (32.5)	125 (34.4)	87 (24)	2.74 (0.92)
60. working in a violent workplace, e.g., members of staff screaming at each other.	37 (10.2)	129 (35.5)	109 (30)	88 (24.2)	2.69 (0.95)
61. colleagues spreading rumors about one that is untrue.	40 (11)	141 (38.8)	104 (28.7)	78 (21.5)	2.61 (0.94)

62. having main areas of responsibility removed or replaced with more trivial/unpleasant tasks.	39 (10.7)	151 (41.6)	112 (30.9)	61 (16.8)	2.54 (0.89)
63. receiving repeated reminders from a senior about their previous mistakes made.	45 (12.4)	146 (40.2)	101 (27.8)	71 (19.6)	2.55 (0.94)
64. a senior being persistent in criticism despite improvement in that matter, e.g., a better effort to do duty rosters more accurate.	31 (8.5)	149 (41)	115 (31.7)	68 (18.7)	2.60 (0.89)
65. being the target of spontaneous anger demonstrated by a colleague, e.g., due to not immediately acting on a request.	37 (10.7)	158 (43.5)	111 (30.6)	57 (15.7)	2.52 (0.88)
66. being excluded from a unit meeting as punishment for something they have done.	47 (12.9)	192 (52.9)	77 (21.9)	47 (12.9)	2.35 (0.86)
67. having unfounded allegations made against them.	36 (9.9)	160 (44.1)	110 (30.3)	57 (15.7)	2.52 (0.88)
68. increased stress due to lack of resources to perform tasks expected.	30 (8.3)	127 (35)	135 (37.2)	71 (19.6)	2.69 (0.88)
69. suffer from stress-related illness due to, e.g., prolonged unresolved problems.	26 (7.2)	105 (28.9)	151 (41.6)	81 (22.3)	2.80 (0.87)
70. having insulted or offensive remarks made about them as a unique human being.	40 (11)	163 (44.9)	86 (23.7)	74 (20.4)	2.54 (0.94)
71. experiencing intimidating behaviour, e.g., finger-pointing by a colleague.	39 (10.7)	150 (41.3)	108 (29.8)	66 (18.2)	2.56 (0.91)
72. becoming scared when a senior invades your personal space, e.g., asking about personal matters.	44 (12.1)	181 (49.9)	80 (22)	58 (16)	2.42 (0.90)
73. hints from others that one should quit the nursing post.	50 (13.8)	181 (49.9)	79 (21.8)	53 (14.6)	2.38 (0.90)

The items in Table 4.8 with the highest mean scores (above 2.6) are discussed below. The highest variable scores in health and safety environment are: 47, transport problems (2.94, SD 0.83); 65, work-home life (2.90, SD 0.86); 69, stress-related illnesses (2.80, SD 0.87); 50, seeking work elsewhere (2.76, SD 0.89); 59, verbal abuse (2.74, SD 0.92) ; 49, having lost an interest in work; 60, working in a violent place (2.69, SD 0.95) ; 68, increased stress due to lack of resources (2.69, SD 0.91, 0.95; 0.88); 54, being unable to cope with job demands (stress) (2.68, SD 0.88); 51, prolonging weekends, 56, being humiliated or ridiculed in their workplace (2.66, SD 0.92, 0.96); 48, taking sick leave when staff is actually healthy; 57, being ignored when approaching the senior (2.64, SD 0.95, 0.93); 58, facing a hostile reaction from a colleague (2.63, SD 0.93); 61, colleagues spreading rumors about one that is untrue (2.61, SD 0.94); and 64, a senior being persistent in criticism (2.60, SD 0.89). The items with the lowest means were 66, being exclude from a unit meeting (2.35, SD 0.86) and 52, affected by severe

weather (2.21, SD 0.81). The highest mean score recorded was transport problems and the lowest severe weather.

Figure 4.13 depicts the histogram of the health and safety environment that approximated a normal bell shape curve (mean 2.6, SD 0.59); skewness (.153); std. error of skewness (.128); percentiles included 95% (3); 50% (2.6) and 25% (2.2).

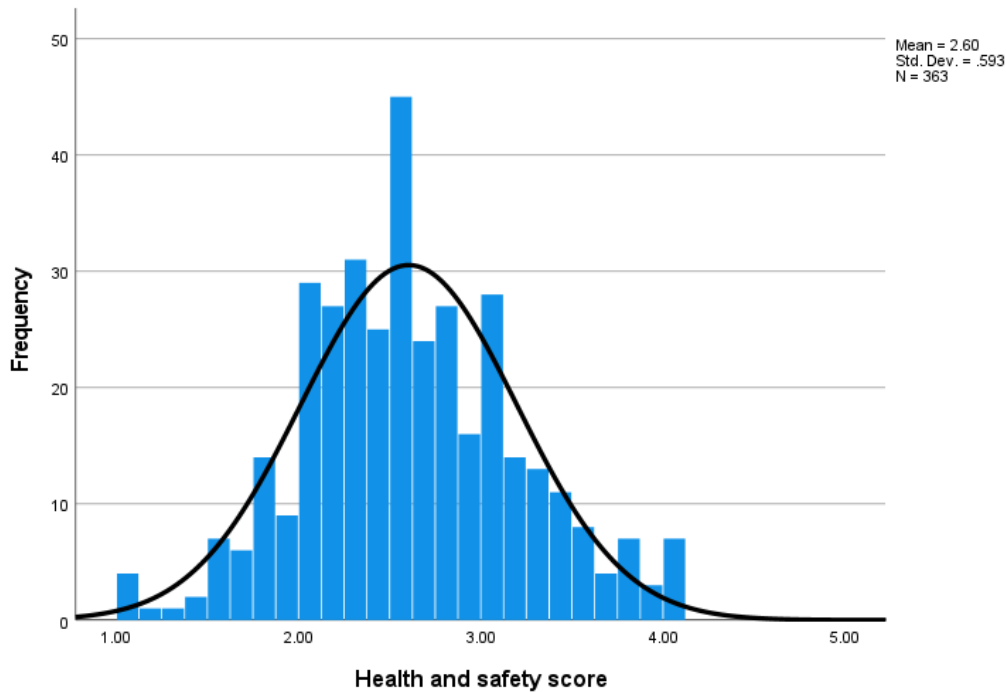


Figure 4.13: Histogram of health and safety environment score

Table 4.9: Correlation matrix of the relationships between the environments

	Organisational	Unit management	Personal and social	Health and safety
Organisational	1	.700**	.434**	.538**
Unit management	.700**	1	.585**	.689**
Personal social	.434**	.585**	1	.731**
Health and safety	.538**	.689**	.731**	1

** indicates p < 0.001

Table 4.9 indicates the correlation matrix of the relationships between the environments.

Pearson's correlation test was employed to determine the relationships between nurses' perceptions of the factors influencing absenteeism in the environments. A positive relationship indicates that a high or low score on one variable correlates with a high or low score on the other variable. An r value between 0.10-0.29 indicates a weak relationship, a r value of 0.3-0.49 moderate and a r value of 0.50-1.0 a strong relationship. Table 4.9 indicates a strong positive correlation between the organisational environment and the unit management environment ($r=0.70$, $p < 0.001$). The strongest correlation ($r=0.73$, $p < 0.001$) was between the personal and social and health and safety environments. This means that factors within these environments are positively related. Figure 4.14 depicts the scatterplots of the abovementioned correlations.

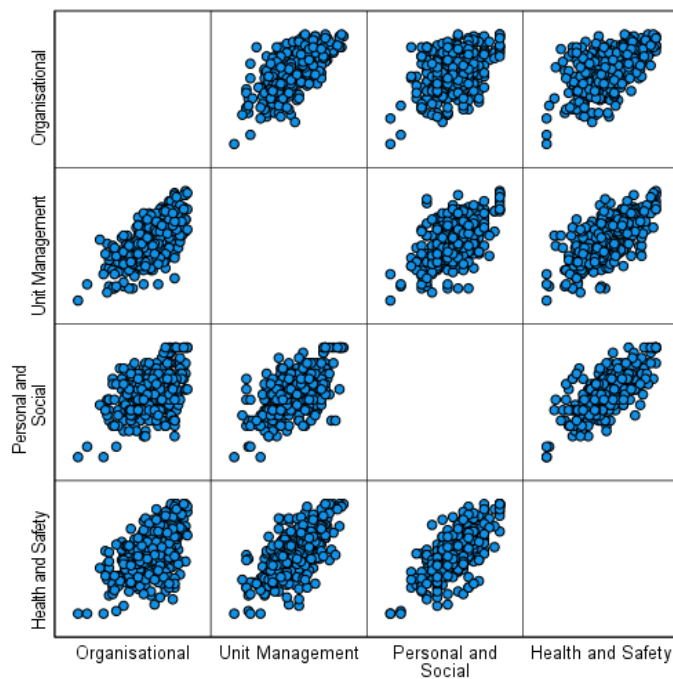


Figure 4.14: Scatterplots of the correlation matrix

4.6.1 Qualitative analysis from the open-ended question

The open-ended question prompted responders to narrate other causes of absenteeism of nurses in the unit where they were working. Out of 363 questionnaires, 143 (39.4%) responders responded and 220 (60.6%) did not complete the open-ended question. For example, one responder could have commented on burnout and family matters.

The responses of the responders were coded and organised in themes and sub-themes (Table 4.13). The most frequent themes were burnout (n=39, 27.3%); nurse shortages (n=34, 23.8%); family matters (n=27, 17.5%); leave days (n=23, 16%); stress (n=14, 10%); heavy workload (n=11, 7.7%); and work-home distance (n=10, 7%). In addition to the above-mentioned themes, responders also commented on the following factors:

Favouritism, bullying; poor/lack of communication; unsafe work environment; nepotism; lack of teamwork; Covid-19 related disease; dislike of shift work; scope of practice, moonlighting; entitled sick leave; unexpected illness; salary; autocratic management, overtime; training skills/ mentoring/ coaching; too many personnel; visibility of management; low morale; truancy; rotations; and filling posts. The first four additional factors were fully described in the literature review, see Chapter 2. Most of the themes could be interrelated with one another in the respective environments.

4. 10 Themes and sub-themes of qualitative data

Themes (n, %)	Sub-themes
Burnout (n=39, 27.3%)	Emotional exhaustion Depersonalisation Cynicism and inefficacy
Nurse shortages (n=34, 23.8%)	Absenteeism Turnover Frozen posts
Family and personal matters (n=27, 17.5%)	Illnesses Personal problems Domestic problems
Leave days (n=23, 16%)	School holidays Unauthorised leave Pretending to be sick
Stress (n=14, 10%)	Work pressure Emotional strain Psychological strain
Heavy workload (n=11, 7.7%)	High nurse-patient ratio Subjective (personal viewpoint) workload Unmanageable workload
Work-home distance (n=10, 7%)	Transport problems Residence vs workplace Hazardous weather

Description of themes and sub-themes

Themes are described according to Table 4.10. The important seven themes were selected from responders point of view.

Burnout

The dimension of burnout composes of three characteristics namely emotional exhaustion, depersonalisation, and personal accomplishment and is associated with absenteeism. The responder's scores were positively correlated .532** and mean 70.12. Burnout is perceived because of excessive workload, work-home-life interference, inadequate staffing, values conflict, inadequate rewards, and poor work environment and intention to resign (Burmeister *et al.*, 148, 150; Dyrbye *et al.*, 2019:5; Ticharwa *et al.*, 2019:114 Fontana *et al.*, 2020:10).

Nurse shortages

Nurse shortages are comprised of absenteeism, turnover, and frozen posts. Responder's scores were positively correlated for the whole scale .572** with mean 55.85. Nurses require a demand and supply of nurses to fill the shortage of nurses who resign and those who have passed on. Apart from shortages, responders mention especially more senior registered nurses with responsibility and to train, mentor and coach them (Ajuebor *et al.*, 2019:6; Drennan & Ross, 2019:2; Mammbona & Mavhandu-Mudzusi, 2019:144; Smith *et al.*, 2019:7-8).

Family and personal matters

Family and personal matters entailing illnesses, personal and domestic problems are linked to absenteeism. Participants scores were positively correlated .453** (family), .429** (functions); and mean 70.08, 70.39. Nurses suffer from physical and emotional intensity that affect the muscular-skeletal system (because of lifting and turning patients and heavy objects). Nurses also care for themselves and families when they are ill or attending celebrations and functions. They are also absent for personal matters, domestic problems (bursting geyser or pipe) that need urgent attention (Vadgaonkar & Velhal, 2018:29405; Dall'Ora *et al.*, 2019:4; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:114; Martinez *et al.*, 2020:246).

Leave days

Leave days include school holidays, unauthorised leave days and pretending to be sick. The scale was positively correlated .433** with mean 70.36. The nurses who are single without any children were dissatisfied that they cannot have leave when requested. Because those who have children have preference to be on annual leave during school holidays. That was also the

reason they took unauthorised leave when the requests were not honoured. They pretend to be off sick because of being overworked or pretence being in contact with a Covid-19 positive family member or friend without any proof of evidence (Ticharwa *et al.*, 2019:114; Mammbona & Mavhandu-Mudzusi, 2019:144; Duncombe, 2019:94).

Stress

Stress consists of work pressure, emotional and psychological and relates to absenteeism. The scores were positively correlated .457** and mean 70.46 compared to qualitative analysis. Work pressure were mostly the reasons for respondents score to the phenomenon of perceived stress. Stress affected the nurses emotionally and psychologically because of personal and family problems and lack of equipment to perform the job as well as patient acuity (McCright *et al.*, 2018:7; Ticharwa *et al.*, 2019:109; Tweheyo *et al.*, 2019:4).

Heavy workload

Heavy workload includes high-patient ratio, subjective workload and unmanageable workload are related to absenteeism. Participants had a highly positive correlation .615** with mean score 55.90 for the whole scale. High-patient-ratio and unmanageable workload have an impact on nurse's mental workload and affects the emotional and psychological well-being. Subjective workload measures the idea that only the nurse exactly knows how much work is necessary to meet the requirements (Alharbi *et al.*, 2018:1787; Mbombi *et al.*, 2018:3-4; Alreshidi *et al.*, 2019:2; Tweheyo *et al.*, 2019:4; Van den Heede *et al.*, 2020:23).

Work-home distance

Work-home distance comprise of transport, residence, and weather and are associated to absenteeism. Transport was positively correlated .523** and mean 70.08. Nurses were dissatisfied because they have to cover for colleagues who are staying far from the workplace with no transport or breakdowns of vehicles. To elaborate, nurses from towns and provinces over 70 -1400 km are taking unscheduled days off during their scheduled off duties, visiting the family. Extreme weather events such as hailstorms, and snow in winter, sandstorms, and chilly winds in autumn and high temperatures above 40 degrees during summer also affected absenteeism especially to the nurses who are walking to work (Alharbi *et al.*, 2018:1787; Vadgaonkar & Velhal, 2018:29407; Musaka *et al.*, 2019:6-7; Shah *et al.*, 2020:8).

Organisational environment:

Nurse shortages and Heavy workload: A shortage of nursing staff and to cover for the absentees results in work overload, overfull wards, and exhaustion caused absenteeism. These themes could be related to the organisational and unit management environment.

Respondent 150: *Managers not disciplining abuse of sick leave. A heavy workload causing staff burnout. Language barriers. No orientation programme in the unit. Not having a mentor. Mismanagement of sick leave by employees.* Respondent 152: *"Exhaustion because of a shortage of staff. No appreciation from top management"*. Respondent 297: *" Being tired of overfull wards. Leave is too little for a year, so making use of sick leave to rest. Not having leave for the sick family members that stay with me, to take sick leave to sort out the family"*.

Nepotism: Absenteeism is caused by giving unfair advantage to someone versus disadvantaging another one in the recruitment processes for a permanent position and in cases of requests. The theme could be organisational or in the unit management environment.

Respondent 30: *" The fact that you only do contract work and doing your best in a unit and then there is someone else that is taken for the permanent post"*. Respondent 207: *"Nepotism, some colleagues are getting what they asked and others not. So, then worker makes own decisions"*.

Entitled sick leave: Absenteeism was the cause for depleting all sick leave for 36 months, unexplainable reasons and perception that all sick leave must be taken. The theme could be interrelated with organisational, unit management and personal and social environment.

Respondent 15: *"I personally think people being absent because they have sick leave that they did not use. They want to use because or within the 3-year cycle; Others got absent for personal reasons that at times are not explainable"*.

Dislike shift work: Different shifts (day or night) cause absenteeism especially for parents when planning a safety place for children during school holidays. Shift work is related to organisational, unit management, personal and social and health and safety environment.

Respondent 295: *In my unit there is a lot of injustice. The biggest problem in my opinion as an individual's when staff are asked to request and do not get it while those who do not request stay on shifts. In my case, I will always request if it is extremely necessary for my daughter's sake. I have to plan everything in advance because we stay alone, especially on holidays. I'm a single parent"*.

Scope of practice and Training, skills, mentoring / coaching: Doing a senior work with limited training skills were a cause for the professional development cause absenteeism. Absenteeism was a reason for even working within the scope of practice, a need for mentoring and coaching of staff. These themes are interrelated to organisational, unit management and health and safety environment.

Respondent 120: *"The staff is under pressure and is therefore not seen, no financial is contributed even though staff are taken advantage of in certain units. Staff should be reimbursed if they do a registered nurse' job and they are only an ENA. For example, pressure is placed on ENA"*. Respondent 141: *"Being expected to perform mammoth tasks while you just started with the profession. Being expected to know things that are out of your scope of practice. The anxiety that comes with not knowing what to do when a patient gets an unexpected illness or reaction because you have never experienced it before, and everyone expects you to know what to do ...because you are a Sister"*. Respondent 55: *"Training skills"*.

Overtime, Moonlighting and Salary: Additional income increases the likelihood of working in other places in government and private institutions cause absenteeism. Little, less or delayed pay and no increases in salary was the reason for absenteeism. These themes are associated with the organisational, unit management, personal and social as well as health and safety environments.

