SYSTEM, COGNITIVE AND EMOTIONAL SUPPORT OF STUDENTS DURING CLINICAL PLACEMENT: EXPLORING THE EXPERIENCES OF STUDENTS FROM A COLLEGE OF NURSING IN KWAZULU-NATAL, SOUTH AFRICA

Thembeka Dorothy Makhetha
Student Number: 21853112

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Supervisor: Prof T.S.P. Ngxongo

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Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

_____ 07/February /2022

Signature of student Date

Approved for final submission:

_____ 07/February /2022

Prof T.S.P. Ngxongo Date

RN, RM, D Nursing

Dedication

I dedicate this dissertation to the Almighty God who has carried me throughout this journey as well as my late parents who have been my guardian angels.

The Lord is my shepherd; I have all that I need.
He lets me rest in green pastures; He leads me beside peaceful streams. He renews my strength.
He guides me along the right paths, bringing honour to his name.
Psalm 23: 1 - 3.

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Abstract

Introduction and background: Nursing education was introduced to improve the quality of nursing, and includes theory and clinical components of the curriculum which should be integrated to ensure that the course content that is taught covers the needs of the community, and that the graduate nurse is competent enough to care for the health care users. Clinical training is an essential component in the provision of nursing education and training that ensures the production of competent nurse cadres with the necessary competencies to respond to current and ever-changing healthcare needs of a diverse population. The South African Nursing Council (SANC) mandates that students should be supported throughout their training programme during clinical placement. Nevertheless, research highlights that support is one of the many challenges that are faced by students in the clinical learning environment.

AIM OF THE STUDY

The aim of the study was to explore and describe the experiences of students from a college of nursing in KwaZulu-Natal (KZN) regarding system, cognitive and emotional support received by the students during clinical training.

OBJECTIVES OF THE STUDY

The objectives of the study were to 1) Describe the experiences of students from a college of nursing in KZN with regards to system, cognitive and emotional support during clinical placement, 2) Determine if system, cognitive and emotional support was given to students during clinical training, and 3) Identify strategies that could be implemented to facilitate system, cognitive and emotional support to students during clinical placement.

Method: A quantitative, non-experimental descriptive study design was undertaken using Schlossberg's Transition Theory as a theoretical framework to guide the study. Ethics approval to conduct the study was received from the institutional Ethics Committee (IREC 151/20). Data was collected using a self-administered questionnaire between February and March 2021 from 214 3rd and

4th year nursing students who were registered for a four-year basic nursing programme in KZNCN, and analysed using version 21 of SPSS.

Findings:

The findings of the study confirmed that although all forms of support (system, cognitive and emotional) were given to students, several gaps prevailed, for example, negotiating student workloads with clinical staff. A significant difference was noted in the response regarding cognitive support between the 3rd and the 4th year students.

Conclusion

The findings from the current study confirmed that in a college of nursing in KZN, South Africa, system, cognitive and emotional support of students during clinical placement was evident but there were several gaps that still needed to be addressed. These findings confirmed the anecdotal evidence by the researcher which, together with research evidence, raised concerns regarding availability of system, cognitive and emotional support to nursing students during clinical placement.

Recommendations:

Recommendations to address gaps identified are made with regards to policy formulation, review and implementation, service delivery, nursing education. Further research is recommended regarding adherence to policies and guideline by nursing education and health care institutions involved in student clinical training in the matter of student support. Some recommendations are directed to the students who should acknowledge that to groom them into responsible professional support offered to them is informed by several factors including the level of training as support needs differ from level to level. Students should also acknowledge that at selected levels of training support made available to them students is adjusted to allow them to grow into independent practitioners as they exit the training programme to assume the duties and responsibilities of being professional nurses.

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Glossary of Terms

- **Accreditation** means certification of an institution, for a specified period, recognising it as a nursing education institution with the capacity to offer a prescribed nursing programme, upon compliance with the Council's prescribed accreditation requirements, criteria and standards for nursing education and training (South African Nursing Council 2013a: 1).
- **Clinic** (or outpatient clinic or ambulatory care clinic) is a healthcare facility that is primarily focused on the care of outpatients. Clinics can be privately operated or publicly managed and funded (Carr 2017).
- **Clinical accompaniment** means a structured process by a nursing education institution to facilitate assistance and support to the learner by the nurse educator at the clinical facility to ensure the achievement of the programme outcomes (South African Nursing Council 2013b: 1).
- **Clinical facility** refers to a continuum of services to promote health and provide care to individuals and groups, used to teach learners (South African Nursing Council 2013b: 2)
- **Clinical learning opportunities** means the range of learning experiences available in a healthcare setting or other experiential learning sites for a learner to gain the required clinical skills (South African Nursing Council 2013b: 2).
- **Clinical Placement** means the period spent by a learner in clinical and other experiential learning sites to ensure that the purpose of the programme is achieved (South African Nursing Council 2013b: 2).
- **Clinical Training** is an essential component in the provision of nursing education and training that ensures the production of competent nurse cadres with the necessary competencies to respond to the current and ever-changing healthcare needs of a diverse population (South Africa, Department of Health 2020: 3).
- **Cognitive Support** relates to support provided to individuals to facilitate cognitive skills which are how a person's brain understands and processes new information and recalls past knowledge to help a person live life and relate to being, or involving conscious intellectual activity such as thinking, reasoning, or remembering (Career Guide 2021).

- **Emotional Support** refers to the reassurance, encouragement and understanding given to a person by people who understand, encourage, and reassure them (Pam 2013).
- **Nursing** is defined as a caring profession practised by a person registered under section 31 of the South African Nursing Act 33 of 2005, who supports, cares for and treats a health care user to achieve or maintain health and where this is not possible, cares for a health care user so that he/she lives in comfort and with dignity until death (South African Nursing Council 2008: 6).
- **Nursing college** means a post-secondary educational institution which offers professional nursing education at basic and post-basic level where such nursing education has been approved in terms of section 15(2) (Parliamentary Monitoring Group 2009).
- **A Mentor** is a person who possesses relevant expertise, who is able to share knowledge, skills and values; and model behaviour to an individual with less experience in a specific field (South African Nursing Council n.d.)
- **Nursing Education Institution** is accredited by Council in terms of the Nursing Act (South African Nursing Council n.d.).
- **A Preceptor** is an experienced appropriately qualified person who provides day-to-day supervision during clinical practice and facilitates the application of theory to practice for students (South African Nursing Council n.d.).
- **System Support** is a positive practice environment that needs to be strengthened and supported by managerial a body from national, provincial and district level leading to innovative strategies for continuing education, safe and clean environment (South Africa, Department of Health 2013: 48).

List of Acronyms

Acronym	Full term
ANA	American Nurse Association
ANOVA	Analysis of variance
CETU	Clinical Education and Training Unit
CINAHL	Cumulative Index to Nursing and Allied Health Literature
DOH	Department of Health
DUT	Durban University of Technology
EBSCO	Elton B. Stephens Company
KMO	Kaiser-Meyer-Olkin
KZN	KwaZulu-Natal
KZNCN	KwaZulu-Natal College of Nursing
IREC	Institutional Research Ethics Committee
MEDLINE	Medical Literature Analysis and Retrieval System Online
MEC	Member of the Executive Council
NDP	National Development Plan
NEI	Nursing education institutions
RSA	Republic of South Africa
SANC	South African Nursing Council
sig difference	Significant difference correlation
UKZN	University of KZN
UNIZUL	University of Zululand

Chapter Outline

Chapter no	Title	Contents
Chapter 1	Overview of the study	Introduction and background, aim, objectives, research questions, problem statement and significance of the study
Chapter 2	Literature review	The views, assumptions and investigations made by various authors and researchers
Chapter 3	Theoretical Framework guiding the study	The theoretical framework and its application to the study
Chapter 4	Research methodology	Presents, describes, and justifies the research design including researcher's worldview, research rigour and ethical consideration
Chapter 5	Presentation of the results	The results of the study are presented
Chapter 6	Discussion of the results	Discussion of the study results. The literature used in the previous chapters, and new relevant literature, are integrated to contextualise the interpretation of the research results
Chapter 7	Summary of findings, conclusions, limitations, and recommendations of the study	Discusses the summary of results, conclusions, limitations, and recommendations of this study

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Nursing is defined in the South African Nursing Act 33 of 2005 as a caring profession practised by a person registered under section 31, who supports, cares for and treats a health care user to achieve or maintain health and where this is not possible, cares for a health care user so that he or she lives in comfort and with dignity until death (South African Nursing Council [SANC] 2005: 6).The American Nurse Association (ANA) 2019, describes 21st Century nursing as the glue that holds a patient's health care journey together across the entire patient experience. Wherever there is someone in need of care, nurses work tirelessly to identify and protect the needs of the individual. The ANA goes further to explain that nursing can be described as both an art and a science, engaging heart and mind. At its heart lies a fundamental respect for human dignity and an intuition for a patient's needs which is supported by the mind in the form of rigorous core learning. Due to the vast range of specialisms and complex skills in this profession, each nurse is required to have specific strengths, passions, and expertise.

1.2 BACKGROUND TO THE STUDY

Nursing education is expected to prepare qualified professionals who can identify individual and collective health needs in the epidemiological changes that occur in society, and provide care using the best scientific evidence (Khalili *et al.* 2015: 273). According to Mellish, Oosthuizen and Paton (2010: 78), nursing education was introduced to improve the quality of nursing as the nursing profession is unique compared to other professions. Integration between theory and practice needs to be properly balanced because the course content that is taught must cover the needs of the community to ensure that the graduated nurses are competent enough to care for the health care users (Kotze 2013: 184).

1.2.1 Approach to nurse training in South Africa

The South African Nursing Council (SANC) is a statutory body, established in terms of the Nursing Act, 2005 (Act No. 33 of 2005), that governs nurse practice including education and training in South Africa (South Africa, Department of Health 2004). Nursing education in South Africa occurs in the nursing education institutions (NEI) that have been accredited by the SANC such as universities as well as private and public nursing colleges where it is offered either as a one year certificate, two-to-three-year diploma and four-year diploma or degree programmes (South African Nursing Council [SANC] 2018: 15). Up until the year 2019, the nurse training programmes that were available in South Africa included basic programmes ranging from a one-year certificate programme leading to registration as an enrolled nursing auxiliary, to a four-year university degree (R425) and several post basic diploma programmes in various areas of specialisation (SANC 2018:9).

Subsequently, the Minister of Higher Education and Training, in line with the provisions of the Higher Education Act, 1997 (Act 101 of 1997), introduced a new qualification framework that has been designed to meet demanding challenges facing the higher education system in the 21st century to guide higher education institutions in the development of programmes and qualifications that provide graduates with intellectual capabilities and skills that can both enrich society and empower themselves and enhance economic and social development (South Africa, Department of Education 2007: 1). For a number of professions including the nursing profession, this led to the phasing out of the legacy programmes with effect from 31 December 2019, and the designing and introduction of the new programmes that are aligned to the higher education National Qualifications Framework (NQF) which started being implemented in 2020. The new programmes in the nursing profession include a number of basic programmes ranging from a one-year certificate programme to a four-year Bachelor's degree (R174) and a number of post basic programmes such as advanced diplomas, post graduate diplomas, master's and doctoral programmes (SANC 2016). This study focused on

the four-year nurse training programmes. Table 1.1 shows a summary of both the legacy and the new nursing programmes approved by SANC.

Table 1.1: List of legacy and new nursing qualifications approved by the South African Nursing Council

NEW NURSING QUALIFICATIONS	LEGACY NURSING QUALIFICATIONS
Higher Certificate	Enrolled Nursing Auxiliary
Diploma	Enrolled Nurse
Advanced Diploma (Midwifery)	General Nurse Psychiatric Nurse
Bachelor's Degree (Bachelor in Nursing)	Nurse General Psychiatric and Community) and Midwife
Post-graduate Diploma (Various speciality programmes	Post-basic courses
Master's Degree in Nursing (Professional)	
Master's Degree (Research)	
Doctoral Degree (Professional)	

Source: (SANC 2016)

1.2.2 Strategies to improve nurse training in South Africa

Several strategies have been put in place to strengthen nurse education in South Africa. In 2019 a special working group of Nursing Education Stakeholders identified the clinical education and training of nurses in pre-registration programmes as an important area of concern in improving the quality of nursing education, and proposed a model for clinical nursing education and training in South Africa to optimise learning in clinical settings and produce competent nurses and midwives, namely: the Nursing Education Stakeholders (NES) Group CPAS, DENOSA, FUNDISA, NEA, Nurse Managers, PHEPSA, SANC, (The Nursing Summit Organisation Committee 2012). The major concepts for the model are:

- Clinical practical for learning [experiential learning] in which students can work with patients without forming part of any service team are distinguished from clinical practical for role-taking [work-based learning], during which students do form part of the service team.
- A system of clinical preceptors is implemented which ensures a minimum level of clinical teaching and support for students during their clinical practice for role-taking. A designated person, the Clinical Placement Co-ordinator,

manages the total clinical teaching system and ensures its functioning and quality.

- When students are doing role-taking practice, their teaching and support is included in the job descriptions of clinical supervisors – nurses who oversee nursing teams where they are allocated.
- Students are only placed in clinical facilities where a certain level of quality of nursing care, based on clearly defined standards, is provided. A positive practice environment (PPE) and establishing where such a PPE is available is the responsibility of the NEI.
- Nurse educators are expected to remain clinically competent in their field and be part of the clinical preceptor team.
- Clinical experts in practice referred to as Clinical Teaching Associates (CTA) are recognised and involved in classroom teaching to provide clinical role models for students.

The South African National strategic plan for Nurse Education, Training and Practice 2012/2013 – 2016/2017 was developed with the aim of reconstructing and revitalising the nursing profession and led to the development of the norms and guidelines for clinical education and training platforms in nurse training (South Africa, Department of Health 2013). These norms and guidelines provide a mechanism for standardising clinical education in nursing and offered a guide towards future development of standards and norms for the platforms of clinical training (South Africa, Department of Health 2013: 10). Domain 3 of the documents National Development Plan: Guidelines for nursing clinical education and training units in South Africa, describes clinical teaching and learning (South Africa: Department of Health 2020: 37). The SANC Nursing Education and Training Standards (SANC 2008: 38-39) stipulate that nursing and midwifery programmes should provide supervised clinical learning experiences that support nursing or midwifery theory in diverse settings. The purpose of this standard is to motivate and promote a conducive clinical learning environment for nursing students. The criterion to achieve the standard is to place nursing students in an appropriate variety of clinical settings where the students will collaborate theory with practice and clinical hours aligned with the theory component.

It is also stated in the National Development Plan (NDP) 2030 policy document of the South African government that one of the supporting systems that must be in place to achieve the standards is to have clinical preceptors in the clinical setting. Certain criteria have been formulated to measure the standard. For example, unit managers must have a register to document dedicated preceptors or mentors to supervise the students in the unit and if preceptors and mentors are not in place a functional system to replace them must be in place (South Africa, National Planning Commission 2012: 37). Accompaniment plans for students must be available as well as delegation and supervision of student nurses according to their level of training. Records of tasks delegated to student nurses and supervision must be kept as well as learning opportunities provided to student nurses by staff. Opportunities for debriefing or evaluation of clinical learning experiences of student nurses must be provided (South Africa, National Planning Commission 2012: 37). However, despite all these strategies, inappropriate clinical environments continue to prevail, resulting in lack of system, cognitive and emotional support for students during clinical training (Jamshidi *et al.* 2016; Kalyani *et al.* 2019; Baraz, Memarian and Vanaki 2015).

1.3 THE FOUR-YEAR BASIC NURSING PROGRAMMES

In year 2021, two four year basic nurse training programmes were in force in South Africa:

- The legacy four year degree/diploma nursing programme governed by Regulations Relating to the Approval of and the Minimum Requirements for the Education and Training of a Nurse (General, Psychiatric and Community) and Midwife leading to Registration (Government Notice No. R425 of 22 February 1985 as amended); and
- The new four-year Bachelor of Nursing programme governed by Regulations Relating to the Approval of and the Minimum Requirements for the Education and Training of a Learner leading to Registration in the Categories Professional Nurse and Midwife (Government Notice No. R174 of 8 March 2013) (SANC 2016).

In practice the two programmes are referred to as R425 and R174 in line with the government regulations relating to these programmes. However, in the current study they are collectively referred to as the 'four-year basic nurse training programme'. The two qualifications are mutually exclusive qualifications, and neither is a replacement of the other (SANC 2013b). What also makes the two programmes comparable (though not completely synonymous) is that that both programmes have 480 SAQA credits which are broken down into theory and clinical credits though the total number of prescribed clinical hours differ as stipulated in Table 1.2 and Table 1.3. The training programmes have a large clinical component (over 1 000 hours in a four year period) which must be acquired in appropriate and accredited clinical facilities and which should be supervised and mentored. The two programmes have several other common characteristics such as:

- The duration of the programmes is four academic years of fulltime study.
- Learners receive integrated education and training to achieve both theoretical and clinical outcomes throughout the programme.
- Learners are required to comply with all clinical placement requirements of the programme as determined by the South African Nursing Council.
- The maximum period that a learner may spend in a simulated learning environment must comply with the conditions determined by South African Nursing Council, which may be published by notice in the Gazette at the discretion of the Council.
- Clinical education and training should be provided in clinical facilities that are approved in terms of the accreditation of the programme.
- Clinical learning should take place in a range of clinical settings and other learning sites that will facilitate the achievement of the programme outcomes.
- The nursing education institution should set clinical learning outcomes for each of the learning areas of the programme in accordance with the guidelines.
- The nursing education institution is accountable for clinical accompaniment and clinical supervision.

1.3.1 The R425 four-year basic nurse training programme

The four-year nursing programme is governed by regulation R425 which the Minister of Health and Welfare has, on the recommendation of the South African Nursing Council, in terms of section 45(1) of the Nursing Act, 1978 (Act 50 of 1978), signed, leading to registration as a nurse (general, psychiatric and community) and midwife (SANC 1985). The R.425 is a legacy nursing qualification that is being phased out like all other legacy qualifications in the country, in line with the requirements of the Higher Education Qualifications Sub-Framework and as supported by the board notice published in the Government Gazette by the Minister of Higher Education, Science and Innovation in July 2016. The last intake for this programme was 2019. Therefore, this qualification continues and is going to continue being offered for pipeline students for the next four to six academic years which includes a two years teach-out period (SANC 2020). Thus, the programme will for some years run concurrently with the new R174 four-year Bachelor programme (SANC 2016). To ensure the achievement of the purpose of the training programme, education of nursing students in the four years integrated programme must include a minimum of 4 000 hours in the clinical area and students should compete these clinical hours in hospitals, community health care centres and clinics during their training programme from 1st year to 4th year of study (SANC 2005: 1). Depending on the NEI these clinical hours are either broken down per level of study or per speciality. If broken per level of study, on average the total clinical hours that the four-year nursing student should complete are 1 000 hours in 1st year, 880 hours in 2nd year, 2 240 hours in the 3rd year and 1 040 hours in the 4th year of training. When broken down per speciality, 1 356 hours are allocated to General Nursing Science, 920 hours to Community Nursing Science, 860 hours to Psychiatric Nursing Science and 1124 hours to Midwifery (Table 1.3).

Table 1.2: Distribution of clinical hours over a four-year period for R425 programme

Study level	Level 1	Level 2	Level 3	Level 4	Total in four years
Minimum prescribed hours	1 000 hours	880 hours	2 240 hours	1 040 hours	**5 160 hours**

Source: (SANC 1985)

1.3.2 The R174 four-year basic nurse training programme

The new four-year nursing programme is governed by regulation R174 which the Minister of Health has, in terms of section 58(1)(f) of the Nursing Act, 2005 (Act No. 33 of 2005), after consultation with the South African Nursing Council, signed, and leads to registration as a nurse in the categories Professional Nurse and Midwife. This programme is commonly known as the R174 in line with this regulation. With the phasing out of the legacy nursing programmes the R174 replaces the R425 nursing programme (South Africa National DoH 2019: 10). The proposed study will focus on nursing students who are registered for a four-year nursing programme, either R425 or R174, depending on availability of students at the time of data collection. Depending on the accreditation by the SANC and Council of Higher Education (CHE), several NEI in South Africa including KZNCN commenced training for the new R174 programme in 2020 and others in 2021. However, a few NEI including the one under study had not finalised the accreditation process to offer this programme at the time of the study (SANC 2016).

The SANC prescribes in the qualification framework for R174 that the hours of training should be spread in the ratio of 30%:70% between theory and clinical training over the four-year period and 70% of clinical acquired credits must be supervised and mentored. Therefore, of the 480 credits, 183 are allocated for clinical training. Because hours of training are interpreted as notional hours where one credit is equal to ten notional hours, 183 credits for clinical training component is equal to 1 830 hours of clinical training which can be work-based, clinical skills laboratory-based, or other clinical experiences (SANC 2013b: 4). Table 1.3 presents the qualification matrix for R174 programme and clinical hours to be covered in four years.

Table 1.3: Qualification matrix for R174 programme showing distribution of credits and clinical hours between theory and clinical

			Work Integrated Learning Practical		Total Minimum prescribed in 4 years	
Component			**Credits**	**Hours**	**Credits**	**Hours**
Fundamental			Nil	Nil	114	1 140
Core			183	1830	366	3 660
Total			183	1830	480	4 800

Source: (SANC 2013b)

1.3.3 Clinical training component in the four-year nursing programme

Clinical training is an essential component in the provision of nursing education and ensures the production of competent nurse cadres with the necessary competencies to respond to current and the ever-changing healthcare needs of a diverse population (South Africa, Department of Health 2020: 3). Luhanga *et al.* (2014: 86) attest that nursing education includes theoretical and practical training components which prepare nursing students for their transition from students to professional nurses. Clinical training is described as a gradual process of acquisition of professional nursing where nursing students learn what real nursing means (NDP 2030: 6). During clinical teaching and learning students actively engage in providing nursing care under direct or indirect supervision depending on the level of training and correlate the theoretical component with practice (South Africa, Department of Health 2020: 7). According to Sezer (2018: 15), clinical education is the most important part of nursing education. This author describes clinical education as the continuing education process in clinical practice and further explains that this form of education is a patient-centred, targeted, interview specific three-part educational interaction between a trainer, students, and a patient.

The SANC prescribes the minimum hours that a student in the four-year nursing programme should cover during clinical training (SANC Nursing Act, No. 33 of 2005: 1). It is the responsibility of each NEI to have well-structured clinical training programmes to facilitate achievement of the clinical hours and learning outcomes (Luhanga *et al.* 2014: 86). Education in the clinical setting is often challenging, complex and daunting (Sezer 2018: 15). Therefore, this author further advises that, because in clinical training the student is in transition from novice to expertise, it is important that the clinical trainer should knowingly and at all stages support these steps so that student nurses are well trained in clinical processes.

1.3.4 Student support during clinical training

Clinical training is known to be an experience that is stressful for students (Jamshidi *et al*. 2016; Kalyani *et al*. 2019; Niaz *et al.* 2019) for reasons such as a lack of

confidence; fear of harming the patients; complex medical conditions; a lack of drugs and equipment; and shortage of staff (Hugo, Botma, and Raubenheimer 2018: 83-84). This stress has a great impact on learning (Moreira *et al.* 2016: 1). According to Hamaideh, Al-Omari and Al-Modalall (2017: 197), nurse educators and clinical staff are expected to promote adaptive coping behaviours for students during clinical placement. Kotze (2013: 36) concurs that nurse educators have the important responsibility of student support and guidance which requires them to be where the student is. Support, guidance and effective feedback given by nurse educators to nursing students in the clinical setting guide and motivate the students towards their learning outcomes (Lim, Hong and Chew 2018: 2). The SANC mandates that students should be supported throughout their training programme during clinical placement (SANC 2005: 38). Similarly, the KwaZulu-Natal College of Nursing (KZNCN) (2019: 1) emphasises the importance of pre-entry, on course, and exit support for students.

In the absence of nurse educators, mentoring and preceptorship are some of the supporting strategies in the clinical setting that are known to have an impact on the smooth transition of nurses if well organised (Edwards *et al.* 2015: 1267). Laske (2019: 64) concurs that mentors support students in the clinical setting by teaching, active listening, providing guidance, and counselling on work related issues. Korzon and Trimmer (2015: 14) state that preceptorship is an educational relationship that allows an experienced practitioner to role model, support, and guide a less experienced practitioner. Nurse managers should inspect their clinical settings to ensure that appropriate learning opportunities are available for the nursing students with the aim of supporting them (Thomson, Docherty, and Duffy 2017: 520). The unit manager has the duty to ensure that student nurses are empowered with skills and knowledge during their clinical placement (Mathebula 2016: 2).

Nevertheless, several studies continue to highlight lack of support as one of the many challenges that are faced by students in the clinical learning environment (Jamshidi *et al.* 2016; Kalyani *et al*. 2019; Niaz *et al.* 2019).

1.3.4.1 Support of students through mentorship

Mentoring has long existed and is not exclusive in nursing. It is a strategy that addresses students' individual personal and academic needs during transition in a new practice setting (Golden 2018: 5). Mentorship in a clinical setting is a related experience in the professional lives of nurses which has shown benefits during the nursing student transition period and takes place in one-on-one encounters. Mentors transmit professional experience, allowing students to mingle with a multidisciplinary health team and play their role (Soto Núñez *et al.* 2017: 361).

A study conducted by Carr, Taylor and Pitt (2018: 499) in Britain concluded by saying that effective mentor support for students occurs when a student-centred approach is implemented. However, if the student is not interested in learning experiences during the clinical placement, mentorship causes frustration (Rylance *et al.* 2017: 408). Mentor support occurs through understanding, encouragement and giving feedback to the mentee (Mazerolle *et al.* 2017: 13). According to North, Kennedy, and Wray (2019: 254) Moreover, mentors are capable of making a decision regarding student competence in the clinical setting

In a sub-Saharan study conducted by Sawatsky *et al.* (2016: 663) the authors found that cultural value of respect can affect mentorship negatively as mentees fear the faculty staff instead of learning from them due to the gap between the older generation and younger generation. According to Ndayisaba (2017: 8), mentoring in clinical settings present a challenges in terms of service delivery. The study conducted by Lindani (2017: 12) in Johannesburg regarding community service concluded by saying that mentoring is needed more than ever in nursing currently, to build professional confidence and competence in nurses who will in turn nurture other junior nurses leading to a decrease in nurses' malpractice, retention of staff, and professional development.

Peer support is considered as informal assistance whereby students support one another in the clinical area using their own helping skills (Fertelli 2019: 332). However, a study conducted by Amarasuriya *et al.* (2017: 12) in Sri Lanka revealed that peer

support for students suffering from distress put them at risk of harm as the peers were not encouraging each other to seek professional assistance. In the United Kingdom mobile technology has been introduced in nursing education as an innovative support for nursing students in clinical practice, however students need to have more time to learn the practical skills quickly and efficiently before applying them but the clinical setting is busy (O'Connor and Andrews 2016: 334-338). Mentoring and preceptorship are supportive strategies in the clinical setting which can have a major impact on the smooth transition of nurses if they are well organised (Edwards *et al.* 2015: 1267). Mentors support students in the clinical setting by teaching, active listening, providing guidance, and counselling on work related issues (Laske 2019: 64). Moreover, mentor support occurs through understanding, encouragement and giving feedback to the mentee (Mazerolle *et al.* 2017: 13). Preceptorship is an educational relationship that allows experienced practitioners to role model support and be competent in order to guide a less experienced practitioner (Korzon and Trimmer 2015: 14).

1.3.4.2 Preceptorship

Preceptorship is not a new concept in nursing. It originated from the time of Florence Nightingale when professional nurses were expected to facilitate students in their learning and guide them in caring for the patients (Fletcher 2005: 4). Preceptorship is an educational relationship that allows experienced practitioners to role model support and be competent to guide less experienced practitioners (Korzon and Trimmer 2015: 14). In early nursing education, apprenticeship of student nurses was provided by nurses employed by a hospital that provided training to them (Allrich 2001, and Palmer 1983, cited by Chapman 2017: 3). Nursing education progressed and hospital-based programmes came into existence. The use of preceptorship diminished during the peak of hospital diploma programmes, then reappeared in the 1960s as a clinical teaching method in nurse practitioner programmes (Myrick and Yonge 2004: 4).

In the United Kingdom preceptorship is a term used to define the transition period of registered nurses to develop their confidence as autonomous professionals, refine their skills and continue on their journey of life (DoH 2010: 11). Supporting students in their learning and giving instruction and assessing their work as part of course criteria,

is considered to be mentoring (Price 2014: 37). The DoH of the United Kingdom endorses a preceptorship programme as a strategy which enables the transition from student to registered nurse. The structure of preceptorship focuses on work conducted for a limited period in which the nursing student is assisted to identify learning goals and address their perceived needs and deficits. Preceptors facilitate plans of action that the nursing students use to achieve their goals, and introduce the nurse to learning opportunities that are available in practice especially on care procedures and protocols, and on how the team operates (Price 2014: 38).

Preceptorship permits students to participate in a unique learning experience that can never be duplicated in a classroom setting and the atmosphere is less threatening (Kim *et al.* 2014: 205-206). Furthermore, preceptorship has the potential to reduce reality shocks that occur during the transition process (Edwards *et al.* 2015: 1255). Zawaduk *et al.* (2014: 214) agrees that preceptorship has long been proven as an effective method for preparing nursing students to transition into graduate nurses.

A study conducted in Karachi Pakistan by (Farooq, Parpio, and Ali 2015: 72) on evaluating the role of preceptors and preceptorship reveals that the success of preceptorship is determined by the strength of the relationship between the preceptor and the preceptee. In Sultan Qaboos nursing college a study was conducted on challenges encountered by preceptors and the strategies they used in building effective relationships with preceptees. The study found that building an effective relationship with the preceptee is a challenge and other challenges that have a negative impact on preceptorship were also identified such as preceptors experiencing discrepancies in application of theory to practice, time and trust, as well as being perceived as lacking knowledge.

Phuma-Ngaiyaye, Bvumbwe and Chipeta (2017: 165) conducted a study in Malawi in 2012. They faced a challenge when the number of nursing students increased, and preceptorship was implemented as a clinical teaching model for student nurses to address that challenge. A study conducted by Mwai (2014: 26) on nursing students' experiences in the clinical nursing environment concluded that the support received by the students while allocated in the clinical setting helps them to feel welcome,

valued and that improves their competence and self-confidence and they are then motivated to perform the clinical tasks.

In South Africa currently the role of the preceptor is adopted by a professional nurse in addition to his/her clinical nurse responsibilities (Tenza 2015: 53). However, the new clinical nursing education and training model requires that they should be a clinical preceptor within the nursing education institution to support students during their clinical placement (The Nursing Summit Organisation Committee 2012: 5). In a study conducted in Limpopo province on challenges facing student nurses in the clinical learning environment it was reported that the preceptor's role has not been fulfilled due to the shortage of staff and lack of equipment. A negative impact on students was noted since students lack support and guidance during their clinical placement (Mathebula 2016: 6). Students lack support and guidance since some professional nurse's educational function is limited, and they do not have nursing education qualifications.

A preceptorship programme was formulated at the University of Western Cape with the aim of providing competencies to professional nurses in educational departments and to those who are in charge of the service in the unit where they will be able to facilitate clinical teaching effectively to student nurses (Jeggels, Traut, Africa 2014: 17-28). A study conducted by (Vellem 2016: 65-67) in Western Cape regarding experiences of students with preceptors in psychiatric institutions reveals that preceptors who undergo preceptorship training reduce students' negative experiences during their clinical placement; however it was noted that there was a shortage of preceptors as other wards did not have preceptors and students were allocated in those wards.

