THE PERCEPTIONS OF DIAGNOSTIC RADIOGRAPHY CLINICAL TUTORS TRANSITIONING FROM BEING RADIOGRAPHERS TO CLINICAL EDUCATORS IN PUBLIC HOSPITALS IN THE ETHEKWINI DISTRICT

Vukani Siphiwesihle Ncwane (21615103)

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Supervisor: Dr. T.E Khoza

Date: June 2022

DECLARATION OF ORIGINALITY

This is to certify that this dissertation represents my work and not that of any other person unless explicitly acknowledged (including citation of published and unpublished sources).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 any other institution for assessment or any other purpose.

13 May 2022

Mr. Vukani. S Ncwane Date

Approved for final submission

_____ _____

Dr. T. E Khoza Date

Ph.D. in Health Science

DEDICATION

I would like to express my gratitude to God, the Almighty, for providing me with the strength and wisdom I needed to complete this study and I dedicate this dissertation to my family and friends. To my late grandmother, Mrs. F Zincume. To both sets of parents Ms. F.T Zincume and Mr. K.S Ncwane, who have continuously motivated me to improve myself and taught me that nothing was impossible. I would also like to dedicate this project to my supervisor Dr. T.E Khoza, for his endless support, patience, guidance, and encouragement throughout the project.

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ABSTRACT

Introduction: Clinical tutors display competence in the practice of their craft. However, that competence does not automatically transfer to the area of clinical instruction. A unique aspect of teaching radiologic sciences is the need to be didactically and clinically proficient. Clinical instructors are known as having practical knowledge of teaching, but few understand the basic principles, theories, and concepts of the teaching and learning process.

Furthermore, radiographers who transition into the role of clinical tutors are usually expert practitioners but may lack knowledge of best practices regarding student instruction and evaluation. The lack of adequate clinical education and supervision can result in low performance and students failing to apply theory to practice. There is a lack of data studying these issues which might shed light on the perceptions of clinical tutors' transition. These factors generated the researcher's interest in formally investigating the perceptions of radiography clinical tutors on the transition from being a radiographer to a clinical educator in the eThekwini district of KwaZulu-Natal.

Aim: The study aimed to explore the perceptions of radiography clinical tutors on the transition from being a radiographer to an educator in public hospitals. Ultimately, the study aimed to recommend measures to be put in place to allow for the effective transitioning of radiographers to being clinical educators at public hospitals.

Methodology: A non-probability sampling method using purposive sampling was used to select five hospitals within the eThekwini District. From these hospitals, a minimum of seven diagnostic radiography clinical tutors were selected and interviewed. A qualitative methodology design was employed in this study, in which semi-structured and in-depth interviews using open-ended questions were used to collect data from participants. Covid-19 rules and protocols were followed. Four main themes generated from the study's theoretical framework were used for data analysis.

Findings: Thematic analysis of the transcribed interviews revealed four main themes, namely: situation, social support factor, strategy, and self-factor. The findings of the

study indicated that the majority of participants have had major challenges in the transition process, which has led to negative experiences and only a few had a positive experience. Research participants further revealed that they are experiencing high workloads due to a shortage of staff, which was one of the major barriers that also affected students' learning and participants' effective transition. Research participants suggested that the appointed clinical tutor must undergo training before starting their job, whereby the job description will be clearly stated, including the required skills. Lastly, participants postulated that clinical tutors and teaching institutes must create a forum for clinical tutors where they will engage with the university to discuss the issues and challenges of students during clinical training and assist each other with teaching skills.

Conclusion: Clinical tutors who participated indicated that they are facing challenges in transitioning from being a radiographer. These challenges affected their abilities to supervise students, which in turn affected the clinical learning progress of students. This, therefore, calls for an extensive intervention of both the learning institution, the hospital management, and other relevant stakeholders to best figure out how these challenges can be tackled. This will allow for a smooth transition and improve students' supervision and ability to learn at the clinical venues.

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LIST OF ABBREVIATIONS

KZN	: Kwazulu-Natal
CI	: Clinical Instructor
UK	: United Kingdom
US	: United States
DUT	: Durban University of Technology
IREC	: Institutional Research Committee
SA	: South Africa
BHSC	: Bachelor of Health Sciences
PHD	: Doctor of Philosophy
ND	: National Diploma
AD	: Assistant Director
HOD	: Head of Department
MOU	: Memorandum of Understanding
HPCSA	: Health Professions Council of South Africa
CEO	: Chief Executive Officer
DD	: Deputy Director
ADH	: Addington Hospital
KED	: King Edward VII Hospital
RKKH	: RK Khan Hospital
PMMH	: Prince Mshiyeni Memorial Hospital
IALCH	: Inkosi Albert Luthuli Central Hospital

APPENDICES

Appendix 1a: DUT provisional approval from IREC

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GLOSSARY OF TERMS

A clinical tutor: is someone responsible for providing effective instruction and assessment during training (Chapman 2013: 6). In this study, the term clinical tutor was used to describe qualified diagnostic radiographers that are responsible for student learning.

Radiographer: For this study, the term radiographer was used to describe any person employed for medical imaging purposes such as a diagnostic radiographer

Transition: is the process of changing or a change from one form or condition to another (Elliott 1987: 9).In this study, the term transition was used to describe the change from being a radiographer to being a clinical tutor

Workload: the work done by an employee in any organization (Oxford Dictionary 2010: 937).

Job knowledge: is the understanding of a set of responsibilities specific to a job, as well as the ongoing capacity to stay abreast of changes in job functions. In this study, the term job knowledge was used to describe radiography clinical tutors' job knowledge

Mentor: is the main person one relies on to give one advice and guidance, especially in one's career (Alzahrani 2014: 15).

Supervisor: Someone who oversees and provides direction for someone or something Bucknell 2006: 41). In this study, the term supervisor was used to describe clinical tutors that oversee the students.

Clinical education: It is an educational process that involves the translating of occupational therapy classroom knowledge into clinical knowledge, skills, and attitudes that are appropriate to individuals and groups of clients and service delivery in a variety of different practice settings (Cantatore , Crane, and Wilmoth. 2016: 5087).

Expert: is a person who is very skilled at doing something or who knows a lot about a particular subject. In this study, the term was used to describe clinical tutors (Bourne, Kole, and Healy. 2014: 186).

Competence: is the quality or state of having sufficient knowledge, judgment, skill, or strength for a particular duty (Hager and Gonczi 1996: 15).

Pedagogy: is the method and practice of teaching, especially as an academic subject or theoretical concept (Cuenca 2010: 15).

Clinical practice: A component of a clinical model of teacher education that engages teacher candidates in the pedagogical work of the profession of teaching, occurs in authentic educational settings, integrates closely with educator preparation coursework, and is supported by a formal school-university partnership (Franco, Arancibia, Meza, Madrid, and Kopitowski. 2020: 1).

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

One of the principal highlights of radiography, both as a science and as a calling is the reconciliation of theory and practice (Banning 2008: 187). Lee (2015: 9) revealed that a vital component of that education occurs in a clinical setting when allied health students complete an educational program. Fortsch (2007: 1) further states that the clinical component of education is important for students practicing careers as health care providers. In addition, Fortsch (2007: 1) mentioned that clinical education gives an integrated experience for students to apply, develop, and extend their knowledge and skills from their classroom and laboratory experiences.