Respondent 225: *" Many people they don't come to work because they have chronic illness, stress and anxiety because on a lot of working and trauma and work under pressure on patient. And government they don't want to increase the money and we put our life at risk"*. Respondent 235: *"Working overtime at another place. Using the reason of family responsibility to rest and sick leave if requests are disapproved. Taking 2 days sick leave to be off for a long week (e.g., staff living over 1400 km from work) so they can go home for a long time"*.

Visibility of management: Absenteeism was a cause as the result of unsupportive supervision, strict management and visibility of management and perceived notions of better ideas and tasks. This theme is interrelated to organisational, unit management, personal and social and health and safety environments.

Respondent 53: *" Being led on by management, then being left in the lurch. No loyalty shown, but loyalty is demanded in their favor. Blatantly being mis/abused by UM professionally, not receiving any recognition. Lack of necessary support from immediate seniors. Not willing to*

even consider new and/or improved ideas, all levels of management are very rigid, unless it sorts their heads. Execution of tasks/ ideas not logically thought through, not interested in listening to reason, demands results, not considering staff members. Only management satisfaction matters". Respondent 95: "Management must be more visible".

Filling posts: Absenteeism was the reason for vacancies of post and males to be recruited and education in nursing specialty. Filling of posts are interrelated to organisational and unit management environment.

Respondent 66: *"To appoint more staff in wards on each shift. A male nurse on shifts to help with heavy (obese) patients". Respondent 314: "Employing of more staff and educate more staff who are already in the field".*

Unit management environment:

Teamwork: Work group cohesion or disarray were experienced, and the latter seen as a reason for absenteeism. Teamwork is associated with organisational, unit management, personal and social and health and safety environments.

Respondent 4: *"From my experience too much workload that we experienced you must do everything alone for example when we do the studies, they never taught us that it's our scope to fetch a patient in theatre, and also due to the lack of teamwork. Sometimes you feel like you do things alone and no one wants to solve the problem when you report there's no follow up, you end up being tired". Respondent 117: "The behaviour of management towards the nursing staff. Not working as a team in the ward/unit which may cause conflict".*

Autocratic management: Absenteeism was caused by management enforcing ideas, not listening to staff and causing frustrations. This theme is interrelated to the organisational and unit management environment.

Respondent 3: *"People from outside appointed as acting operational manager who doesn't know what happens in the unit. Frustration amongst all the staff members because this person enforces her autocratic management style". Respondent 25: "It is common for employees to be unable to keep up with the managers ability to listen to employee.*

Too many personnel: Absenteeism cause staff to extend tea and lunch breaks. A surplus of staff is associated with the organisational and unit management environment.

Respondent 57: *“Too many staff in ward, for example if there are student nurses in ward. Staff can have the opinion that there are enough staff, and they don’t need any one to execute tasks (e.g., when 2 RNs are on a shift)”*. Respondent 59: *“When staff noticed the total of nurses on the unit is ‘too much’ for the amount of work in the ward, also when they feel that they don’t need extra hands... because of the nurse that are absent, they take longer lunch breaks as supposed to be”*.

Rotations: Staying in the same unit or rotated to other wards were the cause of absenteeism. Rotations are related to the organisational and unit management environment.

Respondent 183: *“Would prefer to be in a different unit but not moved. May have physical problem but management won’t help with a post in a lighter work area. You work yourself to a standstill in your unit but are expected to go and work in another unit when your work is done. You get to the other unit and then their staff goes and sit and chat while you are doing their work”*.

Low morale and Truancy: Suffering from enthusiasm or passion influenced the morale and was also reflected in repeated non-appearance at work caused absenteeism. The themes are interconnected with organisational, unit management, personal and social environment.

Respondent 97: *“Workers that are dissatisfied with staff shifts and requested a transfer to another ward but was disapproved. Managers that are concern with rules to suit them, but workers requests are disapproved. To arrange patient-nurse ratio with workload. No teamwork and general morale of nurses is low”*. Respondent 1: *“Many times you want to follow the correct route going to the operational manger to request for a leave day, but it is most likely that they will tell you, no. So, most of the time the people just stay at home / absent”*.

Personal and social environment:

Family matters: Attending to sick families, functions, and matters in families or personal was a caused for absenteeism. Family matters are related to the unit management and personal and social environment.

Respondent 308: *“Personal problems, Illnesses for example, child, mother, husband and deaths”*.

Covid-19 related and Unexpected illness: Illnesses, isolation and caring for family members and suffering from any physical or mental ill health was a reason for absenteeism. Illnesses are

interrelated to the organisational, unit management, personal and social and health and safety environment.

Respondent 329: *"Covid, lack of emotional support. Favouritism, lack of proper resources, not getting leave days as expected, work related stress, and family matters.*

Social problems: The abuse of alcohol and drugs over weekends caused absenteeism. Social problems are associated to organisational, unit management, personal and social and health and safety environment.

Respondent 336: *"Social problem e.g., drinking alcohol during the weekend. So, make things bad especially Monday's. Poor teamwork at work. When you work in a unit you are uncomfortable to work in"*.

Health and safety environment:

Stress and Burnout: Work pressure, work stress, and lack of resources or equipment is a caused for stress and absenteeism. Experienced or exposure to overtiredness, exhaustion and stress could predispose burnout causing absenteeism. Stress and burnout are interrelated to the organisational, unit management, personal and social and health and safety environment.

Respondent 225: *" Many people they don't come to work because they have chronic illness, stress and anxiety because of a lot of work and trauma and work under pressure on patient. And government they don't want to increase the money and we put our life at risk"*. Respondent 88: *" Being sick due to Covid-19. Burnout due to shortage of staff and too much workload"*.

Leave days: Additional pre and post leave days was a caused for absenteeism. Leave days are connected with the unit management, personal and social and health and safety environment.

Respondent 104: *"When a leave day is refused, for example, for an attendance at a friend's funeral. Then staff members taking off and to prolong off days and to extend their leave.*

Work-home-distance: The distance from the workplace was a caused for absenteeism. This theme is interrelated with organisational, unit management, personal and social and health and safety environment.

Respondent 305: *" Manipulation of rights according to BCEA. Unplanned leave days that must be applied consistently. Staff who go to other provinces on leave and cannot return in times.*

4.7 Summary

In this chapter the research results were presented. The organisational environment had the highest mean scores. The four items with the highest mean score in each environment were: 1) organisational: inadequate staff; 2) unit management: favouritism; 3) personal and social: family responsibilities; and 4) health and safety: transport problems. The phenomenon bullying indicated mostly person-related, work-related, and intimidation-related bullying and influence absenteeism in the workplace. Histograms indicated normal distribution of participants' scores. Therefore, a 95% confidence level was applied with a significant mean difference at 0.05 level to determine associations between variables. Matrix correlation scores in the scatter plots between the four domains indicated strong positive relationships between factors in these environments. Burnout was the most frequently reported theme in the qualitative data. The discussion, conclusions, and recommendations follow in chapter 5.

CHAPTER 5

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The foundation of the study, the literature review, and the methodological approach was emphasised and chapter 4 highlighted the key results of this study. The discussion of the results is focused on the study objectives in organisational, unit management, personal and social also, health and safety environment. Following here, the dissemination of the research, the limitations, and suggestions recommended for future research as well as the overall conclusion are included in this chapter.

5.2 DISCUSSION

The result of this study including two hospitals in the rural area of the Western Cape. A combination of information is provided respectively. Globally, multiple quantitative and qualitative studies, identified factors that can contribute to absenteeism. This research was conducted internationally, in Sub-Saharan and in South African context. These factors include the four domains in the environment.

The purpose of this research was to investigate the perceptions of nurses on the determinants of absenteeism at two rural provincial hospitals in the Western Cape; in order to assist the nursing management of these hospitals to address absenteeism of nurses in these institutions, to benefit patient care, and staff well-being. Consequently, the discussion is summarised under the research objectives and results are compared to the existing literature to indicate contradictory or similar findings.

5.2.1 Objective 1: i) Determine the perceptions of nurses in organisational environment on the determinants of absenteeism at two provincial hospitals of the WC province.

The key elements of the organisational environment discussed in this section include causes for absenteeism: inadequate staff, nurse shortages, unmanageable workload, lack of child-care facilities, lack of fair reward, healthy work culture, changes implemented, unfair provision of training, lack of decentralisation and participative management, changes implemented, unfair opportunities of training and bursaries, skill mix, and lack of promotion opportunities and more.

In low-income countries it was noted that improving healthcare is an economic, individual, social, technological, legal, political, health and safety concern for organisations. The first step for high quality care delivery is generally required on nurses' attendance. Nurses who are frequently absent predict a major challenge to quality care (Drennan & Ross, 2019:6; Duncombe, 2019:98; Tweheyo *et al.*, 2019:2). Absenteeism may be for various legitimate reasons. This study revealed approximately 80% nurses scored on the item of inadequate staff at work at the time a nurse manager made an unexpected visit. In a prior study across seven countries the percentage of nurses' absenteeism at the time of unexpected visits scored a range from 10%-74% and in Bahamas 61% (Burmeister *et al.*, 2019:148; Duncombe, 2019:96). Several studies have investigated and highlighted the absenteeism rate, prevalence, and frequency, while this study engaged on unscheduled absenteeism from work.

In organisational environment most nurses were extremely dissatisfied with managerial operations in government. In this rural area, under organisational environment a frequent contributing factor include 18, nurse shortages when support is needed which cause absenteeism. More than three quarter of respondents agreed to staff shortages compared to similar views of other authors (Drennan & Ross, 2019:2; Burmeister *et al.*, 2019:152; Magobolo & Dube, 2019:4-5; Mammbona & Mavhandu-Mudzusi, 2019:144).

Moreover, another ordeal is 19, being expose to unmanageable workload and various authors concur with the finding of this study (Alharbi *et al.*, 2018:1787; Mbombi *et al.*, 2018:3-4; Vadgaonkar & Velhal, 2018:29407; Alreshidi *et al.*, 2019:2; Mammbona & Mavhandu-Mudzusi, 2019:142; Tweheyo *et al.*, 2019:4). Vadgaonkar and Velhal (2018:29407); Drennan and Ross (2019:6); and Ticharwa *et al.* (2019:115) confirmed 8, a lack of childcare facilities and respondents in this study agreed. However, this notion might inevitably lead to dissatisfaction among working parents. Another factor of concern was 1, inadequate number of nurses on duty increase work pressure and stress and the majority agreed to this statement and was supported (Burmeister *et al.*, 2019:144, 152; Drennan & Ross, 2019:5; Duncombe, 2019:2; Magobolo & Dube, 2019:4-5; Mammbona & Mavhandu-Mudzusi, 2019:144). Although South Africa strives for eutopia, the majority of respondents agreed to question 20, quality care and having a healthy work culture (Ferro *et al.*, 2018:401; Duncombe 2019:98; Wagner *et al.*, 2019:10-11). A healthy work culture reduces patient safety incidences, medical errors, and contribute to combat missed nursing care. It reflected how bad SA really are when there is 13, a lack in reward system for excellent performance (Alharbi *et al.*, 2018:1785; Alreshidi *et al.*, 2019:2; Mammbona & Mavhandu-Mudzusi, 2019:145; Mukasa *et al.*, 2019:9). Reward systems are difficult with our economic recession due to the global pandemic. 6, Changes being

implemented in the workplace revealed similar values as in the previous statement (Andreasson *et al.*, 2018:27; Belrhiti *et al.*, 2020:7-8).

Al Amiri *et al.* (2019:27) and Oshodi *et al.* (2019:13) demonstrated 10, a lack in participative decision-making in units with 74% agreed in this study. Nurse' skill mix are considered the most important assets in a unit. One might deduce that 17, inadequate skill mix rating 72.5% is a crucial factor to quality care in a unit and confirmed by (Griffiths *et al.*, 2018:616; Buchanan *et al.*, 2019:13; Drennan & Ross, 2019:7,10; Mammbona & Mavhandu-Mudzusi, 2019:144; Van den Heede *et al.*, 2020:23). Furthermore, this study found 12, unfair opportunities in the provision of training and bursaries 70% and 7, lack of in-service training and opportunities to attend courses 68.6% (Choi, Kim & Kim, 2018:104; Ajuebor *et al.*, 2019:6; Alreshidi *et al.*, 2019:7; Burmeister *et al.*, 2019:152; Van der Heever *et al.*, 2019:10). HR 5, not address labour relation issues, 68% and 11, a lack of promotion opportunities 68% were an impediment instead of an advocate when dealing with discipline, grievances, and advancement (Ferro *et al.*, 2018:405, 406; Ticharwa *et al.*, 2019:114; Duncombe, 2019:97). Further, 2, perceived bureaucracy 60% and ignorance of rules and practice impact nurse absenteeism (Andreasson *et al.*, 2018:25; Belrhiti *et al.*, 2020:8). 9, Lack of decentralisation of decision making in clinical areas 58.4% was imputed by hierarchical management due to a lack of HR aspects (Vadgaonkar & Velhal, 2018:29407; Shah *et al.*, 2020:8). Conversely, Belrhiti *et al.* (2020:16) substantiate the execution of managers roles.

Strict absenteeism policies increased the frequency of nurses being at work whilst still sick due to 3, inconsistency in implementing the policy on absenteeism with all staff, 58% agreed. Surprising, these rules might result in second absenteeism episodes. Nurses arrive and depart from work, running errands in personal matters. Several studies found a dichotomy of findings where there were 4, inconsistent monitoring and tracking of absenteeism, 58% respondents disagreed, especially in Daily Attendance Registers and compared with (Ticharwa *et al.*, 2019:111-112; Tumlinson *et al.*, 2019:6; Tweheyo *et al.*, 2019:4). For example, while Tweheyo *et al.*, (2019:4) were contrary, that DAR were not monitored and tracked, this was incongruent to Alharbi *et al.* (2018:1786) who indicated that 87.2% nurses attended the daily duty on time. 16, Another factor of absenteeism, was unfairly paid for the amount of hours work 57.8% respondents agreed in this study and confirmed by (Ferro *et al.*, 2018:403; Jarrad *et al.*, 2018:5; Marć *et al.*, 2019:14). Although many nurses did not indicate working overtime, this could be anecdotal evidence because of moonlighting in private and even in the same hospital. Having perhaps overtime remuneration could satisfy staff.

14, The inability of the institution to strongly discourage abuse of sick leave, 57% respondents agreed that this variable cause absenteeism (Alharbi *et al.*, 2018:1787; Duncombe, 2019:96). The lowest frequency score was 15, the differences in salaries paid to certain categories; 50.2% respondents disagreed and 49.8% agreed. Salaries were a general dissatisfaction among nurses to fulfil the humanistic physiological needs towards self-actualisation to develop healthy individuals. Many authors contradict this statement and corroborate low or poor salaries (Ferro *et al.*, 2018:403; Jarrad *et al.*, 2018:5; Drennan & Ross, 2019:6; Mammbona & Mavhandu-Mudzusi, 2019:144; Marć *et al.*, 2019:14; Mukasa *et al.*, 2019:7; Tumlinson *et al.*, 2019:5-6; Tweheyo *et al.*, 2019:4).

ii) Determine the perceptions of nurses in the unit management environment on the determinants of absenteeism at two provincial hospitals of the WC province.

The key elements were discussed under unit management environment according to respondents scores that caused absenteeism: disliking routine work, insufficient autonomy, lifting and turning patients, favouritism, unresolved issues, need to be complemented, inflexible work schedules, long hours, expected to do extra duties, autocratic management, doing difficult tasks without training, and more.

The units are the environment of nurse' physical workplace and is divided in various wards and disciplines in health and medicine science. In the units or wards the unit manager and the team decides on the management processes and actions. These processes and actions are amalgamated to exhibit efficient and effective nursing care towards patients in achieving the strategic objectives, mission, vision and goals (Belrhiti *et al.*, 2020:3; WCG, 2020:16, 38)). Unit managers are knowledgeable about absenteeism trends, perceptions of nurses and staffing levels are decide in units because they are directly involved with nurses. Through managing the departments or wards planning, organising, leading and controlling the team is absolutely essential for a healthy unit environment. The following section discusses the environment in units at two provincial hospitals in the rural area of the WC.

The unit management environment discussion denotes the most important to the least consider the whole scale in frequency scores (18) if item was deleted. The percentages here was from the frequency table derive from the SPSS analysis. The scale was moderately (**.396) and have a strongly positively relationship (**.656) in the unit management environment. Also, the variables are interrelated and positively associated with one another. The highest percentage score was (74.6%) and the lowest (51.7%). The discussion is presented as a whole in percentages:

27, Three quarter of nurses disliking routine work; 74.6% disagreed vs 25.4% agreed, to elaborate, personal hygiene, equilibrium in physiological homeostasis and mechanical means and confirmed by (Drennan & Ross, 2019:6; Mammbona & Mavhandu-Mudzusi, 2019:144; Ticharwa *et al.*, 2019:114; Martinez *et al.*, 2020: 246). Nurses thrive to achieve their psychological needs namely, autonomy, competence, and relatedness. 28, Insufficient autonomy at work 73% disagreed vs 27 agreed and was reported in this study and confirmed (Bester, 2018:48; Oshodi *et al.*, 2019:13; Serafin & Czarkowska-Pączek, 2019:4) in restriction of decision-making. Nurses need to ask permission if they want to practice autonomously. On the contrary, Belrhiti *et al.* (2020:4) confirmed autonomy as the feeling and sense of volition and willingness to approach particular behaviours, thus allowing nurses to uphold their actions.