1.4 RESEARCH PROBLEM

The researcher who is working as a clinical nurse educator in one of the campuses of the KZNCN has observed that often students do not get as much support as required during clinical placement in the form of mentoring, for a variety of reasons, most of which are clinical such as staff shortages, high workloads, and attitudes of

staff. The researcher has also observed that lack of support during clinical training is also related to clinical accompaniment by nurse educators who often dishonour clinical accompaniments; they either spend minimal time in the clinical setting or ignore the clinical accompaniment role with an expectation that clinical staff take full responsibility for mentoring and clinical facilitation of students. According to the researcher, students have insufficient support during clinical placement which has a negative influence on the student clinical learning process and outcome. Although these are all just anecdotal observations by the researcher there is research evidence in these regards. A study conducted by Motsilanyane (2015: 88) confirmed that nurse educators do not always present for clinical accompaniment; if they show up, they spend very limited time working with the students. Vizcaya-Moreno *et al.* (2018: 327) attest to the problem of mentors and that of nurse educators. Both Motsilanyane (2015: 88) and Vizcaya-Moreno *et al*. (2018: 327) concur that a student's participation in ward activities depend on the student's experience, the characteristics of the ward, the nursing team and the nurse tutor. Lack of support causes an unsupportive atmosphere in clinical institutions which is very unpleasant for the students and often results in students experiencing emotional flares in the form of psychological problems, fear and stress especially when confronted with problems and challenges in clinical settings rooted in unknown procedures, complex medical conditions, inability to use of equipment, fear of harming the patients and lack of confidence (Hugo, Botma, and Raubenheimer 2018: 83-84). The stress from these fears has a great impact on learning (Moreira *et al*. 2016: 1). The anecdotal observation by the researcher and evidence from the authors presented above highlights the importance of system, cognitive and emotional support of students during clinical placement and thus the need to explore the experiences of student in this regard in order to identify strategies that can be implemented to facilitate system, cognitive and emotional support to students during clinical placement.

1.5 RESEARCH QUESTIONS

1. What are the experiences of student nurses from KwaZulu-Natal (KZN) colleges regarding system, cognitive and emotional support during clinical placement?
2. What support if any, is received by student nurses during clinical placement?
3. What strategies can be implemented to facilitate system, cognitive and emotional support to student nurses during clinical placement?

1.6 AIM OF THE STUDY

The aim of the study was to explore and describe the experiences of students from a college of nursing in KZN regarding system, cognitive and emotional support received by the students during clinical training.

1.7 OBJECTIVES OF THE STUDY

The objectives of the study were to**:**

- Describe the experiences of students from a college of nursing in KZN with regards to system, cognitive and emotional support during clinical placement.
- Determine if system, cognitive and emotional support is given to students during clinical training.
- Identify strategies that can be implemented to facilitate system, cognitive and emotional support to students during clinical placement.

1.8 SIGNIFICANCE OF THE STUDY

This study will identify gaps in clinical education and training and assist KZN nursing colleges in planning for clinical education and training, as well as to create policies that will guide clinical education and training. Furthermore, the study will assist in revitalising and strengthening the clinical education and training in KZN nursing colleges.

1.9 RESEARCH METHODOLOGY

This non-experimental descriptive quantitative study was guided by Schlossberg's Transition Theory to determine the experiences of the students from selected colleges of nursing in KZN regarding system, cognitive and emotional support received by students during clinical training. Data was collected from the students registered for the four-year basic nursing programme who were in the 3rd and 4th year level of study at the time of data collection using a self-administered questionnaire and analysed using the latest version of the SPSS electronic programme.

1.10 CHAPTER SUMMARY

In this chapter the approach to nurse training, clinical training programme, student support during clinical placement, support of student through mentorship, preceptorship, research problem, research question, aim of the study, objectives and significance of the study was discussed. The next chapter will be review relevant literature.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 2 presents the literature review. According to Burns and Grove (2007: 135), the literature review provides the background, theoretical and scientific knowledge of the problem studied resulting in synthesising what is known and not known. In line with this definition, the literature that was reviewed for the current study provided the background, theoretical and scientific knowledge to determine evidence of system, cognitive and emotional support for students during clinical training by looking into the experiences of students.

2.2 STRATEGIES USED TO SEARCH LITERATURE

A search of EBSCOHOST, Google scholar, CINAHL and MEDLINE database of Durban University of Technology was used to search for relevant literature. The following terms were used to search: experiences of students, clinical placement, system, cognitive, emotional support. Theoretical literature was used to gain current understanding of the experiences of students during clinical placement exploring the evidence of system, cognitive and emotional support to students during clinical placement. Studies included were those which showed evidence of system, cognitive and emotional support experienced by nursing students during clinical placement.

2.3 CLINICAL TRAINING FOR NURSING PROGRAMMES

Nursing education in South Africa is governed by the SANC which accredits nursing education institutions and training programmes and provides conditions under which training in all nursing programmes should happen. Currently, there are two four-year basic nursing programmes in South Africa or training as a professional nurse. These are the R425 programme which is education and training of a nurse leading to registration as a general, psychiatric, community and midwife nurse, and the R174

programme which is education and training of a nurse leading to registration as a general nurse and midwife. The former is a legacy programme that was discontinued in December 2019 and is being phased out with a few students still remaining in the system. The latter is a new programme that was introduced in 2020 in line with the new South African Department of Higher Education Qualification Framework (SANC 2018: 15). Both these programmes have theory and clinical components.

Clinical training commences in the skills laboratory where simulation using various models is done. However, most training happens in the health facilities such as hospitals and clinics where students get an opportunity to work with actual clients/patients. During clinical training, the students get the opportunity to care for 'real' patients and families and transfer what has been learned in simulation and class to patient care (Oermann 2016). An old definition of clinical teaching and learning found by White and Ewan (1991) defines clinical teaching as teaching which prepares students to integrate their previously acquired knowledge with skills and competencies, allowing them as students to translate theory into practice. Personal and professional skills, attitudes and behaviours are learned and practised in the care of clients or patients.

The SANC prescribes in the Nursing Education and Training Standards that nursing and midwifery programmes should provide supervised clinical learning experiences that support nursing or midwifery theory in diverse settings. Therefore, nursing students should be placed in a variety of, but appropriate, clinical settings where they will be able to integrate theory with practice (SANC 2008: 38-39). In addition, the SANC emphasises support to students during clinical learning through regular clinical support visits by nurse educators and availability of preceptors and mentors to work with students during clinical placement. The SANC also prescribes the total number of hours that should be covered by the student during training. The minimum ratio for distribution of hours covered during training between theory and clinical teaching and learning should be 40%:60% and that between supervised and unsupervised clinical learning should be 70%:30% (SANC 1985, SANC 2013).

It is evident from this prescription by the SANC that clinical training forms a large and integral component of basic nurse training. Reeves (2020: 28) confirms that clinical

training is important in nursing training as students can integrate theory with practice and therefore recommends that the clinical environment should be supportive in order to facilitate clinical training. This is supported by other authors such as Billings, and Halstead (2015: 293) and Moquin, Senevivatne and Venturato (2018: 9) who also recommend that preceptorship and mentorship be implemented as one of the supportive approaches used in the teaching model.

The Nursing Education Stakeholders (NES) Group (CPAS, DENOSA, FUNDISA, NEA, Nurse Managers, PHEPSA, SANC) (The Nursing Summit Organisation Committee 2012) in their model propose that clinical nursing education and training should involve four major stakeholders: the student, who is the focus of the activities, the health system in which clinical learning takes place, the nursing education institution responsible for the educational programme of the student, and the regulatory body which sets the standards for practice and education.

2.4 EXPERIENCES OF STUDENTS IN CLINICAL PLACEMENT

Clinical training is important in nursing training so that students can integrate theory with practice. A clinical setting that is supportive to students and staff, placing students in a variety of contexts of practice, and enough clinical hours can create competent students that meet the requirements for nursing and midwifery and students can be appointed for future employment (Reeves 2020: 28). Studies which have been previously conducted reveal that students during clinical placement encounter positive or negative experiences. Some of these studies are briefly presented below.

A qualitative study conducted in Canada by Moquin, Senevivatne and Venturato (2018: 9) on undergraduate nursing student experience in clinical placement in residential aged care identified that nursing students experienced anxiety on allocation to a new clinical area. Their readiness to practice and to use appropriate skills as well as to create good interpersonal relationship with staff and patients while collating theory and practice were factors.

Russell (2017: 38) conducted a study in the School of Nursing and Midwifery at the University of Notre Dame, Australia, on assisting allocated supervisors to be able to

support nursing students to practice within their scope of practice and according to their level of training in conjunction with the policies and legislation of the institution. Russell asserts that students experience frustration and confusion during clinical placement due to the lack of consistency of the trained staff in delegating clinical tasks to students (Russell 2017: 38).

An action research study by Delany *et al.* (2015: 14) was conducted in Australia and further explains the stressful challenges experienced by students during clinical placement. The study reveals that anger, frustration, confusion, disappointment and decrease in confidence were emotional responses experienced by some of the students.

Looking at the above studies of Canada and Australia the common element is the role of confusion that is experienced by students which is caused by lack of support from the staff and educators. Other students experienced anxiety, inability to think and solve problem as their cognitive responses to these challenges, it has been said that students lack support from educators and clinical staff during clinical placement (Delany *et al.* 2015: 14 - 17). Therefore, it has been noted that regardless of the experiences the students encounter, a variety of support systems must be in place to match students' needs. Working in Saudi Arabia, a study conducted by Hamaideh, Al-Omari and Al-Modallal (2016: 197) identified levels and types of stress amongst nursing students in clinical training and their coping behaviours. The different types of stresses which were highlighted were students being far from home which led to lack of support from their families, as well as any immediate support from home, and academic requirements being the second stress factor as it forces students to complete assignments as stipulated by the programme in a limited space of time thus workload increases during clinical placement. Students experience stress due to complex challenges in clinical settings leading to poor grades obtained by students and the transition process is difficult (Hamaideh, Al-Omari and Al-Modallal 2016: 197). These findings support the findings of a study conducted in Iran where students experienced stress and became overwhelmed when caring for the patients or facing new challenges during clinical placement (Jamshidi *et al.* 2016: 5). Another study conducted in Ghana by Drateru (2019: 2) revealed that the language barrier was one

of the students' challenges in the clinical setting where patients fear those students who do not speak their language which causes stress to students. This experience occurs to students due to poor interpersonal relationship amongst clinical staff and students, leading to an environment that is not supportive for clinical learning (Adjei *et al.* 2018: 5). Furthermore, a study conducted in Botswana found that students experienced emotional stress when they lacked support in clinical placement either from clinical staff or clinical facilitators (Motsilanyane 2015: 88). The study conducted in one of the nursing campuses in eThekwini District on perceptions of student support services by Ndlela and Brysiewicz (2017: 78) concluded that it is equally imperative that students receive support services during training, academic and non-academic.

2.5 SYSTEM SUPPORT

System support is defined as a positive practice environment that needs to be strengthened and supported by a managerial body from national, provincial and district level leading to innovative strategies for continuing education and a safe and clean environment (South Africa, Department of Health 2013: 48). In California Kim *et al.* (2014: 183-184) found that during the transition phase students are directly supervised by professional nurses. However, in Australia, a study revealed that registered nurses have a choice of not participating in student professional development, and students lack support and assistance while putting theory into practise (Anderson 2018: 40). A study conducted in Australia by Sidebotham *et al.* (2015: 207) concluded that developing positive relationships with clinical staff (preceptors) develops students' clinical skills, however organisational and personal issues create an impact on students' experience resulting in inappropriate support that may lead to attrition. A study conducted by Shinners and Franqueiro (2015: 235) concluded that increased support for the clinical staff (preceptors) must come from the organisation; then pairing of students with a registered nurse will be effective. The study in Saskatchewan, Canada, found that pairing students with a registered nurse can generate a collaborative working environment whereby the experienced registered nurse can gain an understanding of how to work side by side with the nursing students and chances to share ideas occur (Fudger and Belcourt 2015: 14).

In Sweden a study conducted Carlson and Bengtsson (2015: 1) found that clinicians must be involved in creating a supportive or conducive learning and working environment for students through giving them the opportunity to develop their competence. In addition, nurse educators must always endeavour to promote positive relationships with clinical staff (preceptors) and other members of the health care disciplinary team to strengthen the students' support systems (Phillips *et al.* 2017: 212). A study conducted in Brazil reveals that the absence of venues and the lack of health care system support is reported as a challenge that affects learning in the health care system (Girotto *et al.* 2019: 7).

A study conducted in Malawi by Bvumbwe (2016: 8) concludes that academic clinical partnership is pivotal in nursing education, thus effective collaboration amongst academic and clinical institutions lead to clinical staff fostering nursing students successfully to become competent nurses. A study conducted by Dlama, Modupe and Umar (2015: 68) in Nigeria affirmed that preceptorship and mentorship are good factors that facilitate clinical learning for nursing students. Furthermore, in Malawi the study found that students gain confidence and competency through clinical staff (preceptor) support during clinical placement. However, the clinical staff (preceptors) need training to facilitate a positive supportive clinical learning setting for students (Phuma-Ngiyaye, Bvumbwe and Chipeta 2017: 168). However, poor interpersonal relationship, insufficient time, lack of feedback, limited resources, and overcrowded facilities lead to stress and anxiety resulting in a theory practice gap for nursing students as the system support is compromised. In addition, in Iran academic and service partnership results in mutual benefits which bridge the theory practice gap (Sadeghnezhad *et al.* 2018: 84).

In South Africa in 2011, the Nursing Education Stakeholders formulated a model for clinical nursing education and training, and it was accepted at the nursing summit. The support system that will be provided by different stakeholders that are involved in the model will strengthen the system support for nursing students during clinical training (The Nursing Summit Organisation 2012: 54). In the University of KwaZulu-Natal, a study conducted by Maritz (2017: 73) found that the support for students during clinical placement in higher education institutions is inadequate due to absence of role

clarification. The study conducted in Pietermaritzburg reveals that in KZN Community nurse practitioners agreed that due to shortages they are facing challenges in supporting nursing students by precepting during clinical placement and being in charge of the unit (Govender, Brysiewicz and Bhengu 2015: 5). Moreover, the speech delivered by KZN MEC stated that novices must be supported by a coordinated system of clinical preceptors and to achieve that, re-establishment of clinical teaching departments is a priority to strengthen clinical teaching and education (KwaZulu-Natal. Department of Health 2017: 6).

2.6 COGNITIVE SUPPORT

Cognitive skills, or cognitive abilities, are the ways that a person's brain remembers reasons, holds attention, solves problems, thinks, reads, and learns. A person's cognitive abilities help process new information by taking that information and distributing it into the appropriate areas in the brain. When the information is needed later, the brain is able to use cognitive skills to retrieve and use that information. These skills assist an individual to be able to recall previous information that may relate to set goals and help them make important connections between old and new information so they are able to work more effectively (Indeed Career Guide 2021). According to Health Victoria (n.d.) cognitive support is good for anyone who needs support to challenge unhelpful thoughts that are preventing them from reaching their goals or living the life they want to live. The support is aimed to help an individual to identify and challenge unhelpful thoughts and to learn practical self-help strategies and should be designed to bring about immediate positive changes in quality of life.

Lazarus 2016: S13-S15) discusses clinical teaching strategies used by clinical staff (preceptors) such as modelling, case presentation, direct questioning, think aloud method and coaching as several approaches that can be used to assist students to understand thought processes and clinical reasoning. According to a study conducted by Vandermeulen *et al.* (2015: 17), clinical staff (preceptors) enhance critical thinking skills. Bloom's taxonomy of the cognitive domain can be used by the preceptors to support nursing students in identifying learning needs and prompt critical thinking. Effective precepting to enhance critical thinking and clinical reasoning is to promote

frequent discussions of patient cases based on evidence-based guidelines (Ignoffo *et al.* 2017: 1575).

Writing in the South African context, Botma, Hurter and Kotze (2013: 8) states that clinical staff (preceptors) should facilitate support for students to making sound clinical judgements and develop meta-cognitive knowledge using a variety of techniques to facilitate higher order thinking processes. Student performance can be improved by conducting valid and reliable assessment and supporting students in their integration of best available evidence into their patient care plan. The author points out that clinical staff (preceptors) should pay attention to the learning process and not just the task.

Hugo, Botma and Raubenheimer (2018: 88) conducted a study in Bloemfontein that found that preceptors that had gone under training were the perfect entity to support students as they provide cognitive support to students through strong facilitation on developing thinking process such as critical thinking and sound clinical judgement. A study conducted by Vellem (2016: 65-67) in the Western Cape regarding experiences of students with preceptors in psychiatric institutions found that preceptors who undergo preceptorship training can reduce students, negative experiences during their clinical placement. However, it was noted that there was a shortage of preceptors as some wards did not have preceptors so student did not have a preceptor to work with when they were in those wards.

Billings and Halstead (2015: 59) explain that reflection and simulation are teaching strategies that enhance cognitive skills in students as these strategies improve critical thinking in nursing practice. However, a study conducted in Durban on the assessment of the facilitation of the clinical training component of undergraduate nursing programme (Xaba 2015: 105) reported that lecturers are not taking part in accompaniment of students during clinical placement and that was proven as the lectures failed to state the clinical institutions where the students were placed. Xaba (2015: 105) stated that the above-mentioned results indicated a lack support of support for students in developing competence in cognitive and psychomotor skills, which are vital in nursing practice. A qualitative, exploratory, and descriptive study conducted in Johannesburg by Muthathi, Thurling and Armstrong (2017: 6) on

exploring best practice in clinical facilitation heard from that it is imperative for lecturers to conduct accompaniment as means of providing support for them in the process of learning the relevant skills.

2.7 EMOTIONAL SUPPORT

Emotional support refers to the reassurance, encouragement and understanding given to a person by people who understand, encourage, and reassure them (Pam 2013). Kowitt (2018) describes emotional support as a key component of peer support and health and a protective factor in health, the absence of which predicts mortality and morbidity. The author cites Strine *et al.* (2008) stating that that those who rarely or never received social and emotional support were more likely to report frequent physical distress, mental distress, frequent activity limitations, frequent depressive symptoms, frequent anxiety symptoms, insufficient sleep, and frequent pain. According to emotional support can come from a wide variety of sources such as family members, friends, close acquaintances, or peers (Kowitt 2018; Raypole 2020). Emotional support includes offering genuine encouragement, reassurance, and compassion through things like verbal expressions of sympathy or physical gestures of affection.

Kowitt (2018) attest to the fact that emotional support is difficult to define and that there is little consensus on how to define or operationalise it. The following define emotional support differently whereby Langford *et al*. (1996 cited by Kowitt 2018) defined emotional support to include the provision of care, empathy, love and trust while (Dale, Williams & Bowyer 2012, cited by Kowitt)) emphasised expressions of encouragement, active listening, reflection, and reassurance. Langford *et al.* 1996, cited by Kowitt) go on to say that emotional support consists of reciprocal interactions of mutual obligation while others have characterised it as solely a subjective perception of feeling accepted loved and respected. According to Kowitt (2018) the most important components of emotional support over and above providing encouragement and active listening include empathy, understanding, and care. Part of the problem with emotional support is that not everyone is in touch with their feelings and many individuals find it difficult to express their desire for emotional support or fail

to recognise how they can benefit from it. According to Kim, Sherman, and Taylor (2008, cited by Kowitt 2018) one hypothesis in the social support literature is that the effectiveness of social support is determined by whether the support provided matches the support desired by an individual. Social and emotional support can be from a wide variety of sources, such as family members, friends, close acquaintances, or peers. Because peers are generally viewed to be members of one's own community with lived experience of a condition, peer support can provide a flexible supplement to formal health system services and support from family friends. Accordingly, social, and emotional support is one of the four key functions of peer support, in addition to assistance in daily management, linkages to clinical care and community resources, and ongoing support.

The importance of emotional support in nursing is necessitated by emotional labour which prevails in this profession. This is supported by Riley and Weiss (2016: 22) who state that emotional labour in nursing includes health care workers managing their own emotions resulting from caring for patients and their relatives. Emotional exhaustion, symptoms such as depression, withdrawal from interacting with patients and staff have been reported as negative effects of emotional labour (Załuski and Makara-Studziriska 2018: 196). A study conducted in the United Kingdom by Kinman and Leggetter (2016: 7) reported that social support from mentor programmes and peer coaching in the form of emotional support as well as emotional expression assist students to cope positively with emotional labour and emotional exhaustion in nursing practice.

In Brazil clinical staff (preceptors) develop competencies from their own clinical practice by building knowledge in different situations by change of attitudes towards learning an automatic practice, acting consciously, analysing their actions systematically as knowledge producers, and providing examples of these attitudes for nursing students (Ferreira, Dantas, and Valente 2018: 1570). Clinical staff (preceptors) being present for the first-year students in Letterkenny institution, Brazil, during clinical placement made them to feel welcome in the unit resulting in them being settled and feeling as if they are one of the members of the team (O'Hanlon 2016: 45). A study conducted in France on emotional data collection using self-reporting tools in distance

learning courses further explained that students' emotions can be triggered either by their cognitive process or emotional topics regardless of the learning activity (Lavoué, Molinari and Trannois 2017: 3788). However, a literature review study conducted on nurse supervisors' support towards students in developing competency in emotional skills by Diogo *et al.* (2016: 081) concluded that nurse supervisors' support may develop students' competency in emotional skills during extreme emotional situations in clinical training. Martin and Daniels 2015: S174 conducted a study in the Western Cape, South Africa, arising from which they developed a model of emotional support for students working in mental health settings. The study concluded that cooperation between health care systems, higher education institutions and students lead to a positive working environment, thus facilitating effective communication process resulting in students receiving emotional supportive strategies either formally or informally.

2.8 CHAPTER SUMMARY

This chapter presents findings from the literature review highlighting various perspectives from an international, national and local level regarding support of students during clinical placements. The findings supported the anecdotal evidence by the researcher presented as the problem statement in Chapter 1 and therefore the relevance for the study. The three forms of support system, cognitive and emotional were explored noting how they influence student learning particularly during clinical placement, and strategies used in various settings to address gaps in the provision of the support.

CHAPTER 3: THEORETICAL FRAMEWORK GUIDING THE STUDY

3.1 INTRODUCTION

The previous chapter focused on literature review. Chapter 3 presents the theoretical framework and details of how it will be used to guide the study.

3.2 THEORETICAL FRAMEWORK

A theoretical framework is the blueprint for the whole study inquiry that is used to serve as the foundation for the study which all knowledge is constructed either metaphorically or literally (Grant and Osanloo 2014: 12). It also forms a structure and support for the justification for the study, problem statement, purpose, significance, and research questions (Grant and Osanloo 2014: 13). The theoretical framework creates an anchor or a ground base for literature review that has been tested and validated by other scholars (Adom, Hussein and Agyem 2018: 440). Schlossberg's Transition Theory will guide this study.

3.3 SCHLOSSBERG'S TRANSITION THEORY

Dr Nancy Schlossberg (1981: 2) defined a transition as any event or non-event that results in changed relationships, routines, assumptions, and roles. It is important to note that perception plays a key role in transitions, as an event or non-event meets the definition of a transition only if it is so defined by the individual experiencing it. To understand the meaning that a transition has for a particular individual, the type, context, and impact of the transition must be considered.

According to the theory, there are three types of transitions that are experienced by students, namely: anticipated, unanticipated, and non-events. Moreover, the four major sets of factors that influence a person's ability to cope with transitions were identified as situation, self, support, and strategies, which are also known as the four

S system (Estrella and Lundberg 2006: 3-5). This transition process includes moving in, moving through, and moving out.

This theory it is centred on the following: 1). Student nurses continuously experience transitions during clinical placement. 2). Student nurses' reaction towards transition depends on their clinical outcomes according to their level of training, their perceptions of the transition, the context in which it occurs and the impact on their lives. 3). A transition has no ending, rather it is a process that includes phases of integration and constant appraisal as student nurses move in, move through, move out of it.

The first stage in a transition process can be: move in or move through. 'Moving in' is when the student nurses need to be orientated in the clinical setting and be familiar with the student nurses' clinical outcomes (both the staff and student nurses). 'Moving through' is when student nurses face a situation where they need to strike a balance in putting theory into practise while being allocated to perform daily activities in the ward, and how to feel supported and challenged with this transition. Moving through is when student nurses can work independently and competently in caring for patients according to their level of training while carrying on with their training till completion until they become competent, graduated registered nurses.

3.3.1 The four S system

The four S system is a good tool for assisting individuals in placing their situation into a much more manageable thing.

3.3.2 First S – Situation

Student nurses act differently during their clinical training even though they experience the same situation that will lead them to transition – the same student reacts differently at different times of clinical placement. This means that student nurses perceive the same situation differently and this affects their assets and liability.

According to the Schlossberg's Transition Theory the following factors should be considered by the student nurses when assessing the situation:

- Trigger: What caused the transition?
- Timing: How does the transition relate to one's social clock?
- Control: What aspect of the transition can one control?
- Role change: Does the transition include role change?
- Duration: Is the transition seen as permanent or temporary?
- Previous experience with a similar transition: How effectively did the person cope then, and what are implications for the current transition?
- Concurrent stress: What and how great are the stresses present for the individual if any?
- Assessment: Does the individual view the situation positively or negatively?

3.3.3 Second "S" – Self

Self-factors are considered important in relation to personal and demographic characteristics and psychological resources. Personal and demographic characteristics affect how an individual views life, such as socioeconomic status, gender, age, stage of life, state of health, and ethnicity. In this theory age is considered peoples' achievement or level in life, based on functional, psychological, and social age. Psychological resources include tools to cope with ego development, outlook, and commitment and values.

3.3.4 Third "S" – Support

A support factor that is academic or non-academic is considered as the key to reduce stress. It can be intimate relationships, family units, networks of friends, institutions, and communities.

3.3.5 Forth "S" – Strategies

Strategies that highlight three main coping responses are: 1) responses that modify the situation; 2) responses that control the meaning of the problem; 3) responses that

assist the individual in managing the stress after the occurrence as well as to accommodate the existing stresses before being overwhelmed.

Figure 3.1 presents an example of how the Schlossberg's Transition Theory has been applied in other research work. The figure is from the work of Mary Anderson and Jane Goodman from their study on Schlossberg's Transition Theory and the transition process in the NGN or RN changing practice settings (Anderson and Goodman, 2011). These authors used and modified the original individual in transition, counselling in adults in transition, linking Schlossberg's theory with practice in a diverse world.

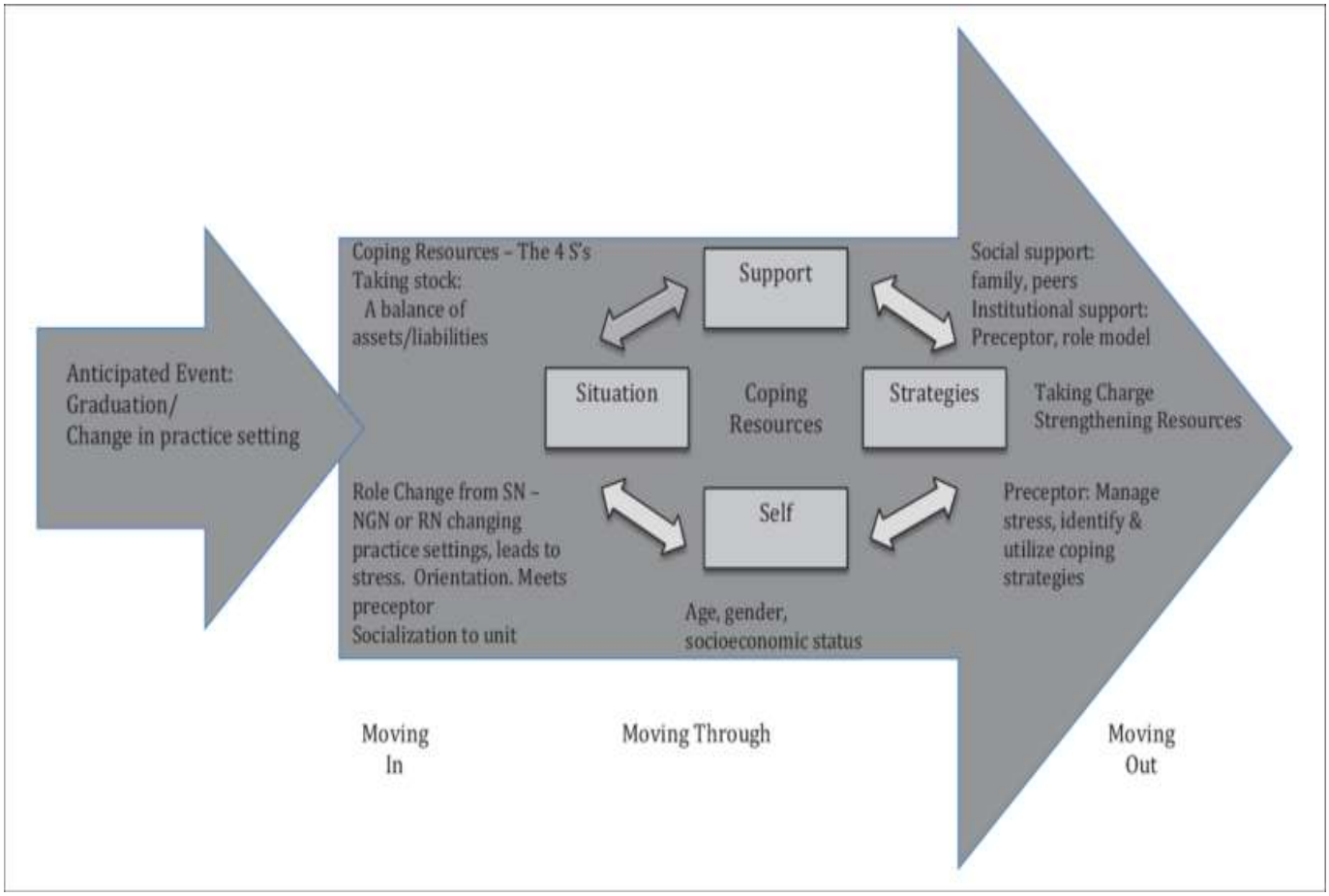

Figure 3.1: Schlossberg's Transition Theory and the transition process in the NGN or RN changing practice settings
Source: Anderson and Goodman (2011)

3.4 HOW THE THEORY WAS USED TO GUIDE THE STUDY

Schlossberg's Transition Theory was used as a theoretical framework to guide the study. This theory was deemed appropriate on the basis that it focuses on transition which Schlossberg (1981: 2) defines as any event or non-event that results in changed relationships, routines, assumptions, and roles through moving in, moving through and moving out. Similarly, student nurses go through a process of transition as they get exposed to the unfamiliar clinical environment and all the clinical experiences some of which may be unfamiliar, difficult and even scary. Often students find it difficult to cope with clinical exposure.

According to Schlossberg (1981: 2), there are four major sets of factors that influence a person's ability to cope with transitions which are: situation, self, support, and strategies (Schlossberg (1981: 5). The current study explored how these factors influence system, cognitive and emotional support for students during clinical training. The author highlights the importance of perception stating that it plays a key role in transitions as an event or non-event can only meet the definition of a transition if it is so defined by the individual who is experiencing it (Schlossberg 1981: 3). Thus, the study explored the experiences of students with the understanding that this will highlight their views regarding the support available to them.

Schlossberg emphasises that in order to understand the meaning that a transition has for a particular individual, the type, context, and impact of the transition must be considered. The type of support required and the context where this is taking place can impact on evidence of system, cognitive and emotional support offered to students during clinical training and subsequently on their transition through clinical training, i.e., moving in, moving through, and moving out. Thus, the current study focused on several areas where students are required to be offered support to facilitate transition such as creating a conducive environment, human and material resource allocation, workload, and physical and psychosocial needs, to name just a few. Figure 3.2 presents the application of the Schlossberg's Transition Theory in the current study.