Clinical readiness is a critical part of radiology education and occurs in an unpredictable social setting of the clinical condition (Banning 2008: 189). The clinical experience prepares understudy radiographers to be equipped for knowing and doing the clinical standards, practically speaking (Banning 2008: 190). In addition, clinical practices animate understudies to develop their basic reasoning aptitude in critical thinking, according to Banning (2008: 190). In the clinical setting, understudies makes clinical and demonstrative thinking, as well as figure out how to settle on the proper clinical choices that they require as qualified human services experts (Banning 2008: 190). This is accomplished through guidance and direction by instructors, tutors, and clinical staff.

In addition, Lee (2015: 9) states that clinical tutors display competence in the practice of their skills, but that competence does not automatically transfer to the area of clinical instruction. Giordano (2004: 471) further states that a unique aspect of teaching radiologic sciences is the need to be didactically and clinically proficient. McLeod *et al*. (2009: 117) described clinical instructors as having practical knowledge of teaching but few understand the fundamental principles, theories, and concepts of the teaching and learning process.

Giordano (2008: 289) described how, often, clinical instructors mold their teaching style and activities after their experiences as students because most clinical instructors obtain little formal preparation for effective instruction which could explain why Giordano and Harris (2012: 218) found variations existing in clinical instructors' effectiveness from facility to facility. McLeod, Steinert, Chalk, Cruess, Cruess, Meterissian, Razack, and Snell. (2009: 117) indicated that clinical instructors believe that gaining an understanding of pedagogical principles would enhance instructional effectiveness.

Fortsch (2007: 227) recommended future research using a qualitative study of radiographers and clinical tutors' educational preparation and professional experience related to instructing radiography students in the clinical setting. "Do they have the necessary skills and knowledge to facilitate student supervision, instruction, and evaluation while balancing patient care and negotiating interpersonal relationships?" Fortsch (2007: 227). A similar study was done by Lee in 2015 in the United States of America. However, no study has been done in the province regarding radiography clinical tutors' perceptions of the transition from being a radiographer to an educator. The current study will bridge this gap.

1.2 THE PROBLEM STATEMENT

According to Hababeh and Lalithabai (2020: 285), clinical education and experience in the clinical environment play an vital role in shaping the clinical experience. Hababeh and Lalithabai (2020: 285) further state that effective clinical teaching improves the radiography students' clinical practice, which in turn improves the quality of patient care. In addition, Woolley *et al*. (2019: 1428) mention that the goal of clinical practice is to produce competent, work-ready professionals who require little to no training in the working environment after graduating. The order of the clinical tutors with desired qualities is to have a positive influence on clinical education (Woolley, Clithero-Eridon, Elsanousi, and Othman. 2019: 1428).

Furthermore, Radiographers who transition into the role of clinical tutors are usually expert practitioners but may lack knowledge of the best practices regarding student

instruction and evaluation (Lee 2015: 11). Furthermore, Gemuhay, Kalolo, Mirisho, Chipwaza and Nyangena (2019: 2) state that the lack of adequate clinical education and supervision can result in low performance and students failing to apply theory to practice. There is a lack of data studying these issues which might shed light on the perceptions of clinical tutors' transition. These factors generated interest in formally investigating the perceptions of Radiography clinical tutors on the transition from being a Radiographeres to being a clinical educator in the eThekwini district of KwaZulu-Natal.

1.3 AIM OF THE STUDY

- The study aims to explore radiography clinical tutors' perceptions of the transition from being a radiographer to being a clinical educator in public hospitals. Ultimately recommend measures to be put in place to allow for effective transitioning of radiographers to being clinical educators at public hospitals.

1.4 OBJECTIVES OF THE STUDY

- To describe the radiographers' experiences in transition from radiographer to being a clinical educator.

1.5 RESEARCH QUESTIONS

1.5.1. Main research question:

What are radiography clinical tutors' experiences in their transition from being a radiographer to being a clinical tutor?

1.5.2. Sub-questions:

- What will facilitate the effective transition of radiography clinical tutors in a public hospital?
- What are the barriers to the effective transition from being a radiographer to being a clinical tutor in public hospitals?
- What can be recommended to DUT/ DOH in order to improve the effective transition from radiographers to clinical tutors' in public hospitals?

1.6 SIGNIFICANCE OF THE STUDY

This research project came at an important time for the Higher Education sector. The value of this study is that it identified strengths and weaknesses in the current clinical practice components of radiography programmes in SA. Alahmadi (2015: 4) states that clinical instruction is essential in providing students with the opportunity to apply their knowledge, skills, and clinical concepts through theoretical clinical lectures on the practical rendition of physical care to patients, according to how clinical education is applied. In addition, Alahmadi (2015: 4) mentions that clinical tutors may either positively or negatively impact the performance of students during clinical practice. Moreover, the behavioural characteristics of a clinical instructor are an important part of the students' learning performance and success at clinical practice.

The significance of the study is that it would ensure the improvement of orientation and training programs for clinical tutors, thereby better preparing new clinical tutors in the areas of student instruction and evaluation. The study is important to ensure that radiography students receive the best quality of learning in the clinical setting, and it will also highlight areas in which clinical tutors can increase critical thinking skills in radiography students.

1.7. STRUCTURE OF THE DISSERTATION

Table 1.1. This report is structured in the following format.

Chapter One	Introduction and background.	Provides the background and the significance of the study.
Chapter Two	Literature Review	Discusses the literature of the study
Chapter Three	Theoretical framework	Describe the theoretical and conceptual framework for the study.

Chapter Four	Research Methodology	Outlines the research design, as well as describes the research methodology, data collection methods, and data analysis.
Chapters Five	Results	Presents the findings of the study
Chapters Six	Discussion	Discusses the findings of the study
Chapter Seven	Conclusion	Provides the conclusion, recommendations, limitations, and summary of the study.

1.8 SUMMARY OF THE CHAPTER

This chapter presented the background to the study, which discussed clinical tutors' educational preparation and professional experience related to instructing radiography students in the clinical setting. The problem statement showed that there are challenges for radiographers who transition into the role of clinical tutors because some may lack knowledge of best practices regarding student instruction and evaluation. The main purpose of the study is to recommend measures to be put in place to allow for the effective transitioning of radiographers to being clinical educators at public hospitals. The rationale behind the study was also included to emphasize the necessity of the research. Emphasis was placed on areas of interest which include study questions, context, and the upcoming chapters' breakdown. The next chapter is a literature review showing the gaps in the transition of Radiography clinical tutors from being a Radiographer to being a clinical educator in public hospitals.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The literature review is a process whereby a researcher evaluates the existing knowledge on the topic under study in order to provide the overall context and identify gaps for further study in the knowledge area (Polit and Beck 2010: 95). The chapter assesses the literature in order to show the research on the transition of radiography clinical tutors' from being a radiographer to being a clinical educator.