Various authors confirmed difficult work patterns and positions derive in occupational health issues and illnesses e.g., 30, to do manual handling of patients 70% respondents disagreed vs 29.5% agreed (Vadgaonkar & Velhal, 2018:29405; Dall'Ora *et al.*, 2019:4; Drennan & Ross, 2019:6; Mammbona & Mavhandu-Mudzusi, 2019:144; Ticharwa *et al.*, 2019:114; Martinez *et al.*, 2020: 246, 247). Favouritism is a sensitive issue that can bring discord among nurses and 67% agreed vs 33% disagreed in this study. In this study nurses perceived friendliness/unfriendliness, favouritism/unfavourites and fairness/unfairness increasing or decreasing the influence of absenteeism. These perceptions were reinforced around the world (Moletsane, 2018:87; Alreshidi *et al.*, 2019:7; Duncombe, 2019:98; Van der Heever *et al.*, 2019:9-10). Besides, leaders should not deny beneficial diverse and equitable contributions of woman. When women are coerced to constructive resignations, they generally took innovations, visions, and role modelling women's leadership with them. This gallant statement substantiates the importance of women and crowned with the Word in 'Proverbs 31:10-31'. The remarkable quote is verses 29-30 engraved in the Spoken Word. Alharbi *et al.* (2018:1787), Wagner *et al.* (2019:6) and Tweheyo *et al.* (2019:4) argued that nursing staff are able to solve problems, embedding good employee relationships, and have more social support, teamwork which reduced absenteeism, but increased role conflicts which increased absenteeism. 22, Unresolved problems and 64% nurses agreed while 36% disagreed and expressed their dissatisfaction that leadership has catalysed their intention to quit government forever and supported (Burmeister *et al.*, 2019:144; Belrhiti *et al.*, 2020:9).

26, Nurses recorded that they need to be complimented, appreciated and recognised in variety of options with even just a 'thank you' for exemplary work 62.5% agreed vs 57.5% disagreed

and verified (Alharbi *et al.*, 2018:1785; Straw, 2018:34; Alreshidi *et al.*, 2019:2; Duncombe, 2019:97-98; Mammbona & Mavhandu-Mudzusi, 2019:145; Mukasa *et al.*, 2019:9). Besides, 35, disliking working in allocated shift, day or night and inflexible schedules 62.2% agreed while 37.8% disagreed, influence the risk on absenteeism due to exhaustion and compared with (Kottwitz *et al.*, 2018:112; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:114; Dall’Ora *et al.*, 2019:4). Moreover, 34, long hours (e.g., 12 hours and consequent overtime) without rest periods subsequently result in overtiredness and burnout 61.5% agreed and 38.5% disagreed, and proved (Kottwitz *et al.*, 2018:112; Dall’Ora *et al.*, 2019:4; Drennan & Ross, 2019:5,6; Ticharwa *et al.*, 2019:114; Martinez *et al.*, 2020:245). Demands could be many, for example, workload, 32, like being allocated excessive tasks; 60.3% agreed vs 39.7% disagreed, also, emotional demands, time demands; unrealistic deadlines (Bester, 2018:46; Drennan & Ross, 2019:6; Duncombe, 2019:96; Marc *et al.*, 2019:14). Absenteeism could occur because excessive demands are critical for nurses’ health, especially when felt under the weather. Conversely, in some cases, workplace factors that aid individuals to cope with excessive demands can be motivating, foster better levels of health, and have been associated with lower levels of absenteeism. Furthermore, 21, nurses disliking the autocratic management e.g., to hide one’s feelings when dealing and working with difficult personalities and colleagues; 59% respondents agreed and 41% disagreed (Bester, 2018:62; Straw, 2018:32; Du Plessis, 2019:131; Belrhiti *et al.*, 2020:7) to keep quiet and holding the peace. In contrast, nurse managers are leaders that steer the team, so that the boat does not sink and keep them above the water. A matter of fact ‘keep them afloat’.

33, Having to do a difficult task 58.7% agreed and 41.3% respondents disagreed to this statement, e.g., to make decisions as a new graduate in dealing with deterioration of a patient diagnosis that need more skills and confirmed by (Ferro *et al.*, 2018:407; Drennan & Ross, 2019:6; Mammbona & Mavhandu-Mudzusi, 2019:143; Ticharwa *et al.*, 2019:114). 24, The nurses described a lack of respect for their own opinions, 58.4% agreed and 41.6% disagreed and some authors affirm a lack of respect (Bloom 2019:77; Duncombe 2019:97; Belrhiti *et al.*, 2020:4). Relatedness means mutual respect, consideration from others, connectedness, and a sense of ‘ubuntu’ to a social work group (Belrhiti *et al.*, 2020:4). 29, Disliking shift work, 58% respondents agreed vs 42% disagreed and reported by (Kottwitz *et al.*, 2018:112; Dall’Ora *et al.*, 2019:4; Drennan & Ross, 2019:6; Magobola & Dube, 2019:4; Ticharwa *et al.*, 2019:114). 38, Nurses perceived that their skills are underutilised 55.6% disagreed and 44.4% agreed (Drennan & Ross, 2019:6; Serafin & Czarkowska-Pączek, 2019:4). In contrast, competence means self-efficacy when nurses are allowed to express and use their abilities and skills even in

frustration (Tweheyo *et al.*, 2019:5; Belrhiti *et al.*, 2020:4). 36, Inadequate time to complete the work 55.3% disagree vs 44.7% agreed in this study or, withholding or failure of tasks due to inadequate staffing influence quality care and compared with (Mbombi *et al.*, 2018:3; Tweheyo *et al.*, 2019:4; Belrhiti *et al.*, 2020:4; Van den Heede *et al.*, 2020:20-21) who confirmed inadequate time. 37, Someone withholding information 53.7% disagreed and 46.3% agreed to hamper progress (Serafin & Czarkowska-Pączek, 2019:4; Van den Heede *et al.*, 2020:21) and 23, experiencing inadequate guidance 51.8% disagree while 48.2% agreed (Musinguzi *et al.*, 2018:27; Serafin & Czarkowska-Pączek, 2019:4; Belrhiti *et al.*, 2020:7). 31, Being allocated non-nursing tasks 51.7% disagreed and 48.2% agreed in this study while various authors champion and counteract this idea of respondents (Bester, 2018:46; Drennan & Ross, 2019:6,10; Duncombe, 2019:96; Marć *et al.*, 2019:14; Tweheyo *et al.*, 2019:1,4,6).

iii) Determine the perceptions of nurses in the personal and social environment on the determinants of absenteeism at two provincial hospitals of the WC province.

This section discusses the key elements under personal and social environment that cause absenteeism: family responsibilities, attending funerals, lack close relationships, financial problems, lack personal relationships, doing what colleagues doing, and substance abuse.

The personal and social environment evolves around the home, work and social life; the interconnectedness, position in society and spending time and activities with others. These elements influence the personal and social environment and affected illnesses, responsibilities, work group interaction and socio-economic status and impacted a risk on absenteeism. Most nurses were concerned about the challenges they face in day-to-day experiences. The scale contains seven items that are strongly correlated among one another, and the lowest item is moderately correlated (**.543 vs **.314). The scale is described firstly, from the highest to the lowest (84.8% vs 46.1%) frequency scores experience of respondent's perceptions.

The first factor influencing absenteeism is 44, having to look after family members 84.8% agreed and 15.1% disagreed (Alharbi *et al.*, 2018:1787; Vadgaonkar & Velhal, 2018:29407; Alreshidi *et al.*, 2019:2,4; Drennan & Ross, 2019:6,11; Tumlinson *et al.*, 2019:6). Secondly, 45, nurses were absent when they have to attend funerals of relatives. Studies confirmed similar manifestations (Magobolo & Dube, 2019:3; Ticharwa *et al.*, 2019:111,115; Tumlinson *et al.*, 2019:6) when children were unwell or in response to family-related responsibilities when they lack support. Similar reasons were when nurses in this study, cared for dependents, older or disabled children and above-mentioned studies confirmed similar manifestations. Thirdly, 41, lacking close relations at work to share personal problems 66.4% disagree and 53.5% agreed in

this study and supported by (Alreshidi *et al.*, 2019:4; Musaka *et al.*, 2019:11; Tweheyo *et al.*, 2019:5) and nurse work ethics and characteristics. Conversely, cohesive relationships were shared among nurses (Burmeister *et al.*, 2019:148; Duncombe, 2019:97). Alharbi *et al.* (2018:1787), Wagner *et al.* (2019:6) and Tweheyo *et al.* (2019:4) argued that nursing staff are able to solve problems, embedding good employee relationships, and have more social support, teamwork which reduced absenteeism, but increased role conflicts which increased absenteeism. Conversely, in hierarchical, clan, market and adhocratic cultures, absenteeism was uncommon (Belrhiti *et al.*, 2020:4). Fourthly, 43, having financial problems 57.3% agreed and 42.7% disagreed, where nurses absconded from the workplace and moonlighting at private hospitals to gain additional income and was confirmed (Gemuhay *et al.* 2019:5-6; Mammbona & Mavhandu-Mudzusi, 2019:143; Tumlinson *et al.*, 2019:5-6; Tweheyo *et al.*, 2019:4). Recession is a macroeconomic term and refers to a significant decline in general activity in designated regions and influences financial constraints. Fifthly, 40, workgroup cohesion is related to lacking personal relations in the workgroup, and role conflicts they do not talk to the workgroup members (Jarrad *et al.*, 2018:5; Ticharwa *et al.*, 2019:110; Zhang & Xiong, 2019:289,293). Personal-related perspectives were linked to absenteeism; an interesting attribute is some nurses seem conservative towards absenteeism and those perceived absenteeism as an entitlement (Duncombe, 2019:97) engaged in higher absences. Also, nurses who are dissatisfied (extrinsic) at work engaged to higher absenteeism.

The six factors, 39, doing what colleagues are doing 57.1% agreed vs 43% disagreed and was affirmed (Duncombe, 2019:96; Mammbona & Mavhandu-Mudzusi, 2019:142; Tweheyo *et al.*, 2019:4) to stay away from work regularly. The last factor, 42, having problems with the abuse of alcohol and drugs and supported (Jarrad *et al.*, 2018:3; Virtanen *et al.*, 2018:552; Foli *et al.*, 2020:68; Foli *et al.*, 2021:11,19). Substance abuse problems with regarding the use of alcohol and drugs were mainly a societal practice that responders in this study discouraged and could affect the health and safety of nurses.

iv) Determine the perceptions of nurses in the health and safety environment on the determinants of absenteeism at two provincial hospitals of the WC province.

The key elements are discussed under the health and safety environment according to respondents scores: transport problems, work-home-life interference, stress-related illness, verbal abuse, lost interest in work, violent workplace, unable to cope, prolonged weekends, being

humiliated, being ignored, facing hostile reaction, stress due to lacking resources, colleagues spreading rumours, taking sick leave when healthy, and more.

The factors in the health and safety environment influence absenteeism. This environment is concerned with the holistic of the nurse, namely physical, psychological, social, and spiritual well-being. Further, the workplace surroundings, transport, work-home-life balance, and stress management are discussed. Also, burnout, bullying, workplace violence, and safety of nurses and patients are included. The health and safety scale consist of 28 items that are most strongly correlated (**.751 vs **.430) and are denoted from the most to the lowest (2.94) and lowest (2.21) exposure of respondents experiences and perceptions. Bullying can be unaware because nurses do not know the concept and what attributes it comprises.

47, having transport problems (2.94, SD 0.83) by taking the train and cars breaking down or staying far from work and on top of it during strikes with no transport (Alharbi *et al.*, 2018:1787; Alreshidi *et al.*, 2019:2; Musaka *et al.*, 2019:6-7; Shah *et al.*, 2020:8). Requesting a weekend off to spend quality time with the family were not honoured and work shifts interferes to have a proper 55, work-home-life balance and justified (2.90, 0.86) (Dall'Ora *et al.*, 2018:6; Shung-King *et al.*, 2018:9; Bloom, 2019:80; Ticharwa *et al.*, 2019:115). Work-home-life balance lead to stress and burnout. Nurses come from other provinces, for example, over 1400 km or places far from their workplace with more than half or an hour drive to work. They also took longer pre- and post-off or leave days for family time. Several reasons were given that related to 69, stress-related illnesses (2.80, SD 0.87); To elaborate, repeated exposure to bullying depletes the body defence; leading to physiological (heart, hypertension, sleep) disorders and psychological (anxiety, stress, depression) disorders. The 68, lack of resources to perform tasks, (2.69, SD 0.91); family, marital problems and work stress or pressure also increased the stress levels. 54, Being unable to cope with job demands (stress) (2.68, SD 0.88); (Anand & Mejid, 2018:264; Kelly & Adams, 2018:1; McCright *et al.*, 2018:7; Rindu *et al.*, 2018:355; Drennan & Ross, 2019:7; Dyrbye *et al.*, 2019:6; Ticharwa *et al.*, 2019:109,110; Tweheyo *et al.*, 2019:4; Fontova-Almató *et al.*, 2020:19:10; Martinez *et al.*, 2020:245). 50, Seeking work elsewhere (2.76, SD 0.89); and 49, having lost interest in their work (2.69, SD 0.91), (Bloom, 2019:78; Burmeister *et al.*, 2019:148; Drennan & Ross, 2019:6) is the effect of a poor nurse work environment and the underlying factor of nurse attrition and turnover. In addition, suffering from verbal abuse suggest that workplace bullying negatively affects job satisfaction and psychological well-being. Nurses are exposed 59, to colleague, manager, doctors, patients, and relatives (psychological and physical) abuse (2.74, SD 0.92). More stated that they worked in a more planned manner and more diligently to avoid criticism.

Also, nurses are exposed to 60, working in a violent workplace (2.69, 0.95), psychological violence from their colleagues, peers, supervisors, managers, and friends experienced burnout syndrome and reported absenteeism (Liu *et al.*, 2018:2; Cheung *et al.*, 2019:5; Brewer *et al.*, 2020:149). The uncondusive work environment inevitably leads to nurses' turnover, therefore, horizontal and lateral violence among nurses need to be solved urgently. 65, Being the target of spontaneous anger (2.52, SD 0.88), (Bloom, 2019:80; Lui *et al.*, 2018:2; Cheung *et al.*, 2019:2-3; Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291) in the sense that some negative acts may be more frequent and/or perceived as more severe in some cultures than in others. 51, Prolonging weekends, (2.66, SD 0.92) without permission and 56, being humiliated and ridiculed perspectively in public, had an impact on personal emotions and clinical performance (2.66, SD 0.96); (Bloom, 2019:79; Cheung *et al.*, 2019:2-3; Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291). 48, taking sick leave when staff is actually healthy (Duncombe, 2019:96; Mammbona & Mavhandu-Mudzusi, 2019:142; Ticharwa *et al.*, 2019:112). 57, being ignored when approaching the senior (2.64, SD 0.95, 0.93); (Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291). 58, facing a hostile reaction from a colleague (2.63, SD 0.93). Nurses also experienced the negative effects such as making stories up to hide their own misconduct and even teasing in public. Another factor, 61, colleagues spreading rumours and malicious gossip about nurses that is untrue (2.61, SD 0.94); and facing a hostile reaction from them. In many cases the tearoom, corridors or nurses' station were the gathering place to whisper behind one's back. These negative effects are relived when thinking about these experiences. This factor was the highest correlated rated in bullying; and 64, a senior being persistent in criticism (2.60, SD 0.89). (Bloom, 2019:80; Cheung *et al.*, 2019:2-3; Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291). 65, Being the target of spontaneous anger (2.52, SD 0.88), (Bloom, 2019:80; Lui *et al.*, 2018:2; Cheung *et al.*, 2019:2-3; Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291) in the sense that some negative acts may be more frequent and/or perceived as more severe in some cultures than in others.

The items with the lowest means were 52, affected by severe weather (2.21, SD 0.81) There are certain extreme temperatures that was never experienced before and are point to global warming caused by human gas emissions (Vadgaonkar & Velhal, 2018:29407). Extreme temperatures presents a strong body of scientific evidence and tropical cyclone rainfalls such as storms and hurricanes, for example (Tsunamis and Katrina's), and earthquakes will increase in atmospheric content (Vadgaonkar & Velhal, 2018:29407; Musaka *et al.*, 2019:6). However, nurses now have a better understanding of the cultural factors that influence absenteeism and the acceptance of bullying behaviours at work.

Analyse the relationships between the organisational, unit management, personal and social, and health and safety determinants of absenteeism in the two selected hospitals.

The total scale was 363 and only 143 responded to the question and 220 of this question were incomplete. The themes were selected according to the total scores that the participant recorded. The following seven themes were selected from the most to least important. Burnout; nurse shortages; family and personal matters; leave disputes; stress; heavy workload; work-home distance influencing the risk on absenteeism and illustrated in Figure 5.1.