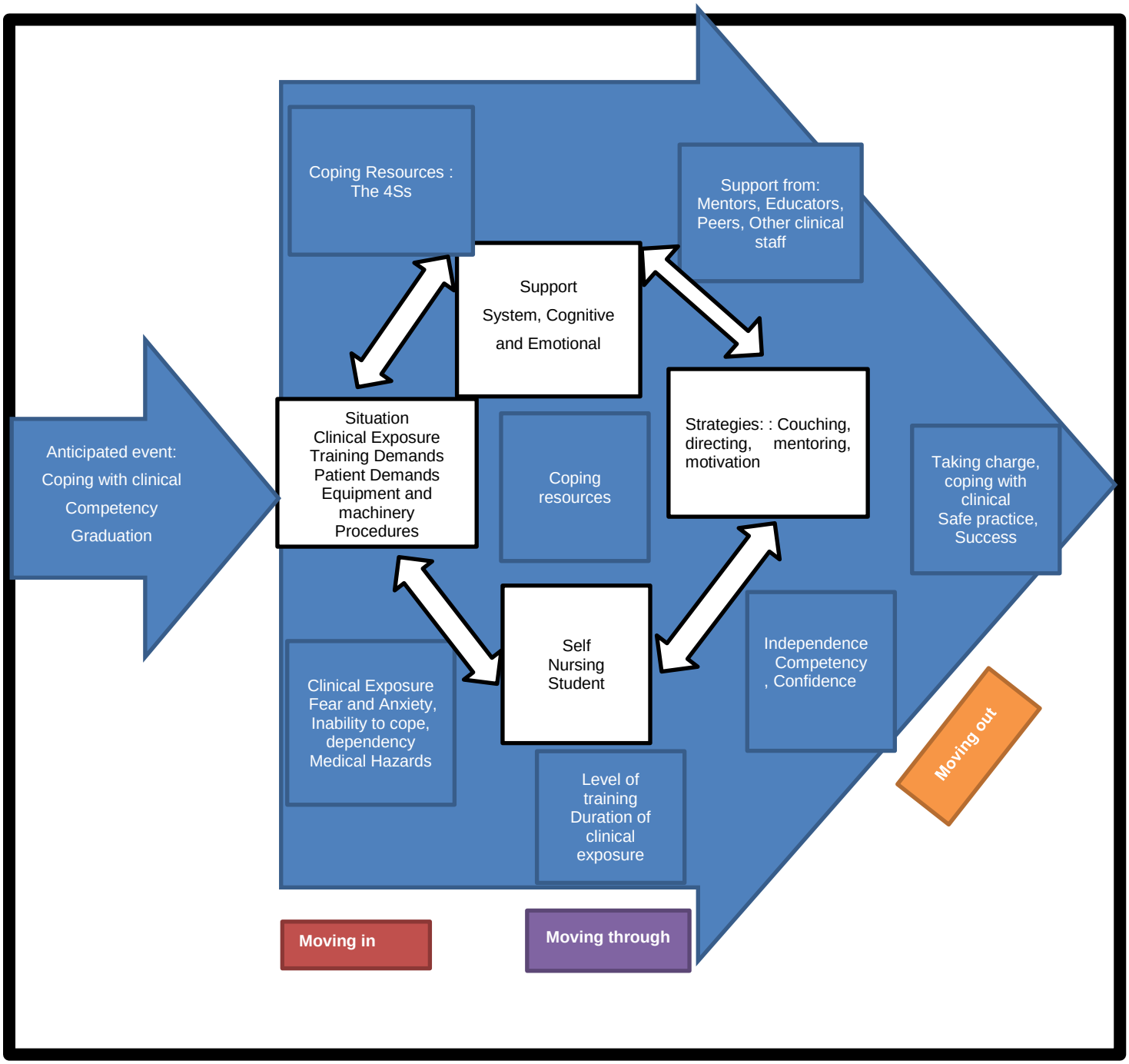

Figure 3.2: Application of the Schlossberg's Transition Theory in the current study
Source: Adapted from Anderson and Goodman (2011).

3.5 CHAPTER SUMMARY

Chapter 3 presented the theoretical framework that underpinned the study and its application. Schlossberg's Transition Theory highlights anticipated, unanticipated and non-events as three types of transitions that are experienced by the students during clinical training. Furthermore, the person's ability to cope with transition was affected by the four major factors. The transition process includes moving in, moving through and moving out. Therefore, the study focused on exploring several areas where students required support to facilitate transition.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

Chapter 4 presents a detailed step-by-step description of the research methodology that was employed to ensure that the study is accepted in the research field as scientific enquiry. The chapter begins with a description of the research design and paradigm, both of which are supported by research evidence to portray that the researcher understood and based this study on what is already approved by other researchers. The chapter include for the same purpose stated above a description on how research rigour and ethical considerations were ensured.

4.2 RESEARCH DESIGN

A research design is the plan for addressing a research question, including specifications for enhancing the study's integrity (Polit and Beck 2017: 733). Burns and Grove (2009: 38) define a research design as a blueprint for conducting the study that minimises control over factors that could interfere with the study design outcomes. A quantitative, non-experimental descriptive study design was undertaken to explore and describe the evidence of system, cognitive and emotional support for students during clinical training. A quantitative design was deemed fit for the proposed study because it will allow a bigger sample size thus allowing generalisation of findings to similar setting which could benefit other nursing education institutions in a similar situation (Hugo, Botma, and Raubenheimer 2018). Furthermore, data that is received from a quantitative study provides the outcome with greater credibility because the statistical analysis has more depth to review, and a larger sample makes it less likely that outliers in the study group can adversely impact the results, thus promoting impartially (Miller and Sheu 2020).

4.2.1 Quantitative research

According to Polit and Beck (2017: 763) quantitative research is an investigation of phenomena that lend themselves to precise measurement and quantification, often involving a vigorous and controlled design. In this study the quantitative design enabled the researcher to gather information through structured questionnaires whereby information regarding evidence of system, cognitive and emotional support for students during clinical training was collected and quantified.

4.2.2 Non-experimental

Non-experimental research is research that lacks the manipulation of an independent variable where rather than manipulating an independent variable; researchers conduct research by measuring variables as they naturally occur in the real world. The proposed study was non-experimental in that it focused on students' experiences regarding system, cognitive and emotional support without the researcher manipulating any independent variable. The other characteristics that made the proposed study non-experimental were that the research questions were broad and exploratory, related to a single variable rather than a statistical relationship between two variables, and were about what it is like to have a particular experience which, in the proposed study was students' experiences regarding system, cognitive and emotional support.

4.2.3 Descriptive design

Sandelowski (2000) describes descriptive design as the description of the experiences or events and states that researchers use to investigate the "who, what and where" of events or experiences and how these aspects are related to the research topic. A descriptive design may be used to identify problems with current practice, justify current practice, make judgements, or determine what others are doing (Grove, Burns and Gray 2013: 215). The proposed study was descriptive in nature in that it gathered data that described the evidence of system, cognitive and emotional support for students during clinical training.

4.3 RESEARCH PARADIGM

The researcher's philosophical orientation or paradigm has significant implications for every decision that the researcher makes in the research process, including the choice of methodology and methods; it tells how meaning will be constructed from the data gathered (Kivunja and Kuyini 2017: 26). The researcher in this quantitative study believed that there was truth or knowledge out there to be discovered by research through deductive logic data gathering from students based on their experience and quantified using calculations to derive conclusions regarding the evidence of system, cognitive and emotional support for students during clinical training. Thus, the researcher located the proposed study in the positivist paradigm (Kivunja and Kuyini 2017: 27-31).

4.4 RESEARCH SETTING

The study was conducted in a natural setting meaning that the researcher did not manipulate or change the setting to match the study (Burns and Grove 2009: 30). The study took place in KZN which is one of the nine provinces in South Africa. There are 11 districts within the KZN province, namely Amajuba, Uthukela, Umzinyathi, Umgungundlovu, Harry Gwala, Ugu, Ethekweni, Ilembe, King Cetshwayo, Zululand, Umkhanyakude. The districts are classified into urban or rural, depending on their location with seven districts having access to campuses of the KZNCN for the purposes of nurse training. The KZNCN was the only public college in KZN at the time of the study which together the three universities in the province [University of Zululand (UNIZUL), University of KZN (UKZN) and the Durban University of Technology (DUT)] were under the auspices of the South African Department of Health. Several private nurse colleges are also available in the province. The focus of the study was only on public colleges. Therefore, the KZNCN was used as study site.

The KZNCN has 11 campuses and four sub-campuses which are located in a range of settings from deep rural to urban areas of the province. The 11 nursing campuses are: Benedictine, Charles Johnson Memorial, Madadeni and Ngwelezane situated in

the North (Zululand region); Port Shepstone on the South Coast (Ugu Region), Edendale and Greys in the West (uMgungundlovu region); while Addington, Prince Mshiyeni and R K Khan are in the central region (eThekwini region) (Table 4.1). The names of the campuses are not indicated in the table provided for confidentiality and anonymity. The KZNCN serves as a head office and co-ordinates all governance, curriculum, policy, examination, and strategic activities of the college. The campuses offer a variety of nursing programmes ranging from the four-year nursing programme, the three-year Diploma in Nursing programme leading to registration with the SANC as a general nurse and the one year post-basic programme leading to registration with the SANC as a specialist nurse. The focus of the study was on campuses that offer training for the four-year basic nursing programme.

4.4.1 Identification of campuses to use as data collection sites

In line with the requirements by the Department of higher education revised qualification framework, a number of legacy nurse training programmes that were previously offered had to be phased out with effect from 31 December 2019 and are being replaced by new programmes throughout South Africa. The four-year comprehensive diploma programme leading to registration with the SANC as a Nurse (General, Psychiatric and Community) and Midwife (R425) is among the nurse training programmes that were being phased out and the four-year diploma programme leading to registration with the SANC as a Nurse and Midwife is the new programme that was being phased in since 2020 (R174) (SANC 2016, Circular 7/2016). The campuses that were included in the study were those that had students for either of these training programmes. At the time of data collection there were 10 campuses in KZN which offered the four-year basic nursing programme. The 11th campus offered training for post basic nurse training only.

The KZN province is one of the most densely populated provinces in South Africa with a variety of areas including urban, semi urban, and rural areas. The statistician advised on the use of four campuses to ensure representativeness of all the ten campuses in the KZN province. The researcher preliminary identified the four campuses based on the three criteria which included:

- Location in the province based on the four regions North, South, West, and Central (one campus was selected from each region).
- Population area whether urban, semi-urban, or rural (all had to be represented).
- Total average students in third- and fourth-year level of study (campuses with the highest number of students were selected).

Of the four campuses, two were from an urban, one from a semi-urban and one from a rural area (Table 4.1). These were assigned codes 1-4 that were used during data collection and reporting to ensure anonymity and confidentiality. These campuses were deemed appropriate by both the researcher and the statistician to ensure adequate numbers of the study population while also ensuring a variety of settings through which students were exposed which enriched the findings of the study. The shaded rows in Table 4.1 present the four campuses that were used as study sites, their location, and the number of students.

Table 4.1: Campuses, their location and average student numbers for students registered for the four year basic nursing programme in KwaZulu-Natal College of Nursing 2020

Campus	Location	Urban or Rural	No of 3rd year students	No of 4th year students	Target Population	Sampled Yes/No	Accessible Population
1	Central	Urban	Nil	30	30	no	n/a
2	North	Rural	Nil	18	18	no	n/a
3	North	Rural	Nil	18	18	no	n/a
4	West	Semi-rural	Nil	Nil	Nil	no	n/a
5	West	Urban	33	34	67	yes	67
6	North	Semi-rural	19	Nil	19	no	n/a
7	North	Semi-rural	32	37	69	yes	69
8	South	Rural	17	16	33	yes	33
9	Central	Semi-rural	20	Nil	20	no	n/a
10	Central	Urban	21	24	45	Yes	45
11	Central	Urban	n/a	n/a	n/a	n/a	n/a
Totals			**142**	**177**	**319**	**4**	**214**

4.5 POPULATION

A population refers to all elements that meet certain criteria for inclusion in a study i.e., individual, objects, or substances (Burns and Grove 2009: 40). In this study the population was students who were in the four-year basic nurse training programme in campuses under the KZNCN. The students were registered either for the four year comprehensive diploma programme leading to registration with the SANC as a nurse (general, psychiatric and community) and midwife (R425) which is among the nurse training programmes that are being phased out or for the four year diploma programme leading to registration with the SANC as a nurse and midwife (R174) which is the new programme that is being phased in since 2020 (SANC 2016, Circular 7/2016). The two programmes have several similarities, the most critical one being that they are both regarded as basic nurse training leading to registration as a professional nurse. Furthermore, although the curriculum for the two programmes are different, both programmes incorporate general and midwifery training. Both programmes require similar system, cognitive and emotional support of the students during clinical training and require integration of theory and practice during clinical training. Therefore, the population in the proposed study were students from either one or both programmes depending on the availability of students at the time of data collection. Students in the 3rd and 4th year level of study were chosen as they were able to share the evidence of system, cognitive and emotional support that they received during their clinical placement. Moreover, students at this level encounter more challenges during clinical training as the programme in 3rd year level provides them with a status of being a senior student. This means that the support that was initially provided since 1st level is weaned off slowly in preparing the students for independent function. However, during the 4th year level of study students are considered as novices due to midwifery being a new content and so require more support in clinical training. The estimated total population for students was 319. The accessible population from the four selected study sites was 214 (Table 4.1).

4.5.1 Recruitment of respondents

Recruitment only commenced after the researcher had received full ethics approval from DUT Institutional Research Ethics Committee (IREC) (IREC 151/20) (Appendix 1) and gate keeper permission from relevant gatekeepers which included the KZN Provincial Research Office, Principal of the KZNCN and Heads of Schools for the selected campuses (Appendices 4-6). To access the students the researcher scheduled meetings through the Heads of Schools to meet with students for information giving sessions regarding the study and to recruit them to take part in the study. These meetings were scheduled for a time and venue that was determined by the Head of School to ensure that there was minimal disruption to the normal teaching and learning activities. At these meetings, the researcher provided information about the study which included why the study was conducted, procedures of data collection, aspects of ethical consideration and benefits to the respondents. The researcher addressed all concerns and answered questions by the students. The meeting also provided an opportunity/platform to distribute consent forms and questionnaires (Appendices 5 and 8).

4.6 SAMPLE AND SAMPLING PROCESS

A sample is the subset of the entire population that must have similar distinct features in many ways with the population (Polit and Beck 2017: 59). Sampling is the process of selecting cases or subject that will represent the entire population (Polit and Beck 2017: 177). The researcher selected the 3rd and 4th year's students to represent the entire population of students registered for the four-year basic nursing programme. Burns and Grove (2009: 325) define inclusion criteria as the characteristics that the subject or element must possess to be part of the target group and exclusion criteria as the characteristics that can cause a person or element to be excluded from the target population. These criteria were considered for the proposed study as detailed below.

4.6.1 Inclusion criteria

The inclusion criterion for the proposed study was:

- Students registered for the four-year basic nursing programme who were in the 3rd and 4th year level of study at the time of data collection.

4.6.2 Exclusion criteria

The exclusion criteria for the proposed study were:

- All students registered for the four-year basic nursing programme who were in the 1st and 2nd year level of study at the time of the study. The rationale for excluding this group of students was because they were considered by the researcher to have not yet gained enough exposure to clinical placement to be able to conclude or comment on the evidence of system, cognitive and emotional support for students during clinical training.
- All students registered for other nursing programmes in the selected campuses were excluded because the focus of the proposed study was on the students registered for the four-year basic nursing programme.

4.6.3 Sample size

Sample size is the number of subjects that participate in a study (Polit and Beck 2017: 181). A representative sample size was determined with the guidance of the professional statistician. In view of the accessible population the entire accessible population was included, a process referred to by de Vos *et al.* (2011: 217) as census sampling. All 214 students were included in the study as potential respondents.

The sample size was determined with the guidance of the statistician (Appendix 9). Calculations were based on the total target population from all KZNCN campuses (319 students). Assuming alpha = 0.5 and margin of error is = 0.5 the required sample was175. This confirms that a sample of 214 which the researcher planned to use (census sampling with 214 students in selected campuses) was adequate since it was

above minimum sample required for the population both by region and by urban to rural calculation.

4.7 PILOT STUDY

Although the original questionnaire is a validated and tested tool by other authors, a pilot study was conducted to test and validate the adapted questionnaire. A pilot study is a smaller version of the main study (Burns and Grove 2009: 39). It was conducted in this study with the aim of checking the reliability and validity of the adapted version of the original questionnaire. The pilot study was conducted to test and verify the accuracy and relevance of all the data collection processes. The pilot study was conducted on receipt of provisional ethics approval from the DUTIREC (Appendix 3). One campus which was randomly selected from the campuses that were not included in the study was used for the pilot study. Ten respondents were randomly selected from the 3rd and 4th year students that were registered for the four-year basic nursing programme in the selected campus. Similar processes to those that were utilised for the main study were ensured for the pilot study with regards to recruitment of respondents, inclusion and exclusion criteria, information sessions consent and data collection in order to ensure that the pilot study was exactly similar to the main study. Prior to the pilot study, the questionnaire was validated for accuracy and appropriateness by the statistician and the research supervisor. The nursing campus, respondents and data from the pilot study were included in the main study but were used by the researcher to refine the data collection tool and processes as required. The researcher compiled and submitted a report to the DUT IREC regarding the pilot (Appendix 2)

4.8 DATA COLLECTION

Data collection is the gathering of information to address a research problem (Polit, and Beck 2017: 725). Data collection only commenced after the researcher had received full ethics approval from DUT IREC (IREC 151/20) (Appendix 1) and gatekeeper permission from relevant gatekeepers which included the KZN

Provincial Research Office, Principal of the KZNCN and Head of Schools for the selected campuses (Appendices 2.3 and 4).

4.8.1 Data collection tool

This study utilised a structured questionnaire that had been adapted from Hugo, Botma, and Raubenheimer (2018) for data collection and modified for use in the proposed study (Appendix 8). The tool by Hugo, Botma, and Raubenheimer (2018) is a measuring instrument for increased accountability intended to be used for monitoring preceptors' supportive role (Appendix7). The tool is a self-administered questionnaire written in English but also available in Afrikaans. The English version was used for the proposed study in line with the formal medium of instruction in the selected campuses which is English.

The original tool was initially developed by Lizemari Hugo in 2016. According to Hugo (2016: 6), at the time of development there was no measurement instrument to evaluate all four types of support that preceptors offer to student in the clinical practice. The author therefore undertook a quantitative methodological study to standardise the instrument by determining its reliability and validity. Forty-two existing questionnaires on student support by preceptors were accessed and analysed which resulted to 69 relevant items being included in the questionnaire. Face and content validity testing was done by asking 192 students in an undergraduate programme to evaluate their preceptors over two consecutive months, while reliability was determined by Cronbach's alpha test which was found to be 0.98 which indicated a high reliability. Validity was determined by an exploratory factor analysis where three factors, namely system, cognitive and emotional support were identified and supported by relevant experts. Twenty-four items were evaluated by comparing cut-off values of ≥ 0.4 and ≥ 0.5. Twelve items were eliminated based on the cut-off values, leaving 57 items that were included in the final questionnaire. According to Hugo, Botma, and Raubenheimer (2018) the conceptualisation of support gives insight into the value of the preceptor's role and proposed that the instrument designed could be used to assess and monitor the support offered by preceptors while they accompany students in clinical practice.

Thus, the intention to use this questionnaire for the proposed study which sought to explore and describe the evidence of system, cognitive and emotional support for students during clinical training. Permission was granted by the authors to modify and use the tool (Appendix 5 and 6). Minor modifications that were made to the tool were influenced by the scope and objectives of the proposed study. These included addition of section A, which is demographic data and rephrasing and or removing some of the statements to align them to the scope of the proposed study. The modified questionnaire was two pages in length and comprised of section 1 which is demographic data of the respondents and section 2 which was further broken down into three subsections titled: 2.1 System support, 2.2 Cognitive support and 2.3 Emotional support, each of which consisted of closed ended questions requiring responses on a rating scale (Appendix 8). The average time that was taken by the respondents to complete the questionnaire was 20 to 30 minutes.

4.8.2 Data collection process

Data collection ran parallel with the information giving session where on the day of the information giving session the questionnaires were distributed to all potential respondents together with the information letters and consent forms. The researcher conducted the information giving session, provided clarity to the respondents regarding all their queries regarding the study and details of data collection process. Because the researcher was the educator in one of the KZNCN campuses, a research assistant was employed to coordinate signing of consent forms, distribution, and collection of completed questionnaires to safeguard the participants from being intimidated by the presence of the researcher who was one of their lecturers. A sealable envelope addressed to the researcher was issued together with these documents and instructions given to the potential respondents to seal all the completed documents (consent forms and questionnaire) in this envelope. All questionnaires had campus codes and there were preassigned numbers that were used to identify the respondents instead of names and also assisted in monitoring the return of distributed questionnaires. Pens were also provided. Respondents were asked to complete and return the questionnaires on

the same day as the information giving session. However, all those who wished to do this later on were allowed. Those who did not agree to take part in the study were encouraged to still take the documents home should they change their minds later. Provision was made for the respondents who wanted to return the completed documents later by having a sealed box with an opening to drop in the sealed envelopes in the four study sites. The boxes were put in a safe but easily accessible place, such as the reception desk and were kept for three to five days after which the researcher collected and replaced the box with a new one until all or at least more than 90% of the questionnaires had been returned. In cases where there was a poor response rate the researcher coordinated a follow up information giving meeting to motivate participation without coercing the potential respondents. This was the case for one campus only.

4.8.3 Data handling and storage

As explained in the data collection process the respondents were encouraged to complete and return the questionnaires on the same day as the information giving session. These were collected by the research assistant and given to the researcher to take back to her office where they were stored in a locked cupboard. The sealed boxes provided for the respondents who opted to return the completed questionnaires later were collected by the researcher and were transported by the researcher from the data collection sites to the safe place in the researcher's office where the boxes were stored under lock and key in a lockable cupboard. The researcher used a private space to open the boxes and counted the returned envelopes to monitor the response whenever she worked on the data sheets. All envelopes were opened by the researcher to separate the consent forms from the questionnaires. Because the signed consent forms contained the details of the respondents, these were put in a sealed box and stored in a locked cupboard separate from the questionnaires before going through the questionnaires so as not to link the information in the questionnaires to the actual respondents.

4.8.4 Data definitions

The data collection sites were assigned code 1-4 to ensure anonymity and confidentiality. The questionnaires were identified with these data collection site codes together with numbers from 1-250 (214 total accessible populations plus 36 additional questionnaires to safeguard against attrition). No respondents' personal identification information such as names and identity numbers were recorded in the questionnaires.

During step one of data analysis (preparation of data) all data elements from the data collection tool were assigned codes to facilitate capturing of data on the electronic spread sheet for analysis (Table 4.2).

Table 4.2: Example of code allocation of codes to data elements

Data Element	**Code Allocation**					
	1	**2**	**3**	**4**	**5**	**6**
Age	Up to 25	26 - 35	Older than 35			
Gender	Male	Female				
Year of study	1st year	2nd year	3rd year	4th year		
Total estimated time spend during placement	Less than 4 hours	4 to less than 7 hours	7 to less than 10 hours	10 hours or more		
Number of contact sessions during placement .	1-4	5-8	9-11	>11		
Section 1: Question 1	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

4.9 DATA ANALYSIS

Data analysis refers to reducing, organising and giving meaning to the data (Burns and Grove 2009: 41). In this study the data was captured and subsequently analysed using the latest version SPSS computer program. Data analysis was conducted following four of the six steps of quantitative data analysis as described by Burns and Grove (2009: 461) which include1) preparation of data for analysis, 2) description of

the sample, 3) testing of reliability of measurement and 4) exploratory analysis of the data.

4.9.1 Preparation of data for analysis

In this step, data coding and cleaning were done. The first step after data collection was data coding where data was transformed into symbols (Polit and Beck 2017: 642), thereafter captured into an electronic spread sheet. Copies of the original data were made to ensure that the original data was saved to use for a validity check later.

Subsequently, data cleaning was conducted as part of the data quality check to ensure the accuracy and integrity of the data. This process involved checking the data line by line and looking for any discrepancies, inconsistencies, inaccuracies, and omissions that did not make sense. The changes were categorised as either minor or major changes.

- Minor errors included one or two gaps. These documents were still to be used.
- Major errors included records with too many gaps such as more than two gaps. These documents were regarded as spoilt and removed.

4.9.2 Description of the sample

This step included obtaining a complete picture of all data collected (Burns and Grove 2009: 462). Verification of data collected from the different campuses in order to ensure that the data obtained represented the study population. Description of the sample was particularly important because variances could be possible in data from different campuses. This stage facilitated confirmation that data collected from the four campuses was equivalent in ways important to the study to justify continuing with the study. Example: That all respondents met the inclusion criteria i.e., were either 3rd or 4thyear level nursing students registered for the four-year basic nursing programme (Burns and Grove 2009: 462).

4.9.3 Testing the reliability of measurement

According to Burns and Grove (2009: 222), a measure is a reliable measure if it gives the same results each time the same situation or factor is measured. A similar description is provided by Chiang, Jhangiani and Price (2015) who state that reliability refers to the consistency of a measure. Although this was ensured first by doing a pilot study and close monitoring throughout data collection process, it was important that additional evaluation was done before data analysis. Often researchers consider three types of consistency: over time (test-retest reliability), across items (internal consistency), and across different researchers (inter-rater reliability) (Chiang, Jhangiani and Price 2015). The researcher used across items (internal consistency) by checking consistency across all data. The researcher anticipated that the campuses used for data collection sites would differ according to their location which could influence consistency of data between campuses. However, it was anticipated that data from within the same campus would be as consistent as possible.

4.9.4 Exploratory analysis of the data

A reliable computer programme was used to analyse data, which, in the case of the present study, was SPSS. The data was captured and subsequently analysed using the latest version of the SPSS computer program. The statistician assisted in this regard (Appendix 9). Descriptive statistics, including means and standard deviations, where applicable, were used to summarise the data. Frequencies and/or percentages were represented in tables or graphs. To test for significant trends in the data, inferential statistics were applied. These included Pearson's correlation, t-tests, and ANOVA. Where the conditions were not met for the application of these tests, non-parametric equivalent tests, or exact tests, where applicable, were used. Throughout a p-value of 0.05 was used to indicate significance. This analysis assisted the researcher to examine each variable to establish that data was normally distributed and not skewed, to describe data, and to become as familiar as possible with the nature of the data (Burns and Grove 2009: 463).

4.10 DATA INTERPRETATION AND REPORTING

Data interpretation and reporting focused mainly on establishing and reporting on whether the study objectives have been achieved. The first two objectives, which were to describe the experiences of students from a college of nursing in KZN with regards to system, cognitive and emotional support during clinical placement, and to determine if system, cognitive and emotional support was given to students during clinical training in accordance with their needs, were achieved through analysis of the students' response in the questionnaires.

The third objective which was to identify strategies that can be implemented to facilitate system, cognitive and emotional support to students during clinical placement, was achieved using the findings from the analysis and interpretation of data received. As a step before the recommendations from the study, the researcher did an analysis of the findings from the collected data with regards to the first two objectives to identify strengths, weaknesses, opportunities and threats that were evident pertaining to system, cognitive and emotional support for students during clinical training and used these together with relevant literature review findings to identify strategies to facilitate system, cognitive and emotional support to students during clinical placement. Achievement of this objective assisted the researcher to produce recommendations from the study.

4.11 RESEARCH RIGOUR

Research rigour refers to striving for excellence in research by using precise measuring tools, a representative sample and a tightly control research design (Burns and Grove 2009: 28). The researcher ensured that strategies to strengthen and enhance the rigour of the study were adhered to with a particular focus on validity, reliability, homogeneity, and attrition.

4.11.1 Validity

Validity is the criteria for evaluating methods to measure variables (Polit, and Beck 2017: 161). Hugo, Botma, and Raubenheimer (2018: 86) and De Vos *et al.* (2011: 160) concur that the validity of an instrument measures the concept in question and confirms that the concept is accurately measuring what it intends to measure. In the current study, the researcher sought the input of the statistician to assist in determining whether the construct validity was appropriate for statistical purposes. Content validity examines the extent to which the instrument questionnaire includes all the major changes relevant to the construct being measured while face validity verifies that the tool is valid and gives the appearance of measuring what it is supposed to measure (Burns and Grove 2009: 381). An existing data collection tool that had already been verified and tested was used with very minimal changes that were hoped not to interfere with both face and content validity. The modified tool was further tested through a pilot study and the researcher's supervisor who was both a researcher and a nurse educator and therefore well versed with the subject also assisted in this regard. Construct validity including convergent and discriminant validity was assessed using exploratory factor analysis. This was applied to the items measuring the scales for types of support.

4.11.2 Reliability

Reliability refers to the accuracy and consistency of the information obtained in a study (Polit and Beck 2017: 160). For this study, an existing data collection tool that had been tested and verified was used. The researcher also conducted a pilot study which also confirmed the reliability of the data collection tool and processes. Reliability was further ensured by collecting data from the students who were already advanced in their training (3rd and 4th year level of study), thus had already had sufficient exposure to measure and talk about their experiences regarding system, cognitive and emotional support during clinical training. Focusing on students registered for the same programme (four-year basic nurse programme) and at just two specific levels (3rd and 4th year only) of study ensured consistency. This ensured content validity of the study in that the findings were unbiased and well-grounded since the information

was gathered from respondents who were directly affected with regards to support during clinical training. Reliability of the support scales being measured was tested using Cronbach's alpha.

4.11.3 Homogeneity

The researcher ensured that respondents were homogeneous by focusing on students only, that the students were only those registered for the same programme (four-year basic nurse programme) and that the students selected were in the two specific levels of study only (3rd and 4thyear). This allowed for quantitative findings to be interpretable (Polit and Beck 2017: 287). During sampling of the respondents, the researcher checked for similar and different characteristics using inclusion and exclusion criteria.

4.11.4 Attrition

To safeguard against the effects of attrition, the researcher used a census sample to recruit more respondents than those that would have been required for the sample in anticipation that some respondents might not be available for data collection, not return the completed questionnaires or some questionnaires would be spoilt and not suitable to use. Where possible, the respondents who agreed to take part in the study were encouraged to complete and return the questionnaires on the same day as the information giving session. The researcher made necessary arrangements for the collection of the completed questionnaires that were not returned on the same day and these arrangements were available for a prolonged period in case some respondents were delayed in returning the questionnaires. The researcher included in her plans follow up information giving sessions to further motivate the prospective respondents to take part in the study where poor response was observed.

4.11.5 Audit trail and data protection

All paper-based documents such as questionnaires and consent are kept under lock and key in the researcher's office and electronic data protected with a secret password only known to the researcher, for a period of five years. These are only accessible to

the researcher and the supervisor unless otherwise requested by the DUT for audit trail. No electronic data is stored on a shared computer. All data will be destroyed after 5 years where paper-based data will be shredded, and electronic data wiped off.

4.12 ETHICAL CONSIDERATIONS

Data collection only commenced after the study had been approved by the DUT IREC who confirmed this by issuing the researcher with full ethical clearance certificate (REC NO) (Appendix 1). Another requirement before data collection was gatekeeper permission that the researcher sorts from the KZN Provincial DOH, KZNCN principal, and Heads of Schools of the four campuses (Appendices: 4-5). Throughout the study and data collection processes, the researcher ensured that each of the three basic principles on which research ethics is based which are respect for persons, beneficence and justice was adhered to, as laid out below.

4.12.1 Respect for persons

This principle incorporates two elements that deal with respecting people in regard to research: people should be treated as autonomous, and that people with diminished autonomy should be protected (Pera and Van Tonder 2012: 53).

4.12.2 Autonomy

According to Pera and Van Tonder (2012: 53), the term ‘autonomous’ means that a person can make his or her own decisions about what to do and what to agree to. It is therefore mandatory that researchers must respect that individuals must be able to make their own informed decisions about whether to participate in research. This then necessitates treating people as autonomous, and individuals must be provided with complete information about a study so that they can decide on their own whether or not to enrol, and be allowed to stop from participation at any point. This principle highlights the importance of informed consent. Information sharing sessions were conducted with all the prospective respondents and they were given an information

letter to read at their leisure (Appendix 7). All respondents who agreed to take part in the study were required to sign an informed consent form (Appendix 7).

4.12.3 People with diminished autonomy

Some people in society may not have the capacity to make fully informed decisions about what they do or what happens to them. This could include young children, people who are very ill, or those with mental disabilities. In such cases, these people should be protected and only be included in research under specific circumstances, since they cannot make a true informed decision on their own. Sometimes the circumstance at hand makes respondents vulnerable as in the case of the current study where the researcher was an educator, and the respondents were students (Pera and Van Tonder 2012: 54). The researcher ensured that the students were not coerced to take part of the study and ensured that she did not use her influence as an educator to force students to take part in the study. The researcher was aware that the students could be intimidated by the fact that the researcher was the nurse educator in the same nursing college (KZNCN). The researcher used a research assistant to administer distribution and collection of consent forms and questionnaires to overcome this.

4.12.4 Beneficence

The definition of beneficence is action that is done for the benefit of others (Pera and Van Tonder 2012: 55). This principle states that research should do no harm (non-maleficence) and maximise benefits and minimise risks for respondents referred to as beneficent and non-maleficence. Doing no harm stems from the understanding that the purpose of health research is to discover new information that would be helpful to society and should never be to hurt anyone or find out information at the expense of other people. Researchers are obligated to do their best to maximise the benefits and minimise risks for respondents (Pera and Van Tonder 2012: 55). The study did not cause any harm to the respondents, all data collection processes did not pose a risk of doing any harm to the respondents. Data reporting also ensured that both the respondents' name and person were protected. The researcher maintained

confidentiality, and this was done by not documenting personal information of respondents but rather using codes to identify study sites and respondents. Signed consent forms were removed immediately from other data collection tools and stored separately under lock and key.