The following keywords were used in the primary search strategy:

Perception of clinical tutors, clinical instructors/supervisors in radiography, transition of clinical coordinators, clinical education.

The following subheadings were used in compiling the literature review.

- History of Radiography
- Definition of clinical tutors and their role
- The unique nature of clinical education in Radiography
- Transition into the new role
- Preparation of transition
- Summary of the chapter

2.2 HISTORY OF RADIOGRAPHY

Early X-ray examinations were performed by an amateur photographer and a medical doctor following Roentgen's discovery (Bensusan 1967, cited in Dludla 2015: 8). The first formal radiography training was introduced in 1910 in the UK, and it was hospital-based and purely practical with no theory (Bentley 2005: 45, Decker 2009: 72, Price 2001: 105; Reeves 2009: e1). This was followed in 1917 by hospital-certified qualifications that covered both theory and practical skills. In order, to balance theory and practice, hospital-based education moved to institutions of Higher Education in the late 1980s to early 1990s. This move resulted in progression from six months of skills training to the introduction of diplomas followed by the implementation of professional degrees in 1993.

The first qualified Radiographer was trained in the United Kingdom in 1933. She pioneered Radiography education in SA with an intake of four students that increased to 46 students by 1938. As a result, the UK and SA share a similar curriculum (Dludla 2015: 9). However, the growing student numbers resulted in more clinical centres being introduced and it became challenging for the lecturers to be visible in all of these additional centres. Hence, Clinical coordinators, who were responsible for the students' clinical education, were introduced. Moreover, Radiography education involves the placement of students in hospitals that have received prior approval by the training institution as having sufficient clinical staff, training facilities, and an environment conducive to learning (Dludla 2015: 8). As the demand for Radiographers grew, schools of radiography were introduced in various South African provinces at different time intervals. The profession has grown over the past years. As a result, there are now more than eight universities offering Radiography in South Africa.

In addition, Radiography education is now offering a Bachelor's degree. The first degree offered in KZN was the Bachelor of Technology which was introduced in 1996 replacing the higher diploma. The introduction of professional degrees in SA has been very slow as compared to the UK. In KZN, the professional degrees were implemented in 2016, whereas they have been in place in other provinces since 2014. This part of the study aims to improve clinical education by making clinical tutors understand where this education is coming from and what is expected from them as they accept the position of being a clinical tutor.

2.3 DEFINITION OF CLINICAL TUTORS AND THEIR ROLE.

de Caestecker (2002: 639) reveals that the clinical tutor function was established in the mid-1960s at the same time as government funding for postgraduate education was approved. Chapman (2013: 6) defines clinical tutors as people accountable for providing effective instruction and assessment during clinical practice training of undergraduate radiography students in the hospital. Chapman (2013: 6) further states that clinical tutors identify the strength and weaknesses of students while providing a nurturing atmosphere

of experiential training where students can grow intellectually as well as professionally. In this study, clinical tutors will understand their purpose and what is required from them as well as how are they different from being ordinary radiographers.

According to Campos (2013: 3), clinical tutors are essential to clinical education. Campos (2013: 3) further states that clinical tutors are generally skillful practitioners who have the additional duties of educating students. JRCERT (2010: 68) adds that a clinical tutor should also be proficient in supervision, instruction, and evaluation. Moreover, a clinical tutor is knowledgeable about the program goals, understands the clinical objectives and clinical evaluation system, understands the sequencing of didactic instruction and clinical education, provides students with clinical instruction and supervision, evaluates students' clinical competence, maintains competency in the professional discipline and instructional and evaluative techniques through continuing professional development, and maintains a current knowledge of program policies, procedures, and student progress (JRCERT 2010: 44).

A study conducted by Knight (2018: 100) in the United States (US) indicated that clinical tutors are expected to effectively blend two occupations, namely clinical practitioner, and teacher, often within the same resource constraints and reward systems afforded to practitioners who do not have teaching responsibilities. Knight (2018: 100) adds that, most clinical tutors are typically well prepared to perform their clinical duties, but few are formally prepared to teach. Most clinical tutors are hired as staff radiographers because of their clinical expertise. Only a few individuals will have had formal training in teaching methodology, learning styles, or the effective evaluation of student learning and clinical performance (Knight 2018: 100). The fallacious underlying assumption inherent in the practice of hiring expert practitioners to be teachers is the belief that competent clinicians, because of their job expertise, should be able to effectively facilitate students' learning of the appropriate knowledge, attitudes, and skills needed to become competent clinicians themselves (Knight 2018: 100). O'Conner (2015: 37) states that clinical expertise alone is not a satisfactory criterion for becoming a clinical teacher.

According to O'Conner (2015: 38), effective clinical tutor skills include evaluation and teaching, amending to the clinical environment as a teacher, associating with the academic environment, and becoming a liaison between the academic institution and the clinical setting. In the United States of America, Ingrassia (2011: 410) reveals that clinical tutors' attributes have been widely done in numerous health care education fields like nursing, athletic training, physical therapy, respiratory care, medicine, and radiography. Nevertheless, determining high qualities, characteristics, behaviors, and actions that influence the clinical success of the students are encouraged. The majority of the effective characteristics involve effective interpersonal relationships, professional competence, teaching ability, and evaluation skills.

2.3.1 THE ROLE OF THE CLINICAL INSTRUCTOR

The transition into the clinical educator role involves new skills development. The role of the clinical instructors involved in clinical education must be well defined with the added support of a formalized system (Vogl 2018: 8). The study by Campos (2013: 4) which supports the above statement, states that clinical tutors need to be aware of the role they play in the futures of students they work with as today 's students will eventually become staff that will train future students. Abay*,* Turan, Odabaşı and Elçin *(*2017: 1) define a clinical tutors' role as to creating a positive learning environment for all students in the session, motivating students to perform skills, and assist students in their understanding of the principles of the skills. Abay *et al.* (2017: 1) further state that the role of the clinical tutor is to ask students to reflect on their performance, give feedback, and encourage students to practice independently as well as to monitor and assess the achievement of students' competencies before allowing them to work in the real environment. Additionally, O'Conner (2015: 41) shares similar information that was stated by Abay *et al.* (2017: 1), that, a clinical tutor is expected to maintain a positive image of the program and follow program policies and procedures.

In an investigation directed by Vogl (2018: 12) on the clinical instructor's experiences of clinical education at a chiropractic clinic teaching. The study mentions that effective

clinical instructors can improve the educational experience of the student while ineffective clinical instructors can inhibit learning, consequently taking away from the clinical experience. The findings of O'Conner (2015: 38) explained in detail the effective clinical skills needed in the clinical tutor by mentioning that effective clinical tutor skills include evaluation and teaching, adapting to the clinical environment as a teacher, associating with the academic environment, and becoming a liaison between the academic institution and the clinical setting.

A study by Ingrassia (2011: 410) reveals that clinical tutors' attributes have been widely studied in numerous health care education fields like nursing, athletic training, physical therapy, respiratory care, medicine, and radiography. Vogl (2018: 12) further states that a competent clinical instructor helps students identify, and deal with, any negative emotions in order, to prevent any learning inhibition and should rather enhance the effect of positive emotions on learning. Ingrassia (2011: 410) supports the previous statement but he further mentions that determining high qualities, characteristics, behaviors, and actions that influence the clinical success of the students are encouraged. The majority of the effective characteristics involve effective interpersonal relationships, professional competence, teaching ability, and evaluation skills. This study intends to improve the transition of clinical tutors by broadly discussing the good qualities of clinical tutors and their role in clinical education.