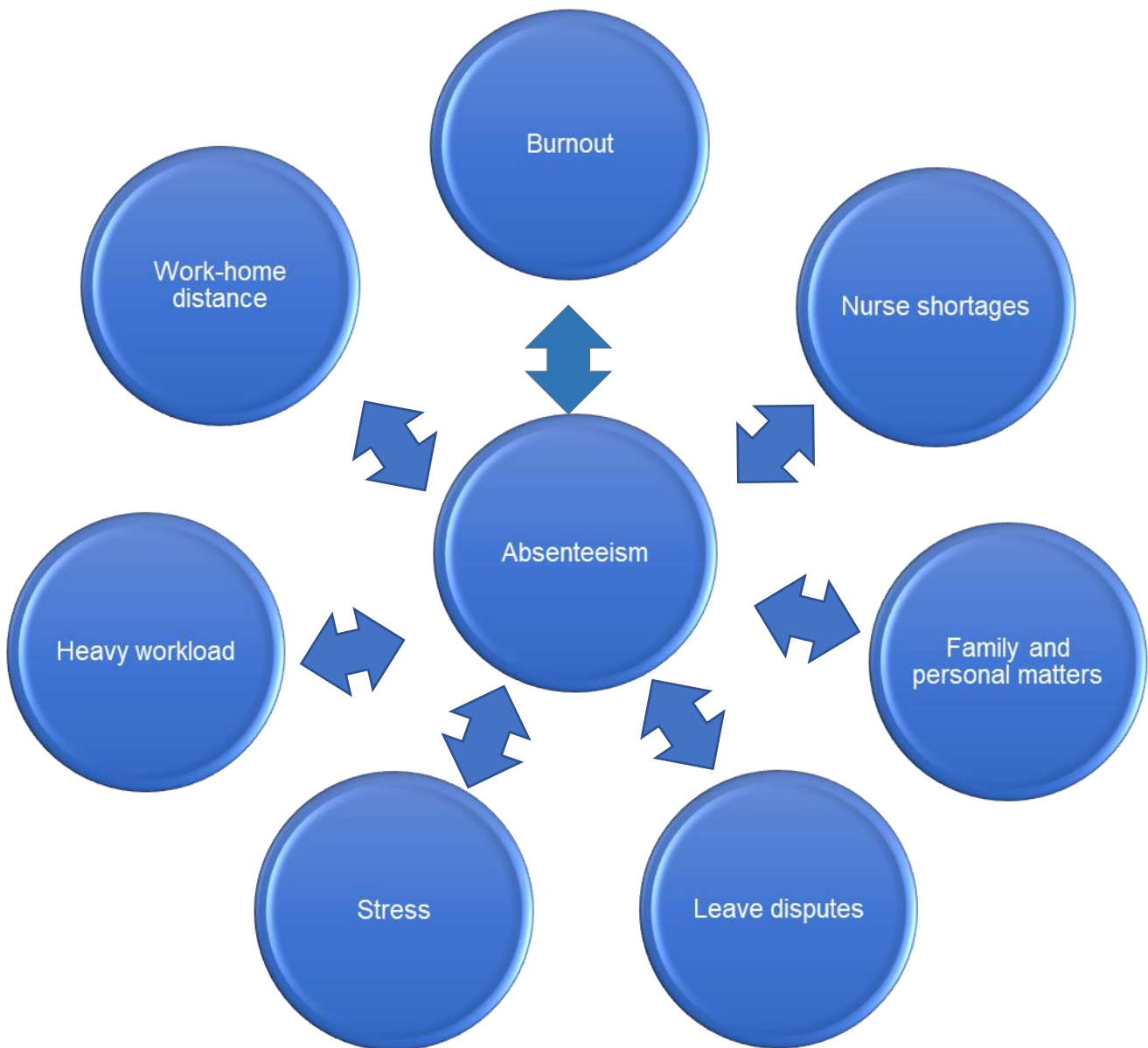


Figure 5.1: Schematic diagram of qualitative analysis related to absenteeism (researcher)

i) Burnout

Burnout was positively correlated and correlated with depersonalisation and stress, home-work interference, and the intention to resign and absenteeism and supported (Ticharwa *et al.*, 2019:115; Van der Heijden *et al.*, 2019:11,14; Fontana *et al.*, 2020:6,8).

ii) Family and personal matters

Family and personal matters were positively correlated and correlated with absenteeism, personal and family problems and revealed by (Vadgaonkar & Velhal, 2018:29411; Alreshidi *et al.*, 2019:4; Magobolo & Dube, 2019:3).

iii) Nurse shortages

Nurse shortages was positively correlated and correlated with absenteeism, intent to resign, and heavy workload was confirmed (Burmeister *et al.*, 2019:148,150,151; Drennan & Ross, 2019:2, 6; Magobolo & Dube, 2019:3).

iv) Leave disputes

Leave disputes were positively correlated and correlated with absenteeism, holidays and school holidays, weekends, unauthorized leave and pretending to be sick (Anand & Mejid, 2018:264; Ticharwa *et al.*, 2019:111; Duncombe, 2019:96; Mammbona & Mavhandu-Mudzusi, 2019:142).

v) Stress

Stress was positively correlated and correlated with work stress, socio-demographic characteristics, and absenteeism, and was reported (Alharbi *et al.*, 2018:1786; Anand & Mejid, 2018:262; Alreshidi *et al.*, 2019:4).

v i) Heavy workload

Heavy workload was positively correlated and correlated with absenteeism, personal and social reasons, sickness, physical demands, and quantitative demands as supported (Vadgaonkar & Velhal, 2018:29411; Magobolo & Dube, 2019:3; Van der Heijden *et al.*, 2019:11).

v ii) Work-home distance

Work-home distance was positively correlated and correlated with absenteeism, long home distance, transport and social factors as confirmed (Alharbi *et al.*, 2018:1787; Vadgaonkar & Velhal, 2018:29407; Musaka *et al.*, 2019:6-7; Shah *et al.*, 2020:8).

Analysed the relationships between the biographical data in the organisational, unit management, personal and social and health and safety environment in the two selected hospitals.

The relationship between biographical data and the organisational, unit management, personal and social and health and safety environment was correlated using **Bonferroni** multiple comparison test.

Language: Significant differences were found between the languages. The reason for these differences could be because of the large distribution in scores in the Afrikaans, versus English and especially isiXhosa. Afrikaans is the predominate language in the Western Cape. Globally, no studies were found that indicated such differences in language, but in some studies different languages were use, for example, from English to Iceland, Turkey, Italy, and South Korea using step-by-step and backwards translation and also in Portuguese (Burmeister *et al.*, 2019:145; Feldhaus *et al.*, 2019:2).

Age: Significant differences were between generation Y and baby boomers in the health and safety environment. Generation Y age group indicated that the factors in the health and social environment were more likely to cause absenteeism than the baby boomers. Comparing age, this study and (Alharbi *et al.*, 2018:1785; Anand & Mejid, 2018:264; Alreshidi *et al.*, 2019:3) indicated similar values in reproductive health. The younger nurses are more socially (outgoing) and more absent than older nurses who are committed to their job, conversely, older nurses have chronic diseases (Ticharwa *et al.*, 2019:112,114). Age was positive correlated with influenza vaccine vaccination and highest mean score in general, physical, and cognitive fatigue was in 35-44 years and also in autonomy and <30 years in stress (Anand & Mejid, 2018:263; Oshodi *et al.*, 2019:6; Antinolfi *et al.*, 2020:3; Martinez *et al.*, 2020:245). Biased can occur to reject baby boomers for their experience and skills and recruiting the inexperienced generational X's and Y's.

Marital status: No statistically significant differences in marital status were found. There are not the right numbers in each group in scores. Similar marital values were shown in previous studies (Alreshidi *et al.*, 2019:3-4; Dyrbye *et al.*, 2019:4; Martinez *et al.*, 2020:246) and stress was more in married participants than single (Anand & Mejid, 2018:263). 'Separation' was excluded in multiple comparison analysis because only one nurse indicated the item.

Gender: Statistically significant differences were in organisational and personal and social environment. The distribution in scores were larger in female than in male. However, in the

nursing profession females are predominant and in rural areas the chosen careers in professions are mostly, to elaborate, teachers, nurses, police officers, etc. In view of this it shows that more younger males are needed in the nursing profession, especially in medical, orthopaedic, surgical wards, emergency, and psychiatry units. This, statement was contrary when Alreshidi *et al.* (2019:1) found males as predominant in clinics. The status quo of female emancipation and gender equality needs to be changed. Antinolfi *et al.* (2020:3) stated that females were negatively correlated with influenza vaccine, while males were more compliant' and autonomy was associated with gender (Labrague *et al.*, 2019:6). Females were less likely to take the influenza vaccination which will increase the absenteeism rate. Females were more stress than males (Anand & Mejid, 2018:263). "Other" in this study was excluded in multiple comparison analysis because only one nurse indicated the item.

Race: In this study different race groups participated. Race groups were included as part of the demographic data as variable to determine the inequalities, training and diverse cultures in a work group. Significant differences were between the three groups namely, Coloured (mix race), Black and White. Coloured race distribution of scores were larger than Black and White. Similar, race groups were analysed (Van der Heever *et al.*, 2019:5) including Silte, Amhara, Oromo, and others (Anand & Mejid, 2018:261) and also in groups among seven countries (Burmeister *et al.*, 2019:145). Asian was excluded, in the multiple comparison analysis, only one nurse indicated the race.

Position in rank: Statistically significant differences were found across the environments. The distribution of scores were large between the different positions in rank because each rank was not equally presented (not the right numbers in each group). Enrolled nurses, RN (specialist) and (general), enrolled nurse auxiliary, operational manager (general) and RN (community) indicated high mean differences in the specific environments. Midwives and enrolled auxiliary nurses were less compliant to influenza vaccination and autonomy was related to work status (Labrague *et al.*, 2019:6; Antinolfi *et al.*, 2020:3) and enrolled nursing auxiliary had the highest fatigue score (Martinez *et al.*, 2020:245). Midwives and enrolled nurses was reluctant to take the influenza vaccination and should be educated and the target group for vaccination.

Employment: Significant statistical differences between the permanent nurses scores in the health and safety environment were indicated. The distribution of scores were larger in permanent than in contract nurses with minor scores. The mean differences in contract nurses were the highest in unit management, personal and social and health and safety scores. No

relation between permanent or contract nurses were found with influenza vaccination (Antinolfi *et al.*, 2020:3). There was no association with temporary/permanent nature of the employment, controversially, in Hail, KSA absenteeism were higher among contract workers (Alreshidi *et al.*, 2019:1). Permanent and contract nurses were compliant to take the influenza vaccination.

Highest nursing qualification and experience in years: No significant differences were indicated in qualification and experience. The distribution of scores were larger in nurses with certificate i.e., not the right amount of qualification in each group or the differences in the groups were not large enough to be found statistically significant. The same for years of experience were not the right amount of years in the variable e.g., and the 0-5 years had larger distribution of scores. However, certificate, advanced diploma, diploma, and bachelor's degree indicated the highest mean scores in the specific environments. All the variables of experience in years rated high mean scores in the respective domains, while 21-25 years were the highest. Stress was more in diploma nurses with less than 5 years' experience than bachelor or postgraduate and more experienced nurses (Anand & Mejid, 2018:264). According to Antinolfi *et al.* (2020:3) university degree was positively correlated with influenza vaccination and enrolled nursing auxiliary had the highest general fatigue score, 2-5 years, and cognitive 5-16 years, and autonomy with education (Labrague *et al.*, 2019:6; Martinez *et al.*, 2020:245). The significant of this statement are that university degree students should all be immunised against influenza.

Ward of placement: The ward of placement showed significant differences in the organisational (0.000, $p < 0.01$), unit management (0.024, $p < 0.01$) and personal and social environment (0.011, $p < 0.01$) in scores. The distribution of scores in these environments were because of not the right numbers in the different disciplines and also generic scored higher and more likely agreed that the environments caused absenteeism. Generic, emergency, day ward, outpatients, paediatric and theatre indicated the highest mean differences in the respective environments. In a study in Italy no vaccination differences in ICU, generic ward and PHC were found, comparing to medical ward which was also less compliant (Antinolfi *et al.*, 2020:3). This indicated that the three wards increase or decrease in direction and the target group for influenza vaccination should be focused on medical wards. Nurses in medical, surgical and theatre department were more stressed than other disciplines (Anand & Mejid, 2018:264).

Nurse-patient-ratio: Statistically significant differences were in organisational, unit management and personal and social environment. The distribution of scores differed across the categories that they could cope and frequency scores were higher. In this study nurses

indicated that they could not cope with the high patient-ratio due to the mean difference. These values (3.03 v 2.88) were similar to studies done in several countries due to high workload and more than 8-10 patients (Burmeister *et al.*, 2019:148, 150, 151; Magobola & Dube, 2019:4; Martinez *et al.*, 2020:245).

Shift type: Significant differences were indicated in organisational and unit management environment. The distribution of scores were higher in day, followed with night and then 8-hour day in minority. Shift type 12-hour night and day and 8-hour day was positively correlated in the environments. Shift work, day and night, double shifts, long hours contribute to absenteeism due to moonlighting and over tiredness (Kottwitz *et al.*, 2018:112; Vadgaonkar & Velhal, 2018:29405; Burmeister *et al.*, 2019:151; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:114; Dall’Ora, Griffiths, Redfern *et al.*, 2019:4).

Dependents: Statistically significant differences were indicated between 3-4 and 1-2 children in organisational environment. In this study distributed scores were higher in 1-2 than 3-4 children. Nurses with 3-4 children were more absent than 1-2 which was consistent with a study in Saudi Arabia, Australia, and Chile (Alreshidi *et al.*, 2019:4; Ticharwa *et al.*, 2019:115; Martinez *et al.*, 2020:246).

5.2.2 Objective 2: Analyse the relationships between the organisational, unit management, personal and social and health and safety environment determinants of absenteeism in the two selected hospitals.

The relationship between the continuous variables is explained and relationship between the four above-mentioned domains were analysed through **Matrix correlation score**. The factors in these environments more likely caused absenteeism.

Organisational environment: This domain was highly and strongly positively correlated with unit management environment and the health and safety environment and moderately positively correlated with personal and social environment. The factors are interrelated with one another. The following items in the scale was the highest strongly positive correlated: ‘lacking opportunities in participative-decision making in matters’ and was (0.651, $p < 0.01$), (Al Amiri *et al.*, 2019:27) who claimed that participative management was the most substantive leadership style to decrease absenteeism. The following items were ‘having a healthy work culture’

(0.642, $p < 0.01$), and confirmed by (Duncombe, 2019:97); 'changes being implemented in the workplace without consultation' (0.635, $p < 0.01$), supported by (Andreasson *et al.*, 2018:34); 'lacking fair reward (0.617, $p < 0.01$), (Alreshidi *et al.*, 2019:2; Mammbona & Mavhandu-Mudzusi, 2019:145); lacking time for in-service training (0.615, $p < 0.01$), also reported in various studies (Choi *et al.*, 2018:104; Ajuebor *et al.*, 2019:6; Drennan & Ross, 2019:6); 'unmanageable workload' (0.615, $p < 0.01$) resulting in stress in this study and manifested in studies of (Alharbi *et al.*, 2018:1787; Mbombi *et al.*, 2018:3-4; Alreshidi *et al.*, 2019:2; Mammbona & Mavhandu-Mudzusi, 2019:142; Tweheyo *et al.*, 2019:4); 'not addressing labour relations issues' (0.610, $p < 0.01$), (Vadgaonkar & Velhal, 2018:29407; Shah *et al.*, 2020:8); 'inadequate skill mix' (0.592, $p < 0.01$); 'lacking decentralisation' (0.578, $p < 0.01$); 'nurse shortages' (0.572, $p < 0.01$), (Scheffler *et al.*, 2018:3,4-5; Drennan & Ross, 2019:2; Magobolo & Dube, 2019:4-5).

Unit management environment: The domain was incredibly strongly positively correlated with all the three domains such as organisational, personal and health and safety environment and factors are interconnected. In this study, the results are compared with other authors. 'Being expected to do extra duties that demotivate them' (0.656, $p < 0.01$), and reported by (Drennan & Ross, 2019:6; Duncombe, 2019:96; Marc *et al.*, 2019:14); 'someone withholding information that effects one's performance' (0.649, $p < 0.01$) and confirmed by (Brunt & Bogdan, 2019:2; Maphumulo & Bhengu, 2019:2-3; Mukasa *et al.*, 2019:9; Piper *et al.*, 2-3; Serafin & Czarkowska-Pączek, 2019:4); 'to do a difficult task that requires more skills and training' (0.641) and revealed in other studies (Ajuebor *et al.*, 2019:6; Drennan & Ross, 2019:6; Mammbona & Mavhandu-Mudzusi, 2019:143); 'unresolved nurses problems or concerns by the manager' (0.639) were associated and compared with (Bester, 2018:48; Musinguzi *et al.*, 2018:27; Belrhiti *et al.*, 2020:9); 'the lack of respect to have one's own opinions about matters' (0.632) and included in studies of (Brayer & Marcinowicz, 2018:5; Straw, 2018:32; Duncombe, 2019:97; Serafin & Czarkowska-Pączek, 2019:4). 'experience inadequate guidance from the nurse manager when executing advanced patient care' (0.626) (Goh, Ang & Della, 2018:206; Mukasa *et al.*, 2019:9; Belrhiti, Van Damme & Belalia, 2020:9); 'disliking autocratic management style of the nurses manager' (0.622); (Bester, 2018:62; Straw, 2018:32; Al Amiri *et al.*, 2019:27; Du Plessis, 2019:131) confirmed this leadership style; 'favouritism exercised by nurse managers towards certain staff' (0.606), and also recorded by (Moletsane, 2018:87; Alreshidi *et al.*, 2019:7; Duncombe, 2019:98; Van der Heever *et al.*, 2019:9); 'their skills are under-utilised that do not contribute to an interesting position' (0.602) and reported by (Drennan & Ross, 2019:6; Van der Heever *et al.*, 2019:10); and 'inflexible work schedules' (0.573), (Dall'Ora *et al.*, 2019:4;

Mammbona & Mavhandu-Mudzusi, 2019:145; Ticharwa *et al.*, 2019:114; Martinez *et al.*, 2020:245). All other variables were moderately positively correlated at level of $p < 0.01$.

Personal and social environment: In the domain the exceptionally strongly positively correlation was between health and safety environment, and then the unit management environment and factors are associated. The organisational environment was moderately positively correlated with personal and social environment. The whole scale was moderately positively correlated 'having financial problems' (0.543); as found by (Gemuhay *et al.*, 2019:5-6; Mammbona & Mavhandu-Mudzusi, 2019:143; Tumlinson *et al.*, 2019:5-6); 'having problems e.g. regarding abuse of alcohol and drugs' (0.495), was reported by (Jarrad *et al.*, 2018:3; Virtanen *et al.*, 2018:552; Foli *et al.*, 2020:68; Shah *et al.*, 2020:8); lacking personal relations within the workgroup' (0.477) and confirmed (Ferro *et al.*, 2018:4; Alreshidi *et al.*, 2019:4); doing what colleagues do in the workplace' (0.473) and reported by (Duncombe, 2019:93); 'having to look after family members' (0.453) and similar findings manifested by (Alharbi *et al.*, 2018:1787; Drennan & Ross, 2019:6; Ticharwa *et al.*, 2019:115); 'having to attend funerals of relatives' (0.429); (Magobolo & Dube, 2019:3; Ticharwa *et al.*, 2019:111) and 'lacking close friends at work with whom to share personal problems' (0.314), and confirmed by (Duncombe, 2019:98).