4.12.5 Justice

This principle of justice deals with the concept of fairness. Researchers designing projects should consider what is fair in terms of recruitment of respondents and choice of location to conduct the study. This encompasses issues related to who benefits from research and who bears the risks of research. It provides the framework for thinking about these decisions in ways that are fair and equitable. People who are included in research should not be included merely because they are a population that is easy to access, available, or perhaps vulnerable and less able to decline participating. The principle of justice also indicates that questions being asked in studies should be of relevance to the communities participating in the study (Pera and Van Tonder 2012: 57). The research ensured that justice by selecting respondents who already have had enough experiences with clinical learning to be able to describe their experiences regarding system, cognitive and emotional support during clinical training. The researcher ensured that the venue, date and time for data collection and the process of returning completed questionnaires was easy and convenient to the respondents and that these did not disrupt the normal teaching and learning processes.

4.13 PROTECTION OF RESPONDENTS FROM CROSS INFECTION

The researcher holds a qualification as a professional nurse and has a long experience of working in health care institutions. Therefore, she is conversant with infection prevention and control policy by the national Department of Health and the use of protective equipment and other control measures to prevent cross infection. This enabled the researcher to protect all the respondents, herself, the research assistants and all those people that she met with for the purpose of the proposed study. Where possible direct contact was avoided, and communication was done

via emails and or telephone. The researcher ensured that a student was only exposed to one face-to-face meeting which was at the time of the information sharing meeting, signing of consent forms and distribution of questionnaires. Arrangements to return the consent forms and completed questionnaires without meeting face-to-face with the researcher were made for all the students who were not able to complete this process on the day of the face-to-face meeting. The only time a follow up face-to-face meeting was held was when the response was poor and a meeting to re-motivate the students to take part in the study was deemed necessary in order to meet the research target.

The researcher ensured that both herself and the research assistant were free of any possible infectious conditions to prevent cross infection by doing self-checks before any contact with the respondents. For the information giving sessions, the researcher ensured that students were grouped into smaller groups depending on the size of the room available to allow social distancing. The rooms used were well ventilated and sitting arrangements during the meeting was also in line with infection prevention and control policy. The room was cleaned and sanitised before and after the meeting. The researcher provided faces masks and hand sanitisers for the students, the researcher and herself. Students were requested to do self-checks prior to the meeting and further questioned regarding signs of possible infection and temperature checks before they were allowed to enter the meeting room. Only students who were deemed safe based on these checks were allowed into the meeting rooms. Attendance lists with names, contact details and addresses of the students was kept each time the researcher met with the students in case the need to contact the students arose.

The researcher arranged for a telephonic meeting on a one-on-one basis for all the students who were not able to attend the group meeting due to suspected or confirmed infection. Distribution and collection of questionnaires to these students was done via email to avoid direct contact with them. The researcher had planned to delay meeting with the students until a time when it was safe to meet should she herself or the research assistant contract any infectious condition. Fortunately, both

did not have any signs and symptoms of having contracted the infectious conditions throughout data collection.

4.14 CHAPTER SUMMARY

Chapter 4 presented a detailed description of the research design and methods that were employed for the study. The researcher's world view, all ethical processes that were considered and processes that were adhered to ensure the study rigour were described and where relevant supported with literature.

CHAPTER 5: PRESENTATION OF RESULTS

5.1 INTRODUCTION

Chapter 5 presents the results of the study generated from analysis of data collected for the current study. Various statistical analyses used to analyse data are described. Where necessary tables and graphs are used for a more detailed presentation of results.

5.2 OVERVIEW OF DATA COLLECTION ANALYSIS AND INTEPRETATION

All data were collected using self-administered questionnaires between February and March 2021 from 214 student nurses who were registered for the four-year basic nursing programme and were in their 3rd and 4th year level of study. The questionnaire was a modified version of a measuring instrument for increased accountability intended to be used for monitoring preceptors' supportive role that was used with permission from Hugo, Botma, and Raubenheimer (2018). This tool, which was originally developed by Lizemari Hugo in 2016, and improved by Hugo, Botma, and Raubenheimer (2018), was modified by the researcher for use in the current study (Appendix 8) following permission by the authors to do so (Appendix 5 and 6). The modified questionnaire was a two-page document and comprised section 1 which was demographic data of the respondents and section 2 which was broken into three subsections titled: 2.1 System support, 2.2 Cognitive support and 2.3 Emotional support, each of which consisted of closed ended questions requiring responses on a rating scale (Appendix 8). Data was analysed with the assistance of a statistician using Version 21 of the SPSS.

5.3 CLEANING THE DATA

Respondents 101, 154 and 164 were removed from the data because they answered every question in section 2 in the same way which did not add value to the study

(called 'being disengaged'). Thus, the sample size was 211 instead of 214, showing an attrition rate of 2.6% (n = 3). The composite data analysis report is included as Appendix 14.

5.4 SAMPLE REALISATION

Data was collected from four of the eleven campuses, two of which were from an urban, one from a semi-urban and one from a rural area. These were assigned codes 1-4 that were used during data collection and reporting to ensure anonymity and confidentiality. All 214 students who consented to take part in the study were registered for the R425 programme. A total of 214 questionnaires were received from the four study sites. At the time of data collection there were no students for the R174 programme that were in the 3rd and 4th year level of study because the programme had only commenced in 2020 in some and in 2021 in other South African HEIs. Of the 214 questionnaires received, three were spoilt and only 211 were found appropriate to analyse (see data cleaning) as follows: Campus 1 = 36.5% (n = 77), Campus 2 = 19.9% (n = 42), Campus 3 = 22.3% (n = 47) and Campus 4 = 21.3% (n = 45) (Table 5.1).

Table 5.1: Sample realisation (N = 211).

Study sites	R174	R425	Total
Campus 1	Nil	36.5% (n = 77)	36.5% (n = 77)
Campus 2	Nil	19.9% (n = 42)	19.9% (n = 42)
Campus 3	Nil	22.3% (n = 47)	22.3% (n = 47)
Campus 4	Nil	21.3% (n = 45)	21.3% (n = 45)
Total	Nil	**100% (n = 211)**	**100% (n = 211)**

5.5 STATISTICAL ANALYSIS USED FOR DATA ANALYSIS

The tests used in the analysis included the following:

Descriptive statistics including means and standard deviations, where applicable, were used. Frequencies are represented in tables or graphs. Descriptive statistics such as frequency, percentage, minimum and maximum formed the basis of data analysis. These were used where applicable to describe the basic features of the data

and to provide simple summaries about the sample and the measures. The means and standard deviations were also included. Frequencies are represented in tables or graphs. Calculations, such as percentages, are based on the total number of responses for that element. Although the total population is 211, where there were less responses e.g., 2010 responses, that was regarded as 100% and missing elements were not included.

Kruskal Wallis test: Nonparametric equivalent to ANOVA. A test for several independent samples that compares two or more groups of cases in one variable. The Kruskal Wallis test is non-parametric equivalent to ANOVA, a test for several independent samples that compares two or more groups of cases in one variable. The Kruskal-Wallis test was used to determine if there were statistically significant differences between groups of an independent variable on a continuous or ordinal dependent variable. According to McDonald (2015), the most common use of the Kruskal Wallis test is when there is one nominal variable and one measurement variable (an experiment that is usually analysed using one-way ANOVA), but the measurement variable does not meet the normality assumption of a one-way ANOVA. In the current study the Kruskal Wallis test was used to test all the factors for significant differences/correlations with demographic variables.

Wilcoxon Signed Ranks test: This is a non-parametric test that was used in this study to test whether the average value is significantly different from a value of 3.5 (the central score). This was applied to the Likert scale questions. It was also used in the comparison of the distributions of two variables.

Mann Whitney U Test: Nonparametric equivalent to the independent samples t-test.

Pearson's and Spearman's correlation: Spearman's correlations measure how ordinal variables or rank orders were related. Pearson's correlation coefficient is a measure of linear association.

One sample t-test: This tests whether a mean score is significantly different from a scalar value. A one sample t-test is used to test whether a mean score is significantly

different from a scalar value. For each of the Likert scale questions/items, univariate analysis was done using a one-sample t-test to test for significant agreement/disagreement with the statement (i.e., whether the average score was significantly different from a neutral/central score of 3). Thereafter, factor analysis was conducted to ascertain if there were any groupings within each section. If there were, single factor measures which are reliable were formed and used for further analysis.

During the analysis with the assistance of the statistician, the researcher began with doing univariate analysis where analysis on each question / item was done individually. For this, testing was done to check if there was significant agreement or significant disagreement among respondents with each item. The test used was a one-sample t-test. For this the average agreement score was tested against the central score of 3.5 (mid-point of the Likert scale) to test if there was a significant difference between the average and 3.5. If there was a significant difference, a mean score < 3.5 was interpreted as a significant disagreement; if significance and mean > 3.5 this was interpreted as significant agreement. Where tables are used to summarise findings, significant results are shaded red.

Due to some deviation from normality for selected aspects of the results, the results were checked using equivalent non-parametric tests as well.

In line with the normal use of SPSS, a p value given as .000 was considered very small and reported as $p < .0005$; e.g. a p value of .017 is reported as $p = .017$ throughout the reporting.

5.6 SECTION 1: DEMOGRAPHIC CHARACTERISTICS OF THE STUDY PARTICIPANTS

5.6.1 Age and gender

Information regarding the demographic characteristics of the study participants included age and gender. The findings on these demographic characteristics are presented below and in Figure 5.1.

Age: The majority of the study participants (51.2% n = 108) were between the age 18 and 25 years, 42.2% (n = 90) were between 26 and 35 years and 6.2% (n = 13) were above 35 years old.

Gender: The majority of the study participants (75.8% n = 160) were females and 24.2% (n = 51) were males.

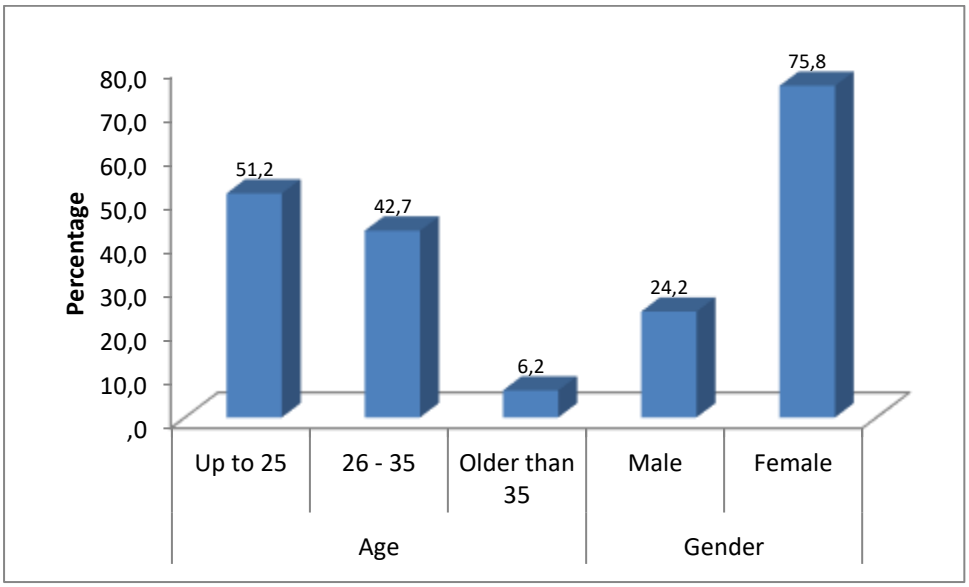

Figure 5.1: Graphic presentation of findings on demographic characteristics of the study participants

5.6.2 Specific information related clinical training

Specific information related clinical training which included the year of study (study level), total estimated time spent and number of contact sessions during placement was gathered with the demographic characteristics. The findings related to clinical training are presented below and in Figure 5.2.

Year of study: The majority of the study participants (79.6% n = 168) were in the fourth-year level of study and 20.4% (n = 43) in the third-year level.

Total estimated time spent during placement: The majority of the study participants (51.2% n = 108) estimated more than 10 hours per day as the total estimated time

spent during placement followed by 40.8% (n = 86) who estimated spending 7 to10 hours and 4.3% (n = 9) who estimated spending less than 4 hours per day. The least number of participants (3.8% n = 8) reported spending less than 7 hours per day.

Number of contact sessions during placement: The number of contact sessions with nursing educator doing clinical accompaniment reported varied between 1 and more than 11 sessions per clinical placement where 9.5% (n = 20) reported just one session and 11.0% (n = 38) reported more than 11 sessions. The majority of the participants (11.0%; n = 38) reported more than 11 sessions while the least number of participants 1.4% (n = 3) reported 11 session (Figure 5.2).

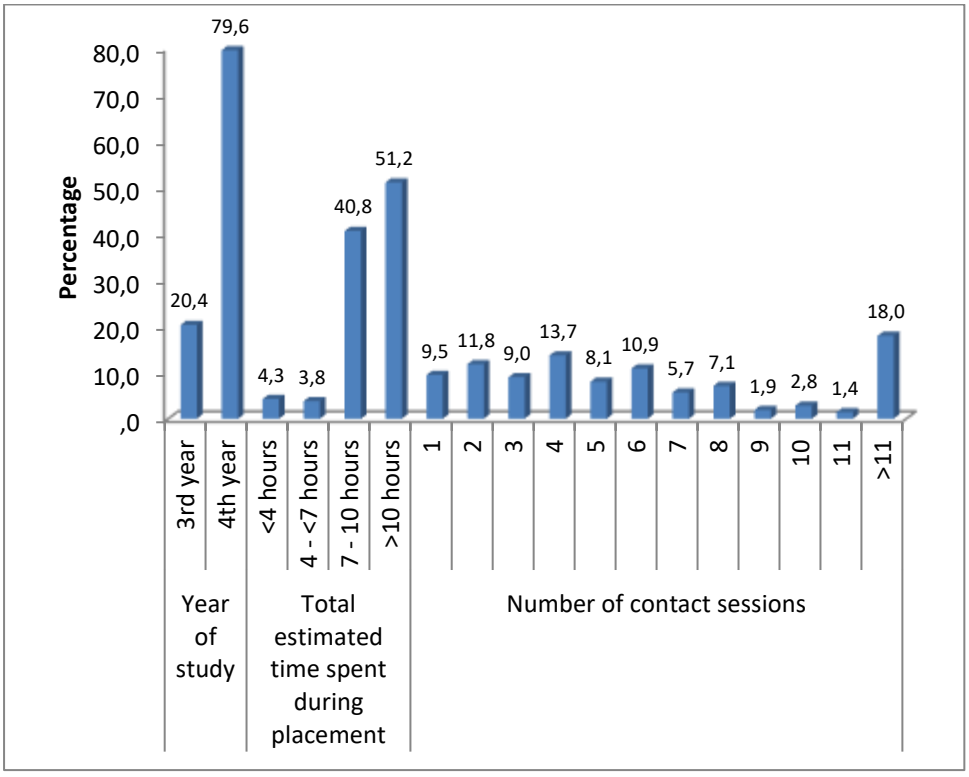

Figure 5.2: Graphic presentation of findings on additional information gathered in section A

5.7 SECTION 2: SUPPORT

Section 2 consisted of three subsections titled: 2.1 System support, 2.2 Cognitive support and 2.3 Emotional support, each of which consisted of closed ended questions regarding the support received by the students from the clinical nurse educators and clinical staff. All statements required responses on a rating scale ranging from strongly

disagree, disagree, slightly disagree, slightly agree, agree to strongly agree. The mean values (> 3.5 = significant agreement) for the participant responses for all statements related to support, showed that in general there was significant agreement with all the statements. The information below presents the findings on each of the three forms of support (cognitive, emotional and systems).

5.7.1 System support

Thirteen of the 47 statements included in the questionnaire were related to system support. The sum total of agreement responses for each statement included in this section (*where slightly agree + agree + strongly agree = agreement*) was between 55% (n = 115) and 87% (n = 183) with an average of 78.6% (n = 166). The highest responses 87% (n = 183) in agreement were for statement 12 (*gave me a clear description of what was expected of me in the clinical practice*) and this statement also had the largest number (32.7%, n = 69) of respondents who strongly agreed. The lowest number (55%, n = 115) was for statement 2 (*negotiated my workload with the clinicians in practice*). This statement had the least number of respondents (7.6%, n = 16) who strongly agreed, the highest number of disagreeing responses (strongly disagree, disagree, and slightly disagree) (45%, n = 95) and strongly disagree responses (12.8%, n = 27).

The analysis report shows mean values of between 3.50 and 4.88 (>3.5 = significant agreement) for all the statements thus showing significant agreement with all these statements, M = 3.50 and 4.88, $p < .0005$ except the 2nd statement which was regarding the clinical nurse educators and clinical staff negotiating the student's workload with the clinicians in practice. Statement number 2 (*clinical nurse educators and clinical staff negotiated the student's workload with the clinicians in practice*) was the only statement with a mean value of 3.50 and a 2-tailed statistical significance of .965. The standard deviation for all statements included was between 1.118 and 1.554. Table 5.2 presents a summary of findings on systems support.

Table 5.2: Summary of findings on systems support

Item	Responses as Frequency (%)														
	Strongly disagree	Disagree	Slightly disagree	Total	Slightly agree	Agree	Strongly agree	total	N	Mean	Std Deviation	N	Df		p-value
1. ...selected meaningful education and practice opportunities to meet my learning needs.	2.8% (n=6)	2.8% (n=06)	3.3% (n=7)	09% (n=19)	17% (n=36)	47.8% (n=101)	26% (n=55)	91% (n=192)	211	4.82	1.118	17.210	210	.000	p<.0005
2. ...negotiated my workload with the clinicians in practice.	12.8% (n=27)	20% (n=42)	12.3% (n=26)	45% (n=95)	20.9% (n=44)	26.1% (n=55)	7.6% (n=16)	55% (n=115)	210	3.50	1.554	.044	209	.965	P>.0005
3. ...arranged with me when he/she was available for facilitation.	2.8% (n=06)	6.1% (n=13)	4.7% (n=10)	14% (n=29)	16.1% (n=34)	45.7% (n=96)	24.2% (n=51)	86% (n=181)	210	4.69	1.232	13.946	209	.000	p<.0005
4. ...made sure that the relevant information/ guidelines were at my disposal in the clinical facility.	2.3% (n=05)	6.1% (n=13)	8.5% (n=18)	17% (n=36)	19.9% (n=42)	43.1% (n=91)	19.9% (n=42)	83% (n=175)	211	4.55	1.215	12.546	210	.000	p<.0005
5. ...linked me with a skilled clinician to ensure continuity of my learning.	5.2% (n=11)	8.6% (n=18)	9.5% (n=20)	23% (n=49)	22.9% (n=48)	31.5% (n=66)	22% (n=46)	77% (n=160)	209	4.33	1.418	8.464	208	.000	p<.0005
6. ...communicated my set objectives with the clinical supervisor.	5.6% (n=12)	10.9% (n=23)	5.2% (n=11)	21% (n=46)	15.6% (n=33)	41.7% (n=88)	20.8% (n=44)	79% (n=165)	211	4.39	1.451	8.941	210	.000	p<.0005

7. ...established an active role for me in the clinical team.	5.6% (n=12)	17% (n=36)	9% (n=19)	31% (n=67)	20.3% (n=43)	41.7% (n=88)	15.1% (n=32)	69% (n=163)	211	4.30	1.367	8.488	210	.000	p<.0005
8. ...shared his/her expertise with the clinical team.	1.4% (n=03)	9.5% (n=20)	4.3% (n=09)	15% (n=32)	24.4% (n=51)	43.4% (n=91)	16.7% (n=35)	85% (n=177)	209	4.49	1.193	12.027	208	.000	p<.0005
9. ...created a positive learning environment.	4.2% (n=09)	17.1% (n=36)	9% (n=19)	30% (n=64)	20% (n=42)	38% (n=80)	20.4% (n= 43)	70% (n=165)	210	4.41	1.357	9.714	209	.000	p<.0005
10. ...organised a learning space so that I could join in patient care.	3.3% (n=7)	4.7% (n=10)	8.5% (n=18)	16% (n=35)	18.4% (n=39)		23.6% (n=50)	84% (n=176)	211	4.61	1.254	12.816	210	.000	p<.0005
11. ...made every patient encounter a learning experience.	3.3% (n=7)	15.8% (n=33)	9.6% (n=20)	28% (n=60)	23% (n=48)	35% (n=73)	12.9% (n=27)	72% (n=148)	208	4.10	1.380	6.231	207	.000	p<.0005
12. ...gave me a clear description of what was expected of me in the clinical practice.	1.4% (n=03)	4.7% (n=10)	7.1% (n=15)	13% (n=28)	10.4% (n=22)	43.6% (n=92)	32.7% (n=69)	87% (n=183)	211	4.88	1.167	17.195	210	.000	p<.0005
13. ...negotiated learning outcomes for the placement.	2.8% (n=06)	9% (n=19)	6.1% (n=13)	18% (n=38)	23.6% (n=50)	39.8% (n=84)	18.4% (n=39)	82% (n=173)	211	4.44	1.276	10.708	210	.000	p<.0005

Key: Highest number of respondents  Least number of respondents: 

5.7.2 Cognitive support

Sixteen out of the 47 statements included in the questionnaire were related to cognitive support. Combined agreement responses for each statement included in this section (*where slightly agree + agree + strongly agree = agreement*) were between 64% (n = 134) and 90% (n = 189) with an average of 81.5% (n = 172) respondents. The highest agreement responses (90%, n = 189) were in response to statement 24 (*supported me to relate my theoretical knowledge to clinical practice*). The least number of agreeing responses (64%, n = 134) were noted with the statement 22 (*guided me to choose the most appropriate treatment plan in collaboration with the patient)*.

The majority (31.7%, n = 67) of the respondents who indicated strong agreement were in response to statement 17 (*guided me to put the knowledge I learned from college into practice using patient data*) and statement 27 (*guided me in doing clinical skills*) However, of the responses across all agreement categories (strongly agree, agree and slightly agree) the highest responses (50%, n = 105) were noted in the 'agree' categories for statement 15 (*guided me to notice pertinent information)* while the least (8%, n = 17) were noted with statement 20 (*guided alternative treatment options*).

For the disagreement responses, statement 23 (*promoted evidence-based practices*) was the only statement which had no respondents who strongly disagreed. The highest number of disagreeing responses were noted with statement 22 (*guided me to choose the most appropriate treatment plan in collaboration with the patient*) with 15.6% (n = 33) of respondent being in slight agreement with this statement.

The analysis report shows mean values of between 3.84 and 4.89 (> 3.5 = significant agreement) for 11 statements thus showing significant agreement with all these statements, M = 3.84 and 4.89. The standard deviation for all statements included was between .884 and 1. 406. The mean values for the 16 statements were > 3.5 with a 2-tailed statistical significance of .000, thus confirming significant agreement. Therefore, the results for the 18 statements in this section showed that there was significant agreement that the clinical nurse educators and clinical staff provided cognitive support to students during clinical placement ($p < .0005$), and all statements had a 2-

tailed statistical significance of .000 and .001 ($p < .0005$). Table 4.4 presents a summary of the findings on cognitive support.

Table 5.3: Summary of findings on cognitive support

	RESPONSES AS FREQUENCY (%)								N	Mean	Std Deviation	Std. Deviation	Df	Sig (2-tailed	p-value
	Strongly disagree	Disagree	Slightly disagree	Total	Slightly agree	Agree	Strongly agree	Total							
14. ...guided me in assessing the patient.	3.8% (n=08)	4.7% (n=10)	7.1% (n=15)	16 % (n=33)	19.5% (n=41)	40.4% (n=85)	24.1% (n=51)	84% (n=177)	210	4.61	1.272	12.644	209	.000	p<.0005
15. ...guided me to notice pertinent information.	2.3% (n=05)	4.2% (n=09)	7.6% (n=16)	14% (n=30)	18.5% (n=39)	50% (n=105)	17.1% (n=36)	86% (n=180)	210	4.61	1.132	14.199	209	.000	p<.0005
16. ...guided me in interpreting the patient information.	3.3% (n=07)	4.2% (n=09)	6.1% (n=13)	9% (n=19)	18.9% (n=40)	42.6% (n=90)	24.6% (n=52)	91% (n=182)	211	4.67	1.224	13.924	210	.000	p<.0005
17. ...guided me to put the knowledge I learned from college into practice using patient data.	0.9% (n=02)	4.7% (n=10)	5.2% (n=11)	11% (n=23)	14.2% (n=30)	43.1% (n=91)	31.7% (n=67)	89% (n=188)	211	4.89	1.114	18.142	210	.000	p<.0005
18. ...guided me to differentiate between diseases or conditions that present with similar symptoms	3.8% (n=08)	9.6% (n=20)	5.2% (n=11)	19% (n=39)	16.2% (n=34)	39.7% (n=83)	25.3% (n=53)	81% (n=170)	209	4.55	1.379	10.956	208	.000	p<.0005
19. ...guided me in making the final diagnosis.	6.1% (n=13)	9.4% (n=20)	9% (n=19)	25% (n=52)	18.9% (n=40)	41.7% (n=88)	14.6% (n=31)	75% (n=159)	211	4.25	1.406	7.711	210	.000	p<.0005

20. ...guided alternative treatment options.	1.8% (n=04)	11.3% (n=24)	14.6% (n=31)	27% (n=59)	27.4% (n=580	36.4% (n=77)	8% (n=17)	73% (n=152)	211	4.09	1.207	7.156	210	.000	p<.000 5
21. ...discussed treatment options with the patient.	3.7% (n=08)	9.9% (n=21)	12.3% (n=26)	26% (n=55)	28.9% (n=61)	33.1% (n=70)	11.8% (n=25)	74% (n=156)	211	4.13	1.288	7.136	210	.000	p<.000 5
22. ...guided me to choose the most appropriate treatment plan in collaboration with the patient.	6.1% (n=13)	14.6% (n=31)	15.6% (n=33)	36% (n=77)	25.5% (n=54)	28.4% (n=60)	9.4% (n=20)	64% (n=134)	211	3.84	1.395	3.529	210	.001	p<.000 5
23. ...promoted evidence based practices.	0% (n=00)	8.5% (n=18)	11.8% (n=25)	20% (n=43)	17% (n=36)	45% (n=95)	17.5% (n=37)	80% (n=168)	211	4.51	1.164	12.62 3	210	.000	p<.000 5
24. ...supported me to relate my theoretical knowledge to clinical practice.	1.4% (n=03)	2.8% (n=06)	6.1% (n=13)	10% (n=22)	18% (n=38)	43.6% (n=92)	27.9% (n=59)	90% (n=189)	211	4.83	1.081	17.93 5	210	.000	p<.000 5
25. ...asked clear questions to probe my learning.	1.4% (n=03)	5.7% (n=12)	5.7% (n=12)	12% (n=27)	17.6% (n=37)	46.1% (n=97)	23.3% (n=49)	88% (n=183)	210	4.71	1.143	15.40 1	209	.000	p<.000 5
26. ...explored my reasons for decisions.	1.8% (n=04)	9.4% (n=20)	11.3% (n=24)	23% (n=48)	18% (n=38)	43.1% (n=91)	16.1% (n=34)	77% (n=163)	211	4.39	1.262	10.28 4	210	.000	p<.000 5
27. ...guided me in doing clinical skills.	1.8% (n=04)	4.2% (n=09)	6.1% (n=13)	12% (n=26)	10.9% (n=23)	45% (n=95)	31.7% (n=67)	88% (n=185)	211	4.88	1.163	17.25 5	210	.000	p<.000 5
28. ...gave me constructive feedback in	2.8% (n=06)	3.3% (n=07)	5.6% (n=12)	11% (n=25)	15.1% (n=32)	42.1% (n=89)	30.8% (n=65)	89% (n=186)	211	4.83	1.191	16.21 4	210	.000	p<.000 5

preparation for my assessment.														
29. ...demonstrated various approaches to patient's problems.	2.3% (n=05)	5.7% (n=12)	7.1% (n=15)	15% (n=32)	23.3% (n=49)	36.6% (n=77)	24.7% (n=52)	85% (n=178)	210	4.60	1.230	13.016	209	.000	p<.0005

Key: Highest number of respondents Least number of respondents:

5.7.3 Emotional support

Eighteen of the 47 statements included in the questionnaire were related to emotional support. Combined agreement responses for each statement included in this section (*where slightly agree + agree + strongly agree = agreement*) were between 59% (n = 125) and 96% (n = 201). The highest agreement responses of 96% (n = 201) were in response to statement 38 (*encouraged me to participate in patient care*). The least number of agreeing responses 59% (n = 125) were noted with the statement 35 (*was sensitive to my needs)*.

The highest number (43.1%, n = 91) of respondents who indicated strong agreement was with statement 45 (*knows me by name*) and the least number of respondents (12.7%, n = 27) were with statement 43 (*reduced my anxiety by preparing me for patient encounters).* Regarding disagreement, the majority (8.5%, n = 18) of the respondents who indicated strong disagreement were in response to statement 39 (*showed interest in me as a person*) and the least (0, 47%, n = 01) were in response to statement 38 (*encouraged me to participate in patient care*) where there was just one respondent who strongly disagreed with the statement. Of all the disagreement responses (strongly agree, agree, and slightly agree) the “disagree’ response to statement 35 (*was sensitive to my needs*) had the highest number of responses (19.9%, n = 42).

The analysis report shows mean values of between 3.77 and 4.91(> 3.5 = sig agreement) for 10 statements thus showing significant agreement with all these statements, M = 3.77 and 4.91. The standard deviation for all statements included was between .844 and 1.531 and all statements had a 2-tailed statistical significance of .000, $p < .0005$. Table 4.3 presents a summary of the findings on emotional support.

Table 5.4: Summary of findings on emotional support

Item	RESPONSES AS FREQUENCY (%)								N	Mean	Standa-	N	DF	Sig (2-	p-value
	Strongly disagree	Disagree	Slightly disagree		Slightly agree	Agree	Strongly agree								
30. ...stimulated me to see my strengths and limitations.	7.1% (n=15)	11.4% (n=24)	10.4% (n=22)	29% (n=61)	16.6% (n=35)	33.3% (n=70)	20.9% (n=44)	71% (n=149)	210	4.20	1.531	6.669	209	.000	p<.0005
31. ...assisted me in identifying personal learning needs.	7.1% (n=15)	9.9% (n=21)	6.6% (n=14)	24% (n=50)	20.3% (n=43)	34.1% (n=72)	21.8% (n=46)	76% (n=161)	211	4.30	1.496	7.752	210	.000	p<.0005
32. ...assisted me in meeting my learning needs by referring me to literature sources.	6.1% (n=13)	15.1% (n=32)	6.6% (n=14)	28% (n=59)	18.4% (n=39)	34.1% (n=72)	19.4% (n=41)	72% (n=152)	211	4.18	1.525	6.432	210	.000	p<.0005
33. ...decreased the amount of guidance in order to promote my independence.	3.7% (n=08)	5.6% (n=12)	4.2% (n=09)	14% (n=29)	17% (n=36)	45% (n=95)	24.1% (n=51)	86% (n=182)	211	4.66	1.263	13.379	210	.000	p<.0005
34. ...encouraged me to achieve my set outcomes.	4.2% (n=09)	8% (n=17)	5.6% (n=12)	18% (n=38)	21.8% (n=46)	39.8% (n=84)	20.3% (n=43)	82% (n=173)	211	4.46	1.332	10.468	210	.000	p<.0005
35. ...was sensitive to my needs.	7.1% (n=15)	19.9% (n=42)	13.7% (n=29)	41% (n=86)	21.8% (n=46)	23.2% (n=49)	14.2% (n=30)	59% (n=125)	211	3.77	1.527	2.547	210	.012	p<.0005
36. ...was approachable during my clinical placement rotation.	1.8% (n=04)	6.6% (n=14)	11.3% (n=24)	20% (n=42)	18.9% (n=40)	37.9% (n=80)	23.2% (n=49)	80% (n=169)	211	4.54	1.254	12.047	210	.000	p<.0005
37. ...made me feel comfortable to ask questions.	5.6% (n=12)	2.8% (n=06)	6.6% (n=14)	15% (n=32)	21.3% (n=45)	37.4% (n=79)	26% (n=55)	85% (n=179)	211	4.60	1.325	12.082	210	.000	p<.0005

38. ...encouraged me to participate in patient care.	0,47% (n=01)	1.4% (n=03)	2.3% (n=05)	4% (n=9)	13.3% (n=28)	54.7% (n=115)	27.6% (n=58)	96% (n=201)	210	5.03	.844	26.337	209	.000	p<.0005
39. ...showed interest in me as a person.	8.5% (n=18)	8% (n=17)	7.1% (n=15)	24% (n=50)	21.8% (n=46)	32.7% (n=69)	21.8% (n=46)	76% (n=161)	211	4.27	1.515	7.429	210	.000	p<.0005
40. ...showed interest in my learning.	6.1% (n=13)	6.1% (n=13)	8.5% (n=18)	16% (n=34)	20.3% (n=43)	36% (n=76)	22.7% (n=48)	89% (n=177)	211	4.42	1.410	9.497	210	.000	p<.0005
41. ...supported me when I experienced difficulties in performing a task.	3.3% (n=07)	3.7% (n=08	6.1% (n=13)	13% (n=28)	19.9% (n=42)	41.7% (n=88)	25.1% (n=53)	87% (n=183)	211	4.68	1.214	14.143	210	.000	p<.0005
42. ...gave me individual attention during my clinical rotation.	6.6% (n=14)	10.9% (n=23)	9% (n=19)	27% (n=56)	22.2% (n=47)	38.3% (n=81)	12.7% (n=27)	73% (n=155)	211	4,13	1.418	6.481	210	.000	p<.0005
43. ...reduced my anxiety by preparing me for patient encounters.	7.5% (n=16)	14.6% (n=31)	12.3% (n=26)	35% (n=73)	21.3% (n=45)	31.2% (n=66)	12.7% (n=27)	65% (n=138)	211	3.92	1.491	4.133	210	.000	p<.0005
44. ...made me feel comfortable in discussions on patient care.	4.7% (n=10)	6.1% (n=13)	9% (n=19)	20% (n=42)	18.5% (n=39)	44.7% (n=94)	16.6% (n=35)	80% (n=168)	210	4.42	1.307	10.239	209	.000	p<.0005
45. ...knows me by name.	5.2% (n=11)	2.8% (n=06)	4.7% (n=10)	13% (n=27)	13% (n=27)	31.2% (n=66)	43.1% (n=91)	87% (n=184)	211	4.91	1.357	15.148	210	.000	p<.0005
46. ...helped me to establish rapport with other clinicians.	4.7% (n=10)	11.3% (n=24)	9% (n=19)	25% (n=53)	18% (n=38)	36% (n=76)	20.8% (n=44)	75% (n=158)	211	4.32	1.440	8.244	210	.000	p<.0005
47. ...built my confidence.	6.6% (n=14)	9% (n=19)	3.3% (n=07)	19% (n=40)	18% (n=38)	41.2% (n=87)	21.8% (n=46)	81% (n=171)	211	4.44	1.447	9.394	210	.000	p<.0005

Key: Highest number of respondents: Least number of respondents:

5.8 FACTOR ANALYSIS

During analysis the statements measuring emotional support were sub-divided into those related to general support and those related to support specific in relation to the subject/module; thus, four instead of three support types of categories are reported.