2.4 THE UNIQUE NATURE OF CLINICAL EDUCATION IN RADIOGRAPHY

Knight (2016: 2) reveals that educational programs in the medical and health professions have a significant experiential component where students are allowed to apply the principles and concepts, they have learned in the classroom to real-world situations that occur in an authentic clinical setting. According to Knight (2018: 99), the clinical environment is different from the traditional classroom in several significant ways. Addition, Campos (2013: 4) defines the clinical setting as a unique learning environment in which students enter to learn to become skilled in a profession. In addition, Knight (2016: 5) mentions that clinical sites are often chosen based on factors such as the

convenience of the clinic's physical location or its administration's willingness to take students rather than on the quality of the teaching opportunities available or the instructional expertise of their clinical staff.

Campos (2013: 4) further states that clinical education is unlike the academic setting, in which classroom educators are trained in educational pedagogy, as in the clinical setting, professionals with little or no training in educational methods are given the responsibility of student instruction. Knight (2018: 99), adds that the setting is primarily designed to deliver patient care, and as such, is one characterized by variability, unpredictability, and a lack of continuity and consistency. Campos (2013: 4) supports the previous statement by Knight (2018: 99), but further states that there are two aspects of clinical education that make it a unique learning environment. The first aspect is that clinical education utilizes the apprenticeship model, in which students learn by working alongside experienced professionals. The second aspect is that clinical education takes place in the actual workplace (Campos 2013: 4).

Alahmadi (2015: 7) posits that clinical education's main goal is to develop professional skills and knowledge amongst the students. Similarly, Fortsch (2007: 1) supports the previous statement but further states that, the main purpose of clinical education is to prepare practitioners who can deliver excellent skills and care vital to the health and safety of persons in their care and society. Ingressia (2011: 409) summarizes this by mentioning that the primary goal of clinical education is to integrate educational theory and clinical practice to create programs that effectively prepare students for entry into the professional workforce by providing them with the necessary psychomotor skills, attitudes, and cognitive abilities needed to perform competently. O'Conner (2015: 2) agrees with Ingressia (2011: 409) that, theory becomes reality as students begin to make connections between the generic 'usual' case presented in the classroom and the specific 'actual' case with which they are involved.

Furthermore, Hababeh and Lalithabai (2020: 286) state that effective clinical teaching improves the clinical practice of nursing trainees which in turn improves the quality of patient care. Alahmadi (2015: 7) stipulated that clinical education requires a lifelong pursuit to learn and hone critical thinking, as well as increase self-confidence and

independent decision-making in the students' chosen field (Alahmadi 2015: 7). Fortsch (2007: 1) adds that clinical education provides opportunities for student learning at a hospital, clinic, or physician's office. Clinical education provides students with supervision, instruction, and evaluation by professionals in the field as students observe, participate, and apply skills and knowledge. It mandates for the clinical instructor with the desired qualities to have a positive influence on clinical education (Hababeh and Lalithabai 2020: 286). Learning in the clinical environment depends on access and opportunity for experiences (Fortsch 2007: 1).

Fortsch (2007: 227) recommended future research using a qualitative study of Radiographers and clinical tutors' educational preparation and professional experience related to instructing radiography students in the clinical setting. "Do they have the necessary skills and knowledge to facilitate student supervision, instruction, and evaluation while balancing patient care and negotiating interpersonal relationships?" (Fortsch 2007: 227). A similar study was conducted by Lee in 2015 in the United States of America. Lee (2015) revealed the limitations of the study in that the participants of the study were a sample of convenience and it only represented clinical instruction in one community college radiography program in the southeast. In addition, the results of the study were not transferrable to other geographic regions. These limitations generated interest in conducting a similar study in the eThekwini district of KwaZulu-Natal. According to the literature reviewed, no study has been done in the province about radiography clinical tutors' perceptions of the transition from being a Radiographer to being a clinical educator. The current study will address this gap.

2.5. TRANSITIONING INTO THE NEW ROLE

2.5.1. Preparations

A study conducted by Shajani (2020: 59) on the lived experiences of expert nurse clinicians' role transition process into academia as a novice nurse educator state that, education preparation and the practical clinical application of knowledge and skills are

critical in nursing education. Natesan, Bailitz, King, Krzyzaniak, Kennedy, Kim, Byyny, Gottlieb. (2020: 985) agree with Shajani (2020: 59) by stating that preparation is the key to success in clinical teaching. Furthermore, the preparation of radiography clinical tutors helps students understand what they can anticipate in the clinical setting. This includes orienting the learner to the plan for clinical teaching. Natesan *et al.* (2020: 985) add that, preparing for didactic teaching, developing teaching scripts, and review physical examination skills before a shift can help alleviate instructor uncertainty and improve instructor confidence.

Furthermore. Thompson and Taylor (2020: 199) mention that, within clinical settings, effective teaching and supervision are essential for radiography students. In addition, to managing daily workloads, radiographers play an important role as teachers as they guide and support students through authentic learning experiences (Thompson and Taylor 2020: 199). Shajani (2020: 59) reveals that expert nurse clinicians transitioning into their educator role can play a critical role in developing the knowledge and skills required for entry to practice competencies for registered nurses as well as shaping their professional identities. Since the early 1990s, the inadequate preparation of clinical staff for their teaching role has been highlighted. In addition, confidence in one's teaching ability is a key driver to engaging and contributing to students' learning experiences (Thompson and Taylor 2020: 199). Moreover, Thompson and Taylor (2020: 199) agree with the statement by Hart (2009: 11) that, with little preparation, and limited confidence in a supervisory role, it is understandable that Radiographers may be reluctant to take on students, yet supervision is a crucial part of a student's learning experience. As the literature indicates that most clinical tutors receive inadequate preparation, this study aims to address how clinical tutors' deal with the transitioning process of moving into the situation.

2.5.2. Experiences and challenges

Each healthcare professional who transitions into education will have experiences and challenges as they acclimate to their new role (Lee 2015: 20). In a seminal study conducted by Spencer, the challenges of clinical teaching in medicine were identified as

time pressures; competing demands; its frequent opportunistic nature (making planning more difficult); increasing numbers of students; fewer patients (due to shorter hospital stays); under-resourcing; the clinical environment not being 'teaching friendly'; and poor recognition and rewards for teachers (Thompson and Taylor 2020: 199).