Health and safety environment: All the four domains were incredibly strongly positively correlated between environments and factors are interrelated. The whole scale was strongly positively and moderately correlated with respondent's scores 'colleagues spreading rumors about one that is untrue' (0.751, $p < 0.01$), (Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291); 'having insulted or offensive remarks about them as unique human being' (0.751, $p < 0.01$); (Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291). 'working in a violent workplace' (0.742, $p < 0.01$); burnout (0.523, $p < 0.01$) and turnover (0.490, $p < 0.01$) was positively correlated with respondent's scores (Lui *et al.*, 2018:2; Burmeister *et al.*, 2019:148). Respondents scores revealed 'being the target of spontaneous anger demonstrated by a colleague' (0.736, $p < 0.01$); 'suffering from verbal abuse e.g. from patient, doctors, managers and colleagues' (0.730, $p < 0.01$); 'experiencing intimidating behaviour' (0.730, $p < 0.01$), and confirmed by (Bloom, 2019:80; Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291); 'being ignored when approaching the senior in the unit' (0.709, $p < 0.01$); 'facing a hostile reaction from a colleague when they ask for help with a patient' (0.707, $p < 0.01$) and compared with (Loh *et al.*, 2019:3,7); 'a senior consistent in criticism' (0.697, $p < 0.01$); 'receiving

repeated reminders from a senior about previous mistakes made' and reported (0.694, $p < 0.01$), (Alrawahi *et al.*, 2020:3,5); 'having unfounded allegations made against them' (0.693, $p < 0.01$); 'hints from others that one should quit the nursing post' (0.691, $p < 0.01$); 'having main areas of responsibility removed or replaced with more trivial/unpleasant tasks' (0.682, $p < 0.01$); 'being humiliated and ridiculed in the workplace' (0.676, $p < 0.01$), and compared with (Bloom, 2019:77; Serafin & Czarkowska-Pączek, 2019:4; Zhang & Xiong, 2019:291); 'suffer stress-related illness' (0.664, $p < 0.01$); 'increase stress due to lack of resources' (0.664, $p < 0.01$) confirmed and compared with various authors (Anand & Mejid, 2018:264; Kelly & Adams, 2018:1; Rindu *et al.*, 2018:355; Drennan & Ross, 2019:7; Dyrbye *et al.*, 2019:6; Ticharwa *et al.*, 2019:110; Tweheyo *et al.*, 2019:4; Fontova-Almató *et al.*, 2020:19:10); 'becoming scared when a senior invades your personal space' (0.662, $p < 0.01$); 'being excluded from a unit meeting' (0.624, $p < 0.01$), (Serafin & Czarkowska-Pączek, 2019:4); 'hints to quit the nursing post' (0.691, $p < 0.01$) and more. All other items were strongly and moderately positively correlated in the scale.

5.3 LIMITATIONS OF THE STUDY

The study was self-funded with financial constraints as no bursary was approved. The study was delayed due to late HREC approval, change of setting, and lock-down of Covid-19 pandemic. Focus group discussions could have been beneficial for more in-depth notions for the qualitative question. Generalisation of the results could be replicated.

5.4 CONCLUSIONS

The determinants of absenteeism were defined and analysis of the environments and necessary suggestions recommended. The research answers the research questions namely, What are the perceptions of nurses on the determinants of absenteeism occurring at two rural provincial hospitals in the Western Cape? What are the relationships between the organisational, unit management, personal and social, and health and safety determinants of absenteeism in the two selected hospitals? and How can the management of these rural hospitals address absenteeism of nurses in their institutions?

These factors caused absenteeism as reported by the respondents:

In the organisational environment: The need for participative decision-making and implementing changes with nurses' voice is important. Black senior management positions especially in rural areas could be thoughtful for government structure and the requirement of training and skills to develop nurses need attention.

Unit management environment: Additional duties and withholding important information to delay the progress need attention.

Personal and social environment: Financial constraints and substance abuse especially misuse of alcohol and drugs are issues of concerns.

Health and safety environment: Stress, bullying, and burnout are main factors that need urgent attention in the profession and was emphasised by most authors impacted the risk on absenteeism. Malicious talking behind one another and remarks that offended the team requires a zero-tolerance action.

Burnout, nurse shortages and family and/or personal matters were highlighted in studies as well as in this study. The value $p < 0.01$ was utilised to analyse the continuous independent variables and $p < 0.05$ to analyse the socio-demographic variables in the comparison analyses for statistically significant differences.

5.5 Recommendations: Describe recommended actions for nursing management of the two rural hospitals, to address absenteeism of nurses, to benefit patient care, and staff well-being.

In this section the suggested recommendations are described. Recruitment, selection and placement and succession planning with macro-level factors are important for continuum in a sustainable organisation and a practice environment to retain well-qualified and talent nurses (PSC, 2018:29; Drennan & Ross, 2019:6; Matsomoto, 2019:244). Safe staffing levels, workload methods and leadership are essential for a healthy unit work environment; quality improvement in substance control and patient safety incidents; training and development; the management of stress, bullying and burnout and well-being of nurses are suggested models to be implemented. Stress management could be implemented by utilising the EAP program and advise the nurse to do self-management of stress. Further research could include the nurse-patient-ratio in South Africa and in each interdisciplinary unit for district, general, central, specialist and tertiary as well as clinics in hospitals and PHC clinics. The suggested recommendations are divided under the four environments.

5.5.1 Recommendation 1: Recruitment, selection and placement & Succession planning

Currently, absenteeism is managed using attendance registers, with no access cards reflecting times. The system is not connected to payroll and is ineffective compared to a biometric system which detects attendances with a fingerprint. The biometric system is used in private institutions and employees are paid according to the hours attended and arrived at work. Also, being paid a salary according to the calculation and analysis of hours worked. The biometric system is connected to the payroll. Nevertheless, poor recruitment decisions could be avoided by better matching individuals to jobs. Performance management and human resource planning to identify required qualifications and specializations to justify decisions regarding the recruitment and selection. Poor performance management structures could be deleterious to nurses and result in low morale, job dissatisfaction and high turnover (Madlabana, Mashaba-Thompson & Petersen, 2019:4).

Further, the recruitment and selection process should include these criteria for equality:

- (i) qualification,
- (ii) qualification and prior learning,
- (iii) qualification, prior learning, relevant experience,
- (iv) qualification, prior learning, relevant experience, and the capacity acquiring the ability doing the job in a reasonable time (PSC, 2018:29).

The cost to promote internal nurse managers will be more cost-effective than recruiting external replacement. Therefore, saving a cost in succession planning. The organisation benefit over 24 months when internal promotions are applied. It is better to promote internal talent nurses to improve leadership and continuity when effecting organisational succession planning as confirmed by (Phillips *et al.*, 2018:242) and illustrated as an example in Table 5.1. Having a succession planning in each unit and department in place empowers nurses to develop their leadership skills.

Table 5.1: Cost-benefit analysis comparison for succession planning

Variable	Nurse Manager (NM) Succession Planning/Scenario A	Status quo/Scenario B
Average NM salary	R575. 000	R575. 000
Replacement costs (advertisement, recruitment, travel, relocation)	R431,25 per annum (75% NM salary)	R575.00 per annum (100% NM salary)
24-month turnover rate	16%	20%
Current NM = 16	Predicted NM turnover = $16 \times 0.16 = 2.56$	Current NM turnover = $16 \times 0.20 = 3.2$
	Replacement costs: $R\ 575\ 000 \times 0.75 \times 2.56 =$ R1 104 000pa	Replacement costs: $R\ 575\ 000 \times 1.00 \times 3.2 =$ R1 840 000pa
	Savings of R736.000	

Transforming the work environment of nurses to keep patients safe:

Macro-level factors are outside the immediate control of those responsible for staffing but do have an effect. They are summarised via the acronym PESTLE:

- Political: government policy, health service reform and design to be changed within 3-5 years of implementation.
- Economic: funding, economic situation, and health budget of organisations;
- Sociocultural: demographics, education and lifestyle, public expectations;
- Technological: emerging technologies;
- Legal: professional and health regulation, employment law;
- Environmental: pollution, ventilation, noise, occupational health hazards, and extreme temperatures (Drennan & Ross, 2019: 6-9).

5.5.2 Recommendation 2: Safe staffing levels, workload methods and leadership

The following link can be access for safe staffing levels of nurses: NICE (2014). Safe staffing for nursing in adult inpatient wards in acute hospitals (SG1). National Institute for Health and Care

Excellence. <https://www.nice.org.uk>sg1>resources>safe-staffing> in connection with the Frances report (National Institute for Health Care and Excellence, 2014:2-59, (updated in 2021) & cited in Van den Heede, 2020; Buchanan *et al.*, 2019:26-33; Royal College of Nursing, 2020: 5-29; Van den Heede *et al.*, 2020:21-22).

Various sources utilised temporary staffing on the wards using recording nursing bank and agency shifts. These data are connected with eight or long twelve-hour shifts patterns and vary substantively between and within wards considered staffing levels of hours per patient day for each staff group. Similar data as well as staff information and floating pool staff were captured in Belgian Nursing Minimum Data Set (B-NMDS) (Griffiths *et al.*, 2019:610; Dall'Ora, 2019:2; Van den Heede *et al.*, 2020:19). In South Africa, the Nursing Information Management System (NIMS) process procured qualified skills via nursing agencies endorsed by Western Cape Government (WCG, 2019:164).

The NIMS augmented three models in real-time data as demonstrated:

- i. **Agency Module:** Supplementary nursing staff are requested or ordered with a booking system through private nursing agencies
- ii. **Staff Module:** All staff information is simplified and regulated in a standardised capture manner; allocations, all leave types and all processed staff information per facility are captured.
- iii. **Overtime Pool Model:** Facilities are assisted in capturing the management and control of nurses' overtime hours (WCG, 2019:164). Float pools are groups of nurses allocated in a flexible way within various nursing wards and units in the same hospital based on the nursing and patient needs. Float pools might decrease overtime costs and reduce agency expenditure with limited economic evidence. Float pools can be utilised as having significant value for optimal human and fiscal resources in organisations.

Workload methods:

The implementation of the Patient Classification System (RAFAELA System) as described (Fagerström & Rauhala, 2007:675; Griffiths, Saville & Ball *et al.*, 2020:9).

Categories of patient's intensity of care needs score:

- general: 6-8 hours in 24 hours; ambulant – self-caring (1) point
- High Care B: 9-12 hours in 24 hours; (2) points
- High Care A: 13-15 hours in 24 hours; (3) points
- ICU: 16-24 hours in 24 hours; (4) points

The other factors of care that determine the score are:

1. Coordinated nursing care plan;
2. Diagnosis (co-morbidities), signs and symptoms, vital signs, capillary refill time;
3. Feeding and medication;
4. Hygiene needs (bed-bathing) and elimination;
5. Motions and reflexes, pain stimuli, sleep, rest;
6. Education, guidance, rehabilitation, holistic care (physiological, psychological, social, and spiritual to determine the score.

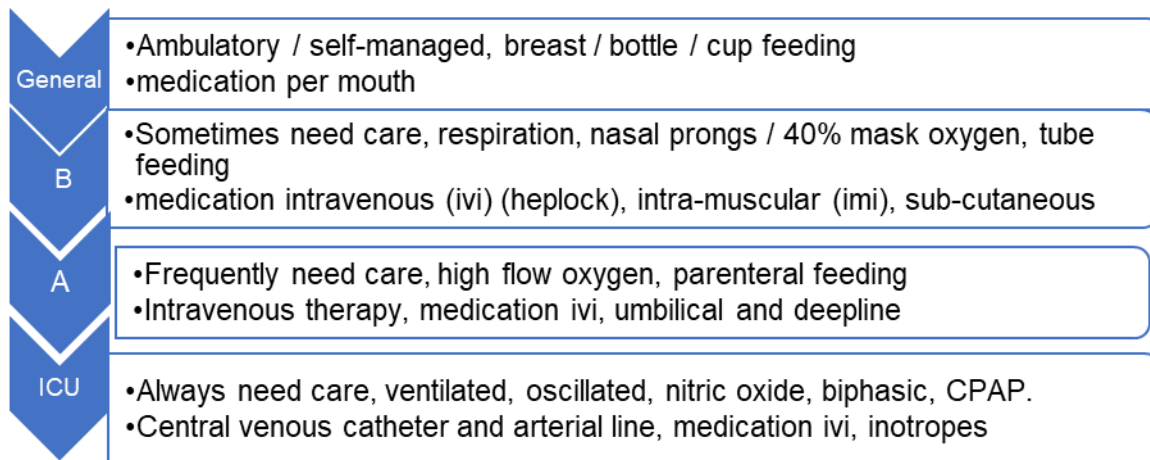


Figure 5.2: Extent of patient classification

Leadership styles

The following leadership styles is assumed as the most collaborative for effective autonomy among nurses and for transformative change.

Complex leadership which includes distributive, transactional and transformational leadership styles. Distributive leadership embrace participative management, collaboration and a clan culture through distributive responsibilities and roles among staff. For this 21 century the Benner, Goleman and Teamwork Approach is the recommended leadership style.

Distributed Leadership

Distributed leadership means multilevel processes throughout the whole organisation, facilitate staff interaction and learning adaptability (Belrhiti *et al.*, 2020:13). Mid-level managers' resolve professional issues using a *participative management style*. Staff perception of the attributes of distributed leadership are:

- Contribute to solving problems and reinforced a clan culture and diminish habitual absences.
- Leads to additional role activities with engaging staff in decision making and combined roles, and embedding staff throughout the organisation (Belrhiti *et al.*, 2020:13). The above-mentioned attributes reduced absenteeism, in contradiction, withholding these attributes resulted in absenteeism from the workplace causing stress and burnout.

Complex leadership

Complex leadership is a combination of transformational, transactional, and distributed leadership, foster networking, with connections between staff by distributing leadership responsibilities, and reinforcing management roles (Belrhiti *et al.*, 2020:16). Basic psychological needs are expounded with lower absenteeism (Belrhiti *et al.*, 2020:14). Nurses needed stronger support and supervision especially in conflict situations among staff; an open communication channel is pivotal to the dynamics at the workplace to reconcile staff and know the way forward (Mukasa *et al.*, 2019:11). Ineffective communication between providers sometimes maximise stress with increased absenteeism.

Further, by introducing the Melhado's Integrated Model of Nursing Care (MIMONC) is pivotal for critical thinkers. The evidence-based model is proposing for this 21 century nursing challenges such as staff turnover, attrition, increased patient care requirements, innovative approaches to render high-quality patient-centred experience care. This unique model introduces three theories namely, Benner, Goleman, and Teamwork Approach. Implementing MIMONC model could improve the quality care, thus enhancing patient and staff satisfaction (Melhado Daley, 2021:1).

Patient safety and outcomes are improved with the following approach:

1. Novice nurse: should have adequate orientation, induction and environmental transition, better preceptorship, mentoring, support, and guidance from proficient and expert nurses.

2. Advanced beginner nurse: completely proficient and expert requiring effective progress along the clinical continuum to develop their skills, knowledge, practice and support by the multi-disciplinary health care team
3. Competent nurse: uses past experiences to prioritise tasks, plan, implement and use abstract and analytical principles, focusing on long-term plans. Requires help with multi-tasking skills and to develop flexibility.
4. Proficient nurse: has a holistic understanding of situations and patient care with nursing knowledge that facilitates more improved decision-making process
5. Expert nurse: has extensive knowledge of diverse, complex patient care that causes staff and colleagues to be confident in their skills, experience, and guidance (Benner, 2005:191-198; Melhado Daley, 2021:2). Noteworthy, an expert nurse can make competent decisions, offers support and leadership especially in a crisis, through phronesis (practising wisdom and skills) and repeated role exposure. Therefore, a relatively new experienced nurse in years can mature rapidly in a unit or specified role.

Teamwork Approach: this is an ideal model to support, new inexperienced staff and cultural diversity, enhances interpersonal relations, patient-centred culture, boosting staff morale and job satisfaction. Furthermore, the outcomes of this approach are decreased patient falls, improved continuity of care, engagement and activities, and an increased in staff satisfaction, morale and patient safety (Burmeister *et al.*, 2019:146, 148-152; Ticharwa *et al.*, 2019:114).

Goleman, Emotional Intelligent Leadership (EIL) style portrays traits of transformational, transactional, democratic, autocratic and dynamic leadership through their experiences, preferences and situational context. Emotional Intelligent leaders are transparent, adaptable, innovative, optimistic, inspiring excellence in self and others, and competent. Being a catalyst change, the leader mandate PPE wearing and social distancing for staff to be aware of pandemic protocols. Emotional Intelligence is a cluster of skills and competencies and include five constructs namely:

1. Self-awareness;
2. Self-regulation and control;
3. Motivation;
4. Empathy;
5. Social skills to manage conflict effectively (Goleman, 2021).

5.5.3 Recommendation 3: Quality improvement in substance control, patient safety incidents, and the well-being of nurse’:

Substance abuse was the second highest mean value correlated in personal and social environment. It is also typical of nurses to use drugs by taking the wasted portion of the drug; taking the surplus drugs as needed medication; fail to administer the drug to the patients and administering a substitute drug to the patient. The responsibility lies with the organisation to audit and monitor the administering of substance-controlled drugs to only permit controlled access to delegated nurses (Perry & Vandenhouten, 2019:18).