Factor analysis with ProMax rotation was used to explore the structure of the data and identify groupings amongst the 47 items measuring support. During the process, 9 items were dropped because they either loaded too low onto all the factors, or cross loaded. These are 10, 12, 13, 24, 25, 27-29 and 33.

The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) of .933 indicates that the data was adequate for successful and reliable extraction. In addition, the significant result of Bartlett's test indicates that correlations between items were not too low for successful extraction.

Four factors, accounting for 55.12% of the variance in the data were extracted and rotation converged in 8 iterations. Detailed findings on factor analysis are included in the composite report attached as Appendix 14. A summary of the factors is presented in Table 5.5.

Table 5.5: Summary of the factors

Factor/ construct	Label	Items included	% variance explained	Cronbach's alpha
1: Cognitive	COG	14 – 23, 26	43.04	.924
2: Emotional ()	EMOT1	36, 39 – 47	6.30	.932
3: System	SYS	1 – 9, 11	3.32	.883
4: Emotional ()	EMOT2	30-32, 34-35, 37-38	2.46	.891

5.8.1 Analysis of each factor as a single composite measure

To test for the level of support received in each of these 4 support types, a one-sample t-test was applied to test for significant agreement/disagreement. The mean values indicate the level of support where 1 equalled to no/low support (strong

disagreement that support was received and 6 equalled to good support (strongly agree that the support was received). Significant agreement indicated that all four types of support (cognitive, emotional 1 and 2 and system support) were received. The mean value for all four was between 4.3574 and 4.4121 and the significance (2-tailed) was .000 thus showing a mean difference of between .85736 and .91206 and 95% confidence interval of between .9838 and 1. 0547. These results show that there is significant agreement that cognitive, emotional 1and 2 and system support were received (Table 5.6).

Table 5.6: One-Sample Statistics and One-Sample Test

One-Sample Statistics					**One-Sample Test (**Test Value = 3.5)					
									95%Confidence Interval of the Difference	
	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
COG	211	4.4121	.95113	.06548	13.929	210	.000	.91206	.7830	1.0411
EMOT1	211	4.4063	1.09385	.07530	12.035	210	.000	.90627	.7578	1.0547
EMOT2	211	4.3628	1.07766	.07419	11.629	210	.000	.86278	.7165	1.0090
SYS	211	4.3574	.93205	.06417	13.362	210	.000	.85736	.7309	.9838

As graphically presented in Figure 5.3, analysis shows that there is no significant difference in the types of support received.

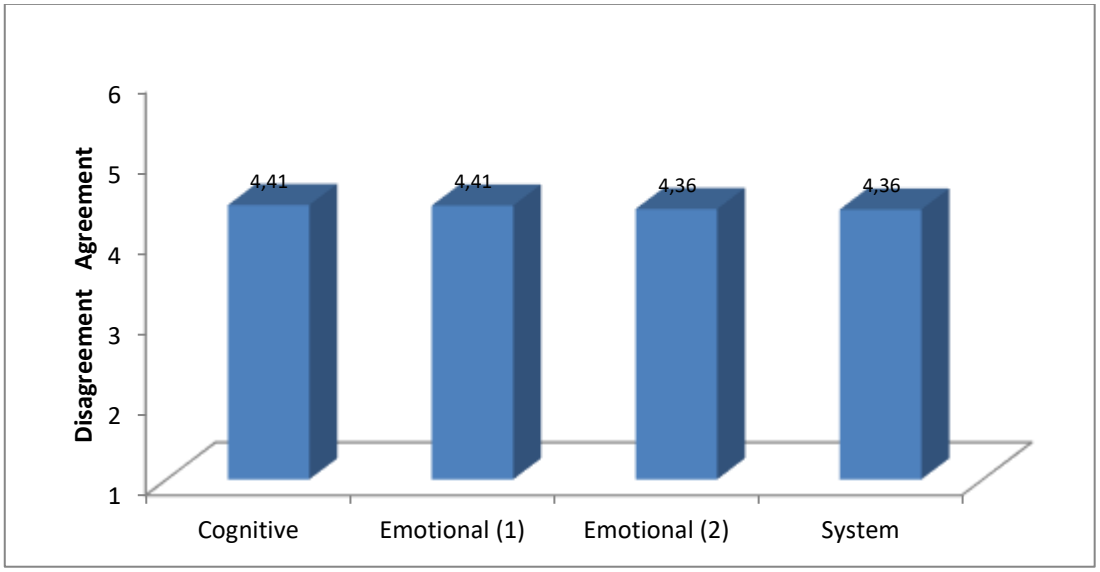

Figure 5.3: Evidence of no significant difference in the types of support received

5.8.2 Bivariate analysis

Bivariate analysis was conducted to determine if this support differs across campus, gender, year of study, total time, and number of contact sessions. Because the measures for these four supports deviated a little from normality, Kruskal Wallis, Mann Whitney and Spearman's correlation were used to do further analysis. Tables 5.7 and 5.8 and 5.9 present summaries of findings from the bivariate analysis (the composite results are available in Appendix 14). The Kruskal Wallis test was used for the majority of the characteristics. These included gender, age, campus, and time during placement. The findings on these analyses are presented in Table 5.7. It was only with age where there was evidence of significantly different support offered to students with regards to cognitive (2-tailed = .047), emotional 1 (2-tailed = .037), 1 and emotional 2 support (2-tailed = .002). The first three support constructs differed significantly across age. Paired comparative analysis was done to see where the specific differences lie. 'A > B' means agreement for A is significantly higher than agreement for B. The findings on this comparative analysis were as follows:

- COG '> 35 yrs' > 'up to 25' (p = .014)
- EMOT1 '> 35 yrs' > 'up to 25' (p = .013)
- EMOT2 '> 35 yrs' > 'up to 25' (p = .007)
  '> 26-35' > 'up to 25' (p = .008)

Table 5.7: Summary of findings on bivariate analysis (n=211)

Characteristic	Support	Group Statistics			Test statistics(Kruskal Wallis test)		
		N	Mean	Std. Deviation	Chi-Square	df	Sig. (2-tailed)
Gender	**Cognitive**	M = 51 F = 160	4.4590 4.3971	.92129 .96279	4023.500	16903.500	.882
	Emotional 1		4.3769 4.4156	1.22540 1.05249	4042.000	16922.000	.920
	Emotional 2		4.4001 4.3509	1.10326 1.07262	3982.500	16862.500	.797
	System		4.2272 4.3988	1.05839 .88766	3746.000	5072.000	.379

Age	**Cognitive**	Up to 25 = 108 26 to 35 = 90 Older than 35 = 13	4.3274 4.4368 4.9441	.96072 .94410 .78426	6.132	2	.047
	Emotional 1		4.3231 4.4136 5.0462	1.06179 1.15676 .67530	6.610	2	.037
	Emotional 2		4.1437 4.5333 5.0018	1.06246 1.06814 .83912	11.987	2	.002
	System		4.2676 4.4239 4.6423	.94609 .86430 1.21960	2.470	2	.291
Campus	**Cognitive**	C1 = 77 C2 = 42 C3 = 47 C4 = 45	4.3318 4.6333 4.5551 4.1935	1.01765 .91694 .73495 1.02565	5.994	3	.112
	Emotional 1		4.3717 4.3262 4.7319 4.2000	1.06750 1.21194 .69442 1.30558	3.598	3	.308
	Emotional 2		4.3027 4.5578 4.3495 4.2974	1.06169 1.08559 1.07559 1.11405	2.255	3	.521
	System		4.3637 4.5741 4.2851 4.2197	.93503 .88496 .83691 1.05080	4.209	3	.240
Time during placement	**Cognitive**	< 4 hours = 9 4 to < 7 hours = 8 5 to 10 hours = 86 6 to > 10 hours = 108	4.2323 4.0170 4.3766 4.4845	.97501 .65822 .92652 .98662	3.729	3	.292
	Emotional 1		4.3556 4.3125 4.4096 4.4148	1.18122 .61281 1.07473 1.14057	.613	3	.893
	Emotional 2		4.4921 3.9643 4.3782 4.3693	.79895 .62853 1.01016 1.17542	2.014	3	.570
	System		4.1556 4.3875 4.4224 4.3202	.76176 .74342 .91864 .97301	1.763	3	.623

5.8.3 Mann Whitney U test

The Mann Whitney U test was used for gender and year of study. The results did not show any difference in the support offered to students based on gender and year of study except the cognitive support offered to 3rd and 4th year level students where the results showed a significant difference of .011. The mean value for 3rd year students in this regard was 4, 1402 and that of the 4th year students was 4, 4817.

Table 5.8: Summary of findings on bivariate analysis (n = 211)

Characteristic	Support	Group Statistics				Test statistics		
		N	Mean	Std. Deviation	Mann Whitney U	Wilcoxon W	z	Sig. (2-tailed)
Gender	**Cognitive**	M = 51 F = 160	4.4590 4.3971	.92129 .96279	4023.500	16903.500	.149	.882
	Emotional 1		4.3769 4.4156	1.22540 1.05249	4042.000	16922.000	.100	.920
	Emotional 2		4.4001 4.3509	1.10326 1.07262	3982.500	16862.500	.257	.797
	System		4.2272 4.3988	1.05839 .88766	3746.000	5072.000	.880	.379
Year of study	**Cognitive**	3rd year = 43 4th year = 168	4.1402 4.4817	.91202 .95104	2709.000	3655.000	2.530	.011
	Emotional 1		4.3488 4.4210	1.07135 1.10221	3359.000	4305.000	.709	.478
	Emotional 2		4.3112 4.3760	1.08052 1.07977	3440.000	4386.000	.482	.630
	System		4.2716 4.3793	.94458 .93040	3337.500	4283.500	.769	.442

5.8.4 Spearman's correlation

Spearman's correlation was used to determine whether the support offered to students differed based on the number of contact sessions during placement. The results showed a weak positive correlation between support and number of sessions in each case. This is evidenced by the following findings: rho = .205, p = .003 for cognitive support, rho = .204, p = .003 for emotional, rho = .276, p = .000 for emotional 2 and rho = .227, p = .001 for system support (Table 5.9).

Table 5.9: Findings on Spearman's rho correlation for support related to the number of contact sessions

	Number of contact sessions during placement	Cognitive	Emotional 1	Emotional 2	System
Correlation Coefficient	1.000	.205**	.204**	.276**	.227**
Sig. (2-tailed)	.	.003	.003	.000	.001
N	211	211	211	211	211

5.9 CHAPTER SUMMARY

Chapter 5 presents the results of the study generated from analysis of data collected for the current study. Various statistical analyses were used to analyse the data. Where necessary, tables and graphs were used for a more detailed presentation of results.

CHAPTER 6: DISCUSSION OF RESULTS

6.1 INTRODUCTION

Chapter 6 presents the discussion of the results generated from analysis and interpretation of the data collected for the current study.

6.2 OVERVIEW OF THE DISCUSSION

The discussion takes cognisance of the aim and objectives of the study. The aim of the study was to explore and describe the experiences of students from a college of nursing in KZN regarding system, cognitive and emotional support received by the students during clinical training. The study had four objectives as follows:

1. Describe the experiences of students from a college of nursing in KZN with regards to system, cognitive and emotional support during clinical placement.
2. Determine if system, cognitive and emotional support is given to students during clinical training.
3. Identify strategies that can be implemented to facilitate system, cognitive and emotional support to students during clinical placement.

The discussion of results follows the structure of the tool that was used to gather data. The tool used to gather data was a structured questionnaire adapted from the questionnaire developed by Hugo, Botma, and Raubenheimer (2018) which is a measuring instrument for increased accountability, intended to be used for monitoring preceptors' supportive role (Appendix 7). The questionnaire had two sections where section A was demographics and section B consisted of statements to assess availability of various forms of support. The later section was sub-divided into three sections related to system, cognitive and emotional support.

The discussion is also guided by Schlossberg's Transition Theory as the theoretical framework that was used to guide the study. According to Schlossberg (1981: 2), there are four major sets of factors that influence a person's ability to cope with transitions, namely: situation, self, support, and strategies (Schlossberg 1981: 5). Although all four major sets were considered, the focus was on one component of the theory (support) and explored how the students' experiences system, cognitive and emotional support during clinical training. However, since all four factors are interrelated, influence and are influenced by each other, the factors 'situation', 'self' and 'strategies' were also considered.

6.3 DERMOGRAPHIC CHARACTERISTICS OF THE STUDY PARTICIPANTS

6.3.1 Age

The majority of the study participants (51.2%, n = 108) were between the age 18 and 25 years. These findings correspond with the expected age of students in undergraduate programmes in HEIs where the average age of first entering students is said to be between 18 and 25 years. This is evidence from Statistics South Africa (2019) where it is stated that in 2017 attendance of post-school educational institutions was the highest among youth aged 20 to 22 years. An almost similar situation is found in other countries such as America where in 2015 the breakdown of student demographics at American universities showed the majority of the students (11.8 million students) in tertiary institutions were under the age of 25 years and in 2016, 18 to 21-year-olds made up a significant percentage of students in tertiary institutions although they still accounted for less than half (42.15%) of all students (McCubbin 2018).

6.3.2 Gender

The finding that the majority of the study participants (75.8%, n=160) were females supports the fact that nursing is a female dominated profession worldwide. This difference between female and male students also corresponds with the report by Statistics South Africa (2019) that females are the most likely to attend post-school

educational institutions than males. The small number of males in the nursing profession in South Africa is similar to the situation in the United States (US) where the National Council of State Boards of Nursing found that men account for 7% of the RN workforce (Barrett-Landau and Henle 2014: 10). The number of male students (24.2%, n = 51) in the programme supports the current trend where the profession is seeing a growing number of males joining the nursing profession. Although Barrett-Landau and Henle (2014) concur that males are a minority in the nursing profession, they also state that small increases in the male representation have occurred in the last seven years. While the US Census report in 2006 (2006, cited in Barrett-Landau and Henle 2014) indicated that men only constituted 7% of the United States workforce in nursing, a survey conducted by the U. S. Census Bureau in February 2013 found that men comprised 9.6% of all RNs at that time (Census Bureau's Industry and Occupation Statistics, 2013, cited by Barrett-Landau and Henle 2014). Thus, Barrett-Landau and Henle (2014: 10) advise that recruiting males into the nursing profession is a viable way to increase the number of registered nurses and to promote a more diverse population of nurses in the workforce.

6.3.3 Year of study

That the majority of the study participants (79.6% n = 168) were in the fourth-year level of study and 20.4% (n = 43) in the third-year level had no relevance to the study findings except that the availability of these two categories supports that the research ensured enrolment of the correct target population. The findings that one group was larger than the other also has no significance in the study findings.

6.3.4 Total estimated time spent during placement and number of contact sessions during placement

These two characteristics are discussed together because they both inform the duration of exposure to clinical placement. In the current study, the majority of the study participants (51.2%, n = 108) reported more than 10 hours per day as total estimated time spent during placement followed by 40.8% (n = 86) who estimated spending between 7 and 10 hours and 4.3% (n = 9) who estimated spending less

than 4 hours per day. Similarly to the duration of placement, the current study identified that the majority of the participants (11.0%, n = 38) reported more than 11 sessions with nurse educators who followed them to clinical placement for facilitation visits while the least 1.4% (n = 3) reported 11 sessions. These findings coincide with the overall findings of the study which disprove the perception by the researcher that students often do not get support. When students spend longer periods in clinical placement settings, this affords students more exposure to supervision, and, according to Gurková *et al.* (2016: 474), the higher frequency of supervisory sessions is associated with better overall student evaluation of clinical learning environment. According to these authors, the duration of the clinical training placement was identified as the determining factor of higher student satisfaction with the supervisory relationship and the pedagogical atmosphere in the ward. Furthermore, these authors cite Warne *et al.* (2010) confirming that the students with longer placements are often more satisfied with the clinical learning environment than the students with shorter placements. This is supported by Botma, Hurter and Kotze (2013) who describe support as creating effective learning opportunities and availing all necessary resources to maximise students' learning experiences. According to Levett-Jones *et al.* (2008: 9), the duration and structure of clinical placements is a key influence on their experience of belongingness which, according to these authors, is a phenomenon of importance to nursing students and to those involved in their education. This notion is supported by Ulenaers *et al.* (2021: 5) who found that sometimes students experience a lack of openness and integration during clinical placement, and miss a sense of belonging (which is defined as an essential concept for mental health). It is important to feel needed, accepted and fitting in and is something that almost all students find important under normal internship conditions. When students feel supported and accepted as part of the nursing team in the unit where they are placed, they develop a sense of belonging, increased self-confidence and a positive practice-learning experience overall. However, in the absence of support, students often express feelings of loneliness, isolation and lack of belonging, resulting from the change in context from the university setting and a lack of support in the clinical learning environment which could possibly lead to higher attrition rates (Macdonald, Paterson and Waller 2016).

6.4 SYSTEM, COGNITIVE AND EMOTIONAL SUPPORT GIVEN TO STUDENTS DURING CLINICAL TRAINING.

The researcher in the current study was prompted by her observation that students were not receiving adequate support in the form of mentoring support during clinical placement due to a variety of reasons which, according to the researcher, had negative influences on the student clinical learning process and outcome. There is research evidence that nursing students' lack of knowledge and skill and inadequate preparation for entering the clinical environment disturb their learning processes and make them anxious. The resulting stress in the clinical environment is compounded by a lack of support which can affect their general health and disturb their learning processes (Jamshidi *et al.* 2016). Simpson and Sawatzky (2020) define clinical placement anxiety as a vague perceived threat to a student's goals or expectations in clinical practice due to the presence of stressors, including unfamiliar environments or situations, resulting in psychological, physiological and behavioural responses which, in turn may have a negative impact on the student's clinical outcomes. Changiz *et al.* (2012, cited by Jamshidi *et al*. 2016) attest to that the causes of nursing students' stress in the clinical environment as falling into three types of stress: due to the educational plan, due to the educational environment, and due to factors concerning the students. The benefit of supporting students during clinical placement was also emphasised by Hameed *et al.* (2017) in their study on improving medical student placements in psychiatry. According to these authors, helping students to feel supported before, during and even after their placements should be of a high priority because research has shown that learners rank the need for support and guidance in workplace environments as high and as an essential requirement for a successful learning experience, particularly when they are placed in health units that are perceived by students to be difficult and challenging such as psychiatric and intensive care units.

Although a number of studies support the anecdotal evidence by the researcher that students were not receiving adequate support during clinical placement (Hameed *et al.* 2017; Jamshidi *et al.* 2016) the findings of the current study did not support this evidence. The findings revealed that in general students were receiving almost all

forms of support except just a few. The findings on the experiences of students regarding various forms of support (system, cognitive and emotional) are discussed in detail in the next section. Several authors acknowledge the possibility of stress and anxiety during clinical placement and therefore emphasise the importance of support for students (KZNCN 2019; Lim, Hong and Chew 2018; Hamaideh, Al-Omari and Al-Modalall 2017).

6.4.1 System support during clinical placement

The analysis report shows mean values of between 3.50 and 4.88 (> 3.5 = significant agreement) for all the statement thus showing significant agreement, M = 3.50 and 4.88, $p < .0005$ except statement 2 which was related to clinical nurse educators and clinical staff negotiating the students' workload with the clinicians in practice. These elements were included to make sure that the environment where the students are placed is conducive to learning with all the necessary resources being available. The responses by the participants confirm that the students were getting system support as they agreed that the lecturers selected meaningful education and practice opportunities to meet their learning needs, provided learning resources, and created a conducive learning environment. Schlossberg (1981: 2) includes a conducive environment as a critical coping support system for students to facilitate transition. Adequate availability of human and material resources, and well detailed processes and procedures, are central elements of a conducive working/learning environment. Agreements with statements such as '*created a positive learning environment*'. '*organised a learning space so that I could join in patient care*' supports the contention that a conduce learning environment was created for the students. With regards to human resources, the majority of the participants in the currents study agreed that educators and mentors were available ('*arranged with me when he/she was available for facilitation', 'linked me with a skilled clinician to ensure continuity of my learning', 'shared his/her expertise with the clinical team'*). Availability of material resources is supported by agreement with the statements including '*made sure that the relevant information/ guidelines were at my disposal in the clinical facility'* and '*communicated my set objectives with the clinical supervisor*'.

The participants did not agree to receiving support related to workload. This was evidenced by the mean value of 3.50 and a 2-tailed statistical significance of .965 related to the statement '*negotiated my workload with the clinicians in practice*'. Heavy workloads have been cited by a number of authors as interfering with the learning process for students during clinical placement. When students encounter increased workloads, they experience stress and become overwhelmed leading to poor grades and the transition process becomes difficult (Hamaideh, Al-Omari and Al- Modallal 2016: 197; Jamshidi *et al* 2016). Smith (2019) proposes that because of the degree of influence that student workload has on the wellbeing and academic attainment of students, this phenomenon should be viewed and addressed from different angles including mental workload, and time pressures. The author advises that identifying best practices regarding student workload issues has the potential for better outcomes in student learning. Furthermore, researching and managing student workload has the potential to lead educators and key stakeholders to best practices in teaching, reduce academic stress, and decrease student dropout rates (Smith 2019).

Although increased workload emanates from the curriculum such as the number of modules, assignments and assessments and the demands between theory and the clinical learning, this is also compounded by the fact that students have to perform other duties that are not related to training such as being used as messengers, porters or ward clerks (Ndou and Moloko-Phiri 2018: 3) In an attempt to overcome this and to ensure that clinical training is focused, the South African National Planning Commission (2012: 37) has prescribe that nurse managers and lecturers should ensure that accompaniment plans for students, as well as delegation and supervision of student nurses according to their level of training, are made available. Records of tasks delegated to student nurses, supervision as well as learning opportunities provided to student nurses by staff must be kept and opportunities for debriefing or evaluation of clinical learning experiences of student nurses must be provided.

6.4.2 Cognitive support during clinical placement

The analysis report showed mean values of between 3.84 and 4.89 (> 3.5 = significant agreement) for 11 statements thus showing significant agreement with all these statements, M = 3.84 and 4.89. Cognitive support involves helping the student to be able to apply and integrate theoretical with clinical learning. The participants' response confirms that students were receiving cognitive support as they agreed to the statement '*lecturers supported me to relate my theoretical knowledge to clinical practice*'. Luhanga *et al.* (2014: 86) attest that nursing education includes theoretical and practical training components which prepare nursing students for their transition from student to professional nurse The South African Department of Health (2020: 7) goes further, stating that during clinical teaching and learning students must actively engage in providing nursing care under direct or indirect supervision depending on the level of training, and correlate the theoretical component with practice. Sezer (2018: 15) advises that the students in clinical training are in transition from novice to expertise so it is important that the clinical trainer should knowingly and at all stages support these steps in order for the student nurses to be well trained in clinical processes.

Schlossberg (1981: 2) explained that 'moving through' is one of the stages in the transition process that occurs to students as they progress with their level of training and the time they spend in the clinical setting. Moving through is when a student nurse faces a situation where they need to strike a balance in putting theory into practise when allocated to perform daily activities in the ward, and how to feel supported and challenged with this transition. Schlossberg (1981: 2) further explained that moving through takes place when student nurses are able to work independently and competently in caring for patients according to their level of training while carrying on with their training till completion and so become competent, graduated registered nurses.

Furthermore, the results for the Mann Whitney U test used for gender and year of study did not show any difference in the support offered to students based on gender and year of study except the cognitive support offered to 3rd and 4th year level

students where the results showed a significant difference of .011. The mean value for 3rd year students in this regard was 4, 1402 and that of the 4th year students was 4, 4817.There are many explanations for this outcome although this was not investigated in the current study. One explanation could be that because the students in 4th year are in a more advanced stage of learning than the 3rd year level students, they are able to do most things on their own and do not require much support. Therefore, whatever little support they are given they regard as being sufficient. According to Alligood (2013), parallel to the progressive movement of the persons from the novice level to the expert one, his/her performance and mind would be changed in four main areas as follows: (1) Will tend to use empirical experiences in their practices instead of relying on abstract principles, (2) Will appeal to intuitions rather than analytical or rule-based thinking, (3) Will be able to obtain a comprehensive understanding of various situations, and (4) Their position will be changed from an outside observer to an individual who is fully involved in the situation. This could have been the case with the 4th year level students, but this was not investigated, so these findings warrant further study to gain clarity in this regard.

6.4.3 Emotional support during clinical placement

The analysis report shows mean values of between 3.77 and 4.91 (> 3.5 = significant agreement) for 10 statements thus showing significant agreement with these statements, M = 3.77 and 4.91. Emotional support was with regard to various support mechanisms made available to students to ensure that they were able to cope with all the stress and anxieties created by clinical placement. Kowitt (2018) and Raypole (2020) observe that emotional support can come from a wide variety of sources, such as family members, friends, close acquaintances, or peers, and comes in many forms. These forms include offering genuine encouragement, reassurance, and compassion through things like verbal expressions of sympathy or physical gestures of affection. The participants in this study concurred that their support came from mentors and their lecturers (i.e., a variety of sources) and was in different forms which included encouragement, showing interest in the students, stimulation, comfort, being sensitive to needs etc. Several authors including Hamaideh, Al-Omari and Al-Modalall (2017), Kotze (2013) and Lim, Hong and Chew (2018) concur that both

nurse educators and clinical staff are expected to promote adaptive coping behaviours in students during clinical placement. This notion is in line with Schlossberg's Transition Theory where the author states that for the student to transit during training (moving in, through and out) it is necessary that three main coping responses or strategies be in place: 1) responses that modify the situation, 2) responses that control the meaning of the problem, 3) responses that assist the individual in managing the stress after the occurrence as well so as to accommodate the existing stresses before being overwhelmed (Schlossberg 1981: 2).

6.5 CHAPTER SUMMARY

This chapter discussed the results considering the aim and the objectives of the study. The discussion followed the structure of the data collection tool and the theoretical framework that was used to guide the study with an aim to gather the findings of the study. The results showed that even though the student nurses did receive system, cognitive and emotional support, some gaps remains in the nature and amount of support received by the student nurses. These findings support researched evidence regarding student support where authors including Hameed *et al. (*2017) and Jamshidi *et al.* (2016) raised concerns about student support during clinical placement

CHAPTER 7: SUMMARY, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

7.1 INTRODUCTION

Chapter 7 is the final chapter of this dissertation. The purpose of this chapter is to summarise the research process and findings from the study, highlight the limitations, and provide recommendations arising from the study. This chapter therefore begins with a brief overview of the research process and concludes with the presentation of the recommendations and conclusions that were drawn by the researcher from the findings of the study. With the study being quantitative and thus having the potential to be generalisable in other similar settings, the limitations of the study are presented in order to make those who wish to adopt the findings aware of them.

7.2 RESEARCH OVERVIEW

The current study emanated from anecdotal evidence gathered by the researcher that the students registered for the four-year basic Nurse Training Programme in a college of nursing in KZN were not receiving system, cognitive and emotional support during clinical placement which led to numerous problems including attrition and poor academic progress.

After an extensive preliminary literature review, the researcher posed the following research questions to gather data and try and understand the phenomenon under study:

- What are the experiences of student nurses from a college of nursing in KZN regarding system, cognitive and emotional support during clinical placement?
- What support if any, is received by student nurses during clinical placement?

- What strategies can be implemented to facilitate system, cognitive and emotional support to student nurses during clinical placement?

Supported by the literature presented in Chapter 2 of this dissertation, these questions formed the basis for the study which aimed to explore and describe the experiences of students from a college of nursing in KZN regarding system, cognitive and emotional support received by the students during clinical training. To achieve this aim, three objectives were set each of which aimed to answer one of the three research questions. The objectives were:

- Describe the experiences of students from a college of nursing in KZN with regards to system, cognitive and emotional support during clinical placement.
- Determine if system, cognitive and emotional support is given to students during clinical training.
- Identify strategies that can be implemented to facilitate system, cognitive and emotional support to students during clinical placement.

The study employed a non-experimental descriptive quantitative methodology which was guided by Schlossberg's Transition Theory. Four campuses of a college of nursing in KZN located in three districts were used as study sites to allow students from a mix of urban, semi-urban, and rural settings to share their experiences about availability of system, cognitive and emotional support during clinical placement.

Data was collected between February and March 2021 from 214 students registered for the four-year basic nursing programme who were either in the 3rd or 4th level of study at the time of the study. An English version of a self-administered questionnaire which was used with permission from Hugo, Botma, and Raubenheimer (2018) (Appendix 7) and modified to suit the current study (Appendix 7) was used to collect data. All data were analysed using the latest version of the SPSS electronic programme with the assistance of a professional statistician, where 211 out of 214 questionnaires were found suitable for analysis. The findings of the analysis have been presented in Chapter 5, and discussed and supported with literature in Chapter

6. This chapter is intended to present the summary of findings, limitations, recommendations, and conclusions.

7.3 THE SUMMARY OF FINDINGS

The summary of findings is focused on confirming achievement of the study's aim and objectives.

7.3.1 Experiences of students with regards to system, cognitive and emotional support during clinical placement

The responses by the participants to all the 48 statements in the questionnaire were accepted as emanating from their experiences. The findings from the current study reveal differing responses by different students which is to say that different students experienced the support differently and therefore have differing perceptions. The big question is why this is the case if students are exposed to similar situations and support is given based on the same clinical guidelines? A number of answers are possible, including: each student is unique therefore has unique needs, sometimes students are not treated equally by facilitators, and sometimes there are either no standards or standards are not followed.

Each student is unique.

One possibility could be that students are different and unique, with each having unique needs and each perceiving a similar situation differently. There is research evidence that while every student has unique learning needs and therefore requires support in this regard, a number of students have more learning needs than others and therefore require more support than others (Poedjiastutie and Oliver 2017). According to the National Institute for Educational Development (2014), student needs are deficits in specific skills that impede academic, physical, and behavioural development. Students with learning needs require various forms of support which could be system, cognitive or emotional support. Blankstein, Wolff-Eisenberg and Braddlee (2019) attest to the fact that whether the student experiences challenges

outside or inside the classroom or both, these difficulties nonetheless can have a substantial impact on their academic success, therefore they require support.