Harvey (2020: 18) agrees with the previous statement but further states that, in nursing challenges to the role transition for novice faculty have been identified to include a lack of formal education in pedagogical skills; unrealistic expectations; poor orientation procedures; a lack of mentoring; and ambiguity of role responsibilities. Lee (2015: 21) citing Bailey (2012: 1) mentions that nurses listed insufficient orientation, absence of mentorship, and difficulty harmonizing time in clinical and teaching duties as contributing to their lack of preparation. The findings of Mabuda, Potgieter, Alberts. (2008: 20), emphasize that the lack of staff and equipment negatively affects favourable clinical learning environments. Kyei, Antwi, Bamfo-Quaicoe and Offei (2015: 38) share similar views, in that there are financial constraints on health care, high numbers of patients; a lack of staff and equipment, and a worsening situation, wherein clinical tutors are frustrated and depressed by the lack of resources and insufficient time to effectively attend to students' needs. Kyei *et al.* (2015: 39) states that clinical training dwells primarily on the availability of resources to make it more efficient and beneficial to the students. Jamshidi, Molazem, Sharif, Torabizadeh, Najafi and Kalyani (2016: 2) reveals that inadequate resources meant only that a few students would benefit from clinical training because the number of students in a special examination room will far outnumber the equipment available. This implies that students will spend less time on the equipment, and this can adversely affect the quality of clinical training they are receive.

A similar study by Sousa and Resha (2019: 222) revealed that most novice nursing instructors reported having little to no formal orientation before their first clinical assignment. Novice nurse faculty members want and need a structured formal orientation program to help facilitate the transition to their new role (Sousa and Resha. 2019: 222). A lack of orientation was cited throughout the literature as one of the major challenges to role transition. Chapman (2013: 57) suggests strategies that can prepare clinical tutors' transition, including talking to other educators, reading, researching, asking questions,

taking notes, attending meetings, being flexible, engaging with the students, staying organized, and continuing to learn. Chapman (2013: 57) further states that clinical tutors themselves experience their learning curves. The question is therefore: Do institutions prepare clinical tutors for the transition?

2.6 PREPARATION FOR THE TRANSITION

A study by O'Conner (2015: 38) stated that an effective clinical tutors must have certain skills, which include evaluation and teaching; amending to the clinical environment as a teacher; associating with the academic environment; and becoming a liaison between the academic institution and the clinical setting. This part of the study will broadly discuss all the effective clinical tutor skills in order, to understand how they prepare for their transition.

2.6.1 Orientation and Training

According to Lee (2015: 26), the new clinical instructor needs orientation or training for their transition from clinical practitioner to clinical instructor. A study by Hewitt and Lewallen (2010: 407) on how to transform the clinical nurse expert into the part-time clinical nurse instructor agrees with Lee (2015: 26) but further states that, new clinical instructors should have an orientation to the school of nursing as well as a clearly stated job description. Orientation is also a good time to discuss the role conflict that may occur during the transition from clinical expert to clinical instructor (Hewitt and Lewallen 2010: 407). Mallek, and El-Hosany. (2020: 379) define training as an organized method of ensuring that clinical instructors know, skills for a specific purpose, and, that they acquired the necessary knowledge and competencies to perform the duties of the job. Bailey (2012: 121) states that formal education and professional training are necessary to have a smooth flow of transition from practitioner to educator, as the different roles are stressful for new clinical instructors. Davidson and Rourke (2012: 6) states that curriculum content and objectives orientation to the curriculum is identified as a key learning need for clinical instructor orientation. Davidson and Rourke (2012: 6) add that the orientation for clinical instructors should include information about the correlation of clinical experience with the theory component of concurrent courses. Hewitt and Lewallen (2010: 407) agree with

Davidson and Rourke (2012: 6), but mention that orientation shapes the curriculum programs and expected outcomes. This study intends to improve the orientation and training programs for clinical tutors, thereby better preparing clinical tutors in the areas of student instruction and evaluation as well as ensuring that Radiography students receive the best quality of learning in the clinical setting.

2.6.2 Mentorship

A study conducted by Alzahrani (2014: 15) states that mentorship is one of the crucial roles in the clinical setting. One cannot define mentoring in one line or one definition because; it is a wide term that includes coaching, teaching, and analyzing the work of the person who is under mentorship (Ali and Panther 2008: 35). Alzahrani (2014: 15) reveals that mentorship is a kind of relationship between two people where one person is experienced and knowledgeable and the other person is learning. Mentorship will make the transition easier because it will create a positive clinical tutor-student relationship and provide students with educational and emotional support thus enhancing students' clinical education experience.

The experienced person helps the learner to understand his role and the responsibilities associated with it. In mentorship, the purpose is made clear and then the procedure is designed to achieve it in both formal and informal ways (Alzahrani 2014: 15). The findings of Shajani (2020: 60) suggest that mentorship can impact the transition and socialization into a new role. McDonald (2010) supports the previous statement but further states that, continuous mentoring is also necessary to support new instructors as they transition into education. Similarly, Lee (2015: 27), states that workshops and constant mentorship could groom beginning clinical teachers for their new responsibilities with students. A study conducted by McDermid, Peters, Daly, and Jackson. (2016: 5) on the developing resilience and stories from novice nurse academics reveals that mentoring experiences can help novice educators build confidence and facilitate the development of the novice educator role.

A study by Shajani (2020: 61) on the lived experiences of expert nurse clinicians' role transition process into academia as novice nurse educators states that, novice nurse educators experience emotional exhaustion due to insufficient support. Fong (2016: 108) agrees with Shajani (2020: 61) regarding the above statement but further mentions that the lack of support can lead to attrition. Bailey's (2012: 120) study reveals that support and mentoring prepare the clinical instructor for the roles and responsibilities of teaching. A supported mentorship includes creating and maintaining an open relationship; adapting the experience to the student; facilitating clinical reasoning; making time for the student; and environmental support which will be beneficial for any clinical instructor (Kelly 2007: 68). In addition, Shajani (2020: 61) mentions that it is the responsibility of each faculty member and administrator to restructure the workload, strengthen professional ties, and create personal situations conducive to improved performance and satisfaction. Mentor relationships would not only assist new clinical instructors with the transition, but it will create a bond in which the mentors can support the clinical instructors as they continue to evolve as instructors.

2.6.3 Teaching Style

A study conducted by Thompson and Taylor (2020: 203) states that for most Radiography clinical tutors there is a lack of support for teachings, such as attending workshops related to supervision and teaching. In the absence of such support, clinical tutors are supposed to teach by using their experience of being a learner; trial; and error; and by observing the teaching practice of others (Thompson and Taylor 2020: 203). Clinical tutors develop a teaching style that is based on practice wisdom, their experience and comfort level, as well as their training. These individual teaching styles may or may not include a skill repertoire that lends itself to dealing with challenging teacher-student relationships (Lee 2015: 26). Furthermore, Hababeh and Lalithabai (2020: 287) postulate that clinical instructors must possess effective characteristics to promote clinical teaching, as learners consider their teachers to be the best role models of learning. Lee (2015: 26) revealed that effective practitioners are continually growing and acquiring new skills to best meet the needs of their client population. The same holds for effective clinical instructors:

openness to new styles of teaching to best meet the needs of students is critical for encouraging effective knowledge transmission and establishing an open learning environment.