To prevent abuse of substances, nurse managers need to have strict control security measures and as well have an active monitoring system. A detection system can be implemented which total the sum and analyse data to set usage parameters. A manual system which is in place to track and monitor control substances are time consuming and also can't set limits or parameters. The manual system can identify discrepancies in the control of substances but cannot adequately identify individuals involved (Perry & Vandenhouten, 2019:19). This study reports on a quality improvement project for the implementation of a drug diversion software program. The authors aim to choose software that analyses sophisticated data fast, to identify health professionals who practice outside the system to detect misuse or abuse early and give support to the addict. The second step is to involve a multi-disciplinary team consisting of senior nurses and pharmacy leaders to detect drug diversion; review the records; determine the accuracy and analysis of the data before the unit manager comes to know of a worker's drug diversion action (Perry & Vandenhouten, 2019:19).

The project has huge cost savings and benefits with an amount of 10,000 dollars annually and saving time for pharmacists. The advantages of the software program are that real time data and records are generated in minutes comparing to the many days using the manual system; the team can track controlled drugs better; identifying possible drug users fast and improving drug reports (Perry & Vandenhouten, 2019:20). If drug abuse is detected the pharmacist informs the unit manager and clinical nurse specialist who will investigate the allegation and counsel the staff member and act according to the disciplinary policy; and advise the staff to make use of the Employee Assistance Program (EAP). The researchers urge managers to be consistent when applying the policy to combat substance abuse (Perry & Vandenhouten, 2019:21).

Staff empowerment strategies in substance abuse:

In dealing with substance abuse, nurses can display these attributes as proposed (Schaefer, 2019:24). Steps to support the patient in substance abuse:

- Be a role model and show empathy and kindness.
- Be ready to help patients when they are actually ready for help.
- Forgive patients and do not hold grudges.
- Give second chances and beyond.
- Be flexible, but do not allow patient to control and assist in their recovery .
- Build resilience among patients and encourage them to rehabilitate.

Quality improvement in patient safety incidence:

The effective implementation, monitoring and evaluation of policies and guidelines in the Western Cape could improve quality patient care with positive outcomes for patients and nurses. The following policies and guidelines should be implemented by managers to monitor standards for outcome-based evidence:

- encourage all providers who take care of a patient to use the correct steps of hand washing techniques to prevent any infections and to properly wear PPE
- Prevention of health care acquired infections is essential to provide safe and patient-centered health care. The Best Care Always Infection Prevention and Control Quality improvement initiatives aim to reduce health care acquired infections.
 - Catheter Associated Urinary Tract Infection (CAUTI);
 - central line associated blood-stream infections (CLABSI);
 - Health or Ventilator Associated Pneumonia (HAP/VAP);
 - surgical site infection (SSI);
 - MRSA, meticillin-resistant Staphylococcus aureus;
 - AMR, antimicrobial resistance;
 - MMIS, multi-modal improvement strategy;
 - WASH, water sanitation and hygiene;
 - CRE, carbapenem-resistant Enterobacteriasis;
 - CRAB, carbapenem-resistant Acinetobacter baumannii;
 - CRPsA, carbapenem-resistant Pseudomonas bundle aeruginosa

- These projects have a great impact in reducing acquired hospital infections (Nyirenda, Williams, Ten Ham-Baloyi, 2019:2-5).
- The implementation of quality improvement risk prevention assessments improves the quality of care in critically ill patients.
- The Infection Prevention Control Policy was revised in 2019 in South Africa.
- Other patient safety incidents include medication errors, falls, bedsores, ulcers, phlebitis, morbidity, and mortality.

Management of the well-being of nurses:

According to Farrington and Lillah (2019:162) the following dimensions should be considered:

- 1) genuine caring relationship for welfare;
- 2) empathy for personal or work-related pressures;
- 3) emotional intelligence;
- 4) understanding employees' feelings;
- 5) sympathise and give advice;
- 6) enhance listening and communication skills by attending training courses;
- 7) engagement, approach on personal level;
- 8) practice an "open door" policy;
- 9) sensitivity to personal concerns and well-being;
- 10) respect confidentiality.

The three aspects to be implemented in psycho-social working conditions are emotional demands, work-privacy-conflict, and role conflicts (Wagner *et al.*, 2019:3) with the aim to improve the well-being of nurses. Ways to improve psycho-social working conditions seem to be necessary for healthcare professionals, as follows:

- i. reduce high quantitative demands
- ii. reduce role conflicts
- iii. improve the work-privacy-conflict.

Management of well-being of nurses

Components of hope and resilience reinforce the implementation of strategies to decrease nurses' emotional exhaustion. The mindful based stress reduction intervention is ideal to decrease work stress. The following link can be use as self-improvement program: <https://www.verywellmind.com/stress-management-overview-4581770>.

The background of this current randomised study was the effects of stochastic, whole-body resonance vibration training (SWBV) health and body balance on musculoskeletal in a large Swiss hospital. Stochastic indicated having a random probability distribution or pattern that may be analysed statistically but may not be predicted precisely. The random control was over (8) weeks of intervention (training) testing absenteeism, job satisfaction, time autonomy, and time pressure (Kottwitz, Schade, Burger, Radlinger, & Elfering, 2018:112). This training is good for implementation to be considered.

Well-being of nurses

The Company Wellness Solution in Johannesburg, South Africa offers innovative services and can be contacted for wellness of nurses. Three hour or full day workshops, sessions on mental health, fitness, nutrition, depression, lifestyle and even death and bereavement are available. Workshops are fun where nurses can be engaged. Full EAP and wellness reports accompany the services. The unique Wellness HELP Assessment is an anonymous multiple choice for nurse assessment. Companies exist who supply all of these services (Company Wellness Solution, 2021).

There is online access to assessments, live workshops, COIDA management, OHP, via online sessions and more wellness on nurses' days. Wellness days should be executed effortlessly with stringent policies in place. Measurable metrics are utilised for highly effective reporting which proactively increases staff productivity and decreases absenteeism.

The innovative, most tech savvy EAP program offers variety services and many more services such as legal, debt counselling, trauma counselling, eye, dental and TB screening, health support, etc.

Applications are available for LSM from USSD to Native IOS and Android apps with live instant chat and unique Employee Mood Tracker (tm). A wellness days are available with contact details: phone: 011 7069945 or <https://companywellness.co.za/> (Company Wellness Solution, 2021).

In short, a connection to finish the thought, the outcome of the patient, nurse and organisation is illustrated in figure 5.2.

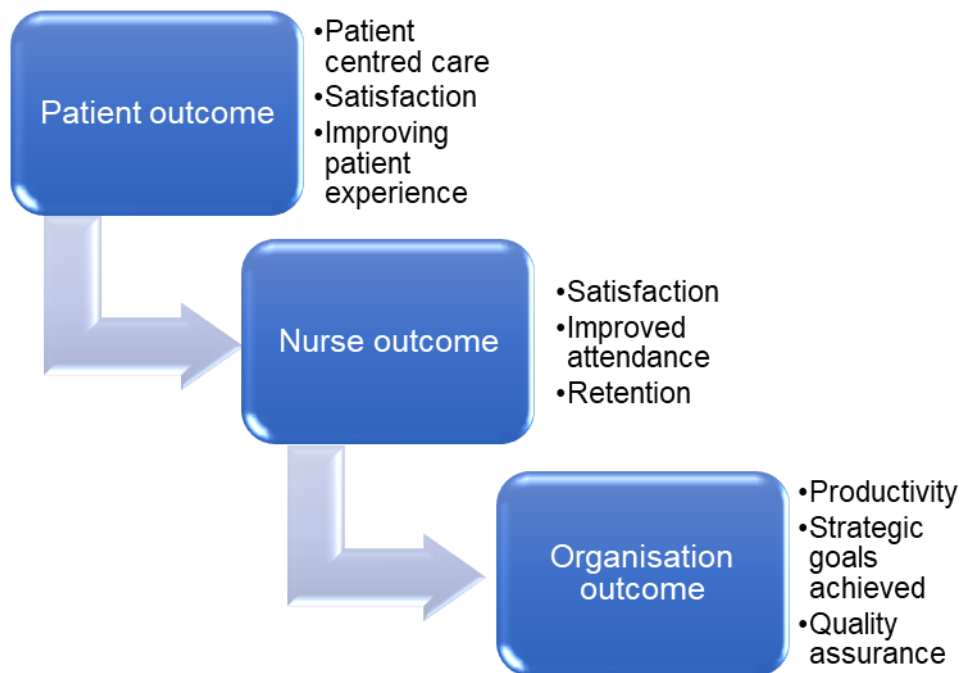


Figure 5.2: Outcome of absenteeism control

5.4 Future research

The following areas for future research are proposed:

- Nurse-patient-ratio in various units and clinics in hospitals and PHC.
- The effect of implementation of this study recommendations on absenteeism.
- Real-time monitoring, evaluation and tracking of Daily Attendance Registers

5.5 DISSEMINATION

The research will be disseminated in electronic form and a hard copy at Stellenbosch University library. A presentation to the staff members and management of the respective hospitals and published in peer reviewed journals. The findings of the study will also be presented at conferences and seminars.

5.6 CONCLUSION

This study identified the influence and risk on absenteeism under macro, meso and micro dimensions and also perceived unmanageable workload, work stress, and burnout at two rural provincial hospitals. Furthermore, bullying, uncondusive work environment and intention to

leave employment were contributing factors. The findings indicated substantiated reliability and can be replicated. The data analysis indicated that the study objectives were achieved with significant differences and positively correlated results. Therefore, to prove the scientific reliability and validity of this study. The study seems to substantiate analysed results and could verify the significance of the findings to nursing.

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UNIVERSITEIT
STELLENBOSCH
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Approval Notice

New Application

28/10/2020

Project ID :10840

HREC Reference No: S19/09/171

Project Title: Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape

Dear Ms Sharna Syster

The **New Application** received on 10/10/2020 was reviewed and **approved** by members of **Health Research Ethics Committee** via **expedited** review procedures on 28/10/2020.

Please note the following information about your approved research protocol:

Protocol Approval Date: 28 OCTOBER 2020

Protocol Expiry Date: 27 OCTOBER 2021

Please remember to use your Project ID 10840 and Ethics Reference Number S19/09/171 on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Translation of the informed consent document(s) to the language(s) applicable to your study participants should now be submitted to the HREC.

Please note you can submit your progress report through the online ethics application process, available at: [Links Application Form Direct Link](#) and the application should be submitted to the HREC before the year has expired. Please see [Forms and Instructions](#) on our HREC website (www.sun.ac.za/healthresearchethics) for guidance on how to submit a progress report.

The HREC will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: <https://www.westerncape.gov.za/general-publication/health-research-approval-process>. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: [Forms and Instructions](#) on our HREC website <https://applyethics.sun.ac.za/ProjectView/Index/10840>

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

Yours sincerely,

Mrs. Melody Shana

Coordinator

HREC1



Directorate: Rural Health Service
Worcester Hospital
Office of the CEO
023 – 348 1113

13 November 2020

**Health Research Unit
Western Cape Government Health**

Researcher: Ms Sharna System

Ref: WC202011007

Re: Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape.

Your application for research at Worcester Hospital, has reference

Hereby Worcester Hospital confirms to accommodate your request, as stated in the documentation submitted.

Please contact the Nursing manger, Mrs Ronel du Plessis on Tel: 023 348 1112 for any further enquiries/logistical arrangements.

Kind regards


.....
**Mrs Elbie Vosloo
Chief Executive Officer**

Murray Street, Worcester, 6850
Tel: +27 23 348 1212 Fax: +27 23 347 5158

Private Bag X3058, Worcester, 6849
www.capegateway.gov.za



STRATEGY & HEALTH SUPPORT

Health.Research@westerncape.gov.za
tel: +27 21 483 0866; fax: +27 21 483 6058
5th Floor, Norton Rose House,, 8 Riebeeck Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: WC_202011_007
ENQUIRIES: Dr Sabela Petros

**Francie van Zijl Drive
Tygerberg
7505
Cape Town
South Africa**

For attention: Ms Sharna Syster

Re: Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

Worcester Hospital	Elbie Vosloo	023 348 1100
	Zandile Kwinana	023 348 1100
	Sue-Ann Williams	023 348 1113

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
4. The reference number above should be quoted in all future correspondence.

Yours sincerely

**DR M MOODLEY
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE: 14/11/2020
CC**



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Re: Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.

Please contact the following people to assist you with any further enquiries in accessing the following sites:

George Hospital

Mr Michael Vonk

044 802 4534

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za).
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4. The reference number above should be quoted in all future correspondence.

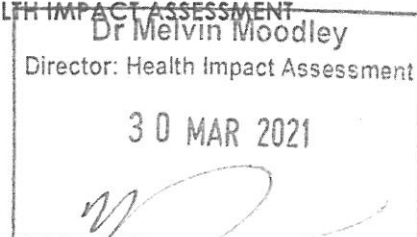
Yours sincerely

DR M MOODLEY

DIRECTOR: HEALTH IMPACT ASSESSMENT

DATE:

CC





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4. The reference number above should be quoted in all future correspondence.

Yours sincerely

DR M MOODLEY
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE: 14/11/2020
CC

Appendix 3: Respondent information leaflet and declaration of consent by participant and investigator

ANNEXURE B:

Risk mitigation plan: the following will be implemented:

- I will comply to the rules and guidelines of the facility where data will be collected. The researcher will consult with the relevant gatekeepers in this regard.
- Questionnaires will be handed out away from patient areas.
- Participants will complete questionnaires in small groups so that social distancing can be maintained at all times.
- Nurses are screened at their place of work, but I will also keep a COVID-19 register for the field workers and respondent.
- PPE for nurses will be provided by the employer namely, face masks. The researcher will carry a supply of face masks to provide should respondents not have their own.
- The researcher will provide the hand hygiene sanitizer, cleaning cloths to clean the area.
- I will keep social distancing of 2 metres when handing out questionnaires and masks will be worn by respondents and field workers.
- Respondents and field workers will be informed about cough etiquette.
- The boardroom where the questionnaires will be completed will be thoroughly cleaned.
- Respondents will use their own pens when completing questionnaires.
- Daily screening of principal investigator and field workers will be upheld.
- Respondents will be informed of the protocols put in place during their interactions with the researcher.
- Respondents will receive a copy of these protocols for their reference before the research/data collection takes place.

Risks to participants:

- Can become infected by a researcher, field worker or fellow research participant that might be asymptomatic/symptomatic during a research-related visit.
- Potential exposure to risk during walking to or from the ward and clinic to the boardroom for the purpose of participating in the research.
- Being infected due to handling objects, e.g. the door or table contaminated by the virus at a study site.
- Potential for being more severely affected by COVID-19 if over the age of 60 and/or

having a comorbidity or an illness causing an immunocompromised health status.

- Spreading the virus from the research site into the ward, clinic, home or community.

Risks to researcher and field workers:

- Researcher becoming infected by handling objects contaminated by the virus.
- Researcher becoming infected by entering/ conducting research in an area with a high incidence and/or probability of COVID-19 infections.
- Infecting field workers due to the aforementioned actions.
- Infecting own family members due to the aforementioned actions.

ANNEXURE C:

RESPONDENT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF RESEARCH PROJECT:	
Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape	
DETAILS OF PRINCIPAL INVESTIGATOR (PI):	
Title, first name, surname: Ms. Sharna Syster	Ethics reference number: S19/09/171
Full postal address: 24 Cinsaut Street, Malmesbury, 3700	PI Contact number: 0719872811

We would like to invite you to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the study staff or doctor any questions about any part of this project that you do not fully understand. It is very important that you are completely satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary**, and you are free to decline to participate. In other words, you may choose to take part, or you may choose not to take part. Nothing bad will come of it if you say no: it will not affect you negatively in any way whatsoever. Refusal to participate will involve no

penalty or loss of benefits or reduction in the level of care to which you are otherwise entitled to. You are also free to withdraw from the study at any point, even if you do agree to take part initially.

This study has been approved by the **Health Research Ethics Committee at Stellenbosch University**. The study will be conducted according to the ethical guidelines and principles of the international

Declaration of Helsinki, the South African Guidelines for Good Clinical Practice (2006), the Medical Research Council (MRC) Ethical Guidelines for Research (2002), and the Department of Health Ethics in Health Research: Principles, Processes and Studies (2015).

➤ **What is this research study all about?**

The study aims to investigate nurses' perceptions on the determinants (organisational, unit management, personal and social, as well as health and safety environments) of absenteeism at two provincial hospitals in a rural area of the Western Cape. The procedure will be explained to respondents e.g., the reason for the pilot test, confidentiality, anonymity, respects for persons, beneficence, and mal beneficence. The reason for conducting the research is to understand the determinants of absenteeism in order to develop strategies to reduce absenteeism amongst nurses.

The study will be conducted at George and Worcester Provincial hospitals. A total number of 353 respondents will be recruited and another 36 respondents will be recruited for pilot testing of the questionnaire.

Permission will be obtained from the Western Cape Department of Health as well from the CEO's and Nursing Management of the facilities.

All participants will be stratified randomly selected to participate from a list of all the nurses employed at the hospital. The researcher will select every second nurse after grouping it in different categories e.g., professional nurses (including operational managers), enrolled nurse, auxiliary nurse to do the sampling of the study until the minimum required number of 353 participants are reached.

If you are selected, you will be invited to attend an information session presented by the principal investigator. All the information in this consent form will be presented to you.

If you agree to participate, you will be provided with a questionnaire in Afrikaans, English, and Xhosa that will be handed out by two field workers. The two field workers are Ms. Megan Sedeman and Ms. Jodie Valentyn will issue and collect the questionnaires at the boardroom, 12h00-14h00 (day), 15h00 and 19h00-21h00 (night) after 48 hours of issuing, on both shifts.

The questionnaires will be put in a sealed envelope and then placed in sealed boxes available at the workplace to assure confidentiality. Only the researcher, supervisor and statistician will have access to the

data. The statistician will assist the researcher to analyse the data in a computer program. The qualified statistician is also acquainted with the principles of research.

➤ **Why do we invite you to participate?**

We invite you to participate to answer the research topic and question: What are the determinants of absenteeism at two provincial hospitals in a rural area in the Western Cape? How can nurses be supported to combat absenteeism in their provincial hospitals?

You are invited to participate because your name was randomly selected from a list of nurses who work at the hospital. You may participate in the pilot test or the main study. If you participate in the pilot test, the data from the pilot test will not be used in the main study.