Students are not treated as equal.

Another possibility is that students are not treated equally. Linsin (2021) attests that it is inevitable that an educator connects with some students better or quicker than with others which is not wrong, but this does not mean that these students should be given more time and attention than others, or be rewarded based on their likeability, personality, or appearance. Doing so would blatant favouritism and is wrong. When students are treated unequally this is regarded as favouritism and favouritism has many untoward effects including giving rise to a class system where certain students are socially grouped and labelled as special or entitled or somehow better than others which causes resentment, weakens self-confidence, further alienates difficult students, creates an unhappy classroom, and undermines the educator's influence (Linsin 2021).

No standards or standards are not followed.

Another possibility could be that there are no standards or standards are not followed. According to the Australian Commission on Safety and Quality in Health Care (2011), standards provide a consistent and uniform set of measures of safety and quality for application across a wide variety of health care services and this body proposes evidence-based improvement strategies to deal with gaps between current and best practice outcomes that affect many patients. Thus, having uniform standards for clinical placement and how to provide support to students during this period would ensure consistency.

Unfortunately, all these are just assumptions, and this study did not lend itself to answer this question. For now, it is fitting to accept that there are differing experiences and perceptions regarding all forms of support with the majority accepting that all forms of support except that related to workload was provided.

7.3.2 Evidence of system, cognitive and emotional support given to students during clinical training

In general, a larger percentage of participants agreed with all the statement although some strongly agreed and others just agreed. However, that there are a number of participants who were either neutral or disagreed with some of them strongly, any disagreement being evidence that all forms of support need attention. Not one statement had 100% agreement. With regard to system support, the issue of support related to workload for the students is the one element that requires more attention than others. Furthermore, there was a significant difference with regard to cognitive support offered to the 3rd and 4th year student with more students in 4th year (mean value 4, 4817) indicating more students agreeing to receiving cognitive support compared to those in 3rd year level (mean value 4, 1402).

7.3.3 Strategies that can be implemented to facilitate system, cognitive and emotional support to students during clinical placement

The findings of the current study do not fully nullify the anecdotal evidence that students were not receiving various forms of support during clinical placement. As stated above, this evidence is supported by literature and by a percentage of the study participants whose responses confirmed the absence of some support. Therefore, it is essential that some strategies need to be implemented to facilitate system, cognitive and emotional support of students during clinical placement.

7.4 LIMITATIONS

- The study did not involve the students in the lower levels (1st and 2nd levels) and therefore did not get a complete picture of the situation regarding the support for students in this programme. Considering Bernice from Novice to Expect Theory (Benner 1984), the students from lower levels require more support and mentoring than students in more advanced levels who can adapt and stand on their own feet. This could explain the differing results from what the researcher had previously observed and the findings of the study.

- Using a quantitative study allowed the researcher to have a larger sample and therefore a much broader perspective, and allowed her to include a large number of elements in the questionnaires, all of which makes the findings more generalisable. However, a qualitative study would have afforded the researcher a deeper engagement with the study participants and enriched the information instead of being limited to responses from predetermined structured statements which were restrictive to the participants especially with regards to their experiences.
- Including the lecturers and the mentors from clinical facilities would have enriched the study by providing the perspectives of the group that is responsible for providing these forms of support.

7.5 RECOMMENDATIONS

Although the study findings did not fully support the anecdotal evidence of the researcher, there were a few areas of support for students that were found to be lacking and therefore require improvement such as the aspect of student workload. There is also strong evidence from literature that there are often gaps in student support during clinical placement. Therefore, the following recommendations are made emanating from the initial problem identified by the researcher, the findings from the literature review, and the findings from the current study.

7.5.1 Policy formulation and implementation

- Periodic review of clinical guidelines is recommended to ensure that the contents continue to address the students' needs.
- Student input should be invited while newly developed policies and guidelines are still in draft form to allow the students as end users to provide input into these documents.

7.5.2 Service delivery

- People from clinical services (mentors, managers, and other staff members) need to acknowledge that they also hold responsibility to provide all forms of support to facilitate the learning and transition of students during clinical placement.
- Nurse educators and nurse managers must ensure that strategies to support students during clinical placement are formalised, included placement plans, and reviewed periodically to allow adjustment based on the identified needs of the students.
- Meetings between students, the nursing education institution and clinical facility staff involved in student training should be conducted at regular set intervals to allow discussion between the three groups to identify gaps in training and find strategies to close the identified gaps.

7.5.3 Education and training

- The study identified that support related to workload was not adequately provided. In line with the recommendation by Smith (2019) that mental workload and time pressures are the critical aspects of student workload, further support needs to be considered.
- Lecturers and clinical instructors should honour their responsibilities to do clinical accompaniment and provide various forms of support to students.

7.5.4 Research

A qualitative study involving students at all levels and providers of support from the nursing school and clinical service is recommended to get a broader picture regarding this phenomenon.

A broader study involving other nursing education institutions and provinces is recommended.

7.6 CONCLUSION

The findings from the current study affirmed that in a college of nursing in KZN, South Africa, system, cognitive and emotional support of students during clinical placement was evident although there were several gaps that still needed to be addressed. These findings affirmed the anecdotal evidence found by the researcher which, together with research evidence, raised concerns regarding delivery of system, cognitive and emotional support to nursing students during clinical placement.

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APPENDICES

Appendix 1 Ethics approval

DUT
DURBAN UNIVERSITY OF TECHNOLOGY

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lawlshad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

21 January 2021

Mrs T D Makhetha
513 Ntalibombo Road
Imbali
Pietermaritzburg
3219

Dear Mrs Makhetha

System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa
Ethical Clearance number IREC 151/20

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letters.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely

Prof J K Adam
Chairperson: IREC

2021 -01- 2

Appendix 2 Pilot study report

PILOT STUDY REPORT

IREC ref No: 151/20

Student name: Thembeka Dorothy Makhetha **Student Number:** 21853112

Title of the study: System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa

Date of data collection: 15 January 2021

Total No of pilot sites: 1

Total no of respondents: 10

Pilot report:

Prior to the pilot study, the questionnaire was validated for accuracy and appropriateness by the statistician and the research supervisor.

A Pilot study was conducted with an aim to check the reliability and validity of altered version of the original questionnaire and to test and verify the accuracy and relevance of all the data collection processes.

The Pilot study was conducted in one campus which was randomly selected from the campuses that will not be included in the study. The researcher organised an information giving session with the 3rd and 4th year students that were registered for thefour year basic nursingprogrammeintheselected campus.Similar processes to those that are planned for the main study were ensured for the pilot study with regards to recruitment of respondents, inclusion and exclusion criteria, information sessions consent and data collection in order to ensure the pilot study is exactly synonymous to the planned main study

Ten respondents were randomly selected from the students that were present in the information giving session. The students who agreed to take part in the study signed informed consent and were requested to complete the questionnaires.

Pilot findings:

All ten questionnaires were distributed and collected on the same day. The average time taken to complete the questionnaires was 20 minutes. All sections in the questionnaire were completely filled by the pilot respondents and there were

no questionnaires that were spoilt. There were no indications to refine neither the data collection tool nor the study processes.

All pilot respondents verbally reported that the questionnaire was easy to complete and that this was facilitated by the instructions provided on the questionnaire, all the questions included were clear and unambiguous and that the use of the Linkert scale made it quick to complete the questionnaire.

The pilot confirmed reliability and validity of the altered version of the original questionnaire and all the data collection processes are accurate and relevance for the plannedstudy

Thenursingcampus,respondentsanddatafromthepilotstudywillnotbe included in the main study

Signed: Date: 19 /01/2021
(Student

Signed: Date: 20 January 2021
(Supervisor)

Appendix 3: Provisional ethics approval

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

17 December 2020

Mrs T D Makhetha
513 Ntalibombo Road
Imbali
Pietermaritzburg
3219

Dear Mrs Makhetha

System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa

I am pleased to inform you that **PROVISIONAL APPROVAL** has been granted to your proposal subject to:

- Piloting of the data collection tool. *Please note that should there be any changes to the data collection tool, in a letter signed by the researcher and supervisor, list the changes to the documents and submit to IREC with the final data collection tool. Even when there are no changes to the data collection tool, IREC has to be notified.*
- Obtaining and submitting the necessary gatekeeper permission/s to Institutional Research Ethics Committee (IREC).

PLEASE NOTE THAT THIS IS NOT A FINAL APPROVAL LETTER. KINDLY SUBMIT THE ABOVE MENTIONED DOCUMENTS WITHIN THREE MONTHS TO THE IREC OFFICE. DATA COLLECTION CAN ONLY COMMENCE WHEN IREC ISSUES FULL APPROVAL

The Proposal has been allocated the following Ethical Clearance number **IREC 151/20**. Please use this number in all communication with this office.

Approval has been granted for a period of **ONE YEAR**, before the expiry of which you are required to apply for safety monitoring and annual recertification. Please use the Safety Monitoring and Annual Recertification Report form which can be found in the Standard Operating Procedures [SOP's] of the IREC. This form must be submitted to the IREC at least 3 months before the ethics approval for the study expires.

Yours Sincerely

2020 -12- 17

INSTITUTIONAL RESEARCH ETHICS CO.

Professor J K Adam
Chairperson: IREC

Appendix 4a: Permission letter from KwaZulu-Natal Department of Health Research Unit

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address: 330 Langalibalele Street, Pietermaritzburg
Postal Address: Private Bag X9051
Tel: 033 395 2805/ 3189/ 3123 Fax: 033 394 3782
Email:
www.kznhealth.gov.za

DIRECTORATE:
Health Research & Knowledge Management

NHRD Ref: KZ_202101_000

Dear Ms TD Makhetha
(DUT)

Approval of research

1. The research proposal titled **'System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu Natal, South Africa'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

   The proposal is hereby **approved** for research to be undertaken at Grey's, RK Khan, Port Shepstone and Ngwelezane College of Nursing.

2. You are requested to take note of the following:
   a. *All research conducted in KwaZulu-Natal must comply with government regulations relating to Covid-19. These include but are not limited to: regulations concerning social distancing, the wearing of personal protective equipment, and limitations on meetings and social gatherings.*
   b. *Kindly liaise with the facility manager BEFORE your research begins in order to ensure that conditions in the facility are conducive to the conduct of your research. These include, but are not limited to, an assurance that the numbers of patients attending the facility are sufficient to support your sample size requirements, and that the space and physical infrastructure of the facility can accommodate the research team and any additional equipment required for the research.*
   c. *Please ensure that you provide your letter of ethics re-certification to this unit, when the current approval expires.*
   d. *Provide an interim progress report and final report (electronic and hard copies) when your research is complete to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za*
   e. *Please note that the Department of Health shall not be held liable for any injury that occurs as a result of this study.*

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

Yours Sincerely

Dr E Lutge
Chairperson, Health Research Committee
Date: 14/01/2021

Fighting Disease, Fighting Poverty, Giving Hope

Appendix 4b: Letter to request permission from KwaZulu-Natal Department of Health Research Unit

513 Ntalibombo Rd
Imbali
3219
31 March 2020

The Manager
KwaZulu – Natal Department of Health Research Unit
330 Langalibalele Street
Pietermaritzburg
3201

Request for Permission to Conduct Research

Dear Sir Madam

My name is Thembeka Dorothy Makhetha, a Masters student at the Durban University of Technology. The topic of my study is 'Experiences and perceptions of student nurses from a college of nursing in KwaZulu-Natal regarding system, cognitive and emotional support during clinical training.'

I hereby seek your consent to conduct a study at the following nursing campuses that were randomly selected from the campuses under the KwaZulu-Natal College of Nursing (Grey's, Ngwelezana, Port Shepstone and R. K. Khan). Data will be collected from the student nurses registered for R425 nursing programme who will be in the 3rd and 4th year level of study at the time of data collection. Data will be collected using self-administered questionnaires.

I have provided you with a copy of my proposal, copy of the data collection tool, consent form that will be used in the research process and a copy of the provisional approval ethics approval letter from the Durban University of Technology Institutional Research Ethics Committee.

If you require any further information, please do not hesitate to contact me.

Thank you for your time and consideration in this matter.

Yours sincerely.

Thembeka Dorothy Makhetha
Durban University of Technology
Contact Details: Cell: 0833636566, email: thembekamakhetha1@gmail.com

Appendix 5a: Permission letter from KZNCN

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Postal Address : Private Bag X 9089 Pietermaritzburg 3200
Physical Address: 211 Pietermaritz Street , Pietermaritzburg 3200
Tel: 033 264 7800/01 Fax: 033 394 7238
Email address :Sindizama.Mthembu@kznhealth.gov.za
www.kznhealth.gov.za

Name of Directorate :
KWAZULU-NATAL COLLEGE OF NURSIN

Reference: Mrs. S. Maharaj
Date: 13 January 2021

Principal Investigator: TD Makhetha
Durban University of Technology
Student No: 21853112

RE: **GATE KEEPER PERMISSION TO CONDUCT RESEARCH AT THE KZN COLLEGE OF NURSING CAMPUSES.**

TITLE: **SYSTEM, COGNITIVE AND EMOTIONAL SUPPORT OF STUDENTS DURING CLINICAL PLACEMENT: EXPLORING THE EXPERIENCES OF STUDENTS FROM A COLLEGE OF NURSING IN KWAZULU – NATAL, SOUTH AFRICA**

Dear Ms/Miss/Mrs. Makhetha

I have the pleasure in informing you that Gate Keeper permission has been granted to you by the Principal of the KZN College of Nursing.

Data Collection site(s):- Greys, Ngwelezane, Port Shepstone, and RK Khan Campuses

Please note the following:

1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. Kindly adhere to all COVID 19 protocols of the institution
3. This research can only commence once you have received Full Ethical approval from the DUT Ethics Committee, and approval from the Provincial Health Research Committee in the KZN Department of Health.
4. Gate keeper permission is therefore granted for you to conduct this research at the above identified campuses after consultation with the Campus Principals.
5. The KwaZulu-Natal College of Nursing and its NEI's will not be providing you with any resources for this research.
6. You will be expected to provide feedback on your findings to the Principal of the KwaZulu-Natal College of Nursing.
7. Kindly note your research assistant must follow all Department protocols, and his/her role must be discussed with the Principal at the data collection site.

Thank You

DR. S.Z MTHEMBU
PRINCIPAL: KZN COLLEGE OF NURSING

13/01/2021
DATE:

GROWING KWAZULU-NATAL TOGETHER

Appendix 5b: Letter to request permission from KZNCN

513 Ntalibombo Rd
Imbali
3219
31 March 2020

The Principal of KwaZulu – Natal College of Nursing
211Pietermaritz Street
P/Bag X 9089
Pietermaritzburg
3200

Request for Permission to Conduct Research

Dear Dr. S. Z. Mthembu

My name is Thembeka Dorothy Makhetha, a Masters student at the Durban University of Technology. The topic of my study is "System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa."

I hereby seek your consent to conduct a study at the following nursing campuses that were randomly selected from the campuses under the KwaZulu-Natal College of Nursing (Grey's, Ngwelezana, Port Shepstone and R. K. Khan). Data will be collected from the student nurses registered for R425 nursing programme who will be in the 3rd and 4th year level of study at the time of data collection. Data will be collected using self-administered questionnaires.

I have provided you with a copy of my proposal, copy of the data collection tool, consent form that will be used in the research process and a copy of the provisional approval ethics approval letter from the Durban University of Technology Institutional Research Ethics Committee.

If you require any further information, please do not hesitate to contact me.

Thank you for your time and consideration in this matter.

Yours sincerely.

Thembeka Dorothy Makhetha
Durban University of Technology
Contact Details: Cell: 0833636566, email: thembekamakhetha1@gmail.com

Appendix 6a.1: Permission letter from the Nursing Campuses

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE:
KwaZulu - Natal College of Nursing:
Grey's Campus

Postal Address: Private Bag X 9001, Pietermaritzburg, 3200
Physical Address: 201 Townbush Road, Northern Park, Pietermaritzburg, 3200
Tel: 033 897 3503 Fax:033 897 3500 Email: busi.shezi@kznhealth.gov.za
www.kznhealth.gov.za

Date: 15 January 2021

Principal Investigator: Mrs Thembeka Dorothy Makhetha
Student No: 21853112
Durban University of Technology

RE: Greys Campus permission to conduct research study: Data collection.

TITLE: System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a College of Nursing in KwaZulu-Natal, South Africa.

Dear Madam

I have a pleasure to inform you that permission has been granted to conduct your research study: Data collection.

We request to forward us a feedback of your research study findings once you have completed.

Thank you

MRS BE SHEZI
CAMPUS PRINCIPAL

Appendix 6a.2: Permission letter from the Nursing Campuses

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

107 Marine Drive, Shelly Beach, 4265
Private Bag X719, Port Shepstone, 4240
Tel: 039-3155322 Fax: 039-3155325 Email: nokuthula.ndlela@kznhealth.gov.za
www.kznhealth.gov.za

KWAZULU-NATAL COLLEGE OF NURSING
PORT SHEPSTONE NURSING CAMPUS

Enquiries: NNT Ndlela
Date: 10.02.2020

Attention: Ms Thembeka D. Makhetha

SUBJECT: REQUEST FOR PERMISSION TO CONDUCT RESEARCH FROM PORT SHEPSTONE CAMPUS

Receipt of letters of approval from the KZN College of Nursing and DUT for you to conduct a research on **"System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a College of Nursing in KwaZulu-Natal, South Africa"** is hereby acknowledged.

Permission is hereby granted for you to conduct your study at Port Shepstone Campus on any date that will be convenient for you. Kindly let us know of the date so that we can make arrangements with the students prior to your arrival. Please adhere to the conditions stated by the KwaZulu-Natal College of Nursing.

Best wishes

Ms NNT Ndlela
(Campus Principal)
10/02/2021.

KZN COLLEGE OF NURSING
PORT SHEPSTONE CAMPUS
2021 -02- 10

Fighting Disease, Fighting Poverty, Giving Hope

Appendix 6a.3: Permission letter from the Nursing Campus

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE:

Postal Address : R. K. Khan Circle, Chatsworth, 4092
Physical Address: R. K. Khan Campus, Private Bag x 004, Chatsworth, 4030
Tel: (031) 459 6187 Fax: :(031) 401 5229 Email address:
www.kznhealth.gov.za

KwaZulu Natal College of Nursing
R. K. Khan Campus

Ref: Permission letter
Date: 03 February 2021

Mrs. T.D Makhetha
513 Ntalibombo Rd
Imbali
3219

Re: Permission to conduct research at R.K Khan Nursing Campus

Dear Mrs Makhetha

I have pleasure in informing you that Gate Keepers permission has been granted to you per above request by the Principal – R.K Khan Nursing Campus.

Date collection site: R.K Khan Nursing Campus

Please note the following:

1. Please ensure that you adhere to all policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research can **only commence** once you have received approval from the Provincial Health Research Committee in the KZN Department of Health, KwaZulu Natal College of Nursing.
3. R.K Khan Nursing Campus will not be providing you with any resources for this research.
4. You will be expected to provide feedback on your findings (a copy of your thesis) to the Principal – R.K Khan Nursing Campus.

Thank you

Mr V. J. Reddy
Campus Principal

Appendix 6a.4: Permission letter from the Nursing Campus

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE:

KWAZULU NATAL COLLEGE OF NURSING: NGWELEZANE CAMPUS
Private Bag X 20016, Empangeni 3880
Thanduyise Highway, Ngwe'zane T/Sh'p
Tel.: 035 901 7094,
www.thabi.matsane@kznhealth.gov.za

Date: 09.02.2021

MrsThembeka Dorothy Makhetha

513 Ntalibombo Rd

Imbali

3219

Dear Mrs Makhetha

APPROVAL FOR DATA COLLECTION BY MRS T D MAKHETHA STUDENT NUMBER: 21853112

It is with great pleasure that your request for collecting data on students undertaking R425 programme for the research project: **"System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of nursing in KwaZulu-Natal, South Africa"** has been approved.

You are therefore free to arrange the convenient time for you until the end of February 2021.

Wishing you all the best in your studies.

Thank you.

(Dr L.B. MTHEMBU)

Dr. T E Matsane
Campus Principal

DEPARTMENT OF HEALTH
KZN CN
NGWELEZANE NURSING CAMPUS
09 FEB 2021
PRIVATE BAG X20016
EMPANGENI 3880
UMNYANGO WEZEMPILO

Appendix 6b: Letter to request permission from the Nursing Campuses

513 Ntalibombo Rd
Imbali
3219
31 March 2020

The Principal
Grey's Nursing Campus
201Townbush Road, Northern Park
Pietermaritzburg
3200

Request for Permission to Conduct Research

Dear Sir/ Madam

My name is Thembeka Dorothy Makhetha, a Masters student at the Durban University of Technology. The topic of my study is "System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa."

I hereby seek your consent to conduct a study at the ---------- nursing campus which was randomly selected from the campuses under the KwaZulu-Natal College of Nursing. Data will be collected from the student nurses registered for R425 nursing programme who will be in the 3rd and 4th year level of study at the time of data collection. Data will be collected using self-administered questionnaires.

I have provided you with a copy of my proposal, copy of the data collection tool, consent form that will be used in the research process and a copy of the provisional approval ethics approval letter from the Durban University of Technology Institutional Research Ethics Committee.

If you require any further information, please do not hesitate to contact me.

Thank you for your time and consideration in this matter.

Yours sincerely.

Thembeka Dorothy Makhetha
Durban University of Technology
Contact Details: Cell: 0833636566, email: thembekamakhetha1@gmail.com

Appendix7: Letter of information and consent

LETTEROF INFORMATION

Title of the Research Study:

"System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa."

Principal Investigator/s/researcher: Principal Investigator/researcher: Ms Thembeka Dorothy Makhetha– Masters of Heath Science in Nursing Science student at Durban University of Technology.

Co-Investigator/s/supervisor/s: Dr TSP. Ngxongo Durban University of Technology

Brief Introduction and Purpose of the Study:

Greetings to you

You are invited to take part in a research study on "System, cognitive and emotional support of students during clinical placement: Exploring the experiences of students from a college of Nursing in KwaZulu-Natal, South Africa." Thank you for taking your time to understand the study that I am planning to undertaking which aims to make a positive contribution in the training of nurses in Public Nurse Training Colleges in Kwa Zulu-Natal.

The aim of the proposed study is to Explore and describe the experiences and perceptions of student nurses from a College of Nursing in KZN regarding system, cognitive and emotional support received by the student nurses during clinical training. The study has four objectives which are to:

- Describe the experiences of student nurses from KZNCN with regards to system, cognitive and emotional support during clinical placement.
- Determine if system, cognitive and emotional support is given student nurses

during clinical training.

- Identify strategies that can be implemented to facilitate system, cognitive and emotional support to student nurses during clinical placement

I as the researcher hope that the study will identify good practices and areas with gaps if any in the support provided to you and other student nurses and use this information to identify strategies that could facilitate system, cognitive and emotional support provided to student nurses during clinical placement.
I will make recommendations to improve and /or facilitate support during clinical placement. This will benefit you and other nursing students doing nurse training. The findings of the study could be used by the KZNCN and other nurse colleges throughout the country and beyond to plan for clinical education and training and by policy makers to guide review of current and or formulation of new policy for clinical education and training.

Outline of the Procedures: I will personally hold an information giving meeting with you together with other students in your group to ensure that you are fully informed about the study, address all your concerns and give you direction regarding distribution, completion and return of completed questionnaires. The meeting will be at your campus. A questionnaire will be provided to you if you agree to take part in the study once you have signed an informed consent which will be provided to you by the research assistant that will be assisting me so that you are not pressured and or intimidated by my presence as one of the lecturers in the same district as your campus. You will have an option to either complete and return the questionnaire the same day or complete it later at your own time. A box will be made available in your campus into which you can drop off the completed questionnaire in a sealed envelope should you choose to return it later.

Considering the current status with regards to COVID19 in our country, I will ensure that all the necessary precautions as detailed in the COVID 19 prevention and control guidelines are adhered to such as screening before the meeting, social distancing, provision of room and hand sanitizer, and wearing of face masks.

Risks or Discomforts to the Participant: The study does not pause any risk of physical or any other form of discomfort to you as the participant.

Benefits: The study will benefit you and other students on nurse training by offering a baseline understanding regarding evidence of system, cognitive and emotional support given to student nurses during clinical training. The researcher will share the findings and recommendations from the study with relevant stakeholders involve in nurse training and if adopted these could facilitate improvement of system, cognitive and emotional support given to student nurses during clinical training

Reason/s why the Participant May Be Withdrawn from the Study: Your participation in the study will be completely voluntary and as a participant you can withdraw at any given time without any consequences

Remuneration: You will not be entitled to receive monetary nor any other form of remuneration for participating in the study.

Costs of the study: You will not be responsible for any financial cost related to the study.

Confidentiality: None of your personal details that could link you to the study will be used. The researcher will ensure that strategies to ensure confidentiality and anonymity are maintained throughout data collection, handling, reporting and storage.

Research-related Injury: The entire research process does not pose any risk of injury to you as a participant in the study.

Persons to Contact in the Event of Any Problems or Queries:

- **The researcher:** TD. Makhetha on: 0833636566 or Email: thembekamakhetha1@gmail.com**or**
- **Supervisor:** Dr TSP. Ngxongo on 031 3732609 Email: thembelihlen@dut.ac.zaor
- **The Institutional Research Ethics Administrator on** 031 373 2375.

Complaints can be reported to the DVC: Research, Innovation and Engagement Prof S Moyo on 0313732577 or moyos@dut.ac.za

Appendix 8: Permission to use questionnaire

Idalia Loots Building Room 17
Telephone: 051 401 9165 30/03/2020
E-mail: HugoL1@ufs.ac.za

Dear Thembeka Makhetha

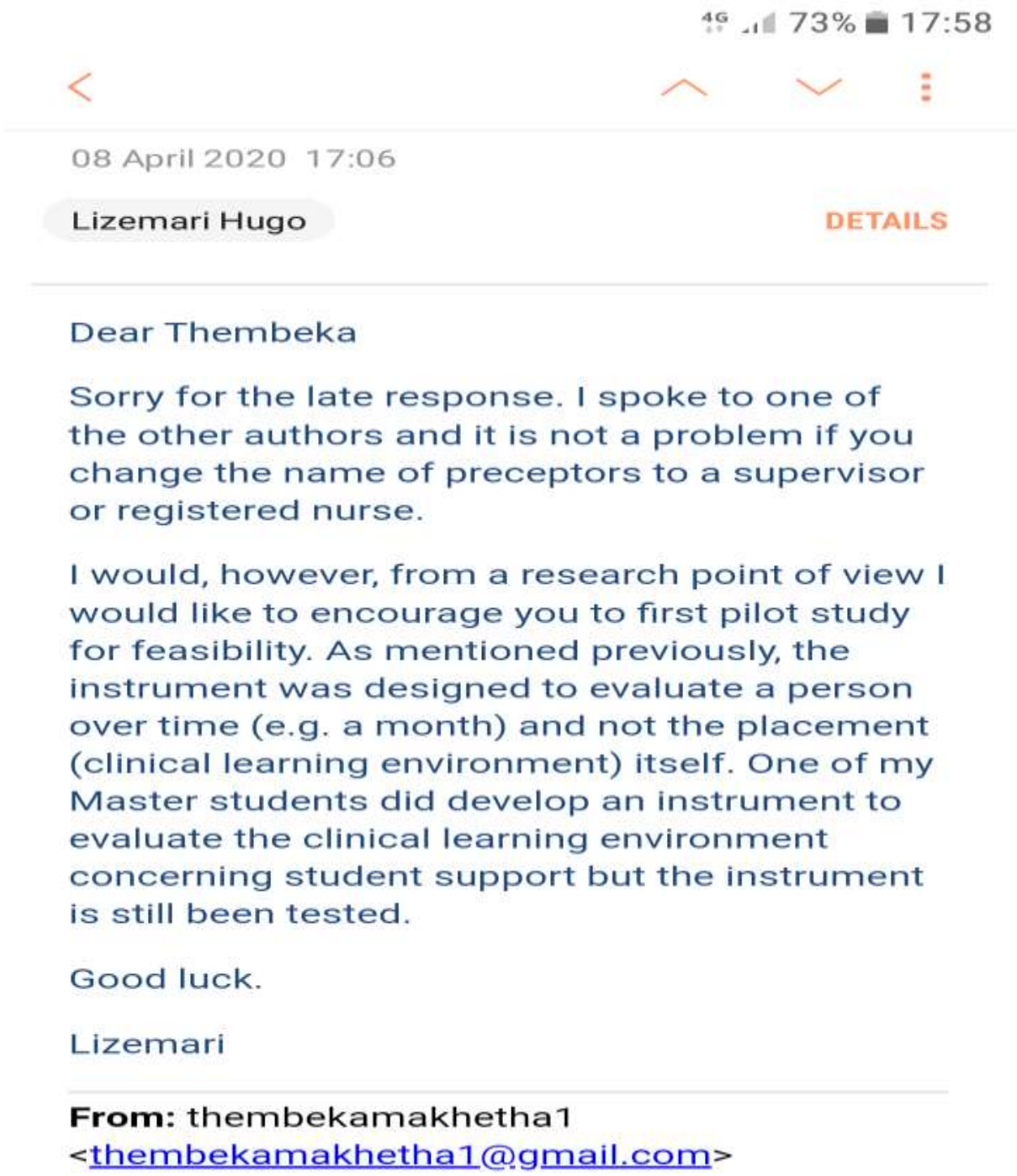
RE: Use of the Preceptor Support Questionnaire

As first author I give you permission to use the exact Preceptor Support Questionnaire in your research. Please note that you need to notify me if you bring any changes to the questionnaire as the validity thereoff may be altered.

Kind Regards

Dr Lizemari Hugo
Lecturer: School of Nursing
Faculty: Health Sciences
PO Box 339, Bloemfontein 9300,
Republic of South Africa
051 401 9165
27827812699
hugoL1@ufs.ac.za

Appendix 9: Permission to modify questionnaire



4G 73% 17:58

08 April 2020 17:06

Lizemari Hugo DETAILS

Dear Thembeka

Sorry for the late response. I spoke to one of the other authors and it is not a problem if you change the name of preceptors to a supervisor or registered nurse.

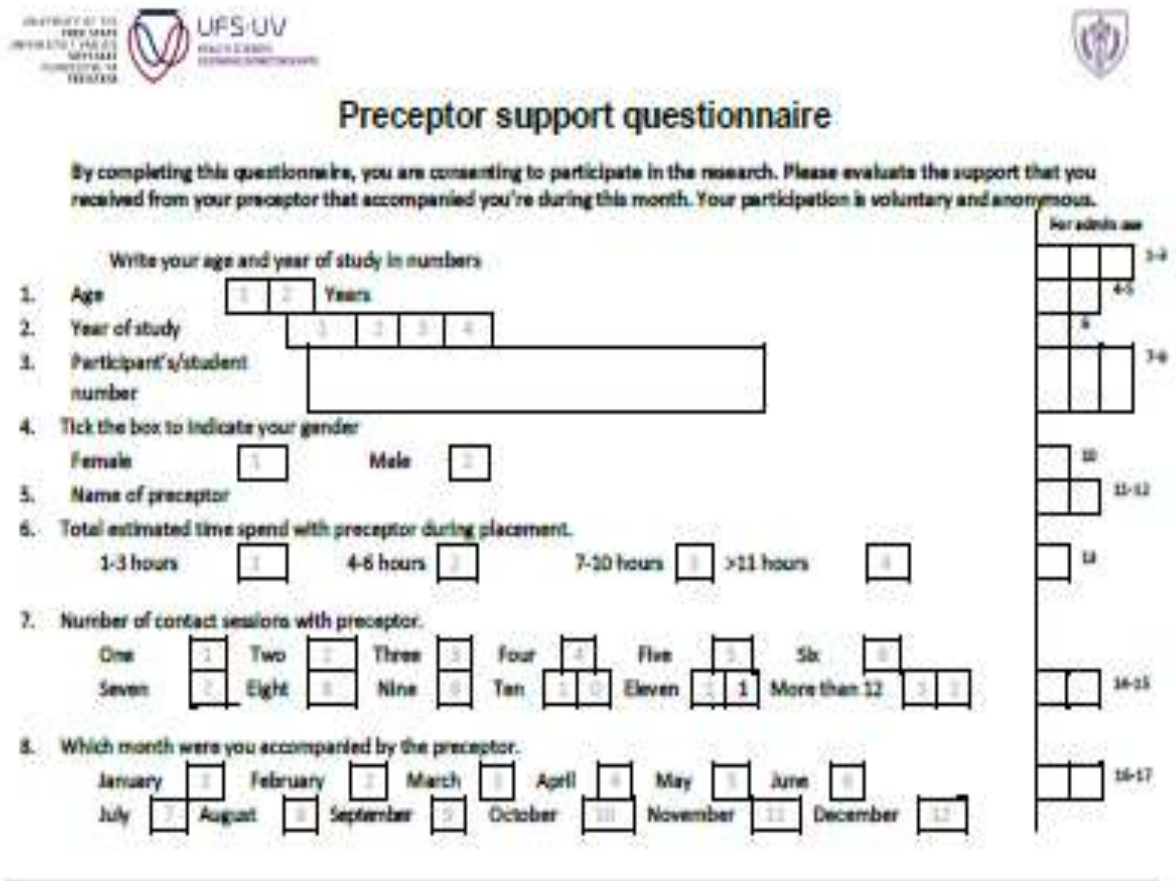
I would, however, from a research point of view I would like to encourage you to first pilot study for feasibility. As mentioned previously, the instrument was designed to evaluate a person over time (e.g. a month) and not the placement (clinical learning environment) itself. One of my Master students did develop an instrument to evaluate the clinical learning environment concerning student support but the instrument is still been tested.