2.6.4 Assessments

Yambi (2018: 1) defines assessment as a series of measures used to determine a complex attribute of an individual or group of individuals. Tosuncuoglu (2018: 163) supports the previous statement, but further states that, assessment is a crucial part of teaching, by this means, educators can determine the level of skills or knowledge of their students. Moreover, assessment helps clinical tutors evaluate the strengths and weaknesses of their students and motivates them. Jenny, Megan and Megan. (2017: 1) mention that, the assessment provides opportunities for feedback to students on current performance and enables the development of specific strategies to improve performance and achieve learning outcomes. This procedure allows clinical tutors the opportunity to evaluate learning, and then use that information to improve student knowledge.

2.6.5 Evaluation and Feedback

According to a study conducted by Hewitt and Lewallen (2010: 410), evaluation is another area that may challenge clinical instructors in the clinical evaluation process. Lewallen (2010: 410) adds that the evaluation of students' clinical performance can be both complex and emotionally charged. Hsu, Hsieh, Chiu and Chen (2014: 219) state that, clinical instructors must evaluate the students throughout the clinical experience then provide feedback to the students. In addition, evaluating students in the clinical setting is an indispensable portion of the overall learning progression as those evaluations provide the students with objective updates on their progression (Hsu *et al.* 2014: 219).

According to Hewitt and Lewallen (2010: 410), clinical instructors are expected to meet one-on-one with students for evaluation purposes, which requires more time. Some of the clinical instructors may not have any experience in giving evaluative feedback, especially in situations that are often graded as "pass" or "fail." Lee (2015: 25) avers that for

evaluations to be suitable and effective, the clinical instructor must set aside any personal feelings and perceptions of the students in order, to evaluate the students objectively. Suitable means for evaluating students' clinical abilities are critical in affirming entry-level employment capability. Hewitt and Lewallen (2010: 410) proposed that clinical tutors must be given a detailed review of students' clinical objectives, the clinical evaluation form, possible midterm evaluations, and final clinical evaluations.

A study by Plakht, Shiyovich, Nusbaum and Raizer (2013: 1264) reveals that in providing the evaluation results to students, feedback from the evaluator to the student is critical in the learning process, as the students can use this feedback from the evaluations to understand areas in which they need to improve, as well as to master skills performance. According to Thompson and Taylor (2020: 204) in their discussion on finding ways to support Radiographers as teachers. Radiography clinical tutors acknowledge that feedback interactions are an essential part of their teacher role, yet this is also seen as a challenge to teaching. Thompson and Taylor (2020: 204) further states that feedback is central to learning and can have a powerful influence on learning, but its impact is dependent on the type of feedback given and the way it is delivered. Burgess and Mellis (2015: 374) add that feedback is formative, and an integral part of the learning process. It ensures that students remain on target to reach their goals.

Plakht *et al.* (2013: 1264) agree with Thompson and Taylor (2020: 204), but also state that a positive and constructive use of feedback contributes greatly to clinical instruction and improves students' performance of skills. The findings of Wright (2012: 723) emphasized that feedback is often required by the students as a way of measuring their improvements and gaining insights into which areas they still needed to work on. Lee (2015: 25) agrees with Wright (2012: 723) and Plakht *et al.* (2013: 1264) but adds that feedback in the clinical area can be described as data about the comparison between the student's actual performance and a predetermined performance standard, which is presented to the student to advance the student's abilities. Lee (2015: 25) further states that, as students are effectively evaluated, and understand the feedback provided, their habits change, and knowledge develops into action.

2.7 SUMMARY OF THE CHAPTER

This chapter provided a discussion on the literature relevant to the study. The literature review included an overview of the history of Radiography, then it broadly discussed the experiences and perceptions of Radiography clinical tutors on the transition from being a Radiographer to being a clinical educator. The next chapter discusses the theoretical framework that will be used in this study

CHAPTER 3: THEORETICAL FRAMEWORK

3.1 INTRODUCTION

Osanloo and Grant (2016: 13) describe the theoretical framework as the ‘blueprint’ or guide for research. Adom, Hussein and Agyem (2018: 438) define the theoretical framework as it is a framework based on an existing theory in a field of inquiry that is related to and reflects the hypothesis of a study. The chapter assesses the theoretical framework that will be used in this study to explore the perceptions of Radiography clinical tutors on the transition from being a Radiographers to being a clinical educator in public hospitals. Ultimately, the research recommends measures to be put in place to allow for the effective transitioning of Radiographers to being clinical educators at public hospitals.

3.2 SCHLOSSBERG’S TRANSITION THEORY

The theoretical framework used in the study is derived from Schlossberg's Transition Theory. Schlossberg (1981: 2) defined a transition as any event or non-event that results in changed relationships, routines, assumptions, and roles. Furthermore, the transition framework assesses where the individuals are in the learning experience and what their resources are to cope with it (Gamez 2017: 7). Schlossberg (1981: 2) further states that there is a model or mechanism for analyzing human adaptation to transition. According to Schlossberg (1981: 2) adaptation is based on three sets of variables: the individual's perception of the transition; the characteristics of the pre-transition and post-transition environments; and the characteristics of the individual experiencing the transition. In addition, Lindstrom (2019: 40), posits that, the characteristics of the person and the environment could include perceptions seen as an asset, a liability, a combination of both, or a liability in how an individual negotiates a specific transition. Schlossberg’s book “Overwhelmed (2008) identified the transition process as having three parts, namely:

- Approaching transitions: transition identification and transition process.

- ❖ Taking stock of coping resources, which encompasses the 4S system (situation, self, support, and strategies) and
- ❖ Taking charge: strengthening resources.

The transition process identifies where the individual is within the transition, and an individual's reaction can change over time, depending on where they are with the transition: moving in, moving through, or moving out (Goodman, Schlossberg, and Anderson 2006: 49). Gamez (2017: 7) mentions that the first stage in any transition can be considered as either moving in or moving out. As individuals move into a new situation, such as a new educational environment, they need to become familiar with the rules, regulations, norms and expectations of the new system (Gamez 2017: 7). Once one learns the ropes of balancing their new activities with other parts of their lives, they have transitioned into moving through the period (Gamez 2017: 7). Moreover, Gamez (2017: 7) adds that when an individual heads into the moving out phase, these experiences can be seen as endings, and individuals begin to ask what comes next?"

3.3 FACTORS INFLUENCING THE TRANSITION

This theory outlines the factors that influence a clinical tutor's ability to cope with the transition. The factors that have been identified are situation, self, support and strategies (Schlossberg 1981: 2). The transition of clinical tutors from being a Radiographer to clinical educators can result from different factors.

3.3.1 Situation

Lindstrom (2019: 43) states that in order, to understand the first factor, which is the situation, the individual needs to look at various aspects of the transition. The situation can be broken down into six factors, namely:

- ❖ The trigger for the transitions or what caused the transition
- ❖ Timing, whether the transition is taking place during a good or bad time.
- ❖ Control, to understand the response, one needs to examine which parts of the transition the individual perceives as being within their control:

- Role change: whether there is a role change, how the change is viewed, the duration of the transition, and whether it is interim or uncertain vs. permanent.
- Previous experience with a similar transition; and
- Assessment looks at who the individual sees as responsible for the transition and how their behavior is affected by this belief, as well as concurrent stress.