You are the target group and knows best why nurses may be absent from work. We also want to test that what we read in the literature is it true for your hospital and can we generalize it to a larger population of nurses. The study may help us understand which factors influence absenteeism so that we can develop strategies to reduce absenteeism rates.

➤ **What will your responsibilities be?**

We expect from you to complete the questions as honest as possible. The questionnaire will take approximately 30 minutes to complete. Do not discuss the answers with one another. You do not need to put your name on the questionnaire, and you must put the completed questionnaire in a sealed envelope that will be attached to the questionnaire. Afterwards you put the envelope in the sealed box that will be available. If you have any questions, you may contact the researcher on the telephone number that is provided.

➤ **Will you benefit from taking part in this research?**

There are no immediate benefits for you, but the research may lead to the development of strategies to reduce absenteeism. The patients, you, management, as well as the Department of Health will benefit in the future. The anonymised and aggregated results of the study will be made known to nursing management and participants.

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

I anticipate no risks for to you by participating in this research, but some questions may be sensitive to you. There is support on standby available to you. If you feel distressed, you can access the Independent Counselling Service (ICAS) or Employee Assistance Program (EAP).

Please contact your operational manager or occupational health sister at work to assist you in accessing the above-mentioned treatment. The pathway for immediate treatment is Operational manager, who may refer you to the Occupational Health sister, the Occupational health officer (doctor) or the Emergency centre of the hospital.

You will receive a copy of the protocol of COVID-19 risk mitigation plan for your reference before the research/data collection takes place.

➤ **If you do not agree to take part, what alternatives do you have?**

You do not have to participate in this study. You can just inform the researcher or fieldworker if you do not want to participate in the study, with no consequences to you. You may also withdraw at any time with no consequences to you.

➤ **Who will have access to your medical records?**

The questionnaire will be anonymous and only the researcher, supervisor and statistician will have access to your questionnaire and information (list of names) provided from the Department of Health. Stellenbosch University and afterwards destroyed. The researcher, supervisor and statistician will have access to the information with password protected access.

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

You will not be paid for participating in the research. However, refreshments will be provided after completion of the questionnaire.

Is there anything else that you should know or do?

You can phone [Sharna Syster] at [0719872811] if you have any further queries or encounter any problems.

You can phone the Health Research Ethics Committee at 021 938 9677/9819 if there still is something that your study principal investigator has not explained to you, or if you have a complaint.

You will receive a copy of this information and consent form for you to keep safe.

➤ **Declaration by respondent**

By signing below, I agree to take part in a research study entitled Factors influencing absenteeism among nursing staff at two provincial hospitals in a rural area in the Western Cape.

- I have read this information and consent form, or it was read to me, and it is written in a language in which I am fluent and with which I am comfortable.
- I have had a chance to ask questions and I am satisfied that all my questions have been answered.
- I understand that taking part in this study is **voluntary**, and I have not been pressurised to take part.

- I may choose to leave the study at any time and nothing bad will come of it – I will not be penalised or prejudice in any way.

Signed at (*place*) on (*date*) 2020.

.....
Signature of respondent

.....
Signature of witness

➤ **Declaration by investigator**

I (*name*) declare that:

- I explained the information in this document in a simple and clear manner to
- I encouraged him/her to ask questions and took enough time to answer them.
- I am satisfied that he/she completely understands all aspects of the research, as discussed above.
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below.*)

Signed at (*place*) on (*date*) 2020.

.....
Signature of investigator

.....
Signature of witness

Appendix 4: Instrument / interview guide / data extraction forms

ANNEXURE A: QUESTIONNAIRE

RESEARCH QUESTIONNAIRE

Dear Participant,

You are invited to participate in a research study titled, *Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape*". If you agree to participate in the study, you will be asked to complete a questionnaire.

The main objective of the study is to explore the determinants that influence nurse absenteeism, so that these determinants can be addressed, and the working environment of nurses improved. Your participation in this study is completely voluntary and you may withdraw from the study at any stage.

If you agree to participate in the study, please answer the questions in the questionnaire as honestly and as best you can. It should take approximately 30 minutes to complete the questionnaire. You have two days to complete the questionnaire and should then return it using the sealed envelope provided. Place the envelope in one of the sealed boxes provided.

SECTION A: DEMOGRAPHIC DATA

PLEASE INDICATE YOUR CHOICE BY PLACING A CROSS [X] IN THE MOST APPROPRIATE BOX.

1. How old are you?

1.1	20 – 30 years	
1.2	31- 40 years	
1.3	41- 50 years	
1.4	51- 65 years	

2. Indicate your marital status:

2.1	Single	
2.2	Married	
2.3	Divorced	

2.4	Living together	
2.5	Widowed	

3. Indicate your gender:

3.1	Male	
3.2	Female	

4. Indicate your race:

4.1	Coloured	
4.2	Black	
4.3	White	
4.4	Asian	

5. Indicate your current position

5.1	Operational manager (specialist)	
5.2	Operational manager (general)	
5.3	Registered nurse (specialist)	
5.4	Registered nurse (general)	
5.5	Registered nurse (community)	
5.6	Enrolled nurse	
5.7	Auxiliary nurse	

6. Are you permanently employed?

6.1	Yes	
6.2	No	

7. Indicate your highest nursing qualification:

7.1	Master's Degree	
7.2	Advanced Diploma	
7.3	Bachelor's Degree	
7.4	Diploma	
7.5	Certificate	
7.6	Other	

8. How many years of experience do you have in the nursing profession?

8.1	0 – 5 years	
8.2	6 – 10 years	
8.3	11 – 15 years	
8.4	16 – 20 years	
8.5	21 – 25 years	
8.6	> 26 years	

9. Current ward placement:

9.1	Emergency	
9.2	Out-patients	
9.3	Theatre	
9.4	ICU	
9.5	Neonatal	
9.6	Maternity	
9.7	Postnatal	
9.8	Paediatric	
9.9	Gynaecology	
9.10	Orthopaedic	
9.11	Surgical	
9.12	Medical	
9.13	Generic	
9.14	Psychiatry	
9.15	Day ward	

10. Can you cope with the current nurse-patient ratio?

10.1	Yes	
10.2	No	

11. Indicate your type of shift:

11.1	12-hour - day	
11.2	12-hour - night	
11.3	8-hour day	
11.4	Work overtime	
12.5	Part-time/ half-day	

12. How many dependents do you have? Including children and adults

12.1	None		
12.2	1-2		
12.3	3-4		
12.4	None		

SECTION B: FACTORS RELATED TO ABSENTEEISM OF NURSES

PLEASE READ THE FOLLOWING STATEMENTS AND INDICATE YOUR RESPONSE BY PLACING A CROSS [X] IN THE MOST APPROPRIATE BOX. YOUR RESPONSE SHOULD INDICATE TO WHAT EXTENT YOU AGREE WITH THE STATEMENTS. BE AS HONEST AS POSSIBLE.

SCALE:

- 1 - Strongly disagree
- 2 - Disagree
- 3 - Agree
- 4 - Strongly agree

ORGANISATIONAL ENVIRONMENT				
Nurses are absent from work because of ...	Strongly disagree	Disagree	Agree	Strongly agree
1. an inadequate number of staff members on duty, e.g., this makes the allocation of workload difficult.				
2. bureaucracy in the workplace due to strict policies.				
3. inconsistency in implementing the policy on absenteeism with all staff.				
4. monitoring of staff reporting on duty is not done, for example no tracking system.				
5. not addressing labour relations issues, e.g., type of leave, disciplinary matters, or grievances.				
6. changes being implemented in the workplace without first consulting the nurses.				
7. lack of time for in-service training or opportunities to attend courses.				
8. lack of childcare facilities while at work.				
9. lack of decentralisation of decision making to clinical areas, e.g., disciplining of nurses done by top level managers.				
10. lack of opportunities for participative decision making on matters affecting staff, e.g., senior level managers make decisions on their				

own to take control of the unit.				
Nurses are absent from work because of ...	Strongly disagree	Disagree	Agree	Strongly agree
11. a lack of promotion opportunities to advance their career in their field of specialty.				
12. unfair provision of opportunities, e.g., selection of training or allocation of study bursaries.				
13. a lack of a fair reward system for excellent performance.				
14. the inability of the institution to strongly discourage abuse of sick leave.				
15. the differences in salaries paid to staff in certain categories, e.g., unqualified nurses receiving the salary of a qualified specialist nurse or vice versa.				
16. being unfairly paid for the number of hours contributed to the organisation.				
17. an inadequate skill mix in the unit, e.g., certain staff must complete the work of other incompetent staff members.				
18. a shortage of nurses when support is needed, e.g., no additional staff available when someone is absent.				
19. an unmanageable (heavy) workload.				
20. a need for nurses to have a healthy work culture, e.g., deliver quality care in a unit.				

UNIT MANAGEMENT ENVIRONMENT				
Nurses are absent from work because of ...	Strongly disagree	Disagree	Agree	Strongly agree
The nurse manager				
21. dislike of the autocratic management style of the nurse manager, e.g., she / he does not listen to suggestions from nurses.				
22. unresolved nurse problems or concerns by the manager.				
23. inadequate guidance from the nurse manager when executing advanced patient care.				
24. a lack of respect, e.g., being allowed to have own opinions about matters.				
25. favouritism exercised by nurse managers towards certain staff members, e.g., allowing some to leave the shift earlier.				
26. the need to be complimented on work well-done.				
Job performance and accountabilities				
Nurses are absent from work because of ...	Strongly disagree	Disagree	Agree	Strongly agree
27. dislike of routine work, e.g., bed bathing and observation.				
28. insufficient opportunity to work independently.				
29. dislike of working the allocated shift, e.g., day or night duty.				
30. having to lift and turn patients when caring for patients.				
31. allocation of non-nursing tasks, e.g., doing paperwork for doctors, doing referrals or administration, acting as a clerk or as porter.				

32. being expected to do extra duties, duties that are demotivating.				
33. having to do a difficult task that requires higher level skills than what the nursed is trained to do.				
34. having to work long hours without being adequately remunerated.				
Nurses are absent from work because of ...	Strongly disagree	Disagree	Agree	Strongly agree
35. an inflexible work schedule, e.g., not being able to request a preferred weekend off.				
36. inadequate time to complete a task in order to perform the task correctly.				
37. someone withholding information that affects the nurse's performance.				
38. skills being under-utilised, which means working in a position that is not interesting.				
PERSONAL AND SOCIAL ENVIRONMENT				
Nurses are absent from work because of ...	Strongly disagree	Disagree	Agree	Strongly agree
Interpersonal relationships				
39. wanting to do what their colleagues, e.g., stay away from work regularly.				
40. the lack of personal relationships within the workgroup, e.g., some people do not talk to the workgroup members.				
41. a lack of close friends at work with whom to share personal problems.				
Social environment				
42. social problems, e.g., abuse of alcohol or drugs.				
43. financial problems, e.g., doing additional work elsewhere for financial gain.				
44. having to look after a family member, e.g., a				

mother or sick child.				
45. having to attend funerals, e.g., grandmothers or friends outside the workplace.				
HEALTH AND SAFETY ENVIRONMENT				
Nurses are absent from work because they...	Strongly disagree	Disagree	Agree	Strongly agree
Personal circumstances				
46. experience domestic conflict e.g., arguments at home.				
47. have transport problems, e.g., getting to work by bus or taxi.				
48. take sick leave when they are actually healthy.				
49. have lost interest in their work.				
50. are seeking new work opportunities elsewhere, e.g., going to interviews.				
51. prolong weekends without asking for the weekend off.				
52. are affected by bad weather, e.g., rain.				
53. take 'mental health' days for sickness.				
54. are unable to cope with job demands (stress), e.g., acuity of patients				
55. work-home life interference e.g., with family commitments, and they experience burnout.				
Nurses are absent from work because they ...	Strongly disagree	Disagree	Agree	Strongly agree
Workplace				
56. are humiliated or ridiculed at the workplace, e.g., someone utters an unkind word or makes fun of someone.				
57. are ignored when they approach the senior person in the unit.				

58. face a hostile reaction from a colleague when they ask for assistance with a patient, e.g., the person shows anger or is unfriendly.				
59. suffer from verbal abuse, e.g., from a patient, doctor, manager, or colleague.				
60. work in a violent workplace, e.g., members of staff scream at each other.				
61. work with colleagues who spread rumors that are not true.				
62. have their main areas of responsibility removed or replaced with more trivial or unpleasant tasks.				
Nurses are absent from work because they ...	Strongly disagree	Disagree	Agree	Strongly agree
63. receive repeated reminders from a senior about a previous mistake made.				
64. receive persistent criticism from a senior, despite improvement in that matter, e.g., preparing a duty roster more accurately.				
65. are the target of spontaneous anger demonstrated by a colleague, e.g., when not responding to a request immediately.				
66. are excluded from a unit meeting, as punishment for something they have done.				
67. have unfounded allegations made against them.				
68. experience increased stress due to a lack of resources to perform the expected tasks.				
69. suffer from a stress-related illness, e.g., due to prolonged unresolved problems.				
70. have an insulting or offensive remark made about them as a unique human being.				

71. experience intimidating behaviour, e.g., finger-pointing by a colleague.				
72. become scared when a senior invades their personal space, e.g., asking about personal matters.				
73. they receive hints from others that they should resign from their nursing post.				

SECTION C

1. In your opinion, what other causes absenteeism among nurses in the unit where you are working?

.....

.....

.....

.....

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.....

.....

.....

If you have any questions or require any information about this study, feel free to contact:

- the researcher: Ms S. Syster at cell number 0719872811
- the study supervisor: Dr T. Crowley

Thank you for participating in the survey. It is much appreciated.

Table 1.3: Study budget

<u>Item</u>	<u>Unit</u>	<u>Amount</u>
Travelling	(1986 km x R4,75 per km)	R 9433.50
Accommodation	Worcester and George	R 7754
Field workers	(2 x R500 each)	R 1 000
Stationery	-400 questionnaires x R1,00 =R400) - Envelopes 400 x R0.30= R120 Ink cartridge x4 @ R450 and refill @ R80 - Printing paper x1 (1000 sheets) = R65.00	R 2 880 R 2730
Language editing of questionnaires	English R 365; Afrikaans R1782,89 Xhosa R 2100	4247.89
Language and Technical Editing	1x R10 000	R 10 500
Binding of Thesis	1x R1 000	R 1 000
Refreshments	400 x R17 (fruit, yoghurt, and juice)	R 6 800
<u>Total:</u>		<u>R 46 345.39</u>

Appendix 5: Confidentiality agreement with data transcriber (if applicable) / permission for use of an instrument



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HEALTH RESEARCH ETHICS COMMITTEE 1 AND 2

INVESTIGATOR'S DECLARATION

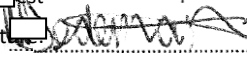
(INFORMATION SHOULD BE TYPED)

The principal investigator, supervisor, as well as all sub- & co-investigators must each sign a separate declaration.

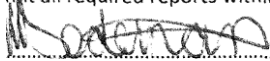
SECTION 1: INVESTIGATOR DETAILS and ROLE IN THIS RESEARCH			
Title, First name, Surname: Ms Sharna Syster	SU number: 17496772	PROJECT ID NUMBER (HREC office use only)	
Professional Status: Registered (Specialist) Nurse			
University DIVISION and DEPARTMENT: Stellenbosch, Nursing and Midwifery, Health Science			
Telephone No: 0719872811	E-mail address: syster.sharna2017@gmail.com		
Role (mark with x)	Principal investigator <input checked="" type="checkbox"/>	Co-investigator <input type="checkbox"/>	Sub-investigator <input type="checkbox"/> Supervisor <input type="checkbox"/>
SECTION 2: PROJECT TITLE (maximum 250 characters for database purposes)			
Factors influencing absenteeism among nursing staff at provincial hospitals in a rural area in the Western Cape.			
SECTION 3: CONFLICT OF INTEREST DECLARATION (OBLIGATORY)			
I, (Title, Full name) Ms Sharna Renee Syster declare that:			
<input checked="" type="checkbox"/> I have no financial or non-financial interests , which may inappropriately influence me in the conduct of this research study; OR <input type="checkbox"/> I do have the following financial or other competing interests with respect to this project, which may present a potential conflict of interest: (Please attach a separate detailed statement)			
Signature:		Date: 02 July 2019	
SECTION 4: DECLARATION (OBLIGATORY)			
I, (Title, Full name) Ms Sharna Renee Syster declare that:			
<ul style="list-style-type: none"> • I have read through the submitted version of the research protocol and all supporting documents and am satisfied with their contents • I am suitably qualified and experienced to perform and/or supervise the above research study. • I agree to conduct or supervise the described study personally in accordance with the relevant, current protocol and will only change the protocol after approval by the HREC, except when urgently necessary to protect the safety, rights, or welfare of subjects. In such a case, I am aware that I should notify the HREC without delay. • I agree to timeously report to the HREC serious adverse events that may occur in the course of the investigation. • I agree to maintain adequate and accurate records and to make those records available for inspection by the appropriate authorised agents when and if necessary. • I agree to comply with all other requirements regarding the obligations of clinical investigators and all other pertinent requirements in the Declaration of Helsinki (2013), as well as South African and ICH GCP Guidelines and the Ethical Guidelines of the Department of Health as well as applicable regulations pertaining to health research. • I agree to comply with all regulatory and monitoring requirements of the HREC. • I agree that I am conversant with the above guidelines. • I will ensure that every patient (or other involved persons, such as relatives), shall at all times be treated in a dignified manner and with respect. • I will submit all required reports within the stipulated time frames. 			
Signature:		Date: 02 July 2019	

HEALTH RESEARCH ETHICS COMMITTEE 1
AND 2

INVESTIGATOR'S
DECLARATION

SECTION 1: INVESTIGATOR DETAIL and ROLE IN THIS RESEARCH							
Title, First name, Surname: Ms Megan Sedeman			SU number: 18418910			PROJECT ID NUMBER (HREC office use only)	
Professional Status: Masters (MPhil) Cancer Science student							
University DIVISION and DEPARTMENT: Stellenbosch University, African Cancer Institute, Department of Global Health							
Telephone No: 0781989515				E-mail address: msedeman24@gmail.com			
Role (mark with x)	Principal investigator		Co-investigator		Sub-investigator	X	Supervisor
SECTION 2: PROJECT TITLE (maximum 250 characters for database purposes)							
Nurses' perceptions on the determinants of absenteeism at two provincial hospitals in a rural area of the Western Cape							
SECTION 3: CONFLICT OF INTEREST DECLARATION (OBLIGATORY)							
I, (Title, Full name) Ms Megan Sedeman declare that:							
<input type="checkbox"/> I have no financial or non-financial interests, which may inappropriately influence me in the conduct of this research study;							
<input type="checkbox"/> I do have the following financial or other competing interests with respect to this project, which may present a potential conflict of interest. (Please attach a separate detailed statement)							
Signature: 				Date: 03 August 2020			
SECTION 4: DECLARATION (OBLIGATORY)							
I, (Title, Full name) Ms Megan Sedeman..... declare that:							
I have read through the submitted version of the research protocol and all supporting documents and am satisfied with their contents							
<ul style="list-style-type: none"> • I am suitably qualified and experienced to perform and/or supervise the above research Study. • I agree to conduct or supervise the described study personally in accordance with the relevant, current protocol and will only change the protocol after approval by the HREC, except when urgently necessary to protect the safety, rights, or welfare of subjects. In such a case, I am aware that I should notify the HREC without delay. • I agree to timeously report to the HREC serious adverse events that may occur in the course of the investigation. • I agree to maintain adequate and accurate records and to make those records available for inspection by the appropriate authorised agents when and if necessary. • I agree to comply with all other requirements regarding the obligations of clinical investigators and all other pertinent requirements in the Declaration of Helsinki (2013), as well as South African and ICH GCP Guidelines and the Ethical Guidelines of the Department of Health as well as applicable regulations pertaining to health research. • I agree to comply with all regulatory and monitoring requirements of the HREC. • I agree that I am conversant with the above guidelines. • I will ensure that every patient (or other involved persons, such as relatives), shall at all times be treated in a dignified manner and with respect. • I will submit all required reports within the stipulated time frames. 							
Date: 03 August 2020							
Signature:							

with all required reports with:

A handwritten signature in black ink, appearing to read 'M. Steyn', written over a dotted line.