Good luck.

Lizemari

From: thembekamakhetha1 <thembekamakhetha1@gmail.com>

Appendix 10: Original clinical support questionnaire



Preceptor support questionnaire

By completing this questionnaire, you are consenting to participate in the research. Please evaluate the support that you received from your preceptor that accompanied you're during this month. Your participation is voluntary and anonymous.

Write your age and year of study in numbers

1. Age ____ Years
2. Year of study
3. Participant's/student number
4. Tick the box to indicate your gender
   Female ☐ Male ☐
5. Name of preceptor
6. Total estimated time spend with preceptor during placement.
   1-3 hours ☐ 4-6 hours ☐ 7-10 hours ☐ >11 hours ☐
7. Number of contact sessions with preceptor.
   One ☐ Two ☐ Three ☐ Four ☐ Five ☐ Six ☐
   Seven ☐ Eight ☐ Nine ☐ Ten ☐ Eleven ☐ More than 12 ☐
8. Which month were you accompanied by the preceptor.
   January ☐ February ☐ March ☐ April ☐ May ☐ June ☐
   July ☐ August ☐ September ☐ October ☐ November ☐ December ☐

Read each statements and indicate with a X your chosen option

System support The preceptor:	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**	**For admin use**	
9. enforce professional standards in practice.						18
10. select meaningful education and practice opportunities to meet my learning needs.						19
11. negotiated my workload with the clinicians in practice.						20
12. arranged with me when he/she was available for facilitation.						21
13. made sure that the relevant information/guidelines were at my disposal in the clinical facility.						22
14. linked me with a skilled clinician to ensure continuity of my learning.						23

15. collaborated with the inter-professional team.						24
16. communicated my set objectives with the clinical supervisor						25
17. established an active role for me in the clinical team.						26
18. shared his/her expertise with the clinical team.						27
19. created a positive learning environment.						28
20. organized a learning space so that I could join in patient care.						29
21. made every patient encounter a learning experience.						30
22. gave me a clear description of what was expected of me in the clinical practice.						31
23. negotiated learning outcomes for the placement.						32

Cognitive support: The preceptor:	**Strongly agree**	**Agree**	**Disagree**	**StronglyDisagree**	**For admin use**	
24. guided me in assessing the patient.						33
25. guided me to notice pertinent information.						34
26. guided me in interpreting the patient information.						35
27. guided me to relate my knowledge with patient data.						36
28. guided me to formulate differential diagnoses.						37
29. guided me in making a final diagnosis.						38
30. guided alternative treatment options.						39
31. discussed treatment options with the patient.						40
32. guided me to choose the most appropriate treatment plan in collaboration with the patient.						41
33. promoted evidence based practices.						42
34. supported me to relate my theoretical knowledge to clinical practice.						43
35. asked clear questions to **probe my learning.**						44
36. explored my reasons for decisions.						45
37. guided me in doing clinical skills.						46
38. gave me constructive feedback **in preparation for my assessment.**						47
39. demonstrated various approaches to patient's problems.						48

Emotional support **The preceptor:**	**Stronglyagree**	**Agree**	**Disagree**	**StronglyDisagree**	**For admin use**	
40. stimulated me to see my strengths and limitations.						49
41. assisted me in identifying personal learning needs.						50
42. assisted me in meeting my learning needs by referring me to literature sources.						51
43. decreased the amount of guidance in order to promote my independence.						52
44. encourages me to achieve my set outcomes.						53
45. was sensitive to my needs.						54
46. was approachable during my clinical placement rotation.						55
47. made me feel comfortable in asking questions.						56
48. encourages me to participate in patient care.						57
49. showed interest in me as a person.						58
50. showed interest in my learning.						59
51. supported me when I experienced difficulties in performing a task.						60
52. gave me individual attention during my clinical rotation.						61
53. reduced my anxiety by preparing me for patient encounters.						62
54. made me feel comfortable in discussions on patient care.						63
55. knows me by name.						64
56. helped me to establish rapport with other clinicians						65
57. builds my confidence.						66

Appendix11: Data collection instrument

CLINICAL SUPPORT QUESTIONNAIRE

Campus code **Respondent code**

NB: *Please note that the questionnaire consists of two sections, kindly respond to both sections.*
If you have any queries in completing the questionnaire, please contact the researcher at: 0833636566

SECTION 1: DEMOGRAPHIC DETAILS OF THE RESPONDENT

Please indicate your response with a tick (√) for each of information below:

Age

Up to 25	26 - 35	Older than 35

1. **Gender**

Male	Female

2. **Year of study**

1st year	2nd year	3rd year	4th year

3. **Total estimated time spend during placement**

Less than 4 hours	4 to less than 7 hours	7 to less than 10 hours	10 hours or more

4. **Number of contact sessions during placement**

1	2	3	4	5	6	7	8	9	10	11	>11

SECTION 2: SUPPORT

Indicate your agreement with the following statements regarding clinical support received from clinical nurse educator / clinical staff (R/N) during your clinical placement.

My clinical nurse educator / Clinical staff (R/N)…..	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
1. ...selected meaningful education and practice opportunities to meet my learning needs.						
2. ...negotiated my workload with the clinicians in practice.						
3. ...arranged with me when he/she was available for facilitation.						
4. ...made sure that the relevant information/ guidelines were at my disposal in the clinical facility.						
5. ...linked me with a skilled clinician to ensure continuity of my learning.						
6. ...communicated my set objectives with the clinical supervisor.						
7. ...established an active role for me in the clinical team.						
8. ...shared his/her expertise with the clinical team.						
9. ...created a positive learning environment.						
10. ...organised a learning space so that I could join in patient care.						
11. ...made every patient encounter a learning experience.						
12. ...gave me a clear description of what was expected of me in the clinical practice.						
13. ...negotiated learning outcomes for the placement.						
14. ...guided me in assessing the patient.						

15. ...guided me to notice pertinent information.						
16. ...guided me in interpreting the patient information.						
17. ...guided me to put the knowledge I learned from college into practice using patient data.						
18. ...guided me to differentiate between diseases or conditions that present with similar symptoms						
19. ...guided me in making the final diagnosis.						
My clinical nurse educator / Clinical staff (R/N)…..	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
20. ...guided alternative treatment options.						
21. ...discussed treatment options with the patient.						
22. ...guided me to choose the most appropriate treatment plan in collaboration with the patient.						
23. ...promoted evidence based practices.						
24. ...supported me to relate my theoretical knowledge to clinical practice.						
25. ...asked clear questions to probe my learning.						
26. ...explored my reasons for decisions.						
27. ...guided me in doing clinical skills.						
28. ...gave me constructive feedback in preparation for my assessment.						
29. ...demonstrated various approaches to patient's problems.						
30. ...stimulated me to see my strengths and limitations.						
31. ...assisted me in identifying personal learning needs.						
32. ...assisted me in meeting my learning needs by referring me to literature sources.						
33. ...decreased the amount of guidance in order to promote my independence.						

34. ...encouraged me to achieve my set outcomes.						
35. ...was sensitive to my needs.						
36. ...was approachable during my clinical placement rotation.						
37. ...made me feel comfortable to ask questions.						
38. ...encouraged me to participate in patient care.						
39. ...showed interest in me as a person.						
40. ...showed interest in my learning.						
41. ...supported me when I experienced difficulties in performing a task.						
My clinical nurse educator / Clinical staff (R/N)…..	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
42. ...gave me individual attention during my clinical rotation.						
43. ...reduced my anxiety by preparing me for patient encounters.						
44. ...made me feel comfortable in discussions on patient care.						
45. ...knows me by name.						
46. ...helped me to establish rapport with other clinicians.						
47. ...built my confidence.						

Thank you for taking the time to complete the questionnaire

Appendix 12: Letter from the statistician

Gill Hendry B.Sc. (Hons), M.Sc. (Wits), PhD (UKZN)
CHAPTER 1: Mathematical and Statistical Services

Cell: 083 300 9896
email : gillhendrystats@gmail.com

6 July 20120

Re: Assistance with statistical aspects of the study

Please be advised that I have assisted Thembeka Makhetha (Student number21853112), who is currently studying for a Masters in Nursing at DUT, with the sampling calculations and the questionnaire validation for her study. I will also be assisting her with the statistical analysis of the data.

Yours sincerely

Dr Gill Hendry
Private Consulting Statistician

Appendix 13 Editing certificate

DR RICHARD STEELE
BA, HDE, MTech(Hom)
HOMEOPATH
Registration No. A07309 HM
Practice No. 0807524
Freelance academic editor
Associate member: Professional Editors' Guild, South Africa

110 Cato Road
Bulwer (Glenwood)
Durban 4001

031-201-6508
082-928-6208
Email: rsteele@vodamail.co.za

EDITING CERTIFICATE

Re: **Thembeka Dorothy Makhetha**
Master's dissertation: **SYSTEM, COGNITIVE AND EMOTIONAL SUPPORT OF STUDENTS DURING CLINICAL PLACEMENT: EXPLORING THE EXPERIENCES OF STUDENTS FROM A COLLEGE OF NURSING IN KWAZULU-NATAL, SOUTH AFRICA**

I confirm that I have edited this dissertation and the references for clarity, language and layout. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I obtained a distinction for my M.Tech. dissertation in the Department of Homoeopathy at Technikon Natal in 1999 (now the Durban University of Technology). I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years.

Dr Richard Steele
3 June 2021
per email

Appendix 14: Composite analysis report

REPORT ON STATISTICAL ANALYSIS

Title of the study: SYSTEM, COGNITIVE AND EMOTIONAL SUPPORT OF STUDENTS DURING CLINICAL PLACEMENT: EXPLORING THE EXPERIENCES OF STUDENTS FROM A COLLEGE OF NURSING IN KWAZULU-NATAL, SOUTH AFRICA

Researcher: MS Thembeka Dorothy Makhetha Student Number: 21853112

Supervisor: Prof. TSP. Ngxongo Statistician: Dr G. Hendry

NB: This report is not written in a format suitable for the dissertation, however, the information from this report ONLY was used to write chapter 5 of the dissertation (Presentation of results).

METHODOLOGY AND REPORT INSTRUCTIONS

For each of the questions frequency tables and graphs are given some of which were used to present results. Because the SPSS output tables include some information that is not necessary /appropriate, only the information which was appropriate was extracted from the analysis report and where necessary either tables were joined or new tables created. Therefore, the tables and graphs contained in this report are used for interpreting and reporting results ONLY and may be different from those in the dissertation**.** Thereafter appropriate inferential analysis was done. For each method of analysis the output from SPSS is given. Note In SPSS a p value given as .000 is very small and reported as p<.0005; a p value of e.g. .017 is reported as p=.017.

TESTS USED IN THE ANALYSIS

- Descriptive statistics including means and standard deviations, where applicable. Frequencies are represented in tables or graphs.

- Wilcoxon Signed Ranks test: A non-parametric test used to test, in this study, whether the average value is significantly different from a value of 3.5 (the central score). This is applied to Likert scale questions. It is also used in the comparison of the distributions of two variables.
- Chi-square test of independence: Used on cross-tabulations to see whether a significant relationship exists between the two variables represented in the cross-tabulation.
- Kruskal Wallis Test: Non parametric equivalent to ANOVA. A test for several independent samples that compares two or more groups of cases in one variable.
- Mann Whitney U Test: Non parametric equivalent to the independent samples t-test.
- Pearson's and Spearman's correlation: Spearman's correlations measures how ordinal variables or rank orders are related. Pearson's correlation coefficient is a measure of linear association.
- One sample t-test: Tests whether a mean score is significantly different from a scalar value.

CLEANING THE DATA

Respondents 101, 154 and 164 were removed from the data because they answered every question in section 2 in the same way. These did not add value to the study (being disengaged). Thus the analysis is based on t the sample size of 211 instead of 214

DEMOGRAPHICS

1. Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Up to 25	108	51.2	51.2	51.2
	26 - 35	90	42.7	42.7	93.8
	Older than 35	13	6.2	6.2	100.0
	Total	211	100.0	100.0	

2. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	51	24.2	24.2	24.2
	Female	160	75.8	75.8	100.0
	Total	211	100.0	100.0	

3. Year of study

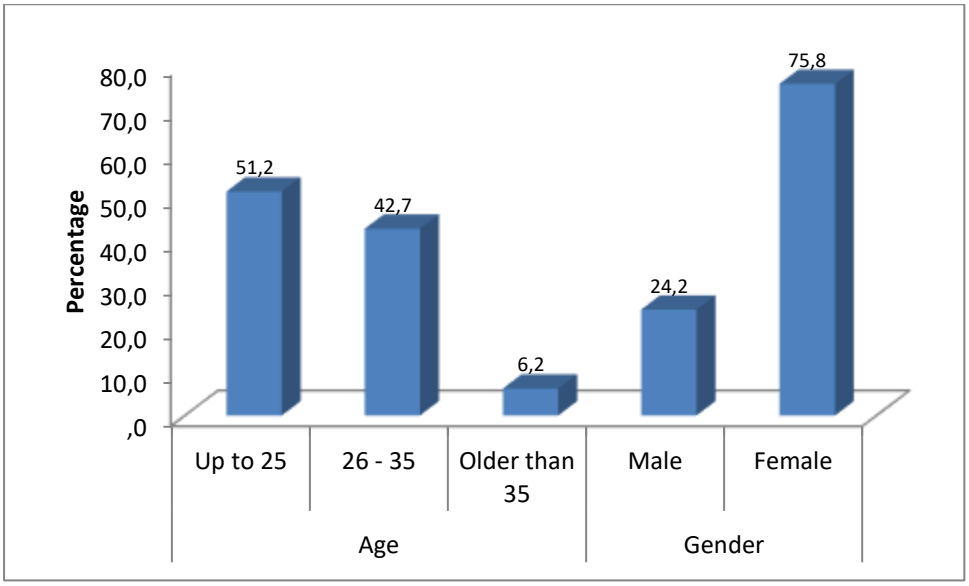
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3rd year	43	20.4	20.4	20.4
	4th year	168	79.6	79.6	100.0
	Total	211	100.0	100.0	

4. Total estimated time spend during placement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<4 hours	9	4.3	4.3	4.3
	4 - <7 hours	8	3.8	3.8	8.1
	7 - 10 hours	86	40.8	40.8	48.8
	>10 hours	108	51.2	51.2	100.0
	Tota	211	100.0	100.0	

5. Number of contact sessions during placement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	9.5	9.5	9.5
	2	25	11.8	11.8	21.3
	3	19	9.0	9.0	30.3
	4	29	13.7	13.7	44.1
	5	17	8.1	8.1	52.1
	6	23	10.9	10.9	63.0
	7	12	5.7	5.7	68.7
	8	15	7.1	7.1	75.8
	9	4	1.9	1.9	77.7
	10	6	2.8	2.8	80.6
	11	3	1.4	1.4	82.0
	>11	38	18.0	18.0	100.0
	Total	211	100.0	100.0	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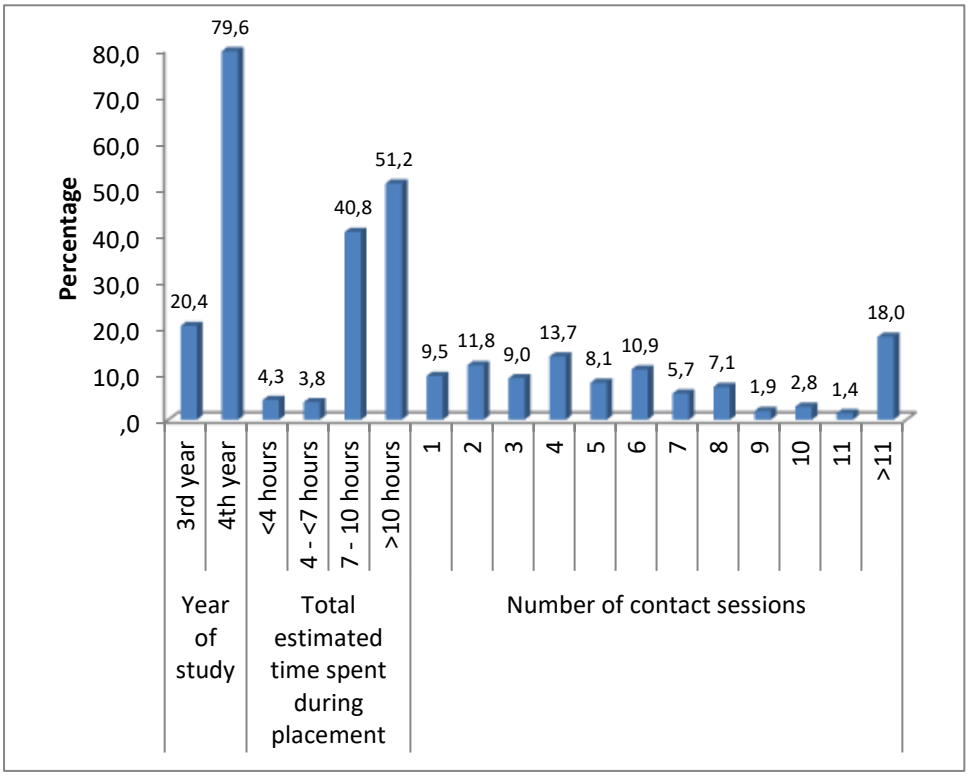
70,0
60,0
50,0
40,0
30,0
20,0
10,0
,0
51,2
42,7
6,2
24,2
75,8
Up to 25
26 - 35
Older than 35
Male
Female
Age
Gender


Percentage
80,0
70,0
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40,8
51,2
9,5
11,8
9,0
13,7
8,1
10,9
5,7
7,1
1,9
2,8
1,4
18,0
3rd year
4th year
<4 hours
4 - <7 hours
7 - 10 hours
>10 hours
1
2
3
4
5
6
7
8
9
10
11
>11
Year of study
Total estimated time spent during placement
Number of contact sessions

SUPPORT

Initially univariate analysis was done. This included analysis on each question / item individually. The analysis included testing if there is significant agreement or significant disagreement to each item. The test used is a one-sample t-test. For this the average agreement score is tested against the central score of 3.5 (mid-point of the Likert scale) to test if there is a significant difference between the average and 3.5. If there is a significant difference, and mean score <3.5 this was interpreted as significant disagreement; if sig and mean >3.5 it was interpreted as significant agreement. Significant results will are shaded red. Because there was some deviation from normality the results were checked using equivalent non-parametric tests as well.

One-Sample Statistics

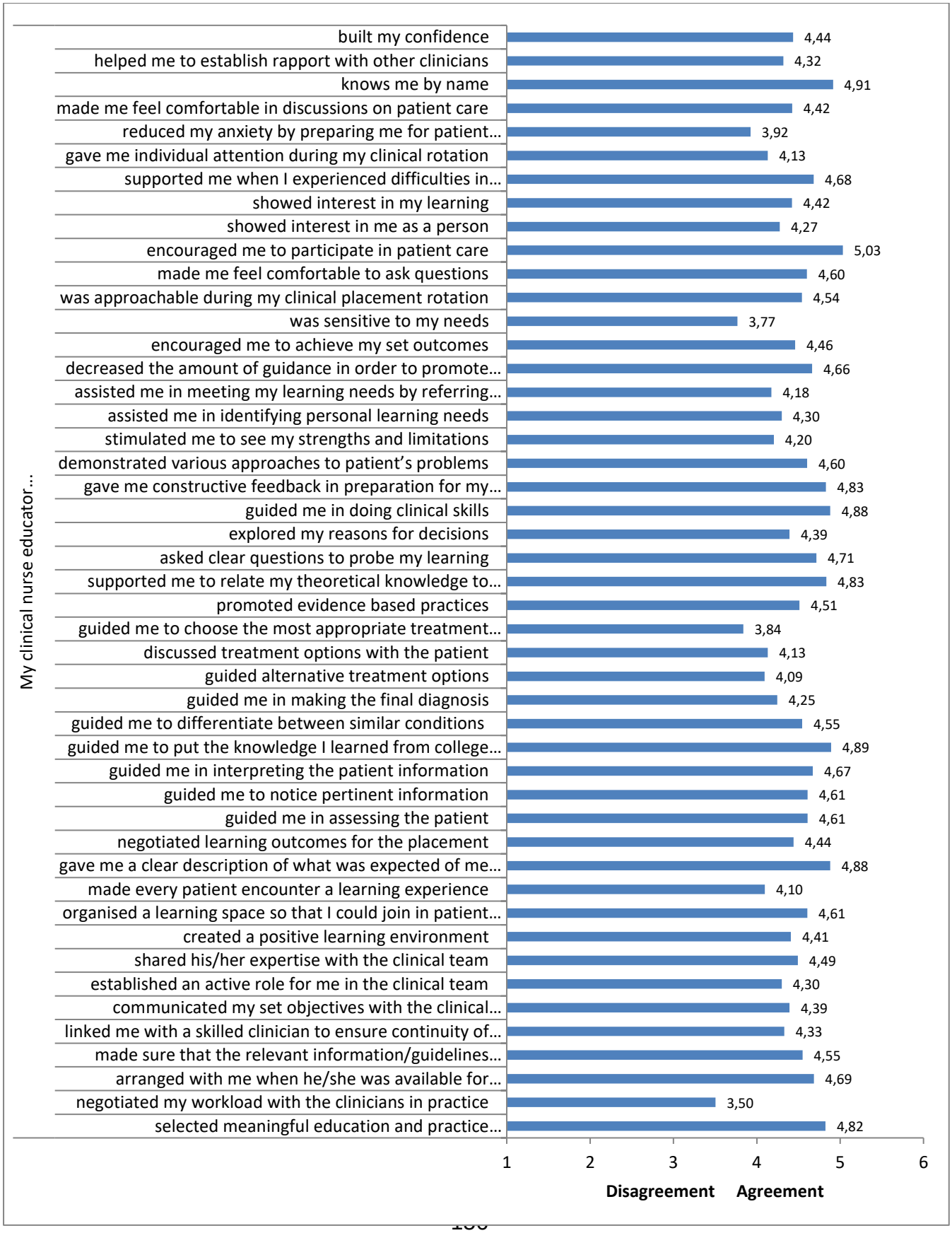
	N	Mean	Std. Deviation	Std. Error Mean
1. ...selected meaningful education and practice opportunities to meet my learning needs.	211	4.82	1.118	.077
2. ...negotiated my workload with the clinicians in practice.	210	3.50	1.554	.107
3. ...arranged with me when he/she was available for facilitation.	210	4.69	1.232	.085
4. ...made sure that the relevant information/guidelines were at my disposal in the clinical facility.	211	4.55	1.215	.084
5. ...linked me with a skilled clinician to ensure continuity of my learning.	209	4.33	1.418	.098
6. ...communicated my set objectives with the clinical supervisor.	211	4.39	1.451	.100

7. ...established an active role for me in the clinical team.	211	4.30	1.367	.094
8. ...shared his/her expertise with the clinical team.	209	4.49	1.193	.083
9....created a positive learning environment.	210	4.41	1.357	.094
10. ...organised a learning space so that I could join in patient care.	211	4.61	1.254	.086
11. ...made every patient encounter a learning experience.	208	4.10	1.380	.096
12. ...gave me a clear description of what was expected of me in the clinical practice.	211	4.88	1.167	.080
13. ...negotiated learning outcomes for the placement.	211	4.44	1.276	.088
14. ...guided me in assessing the patient.	210	4.61	1.272	.088
15. ...guided me to notice pertinent information.	210	4.61	1.132	.078
16. ...guided me in interpreting the patient information.	211	4.67	1.224	.084
17. ...guided me to put the knowledge I learned from college into practice using patient data.	211	4.89	1.114	.077

18. ...guided me to differentiate between diseases or conditions that present with similar symptoms	209	4.55	1.379	.095
19. ...guided me in making the final diagnosis.	211	4.25	1.406	.097
20. ...guided alternative treatment options.	211	4.09	1.207	.083
21. ...discussed treatment options with the patient.	211	4.13	1.288	.089
22. ...guided me to choose the most appropriate treatment plan in collaboration with the patient.	211	3.84	1.395	.096
23. ...promoted evidence based practices.	211	4.51	1.164	.080
24. ...supported me to relate my theoretical knowledge to clinical practice.	211	4.83	1.081	.074
25. ...asked clear questions to probe my learning.	210	4.71	1.143	.079
26. ...explored my reasons for decisions.	211	4.39	1.262	.087
27. ...guided me in doing clinical skills.	211	4.88	1.163	.080
28. ...gave me constructive feedback in preparation for my assessment.	211	4.83	1.191	.082

29. ...demonstrated various approaches to patient's problems.	210	4.60	1.230	.085
30. ...stimulated me to see my strengths and limitations.	210	4.20	1.531	.106
31. ...assisted me in identifying personal learning needs.	211	4.30	1.496	.103
32. ...assisted me in meeting my learning needs by referring me to literature sources.	211	4.18	1.525	.105
33. ...decreased the amount of guidance in order to promote my independence.	211	4.66	1.263	.087
34. ...encouraged me to achieve my set outcomes.	211	4.46	1.332	.092
35 ...was sensitive to my needs.	211	3.77	1.527	.105
36. ...was approachable during my clinical placement rotation.	211	4.54	1.254	.086
37. ...made me feel comfortable to ask questions.	211	4.60	1.325	.091
38. ...encouraged me to participate in patient care.	210	5.03	.844	.058
39. ...showed interest in me as a person.	211	4.27	1.515	.104
40. ...showed interest in my learning.	211	4.42	1.410	.097

41. ...supported me when I experienced difficulties in performing a task.	211	4.68	1.214	.084
42. ...gave me individual attention during my clinical rotation.	211	4.13	1.418	.098
43. ...reduced my anxiety by preparing me for patient encounters.	211	3.92	1.491	.103
44. ...made me feel comfortable in discussions on patient care.	210	4.42	1.307	.090
45. ...knows me by name.	211	4.91	1.357	.093
46. ...helped me to establish rapport with other clinicians.	211	4.32	1.440	.099
47. ...built my confidence.	211	4.44	1.447	.100


My clinical nurse educator…
built my confidence 4,44
helped me to establish rapport with other clinicians 4,32
knows me by name 4,91
made me feel comfortable in discussions on patient care 4,42
reduced my anxiety by preparing me for patient… 3,92
gave me individual attention during my clinical rotation 4,13
supported me when I experienced difficulties in… 4,68
showed interest in my learning 4,42
showed interest in me as a person 4,27
encouraged me to participate in patient care 5,03
made me feel comfortable to ask questions 4,60
was approachable during my clinical placement rotation 4,54
was sensitive to my needs 3,77
encouraged me to achieve my set outcomes 4,46
decreased the amount of guidance in order to promote… 4,66
assisted me in meeting my learning needs by referring… 4,18
assisted me in identifying personal learning needs 4,30
stimulated me to see my strengths and limitations 4,20
demonstrated various approaches to patient's problems 4,60
gave me constructive feedback in preparation for my… 4,83
guided me in doing clinical skills 4,88
explored my reasons for decisions 4,39
asked clear questions to probe my learning 4,71
supported me to relate my theoretical knowledge to… 4,83
promoted evidence based practices 4,51
guided me to choose the most appropriate treatment… 3,84
discussed treatment options with the patient 4,13
guided alternative treatment options 4,09
guided me in making the final diagnosis 4,25
guided me to differentiate between similar conditions 4,55
guided me to put the knowledge I learned from college… 4,89
guided me in interpreting the patient information 4,67
guided me to notice pertinent information 4,61
guided me in assessing the patient 4,61
negotiated learning outcomes for the placement 4,44
gave me a clear description of what was expected of me… 4,88
made every patient encounter a learning experience 4,10
organised a learning space so that I could join in patient… 4,61
created a positive learning environment 4,41
shared his/her expertise with the clinical team 4,49
established an active role for me in the clinical team 4,30
communicated my set objectives with the clinical… 4,39
linked me with a skilled clinician to ensure continuity of… 4,33
made sure that the relevant information/guidelines… 4,55
arranged with me when he/she was available for… 4,69
negotiated my workload with the clinicians in practice 3,50
selected meaningful education and practice… 4,82
1 2 3 4 5 6
Disagreement Agreement

One-Sample Test

	Test Value = 3.5					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
1. ...selected meaningful education and practice opportunities to meet my learning needs.	17.210	210	.000	1.325	1.17	1.48
2. ...negotiated my workload with the clinicians in practice.	.044	209	.965	.005	-.21	.22
3. ...arranged with me when he/she was available for facilitation.	13.946	209	.000	1.186	1.02	1.35
4. ...made sure that the relevant information/guidelines were at my disposal in the clinical facility.	12.546	210	.000	1.050	.88	1.21
5. ...linked me with a skilled clinician to ensure continuity of my learning.	8.464	208	.000	.830	.64	1.02
6. ...communicated my set objectives with the clinical supervisor.	8.941	210	.000	.893	.70	1.09
7. ...established an active role for me in the clinical team.	8.488	210	.000	.799	.61	.98

8. ...shared his/her expertise with the clinical team.	12.027	208	.000	.993	.83	1.16
9....created a positive learning environment.	9.714	209	.000	.910	.72	1.09
10. ...organised a learning space so that I could join in patient care.	12.816	210	.000	1.107	.94	1.28
11. ...made every patient encounter a learning experience.	6.231	207	.000	.596	.41	.78
12. ...gave me a clear description of what was expected of me in the clinical practice.	17.195	210	.000	1.382	1.22	1.54
13. ...negotiated learning outcomes for the placement.	10.708	210	.000	.941	.77	1.11
14. ...guided me in assessing the patient.	12.644	209	.000	1.110	.94	1.28
15. ...guided me to notice pertinent information.	14.199	209	.000	1.110	.96	1.26
16. ...guided me in interpreting the patient information.	13.924	210	.000	1.173	1.01	1.34
17. ...guided me to put the knowledge I learned from college into practice using patient data.	18.142	210	.000	1.391	1.24	1.54

18. ...guided me to differentiate between diseases or conditions that present with similar symptoms	10.956	208	.000	1.045	.86	1.23
19. ...guided me in making the final diagnosis.	7.711	210	.000	.746	.56	.94
20. ...guided alternative treatment options.	7.156	210	.000	.595	.43	.76
21. ...discussed treatment options with the patient.	7.136	210	.000	.633	.46	.81
22. ...guided me to choose the most appropriate treatment plan in collaboration with the patient.	3.529	210	.001	.339	.15	.53
23. ...promoted evidence based practices.	12.623	210	.000	1.012	.85	1.17
24. ...supported me to relate my theoretical knowledge to clinical practice.	17.935	210	.000	1.334	1.19	1.48
25. ...asked clear questions to probe my learning.	15.401	209	.000	1.214	1.06	1.37
26. ...explored my reasons for decisions.	10.284	210	.000	.893	.72	1.06
27. ...guided me in doing clinical skills.	17.255	210	.000	1.382	1.22	1.54
28. ...gave me constructive feedback in preparation for my assessment.	16.214	210	.000	1.329	1.17	1.49