According to Vogl (2018: 8) in the previous chapter, he stated that transition into the clinical educator role involves new skill development. Abay, Turan, Odabaşı and Elçin. (2017: 1) added that a clinical tutor's role is to create a positive learning environment for all students in the session, motivate students to perform skills; and assist students in their understanding of the principles of the skills. These statements support most of the factors that were stated by Lindstrom (2019: 43) when he broadly discussed the factors that one needs to be aware of as one transitions to a new role. This factor in the current study will be looking at how effectively clinical tutors handled the transition and how their role has changed as they transition.

3.3.2 Self-factors

This factor is considered important concerning the self, and it is classified into two categories. Personal and demographic characteristics affect how an individual views life, such as socioeconomic status, gender, age, stage of life, state of health, and ethnicity. Psychological resources include ego development, outlook, commitment, and values.

3.3.3 Social support factors

Social support factors include intimate relationships, family units, and networks of friends, institutions, and communities. Support systems serve to organize and operationalize an individual's resources, which may include having people in one's life willing to share tasks, provide needed supplies or skills, or provide guidance on ways to cope with the transition (Schlossberg 2008: 2). Schlossberg (2008: 2) explained the following functions of support. The first is affection, which is delivered in an expression that someone respects, likes, or loves you. The second is affirmation, which is an expression that confirms that what one has done is understandable or desirable. The last function of support is to provide assistance or aid, which means that others will support one to help move through

a crisis or transition. This factor and theory support the statement by Kelly (2007: 68) when he revealed that the transition will be easier for the clinical tutors if they were provided with supported mentorship, which includes creating and maintaining an open relationship, adapting the experience to the student, facilitating clinical reasoning, making time for the student; and environmental support which will be beneficial for any clinical instructor. These aims check what support clinical tutors usually received as they transition to the new role

3.3.4 Strategies

A study conducted by Lindstrom (2019: 44) states that the last factor, which is the strategies factor is divided into three categories, namely:

- Modification of the situation.
- Controlling the meaning of the problem; and
- Managing the stress in the aftermath.

Schlossberg (2008: 78) identified the same three types of strategies, describing them as those that change the situation; those that change its meaning; and those that help one relax. However, she also added a fourth: knowing when to do nothing or take deliberate inaction. By looking at the strategic options that individuals have, one can better understand how they are likely to deal with transitions (Schlossberg 2008: 78). As stated by Harvey (2020: 18), in the clinical setting there is a lack of formal education in pedagogical skills; unrealistic expectations; poor orientation procedures; lack of mentoring, and ambiguity of role responsibilities. This study intends to understand how the clinical tutor copes with these situations and continues to provide the student with the best education.

3.4 SUMMARY OF THE CHAPTER

This chapter provided the theoretical framework that will be used in this study. The theoretical framework included an introduction of the chapter, then it broadly discussed

Schlossberg's Transition Theory in detail, that the transition is any event or non-event results in changed relationships, routines, assumptions, and roles. The transition process that relates to the theory includes approaching transitions, taking stock of coping resources, and taking charge, which is also discussed. Lastly, these theory shows that they are factors that influence a clinical tutor's ability to cope with the transition. Moreover, the factors were identified and broadly discussed. The next chapter describes the research design and methodology that will be used in this study.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

Research methodology refers to the techniques that researchers can use to obtain information relevant to the problem statement, or research question (Burns and Grove, 2010: 197). In addition, this helps to structure the research and analyze the relevant information. Jay (2007: 56) supported the statement by Burns and Grove (2010: 197) by further mentioning that the methodology is seen as the activity of the research. This chapter describes the research design which emphasized the Constructivism paradigm and qualitative research methodology employed in this study. In addition, the chapter describes the data collection methods used namely individual interviews, open-ended questions, and document analysis. Choices were based on the type of research and theories obtained from the literature. Ethical considerations and participant selection criteria are also discussed.

4.2 RESEARCH DESIGN

Research design is the planned structure and strategy of an investigation (Mateo 2013: 269) which involves methods that can be used such as data collection for analysis. The design is used to reduce bias in research (Burns and Grove, 2010: 197). A qualitative research method was employed as a method of inquiry employed in many different academic disciplines traditionally (Modisenyane 2014: 41). According to Ponterotto (2005: 128) qualitative research aims to gather an in-depth understanding of the phenomenon under study. It aims to investigate the why and how of decision-making, not what, where, and when.

A qualitative, exploratory, and descriptive study design was employed in the current study using an exploratory approach. The exploratory approach was used to focus on the lived experience of the research participants. Moreover, qualitative research refers to the meaning of concepts, definitions, characteristics, metaphors, symbols, and descriptions

of phenomena (Modisenyane 2014: 41). Furthermore, Foxcroft and Roodt (2005: 68) state that qualitative research is collecting, analyzing, and interpreting data by observing what people do and speak. According to Modisenyane (2014: 43), data is collected using open-ended questions and interviews. The qualitative research design was used for this study in order, to explore the perceptions of Radiography clinical tutors' transition from being Radiographers to being a clinical educator.

According to Rahi (2017: 1), a paradigm is described as an essential collection of beliefs shared by scientists; a set of agreements about how problems are to be understood; how they view the world, and thus how they go about conducting research. Furthermore, Kivunja and Kuyini (2017: 26-27) states that there are different types of paradigms including epistemology, axiology, ontology, and methodology. Kivunja and Kuyini (2017: 26-27) define each paradigm as follows:

- *Epistemology* is concerned with the very basis of knowledge, its nature, and forms, how it canbe acquired, and how it can be communicated to other human beings. The knowledge that the researcher of this study explored was based on the perceptions of Radiography clinical tutors' transition from being radiographers to being a clinical educator.
- *Axiology* involves defining, evaluating, and understanding concepts of right and wrong behavior relating to the research. This study followed all ethical considerations required to do the study.
- *Ontology* is the philosophical study of the nature of existence or reality.
- Methodology is the broad term used to refer to the research design, methods, approaches, and procedures used in an investigation.

The study used a Constructivism paradigm. The Constructivism research paradigm research comprises people's experiences of their outside world (Thomas 2010: 77). Kivunja and Kuyini (2017: 33) supported the statement by Thomas (2010: 77) but further stated that the constructivism paradigm is used to understand the subjective world of human experience. Ponterotto (2005: 129) revealed that Constructivism holds a reality constructed in the mind of the individual. The paradigm emphasizes the ability of an

individual to construct meaning (Mack 2010: 7). Constructivist researchers are guided by participants' subjective views of a situation being studied (Mack 2010: 7). According to Deetz, cited by Thomas (2010: 78), Constructivism research aims to understand phenomena through meanings that people assign to them.

An exploratory and descriptive research design was used to develop and explore a rich understanding of an area of interest where there is paucity in the existing literature about that topic (Vogl 2018: 34). In exploratory research, there are no predetermined themes or categories, as they are only revealed during the Content Analysis process (Guest, Namey, and Mitchell 2013: 8). The explorative design was utilized in this research due to the researcher's interest in understanding the perceptions of radiography clinical tutors of the transition from being a Radiographers to being clinical educators. It was also utilized because there is a scarcity of literature relating to the transitioning of Radiography clinical tutors from being a Radiographers to being a clinical educators. Descriptive and exploratory research occurs in concurrence with one another. In order to describe what happened in terms of potentially observable behaviour by expanding on the concept, in order to interpret and identify significance and meaning from the data (Maxwell 2012: 66).