HREC Declaration Form V4.2 February 2015
Stellenbosch University Faculty of Medicine and *Health Sciences*



DECLARATION OF TECHNICAL EDITOR PO Box 1087, Malmesbury,

05 December 2021

To whom it may concern,

Thesis EDITING

This is to confirm that I, P.L. du Plessis (ID 4812275050080), have read and edited all of the master's thesis

THE PERCEPTIONS OF NURSES REGARDING THE REASONS FOR ABSENTEEISM AT TWO PROVINCIAL HOSPITALS IN A RURAL AREA IN THE WESTERN CAPE

(SHARNA RENEE SYSTER) as submitted to me for text editing.

This thesis was **presented in fulfilment of the requirements for the degree of Master of Nursing Science, Faculty of Medicine and Health Sciences, Stellenbosch University and was edited from 27 November 2021 to 05 December 2021.**

- Total length: 181 pages; 50051 words
- Author: **SHARNA RENEE SYSTER**

This is a guaranteed editing, correct according to all accepted principles of modern English (South African).

SIGNED

COO: Philip du Plessis (M.A., S.T.D., B.A. (USA), Certificate for Editing [UCT], Translation Methodology [US])

Telephone: 072 880 499

Email: philipduplessis5@gmail.com

Appendix 7: Extract of writing laboratory course

Sharna Syster consultations attendance record from 1 January 2019 - 30 June 2021

Booking Date	Start Time	End Time	Booking Type	Student Number	Student Name	Consultant Attendance	Module Name	Purpose
06-Aug-2019	0900	1000	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
06-Aug-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
20-Aug-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
20-Aug-2019	1100	1200	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
03-Sep-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
03-Sep-2019	1100	1200	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
05-Sep-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
05-Sep-2019	1100	1200	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
10-Sep-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
10-Sep-2019	1100	1200	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
12-Sep-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
12-Sep-2019	1100	1200	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
29-Oct-2019	0900	1000	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
29-Oct-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
31-Oct-2019	1100	1200	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
31-Oct-2019	1200	1300	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
06-Nov-2019	0900	1000	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
06-Nov-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
12-Nov-2019	0900	1000	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
12-Nov-2019	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	20966 888 Nursing Science	Tesis/Thesis - Dissertasie/Dissertation
02-Nov-2020	1000	1100	Individual	17496772	Syster, Sharna Renee	Attended	10625 876 Research Thesis	Klasopdrag/Class assignment
02-Nov-2020	1200	1300	Individual	17496772	Syster, Sharna Renee	Attended	10625 876 Research Thesis	Tesis/Thesis - Dissertasie/Dissertation



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**TAALSENTRUM
LANGUAGE CENTRE
IZIKO LEELWIMI**

Hiermee word gesertifiseer dat
It is hereby certified that

Sharna Renee Syster

die volgende kursus bygewoon het
attended the following course

**WORKSHOP IN ACADEMIC WRITING SKILLS:
THESES AND DISSERTATIONS**

Vir die periode
Over the period

29 May 2019 - 30 May 2019

Dr AK Wallmach
Director

Dr RJ Richards
Head



TAALSENTRUM
LANGUAGE CENTRE
IZIKO LEELWIMI

5055/85095

Appendix 8: Declarations by language and technical editors

Write Skills

CK No: 2006/185158/23

P O Box 884, Jukskei Park, 2153

Tel: 010 220 5066

E-mail: julietg@icon.co.za

Fax: 086 602 3055

Website: www.writeskills.co.za

082 887 6055

Cell:

11 May 2020

To whom it may concern

DOCUMENT EDITING

This serves to confirm that one questionnaire (Annexure A) for an academic research study was submitted for the standard English language editing service, as follows:

- Editing date: 11 May 2020
- Total length: 5 pages; 1633 words
- Author: Ms Sharna Syster
- Number of corrections made: 457. The document required substantive editing, not standard editing and the student will attend to the remaining corrections.



Member: J C Gillies BA (Eng, Comm, Psych), Postgrad.Dip. (Marketing), BA Hons (English)

Alive! P.T.L. cc

16 November 2020

To whom it may concern

DOCUMENT EDITING

This serves to confirm that one questionnaire (Afrikaans) for an academic research study was submitted for direct translation, as follows:

- Translation date: 20 November 2020
- Total length: 8 pages; 1759 words
- Author: Ms Sharna Syster
- Formatting anomalies have not been corrected as requested for the situation.
- The approach for the translation was to be as direct as possible while adhering to the structural, grammatical, and semantic requirements of the target language.
- This is a guaranteed translation, correct according to all accepted principles of translation.

SIGNED



COO: Philip du Plessis (M.A., S.T.D., B.A. (USA), Certificate for Editing [UCT], Translation Methodology [US])

Telephone: 072 880 4993
Email: philipduplessis5@gmail.com

Certificate of Translation

I, **Tendai Tyler Ruombwa**, hereby certify that I translated the attached document from English to Xhosa and back from Xhosa into English and that, to the best of my ability; it is a true and correct translation.

I further certify that I am competent in both Xhosa and English to render and certify such translation. I am a holder of an honors degree in African language and Masters in Strategic communication from the University of Johannesburg.

Sworn to before me this 23 day of November 2020

Notary Public

Table 4.10 Bonferroni Multiple Comparisons

Dependent Variable	Language	Mean Difference	Significant
Organisational	Afrikaans / Xhosa	0.584* [0.622*]	0.002
[Unit management]	English / Xhosa	0.532* [0.510*]	0.008 [0.015]
	Xhosa / Afrikaans	-0.584* [-0.622*]	0.002
	Xhosa / English	-0.532* [-0.510*]	0.008 [0.015]
[Personal and social]	Afrikaans / English	0.238* [-0.238*]	0.000
	Afrikaans / Xhosa	0.456* [-0.456*]	0.024
Dependent Variable	Age	Mean Difference	Significant
[Health and safety]	20-30 years / 51-65 years	0.283* [-0.283*]	0.018
Dependent Variable	Race	Mean Difference	Significant
Organisational	Coloured / Black and [Black / Coloured]	0.165* [-0.165*]	0.030
[Unit management]	Coloured / Black and [Black / Coloured]	0.163* [-0.163*]	0.042
Personal and social	Coloured / Black and [Black / Coloured]	0.220* [-0.220*]	0.002
Dependent Variable	Current position	Mean Difference	Significant
Organisational	OPM (specialist) / RN (specialist)	-0.638* [-0.668*]	0.029 [0.026]
[Unit management]	OPM (specialist) / RN (general)	-0.645* [-0.716*]	0.021 [0.009]

	OPM (specialist) / EN	-0.733* [-0.752*]	0.004 [0.005]
	OPM (specialist) / ENA	-0.613* [-0.680*]	0.034 [0.016]
	OPM (general) / RN (specialist)	-0.614* [-0.612*]	0.024 [0.037]
	OPM (general) /RN (general)	-0.621* [-0.660*]	0.017 [0.013]
	OPM (general) / EN	-.0.709* [-0.697*]	0.003 [0.006]
	OPM (general) / ENA	-0.589* [-0.624*]	0.029 [0.023]
	RN (specialist) / OPM (specialist)	0.638* [0.668*]	0.029 [0.026]
	RN (specialist) / OPM (general)	0.614* [0.612*]	0.021 [0.037]
	RN (general) / OPM (specialist)	0.645* [0.7168]	0.021 [0.009]
	RN (general) / OPM (general)	0.621* [0.660*]	0.017 [0.013]
	EN / OPM (specialist)	0.733* [0;752*]	0.004 [0.005]
	EN / OPM (general)	0.709* [0.697*]	0.003 [0.006]
	ENA / OPM (specialist)	0.613* [0.680*]	0.034 [0.016]
	ENA / OPM (general)	0.589* [0.624*]	0.029 [0.023]
Dependent Variable	Shift type	Mean Difference	Significant
Organisational	12-hour day / 8 -hour day	0.249* [-0.249]	0.010
[Unit management]	12-hour day / 12-hour night	0.214* [-0.214*]	0.003
	12-hour night / 8-hour day	0.332* [-0.332*]	0.000

Table 4.11 ANOVA one-way test on socio-demographic scores

Domain	Variable	Between Groups	Within Groups	df	Mean Square	F	Significant
Organisational	Marital status	0.885	105.465	5	0.18 [0.30]	0.60	0.70
Unit management		0.945	106.349	5	0.19 [0.31]	0.60	0.70
Personal and social		0.661	105.580	5	0.13 [0.30]	0.45	0.82
Health and safety		1.140	126.091	5	0.23 [0.35]	0.65	0.67
Organisational	Gender	2.702	103.648	3	0.90 [0.29]	3.12	0.026
Unit management		2.348	111.686	3	0.78 [0.31]	2.52	0.058
Personal and social		4.143	102.097	3	1.38 [0.28]	4.9	0.003
Health and safety		2.411	124.821	3	0.80 [0.35]	2.31	0.076
Organisational	Employment	0.006	106.344	1	0.006 [0.30]	0.019	0.89
Unit management		0.026	114.008	1	0.026 [0.32]	0.082	0.78
Personal and social		0.724	105.517	1	0.72 [0.29]	2.48	0.12
Health and safety		1.366	125.866	1	1.37 [0.35]	3.92	0.049
Organisational	Qualification	1.019	105.331	4	0.26 [0.29]	0.87	0.49
Unit management		0.794	113.239	4	0.20 [0.32]	0.63	0.64
Personal and social		0.740	105.500	4	0.19 [0.30]	0.63	0.64

Health and safety		0.89	126.337	4	0.22 [0.35]	0.63	0.64
Organisational	Experience	0.681	105.668	5	0.14 [0.30]	0.46	0.81
Unit management		1.170	112.863	5	0.23 [0.32]	0.74	0.59
Personal and social		1.255	104.985	5	0.25 [0.29]	0.85	0.51
Health and safety		0.494	126.737	5	0.10 [0.36]	0.28	0.93
Organisational	Ward placement	4.113	102.236	1	4.11 [0.28]	14.53	0.000
Unit management		1.602	112.431	1	1.60 [0.31]	5.15	0.024
Personal and social		1.906	104.334	1	1.91 [0.29]	6.60	0.011
Health and safety		1.133	126.099	1	1.13 [0.35]	3.24	0.073
Organisational	Nurse-patient-ratio	4.113	102.236	1	4.11 [0.28]	14.53	0.000
Unit management		1.602	112.432	1	1.602 [0.31]	5.15	0.024
Personal and social		1.906	104.334	1	1.906 [0.29]	6.60	0.011
Health and safety		1.133	126.099	1	1.133 [0.35]	3.24	0.073
Organisational	Dependents	1.818	104.531	2	0.91 [0.29]	3.13	0.045
Unit management		0.88	113.945	2	0.44 [0.32]	0.14	0.87
Personal and social		0.173	106.067	2	0.09 [0.30]	0.29	0.75
Health and safety		0.965	126.266	2	0.48 [0.35]	1.38	0.25

Table 4.12 Biographical analysis versus environments scores

Variable	Organisational	M [SD]	Unit management	M [SD]	Personal and social	M [SD]	Health and safety	M [SD]
Language	Afrikaans	2.99 [0.51]	Afrikaans	2.67 [0.56]	Afrikaans	2.83 [0.52]	Afrikaans	2.67 [0.61]
Age	41-50 years	3.03 [0.54]	41-50 years	2.67 [0.59]	20-30 years	2.85 [0.50]	20-30 years	2.75 [0.53]
Marital status	Separated	3.60	Separated	3.39	Separated	2.86	Separated	3.32
	Married	2.99 [0.55]	Living together	2.65 [0.51]	Divorced	2.86 [0.49]	Divorced	3.32 [0.42]
Gender	Other	3.60	Other	3.39	Other	2.86	Other	3.32
	Female	2.96 [0.55]	Male	2.61 [0.55]	Male	2.83 [0.54]	Male	2.65 [0.51]
			Female	2.61 [0.56]				
Race	Asian	3.10	Asian	2.89	Asian	3.43	Asian	3.32
	Coloured	3.03 [0.51]	Coloured	2.67 [0.55]	Coloured	2.79 [0.52]	Coloured	2.65 [0.51]
					White	2.79 [0.52]		
Current position	Enrolled nurse	3.07 [0.54]	Enrolled nurse	2.70 [0.58]	OPM (general)	2.86 [0.40]	RN (community)	2.69 [0.49]
	RN (specialist)	2.98 [0.50]	RN (general)	2.66 [0.43]	RN (general)	2.79 [0.51]	Enrolled nurse	2.66 [0.64]
	RN (general)	2.98 [0.44]	Enrolled nurse auxiliary	2.62 [0.58]	Enrolled nurse	2.77 [0.55]	RN (general)	2.62 [0.54]
Employment	Yes	2.96 [0.55]	No	2.64 [0.55]	No	2.86 [0.46]	No	2.79 [0.49]
	No	2.95 [0.48]	Yes	2.61 [0.56]	Yes	2.57 [0.40]	Yes	2.58 [0.60]

Qualification	Certificate	3.00 [0.58]	Certificate	2.65 [0.58]	Bachelor's degree	2.83 [0.49]	Bachelor's degree	2.72 [0.48]
	Advanced diploma	2.95 [0.56]	Advanced diploma	2.58 [0.58]	Advance diploma	2.75 [0.55]	Certificate	2.60 [0.62]
	Diploma	2.91 [0.48]	Diploma	2.57 [0.52]	Certificate	2.70 [0.56]	Advanced diploma	2.59 [0.54]
Experience	21-25 years	3.06 [0.42]	6-10 years	2.69 [0.53]	>26 years	2.80 [0.55]	16-20 years	2.67 [0.55]
	6-10 years	2.99 [0.55]	16-20 years	2.69 [0.63]	6-10 years	2.77 [0.56]	6-10 years	2.63 [0.63]
	16-20 years	2.98 [0.54]	11-15 years	2.59 [0.51]	16-20 years	2.72 [0.48]	>26 years	2.61 [0.63]
			21-25 years	2.59 [0.52]			0-5 years	2.60 [0.58]
Ward placement	Generic	3.27 [0.49]	Generic	2.88 [0.53]	Generic	2.96 [0.61]	Generic	2.90 [0.66]
	Emergency	3.17 0.55]	Emergency	2.84 [0.58]	Emergency	2.91 [0.50]	Paediatric	2.77 [0.57]
	Gynaecology	3.07 [0.58]	Outpatients	2.72 [0.47]	Day ward	2.91 [0.65]	Emergency	2.72 [0.53]
						Theatre	2.72 [0.59]	
Nurse-patient-ratio	No	3.10 [0.49]	No	2.70 [0.56]	No	2.83 [0.53]	No	2.68 [0.58]
	Yes	2.88 [0.56]	Yes	2.56 [0.55]	Yes	2.67 [0.54]	Yes	2.56 [0.60]
Shift type	12-hour night	3.04 [0.54]	12-hour night	2.78 [0.52]	12-hour night	2.78 [0.50]	12-hour night	2.69 [0.57]
	12-hour day	2.96	12-hour day	2.56	8-hour day	2.81	8-hour day	2.60

		[0.53]		[0.55]		[0.55]		[0.55]
Dependents	3-4 children	3.06	None	2.64	None	2.74	None	2.70
		[0.57]		[0.60]		[0.60]		[0.60]
	1-2 children	2.91	3-4 children	2.61	1-2 children	2.74	3-4 children	2.61
		[0.54]		[0.54]		[0.50]		[0.64]
	None	2.91						
		[0.50]						