29. ...demonstrated various approaches to patient's problems.	13.016	209	.000	1.105	.94	1.27
30. ...stimulated me to see my strengths and limitations.	6.669	209	.000	.705	.50	.91
31. ...assisted me in identifying personal learning needs.	7.752	210	.000	.799	.60	1.00
32. ...assisted me in meeting my learning needs by referring me to literature sources.	6.432	210	.000	.675	.47	.88
33. ...decreased the amount of guidance in order to promote my independence.	13.379	210	.000	1.164	.99	1.33
34. ...encouraged me to achieve my set outcomes.	10.468	210	.000	.960	.78	1.14
35 ...was sensitive to my needs.	2.547	210	.012	.268	.06	.47
36. ...was approachable during my clinical placement rotation.	12.047	210	.000	1.040	.87	1.21
37. ...made me feel comfortable to ask questions.	12.082	210	.000	1.102	.92	1.28
38. ...encouraged me to participate in patient care.	26.337	209	.000	1.533	1.42	1.65
39. ...showed interest in me as a person.	7.429	210	.000	.775	.57	.98
40. ...showed interest in my learning.	9.497	210	.000	.922	.73	1.11

41. ...supported me when I experienced difficulties in performing a task.	14.143	210	.000	1.182	1.02	1.35
42. ...gave me individual attention during my clinical rotation.	6.481	210	.000	.633	.44	.83
43. ...reduced my anxiety by preparing me for patient encounters.	4.133	210	.000	.424	.22	.63
44. ...made me feel comfortable in discussions on patient care.	10.239	209	.000	.924	.75	1.10
45. ...knows me by name.	15.148	210	.000	1.415	1.23	1.60
46. ...helped me to establish rapport with other clinicians.	8.244	210	.000	.818	.62	1.01
47. ...built my confidence.	9.394	210	.000	.936	.74	1.13

THE RESULTS FROM NON-PARAMETRIC ANALYSIS (WILCOXON SIGNED RANKS TEST)

Test Statistics[b]

	three point five - 1. ...selected meaningful education and practice opportunities to meet my learning needs.	three point five - 2. ...negotiated my workload with the clinicians in practice.	three point five - 3. ...arranged with me when he/she was available for facilitation.	three point five - 4. ...made sure that the relevant information/guidelines were at my disposal in the clinical facility.	three point five - 5. ...linked me with a skilled clinician to ensure continuity of my learning.	three point five - 6. ...communicated my set objectives with the clinical supervisor.	three point five - 7. ...established an active role for me in the clinical team.	three point five - 8. ...shared his/her expertise with the clinical team.	three point five - 9....created a positive learning environment.	three point five - 10. ...organised a learning space so that I could join in patient care.
Z	-10.763[a]	-.062[a]	-9.819[a]	-9.453[a]	-7.309[a]	-7.407[a]	-7.302[a]	-9.124[a]	-8.031[a]	-9.533[a]
Asymp. Sig. (2-tailed)	.000	.951	.000	.000	.000	.000	.000	.000	.000	.000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

Test Statistics[b]

	three point five - 11. ...made every patient encounter a learning experience.	three point five - 12. ...gave me a clear description of what was expected of me in the clinical practice.	three point five - 13. ...negotiated learning outcomes for the placement.	three point five - 14. ...guided me in assessing the patient.	three point five - 15. ...guided me to notice pertinent information.	three point five - 16. ...guided me in interpreting the patient information.	three point five - 17. ...guided me to put the knowledge I learned from college into practice using patient data.	three point five - 18. ...guided me to differentiate between diseases or conditions that present with similar symptoms	three point five - 19. ...guided me in making the final diagnosis.	three point five - 20. ...guided alternative treatment options.
Z	-5.677[a]	-10.900[a]	-8.552[a]	-9.415[a]	-10.065[a]	-9.895[a]	-11.111[a]	-8.559[a]	-6.762[a]	-6.485[a]
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

Test Statistics[b]

	three point five - 21. ...discussed treatment options with the patient.	three point five - 22. ...guided me to choose the most appropriate treatment plan in collaboration with the patient.	three point five - 23. ...promoted evidence based practices.	three point five - 24. ...supported me to relate my theoretical knowledge to clinical practice.	three point five - 25. ...asked clear questions to probe my learning.	three point five - 26. ...explored my reasons for decisions.	three point five - 27. ...guided me in doing clinical skills.	three point five - 28. ...gave me constructive feedback in preparation for my assessment.	three point five - 29. ...demonstrated various approaches to patient's problems.	three point five - 30. ...stimulated me to see my strengths and limitations.
Z	-6.530[a]	-3.529[a]	-9.549[a]	-11.119[a]	-10.400[a]	-8.405[a]	-10.855[a]	-10.559[a]	-9.646[a]	-6.016[a]
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

a. Based on positive ranks.

b. Wilcoxon Signed Ranks Test

Test Statistics[b]

	three point five - 31. ...assisted me in identifying personal learning needs.	three point five - 32. ...assisted me in meeting my learning needs by referring me to literature sources.	three point five - 33. ...decreased the amount of guidance in order to promote my independence.	three point five - 34. ...encouraged me to achieve my set outcomes.	three point five - 35 ...was sensitive to my needs.	three point five - 36. ...was approachable during my clinical placement rotation.	three point five - 37. ...made me feel comfortable to ask questions.	three point five - 38. ...encouraged me to participate in patient care.	three point five - 39. ...showed interest in me as a person.	three point five - 40. ...showed interest in my learning.
Z	-6.729[a]	-5.776[a]	-9.578[a]	-8.381[a]	-2.479[a]	-9.278[a]	-9.163[a]	-12.262[a]	-6.529[a]	-7.886[a]
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.013	.000	.000	.000	.000	.000

a. Based on positive ranks. . b. Wilcoxon Signed Ranks Test

Test Statistics[b]

	three point five - 40. ...showed interest in my learning.	three point five - 41. ...supported me when I experienced difficulties in performing a task.	three point five - 42. ...gave me individual attention during my clinical rotation.	three point five - 43. ...reduced my anxiety by preparing me for patient encounters.	three point five - 44. ...made me feel comfortable in discussions on patient care.	three point five - 45. ...knows me by name.	three point five - 46. ...helped me to establish rapport with other clinicians.	three point five - 47. ...built my confidence.
Z	-7.886[a]	-9.990[a]	-5.914[a]	-3.999[a]	-8.315[a]	-10.096[a]	-7.118[a]	-7.596[a]
Asymp. Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000

Because there were many items measuring different kinds of support, analysis was done to see how they naturally group together in order to form composite single measures that have construct validity and are reliable. For this, factor analysis with promax rotation was used. This identified the groupings in the data that was taken forward for further analysis. The results are given in output tables.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	5433.107
	df	703
	Sig.	.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	16.780	44.157	44.157	16.355	43.039	43.039	12.910
2	2.806	7.385	51.542	2.393	6.297	49.337	12.455
3	1.737	4.572	56.113	1.262	3.321	52.657	11.313
4	1.374	3.616	59.730	.935	2.460	55.118	12.381
5	1.185	3.120	62.849				
6	1.085	2.856	65.705				
...							
37	.117	.307	99.755				
38	.093	.245	100.000				

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix[a]

	Factor			
	1	2	3	4
	COG	EMOT1	SYS	EMOT2
Cronbach's alpha	.924	.932	.883	.891
19. ...guided me in making the final diagnosis.	.939			
17. ...guided me to put the knowledge I learned from college into practice using patient data.	.804			
18. ...guided me to differentiate between diseases or conditions that present with similar symptoms	.766			
16. ...guided me in interpreting the patient information.	.725			
22. ...guided me to choose the most appropriate treatment plan in collaboration with the patient.	.675			.341
14. ...guided me in assessing the patient.	.666			
15. ...guided me to notice pertinent information.	.653		.336	
20. ...guided alternative treatment options.	.577			
23. ...promoted evidence based practices.	.542			
21. ...discussed treatment options with the patient.	.514			
26. ...explored my reasons for decisions.	.415			
46. ...helped me to establish rapport with other clinicians.		.786		
45. ...knows me by name.		.772		
47. ...built my confidence.		.766		
39. ...showed interest in me as a person.		.764		
41. ...supported me when I experienced difficulties in performing a task.		.660		
40. ...showed interest in my learning.		.603		
42. ...gave me individual attention during my clinical rotation.		.594		
44. ...made me feel comfortable in discussions on patient care.	.400	.517		
36. ...was approachable during my clinical placement rotation.		.486		.382
43. ...reduced my anxiety by preparing me for patient encounters.		.444		
5. ...linked me with a skilled clinician to ensure continuity of my learning.			.761	

4. ...made sure that the relevant information/guidelines were at my disposal in the clinical facility.			.742	
7. ...established an active role for me in the clinical team.			.600	
2. ...negotiated my workload with the clinicians in practice.			.591	
6. ...communicated my set objectives with the clinical supervisor.			.538	
3. ...arranged with me when he/she was available for facilitation.			.522	
8. ...shared his/her expertise with the clinical team.			.510	
9....created a positive learning environment.			.454	
1. ...selected meaningful education and practice opportunities to meet my learning needs.			.383	
11. ...made every patient encounter a learning experience.	.362		.366	
30. ...stimulated me to see my strengths and limitations.				.806
32. ...assisted me in meeting my learning needs by referring me to literature sources.				.746
34. ...encouraged me to achieve my set outcomes.				.737
35 ...was sensitive to my needs.				.638
31. ...assisted me in identifying personal learning needs.				.621
38. ...encouraged me to participate in patient care.				.547
37. ...made me feel comfortable to ask questions.		.410		.447

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5	1.185	3.120	62.849				
6	1.085	2.856	65.705				
...							
37	.117	.307	99.755				
38	.093	.245	100.000				

Extraction Method: Principal Axis Factoring.

Summary of the factors

Factor/ construct	Label	Items included	% variance explained	Cronbach's alpha
1: Cognitive	COG	14 – 23, 26	43.04	.924
2: Emotional ()	EMOT1	36, 39 – 47	6.30	.932
3: System	SYS	1 – 9, 11	3.32	.883
4: Emotional ()	EMOT2	30-32, 34-35, 37-38	2.46	.891

The factor loadings are illustrated in the following table

	Factor			
	1	2	3	4
19. ...guided me in making the final diagnosis.	.939			
17. ...guided me to put the knowledge I learned from college into practice using patient data.	.804			
18. ...guided me to differentiate between diseases or conditions that present with similar symptoms	.766			
16. ...guided me in interpreting the patient information.	.725			
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43. ...reduced my anxiety by preparing me for patient encounters.		.444		
5. ...linked me with a skilled clinician to ensure continuity of my learning.			.761	
4. ...made sure that the relevant information/guidelines were at my disposal in the clinical facility.			.742	
7. ...established an active role for me in the clinical team.			.600	
2. ...negotiated my workload with the clinicians in practice.			.591	

6. ...communicated my set objectives with the clinical supervisor.			.538	
3. ...arranged with me when he/she was available for facilitation.			.522	
8. ...shared his/her expertise with the clinical team.			.510	
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Composite measures for each construct were formed by calculating the average of the items within a construct.

To test for level of support received in each of these 4 support types, a one-sample t-test is applied as before to test for sig agreement/disagreement. Sig agreement indicates that the specific support was received. The mean values will indicate the level. Remember that 1 = no/low support (strong disagreement that support was received to 6 – good support (strongly agree that the support was received)

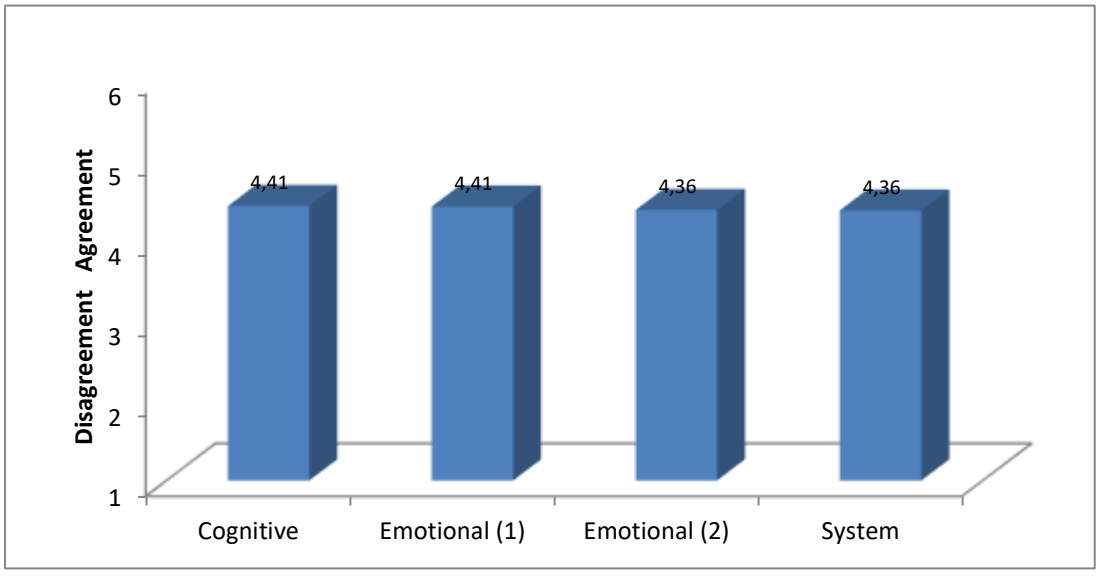
One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
COG	211	4.4121	.95113	.06548
EMOT1	211	4.4063	1.09385	.07530
EMOT2	211	4.3628	1.07766	.07419
SYS	211	4.3574	.93205	.06417

One-Sample Test

	Test Value = 3.5					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
COG	13.929	210	.000	.91206	.7830	1.0411
EMOT1	12.035	210	.000	.90627	.7578	1.0547
EMOT2	11.629	210	.000	.86278	.7165	1.0090
SYS	13.362	210	.000	.85736	.7309	.9838

These results show that there is sig agreement that all 4 types of support were received. Report/summarise as before.



Analysis shows that there is no sig difference in the types of support received...

The measures for these 4 supports deviated a little from normality. For this reason Kruskal Wallis and Mann Whitney were used to do the analysis

GENDER

Group Statistics

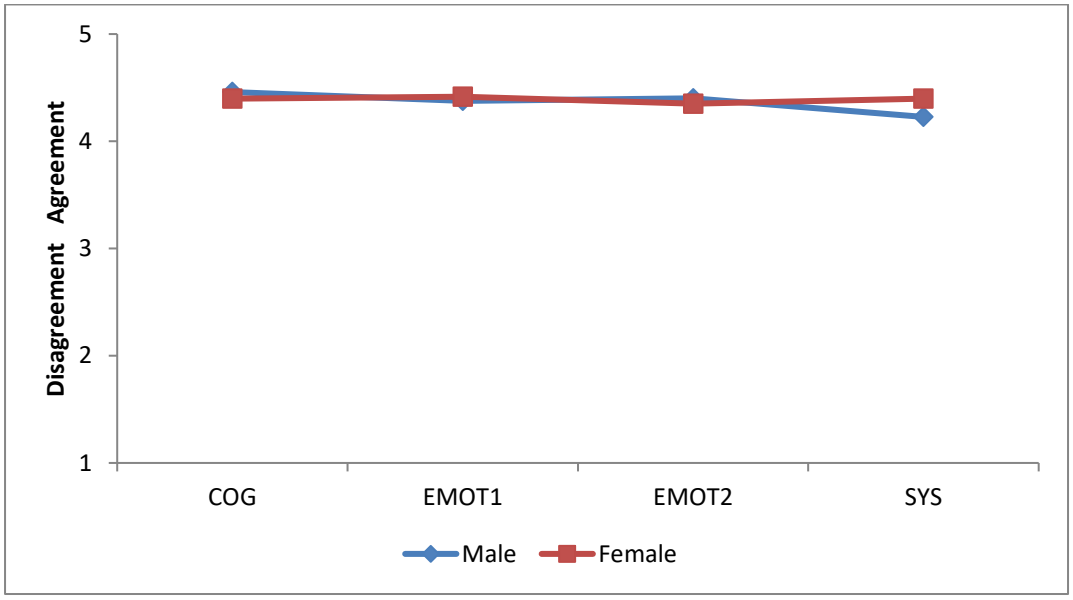
	2. Gender	N	Mean	Std. Deviation	Std. Error Mean
COG	Male	51	4.4590	.92129	.12901
	Female	160	4.3971	.96279	.07612
EMOT1	Male	51	4.3769	1.22540	.17159
	Female	160	4.4156	1.05249	.08321
EMOT2	Male	51	4.4001	1.10326	.15449
	Female	160	4.3509	1.07262	.08480
SYS	Male	51	4.2272	1.05839	.14820
	Female	160	4.3988	.88766	.07018

Test Statistics[a]

	COG	EMOT1	EMOT2	SYS
Mann-Whitney U	4023.500	4042.000	3982.500	3746.000
Wilcoxon W	16903.500	16922.000	16862.500	5072.000
Z	-.149	-.100	-.257	-.880
Asymp. Sig. (2-tailed)	.882	.920	.797	.379

a. Grouping Variable: 2. Gender

No sig differences across gender


5
4
3
2
1
Disagreement Agreement
COG
EMOT1
EMOT2
SYS
Male
Female

AGE

		N	Mean	Std. Deviation
COG	Up to 25	108	4.3274	.96072
	26 - 35	90	4.4368	.94410
	Older than 35	13	4.9441	.78426
	Total	211	4.4121	.95113
EMOT1	Up to 25	108	4.3231	1.06179
	26 - 35	90	4.4136	1.15676
	Older than 35	13	5.0462	.67530
	Total	211	4.4063	1.09385
EMOT2	Up to 25	108	4.1437	1.06246
	26 - 35	90	4.5333	1.06814
	Older than 35	13	5.0018	.83912
	Total	211	4.3628	1.07766
SYS	Up to 25	108	4.2676	.94609
	26 - 35	90	4.4239	.86430
	Older than 35	13	4.6423	1.21960
	Total	211	4.3574	.93205

Test Statistics[a,b]

	COG	EMOT1	EMOT2	SYS
Chi-Square	6.132	6.610	11.987	2.470
df	2	2	2	2
Asymp. Sig.	.047	.037	.002	.291

a. Kruskal Wallis Test

b. Grouping Variable: 1. Age

The first 3 support constructs differ significantly across age. Paired comparative analysis will be done to see where the specific differences lie.

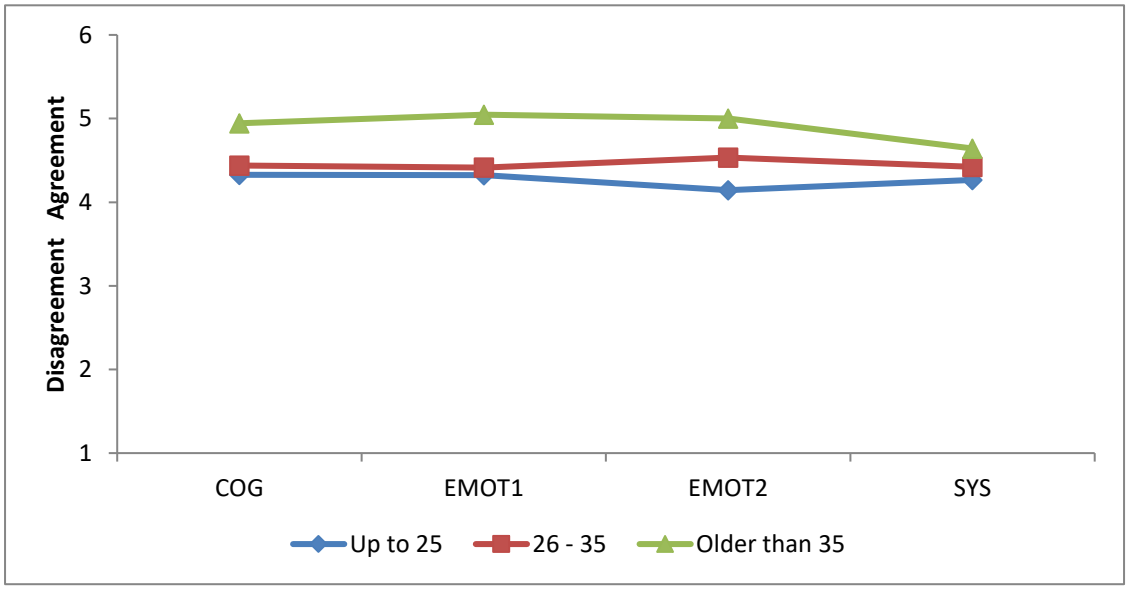
'A>B' means agreement for A is significantly higher that agreement for B

COG '>35 yrs' > 'up to 25' (p=.014)

EMOT1 '>35 yrs' > 'up to 25' (p=.013)

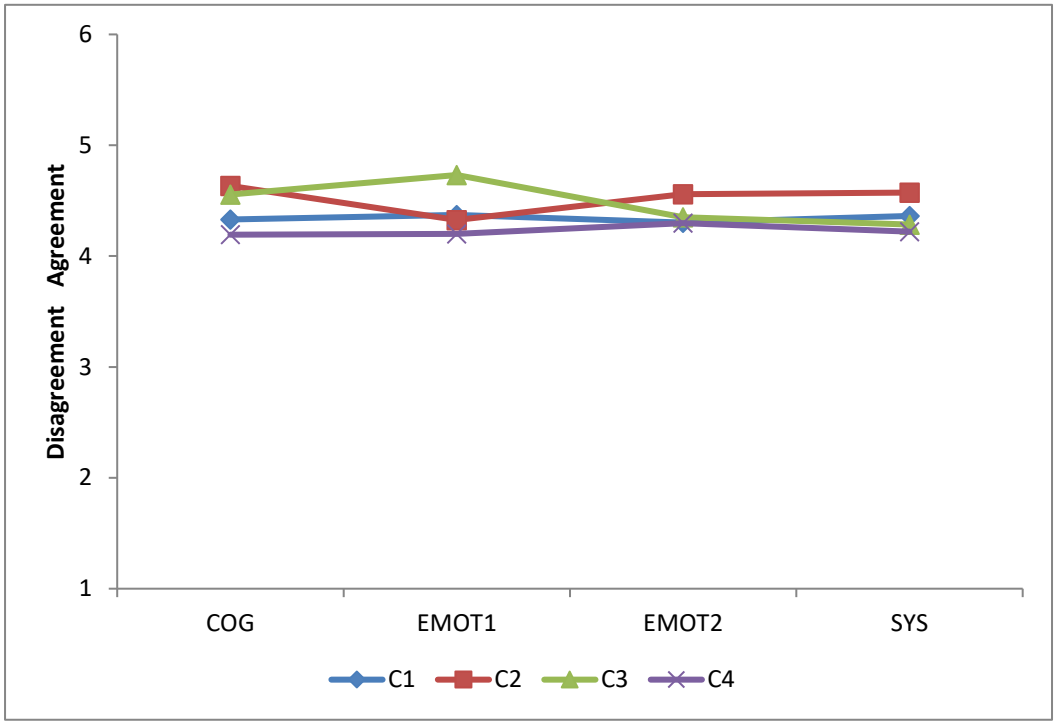
EMOT2 '>35 yrs' > 'up to 25' (p=.007)

26-35 > up to 25 (p=.008)



CAMPUS

		N	Mean	Std. Deviation
COG	C1	77	4.3318	1.01765
	C2	42	4.6333	.91694
	C3	47	4.5551	.73495
	C4	45	4.1935	1.02565
	Total	211	4.4121	.95113
EMOT1	C1	77	4.3717	1.06750
	C2	42	4.3262	1.21194
	C3	47	4.7319	.69442
	C4	45	4.2000	1.30558
	Total	211	4.4063	1.09385
EMOT2	C1	77	4.3027	1.06169
	C2	42	4.5578	1.08559
	C3	47	4.3495	1.07559
	C4	45	4.2974	1.11405
	Total	211	4.3628	1.07766
SYS	C1	77	4.3637	.93503
	C2	42	4.5741	.88496
	C3	47	4.2851	.83691
	C4	45	4.2197	1.05080
	Total	211	4.3574	.93205



Test Statistics[a,b]

	COG	EMOT1	EMOT2	SYS
Chi-Square	5.994	3.598	2.255	4.209
df	3	3	3	3
Asymp. Sig.	.112	.308	.521	.240

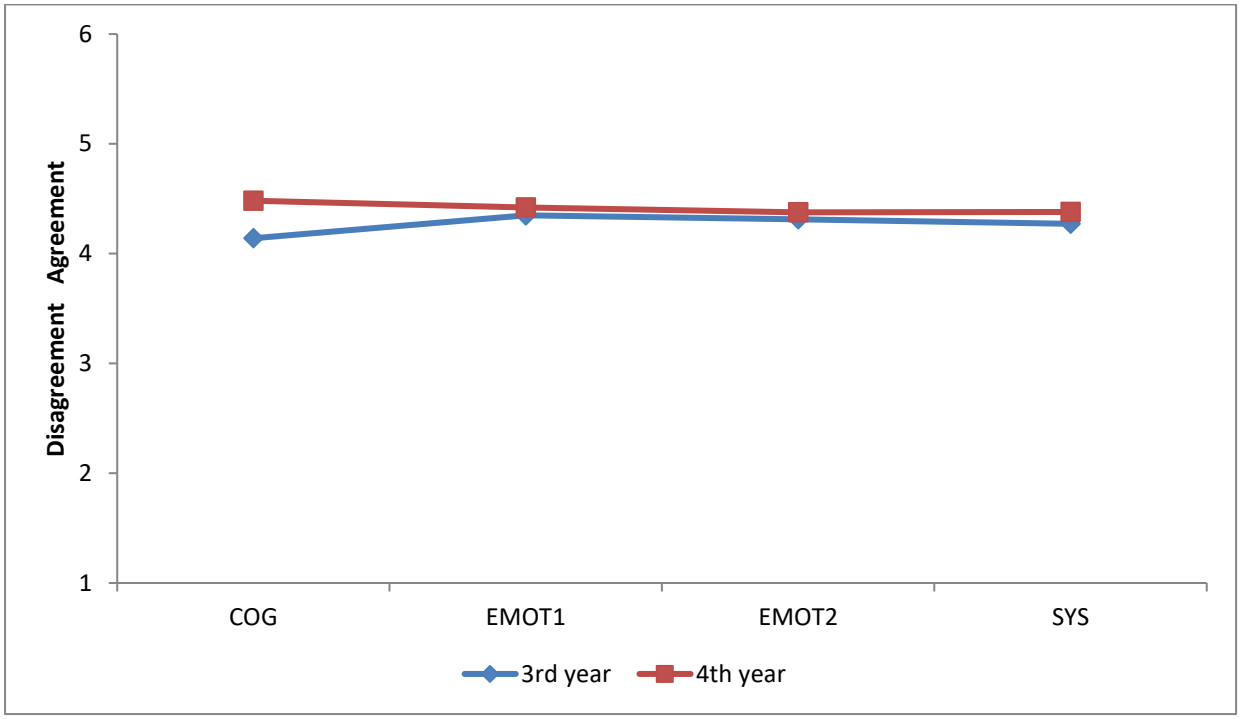
a. Kruskal Wallis Test

b. Grouping Variable: Campus

No significant differences across campus

YEAR OF STUDY

		N	Mean	Std. Deviation
COG	3rd year	43	4.1402	.91202
	4th year	168	4.4817	.95104
	Total	211	4.4121	.95113
EMOT1	3rd year	43	4.3488	1.07135
	4th year	168	4.4210	1.10221
	Total	211	4.4063	1.09385
EMOT2	3rd year	43	4.3112	1.08052
	4th year	168	4.3760	1.07977
	Total	211	4.3628	1.07766
SYS	3rd year	43	4.2716	.94458
	4th year	168	4.3793	.93040
	Total	211	4.3574	.93205



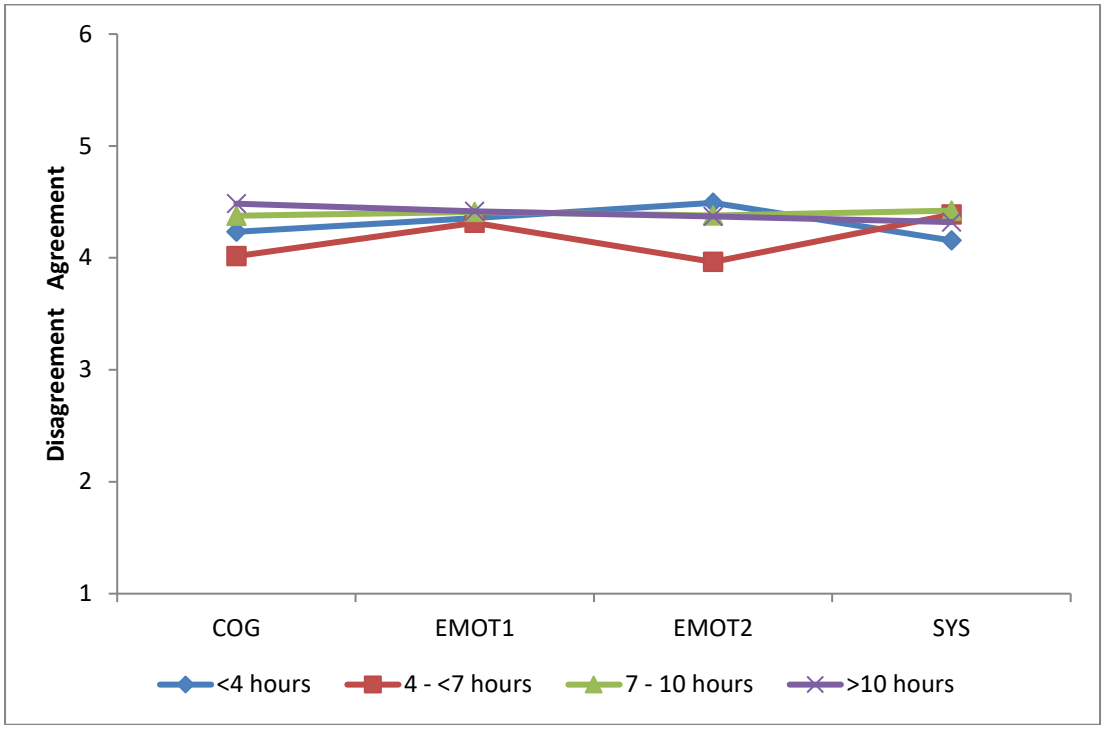
Test Statistics[a]

	COG	EMOT1	EMOT2	SYS
Mann-Whitney U	2709.000	3359.000	3440.000	3337.500
Wilcoxon W	3655.000	4305.000	4386.000	4283.500
Z	-2.530	-.709	-.482	-.769
Asymp. Sig. (2-tailed)	.011	.478	.630	.442

a. Grouping Variable: 3. Year of study

TIME DURING PLACEMENT

		N	Mean	Std. Deviation
COG	<4 hours	9	4.2323	.97501
	4 - <7 hours	8	4.0170	.65822
	7 - 10 hours	86	4.3766	.92652
	>10 hours	108	4.4845	.98662
	Total	211	4.4121	.95113
EMOT1	<4 hours	9	4.3556	1.18122
	4 - <7 hours	8	4.3125	.61281
	7 - 10 hours	86	4.4096	1.07473
	>10 hours	108	4.4148	1.14057
	Total	211	4.4063	1.09385
EMOT2	<4 hours	9	4.4921	.79895
	4 - <7 hours	8	3.9643	.62853
	7 - 10 hours	86	4.3782	1.01016
	>10 hours	108	4.3693	1.17542
	Total	211	4.3628	1.07766
SYS	<4 hours	9	4.1556	.76176
	4 - <7 hours	8	4.3875	.74342
	7 - 10 hours	86	4.4224	.91864
	>10 hours	108	4.3202	.97301
	Total	211	4.3574	.93205



Test Statistics[a,b]

	COG	EMOT1	EMOT2	SYS
Chi-Square	3.729	.613	2.014	1.763
df	3	3	3	3
Asymp. Sig.	.292	.893	.570	.623

a. Kruskal Wallis Test

b. Grouping Variable: 4. Total estimated time spend during placement

No sig differences

NUMBER OF SESSIONS

lSpearman's correlation was used for **number of sessions**

Correlations

			5. Number of contact sessions during placement	COG	EMOT1	EMOT2	SYS
Spearman's rho	5. Number of contact sessions during placement	Correlation Coefficient	1.000	.205**	.204**	.276**	.227**
		Sig. (2-tailed)	.	.003	.003	.000	.001
		N	211	211	211	211	211

**. Correlation is significant at the 0.01 level (2-tailed).

There is a weak positive correlation between the support and number of session in each case.

Report the stats as, for example, rho = .205, p=.003