4.3 STUDY SETTING

The research setting is defined as the environment within which studies are run and has important consequences for the experimental design, the type of data that can be collected, and the interpretation of the results (Silverman 2016: 19). The research setting refers to the place where data is collected. In this study, data was collected from Radiography clinical tutors at the selected public hospitals within the eThekwini District of KwaZulu-Natal situated in South Africa. In the study, complementary studies in various research settings were conducted to build arguments for the generalizability of the findings. The study will gain access to as many health care institutions as possible.

4.4 SAMPLING PROCESS

Modisenyane (2014: 43) stated that the sampling process involves selecting a portion of the population targeted for the research. Brophy (2015: 45) agrees with this statement, by Modisenyane (2014: 43), but further stated that the sampling plan is designed to distribute questionnaires to selected groups for the research problem statement. Saunders *et al.* (2007: 206) revealed that, for any study where it is impossible to collect data from the entire population, the researcher would need to select a sample of that population.

4.4.1 Population

According to Hanlon and Larget (2011: 7), the population refers to all the individuals of interest to be involved in the research. The target population for the research defined included Radiography clinical tutors who are mainly Diagnostic Radiography clinical tutors in the eThekwini district. The study population for this research involves Diagnostic Radiography clinical tutors in a public hospital within the eThekwini district of KwaZulu-Natal. In addition, Diagnostic Radiography clinical tutors were chosen in order to obtain consistency in the research. Moreover, they were in the best position to furnish the researcher with the information needed to answer the research question of the study since they had several years of experience being clinical tutors for public hospitals in the eThekwini District. There are approximately 1, 2 or 3 Diagnostic Radiography clinical tutors selected by a university at a public hospital that is responsible for student clinical practice. Furthermore, the research was conducted on Diagnostic Radiography clinical tutors because the number of students that are assigned to practice in public hospitals is higher than in private hospitals and other disciplines.

4.4.2 Sampling technique(s) and sample size

There are two types of sampling techniques: probability and non-probability sampling. Each technique has various elements. Probability sampling is the method used when the

sample represents a wider population, and the obtained results can then be used for validity and generalization (Acharya, Prakash, Saxena and Nigam 2013: 330). In addition, this technique is based on following categories: random sampling, stratified sampling, systematic sampling, and cluster sampling (Acharya *et al*. 2013: 330). Non-probability sampling is a sampling technique in which the researcher selects samples based on the subjective judgment of the researcher rather than random selection (Acharya *et al*. 2013: 332). Moreover, a non-probability sampling includes convenience or purposive sampling, quota sampling, and snowball sampling. The study will use a small scale; hence a non-probability purposive sampling method will be employed.

The non-probability sampling technique using purposive sampling was used to select a minimum of seven Diagnostic Radiography clinical tutors. The number of participants stopped at data saturation. The purposive sampling technique, also called judgment sampling, is the deliberate choice of a participant due to the qualities the participant possesses (Etikan, Musa and Alkassim 2016: 2). Moreover, purposive sampling was used to set out the number of people who are willing to provide the information by knowledge or experience (Etikan *et al.* 2016: 2). To recruit participants, emails were sent to inform all clinical tutors about the study and to ask them to participate. Clinical tutors were told that they should contact the researcher if they wanted to participate in the research.

The sample size is the technique of selecting the number of observations to include in a sample (Singh and Masuku 2014: 6). Furthermore, the sample size is an important feature in this study because the aim is to make conclusions about the population from a sample. The study aimed to work with a fixed sample size.

4.4.3 Inclusion criteria

- Diagnostic radiography clinical tutors in a public hospital within the eThekwini district of KwaZulu-Natal.
- Clinical tutors with a National Diploma, Bachelor's degree, Master's, or Ph.D. were included; and

- All genders and races were also included

4.4.4 Exclusion criteria

- Diagnostic Radiography clinical tutors in private hospitals.
- Clinical tutors from other disciplines such as ultrasound, radiotherapy, and nuclear medicine in the public and private sectors; and
- All Radiographers who are not clinical tutors.

4.5 DATA COLLECTION PROCESS

According to O'Neil (2009: 5), qualitative data collection methods typically include interviews and observations. Before data collection, the researcher obtained ethical approval from the Institutional Research Ethics Committee (IREC) (Appendix 1a and 1b). Additionally, written permission to collect data was requested from the provincial health research committee (Appendix 2a). In addition, written permission to collect data was requested from the eThekwini District Manager (Department of Health) (Appendix 3a) and all the CEOs of the selected hospitals (Appendix 4a, 5a, 6a, 7a, and 8a). Participants were given a letter of information (Appendix 9) and requested to sign consent (Appendix 10) before participating in the study. Furthermore, the researcher ensured that all Covid-19 regulations are followed during data collection, meaning that interviews were conducted with participants wearing a mask and who were sanitized before interviews started. Social distancing was also considered to avoid the spread of the Coronavirus. The interview guide had the demographic information of the participants (Appendix 11).

Data were collected through in-depth, face-to-face, and one-on-one semi-structured interviews using an interview guide with open-ended questions (Appendix 11). Before collecting data, the participants were informed that their participation was voluntary and that they could withdraw at any time from the study if they so wished, their information will be kept confidential and that they will be anonymous. No participant received any form of remuneration.

Data were collected through individual interviews since the research was conducted using the qualitative method. There are various categories of interviews, namely unstructured, structured, and semi-structured interviews (Gill, Stewart, Treasure and Chadwick 2008: 291). The research data was collected by using semi-structured interviews because this approach was flexible compared to other types of interviews. Semi-structured interviews allow the interviewer or interviewee to diverge in pursuit of an idea or response in more detail. Furthermore, they allow the enhanced discovery or elaboration of important information from the participants or clinical tutors. In the semi-structured interviews, there were only a few pre-determined questions, which allowed for probing and clarification of answers. The interviews contained both open and closed-ended questions. Open-ended questions are classified as detailed-oriented, elaboration, and clarification probing. Probing questions in the study were used to elicit additional information or to seek clarity on the obtained answers.

Data obtained from the interviews were audio-recorded with permission from the participants. However, if a participant refused, then handwrtitten notes were used to collect data. To avoid disrupting the workflow, interviews were conducted at a time that was convenient for the participants. The interviews were approximately 30-45-minute-long. Moreover, study participants decided when and where the interview process took place.

The questions asked in the interviews were included later on in the study. The questions aimed at obtaining information that addressed the research question as well as the subtopics. The questions were constructed in a way that encouraged clinical tutors to speak openly. A good interview technique often involves a gentle nudge from the interviewer rather than being too explicit (Smith and Osborn 2007: 61). However, the first draft of the questions was explicit. Redrafting the results of the questions to gentler and less load but enough for the participators to understand the area of interest and respond to questions. The first question was the most general possible question and if the clinical tutor did not understand, the interviewer explained the question in simple terms.

The procedure for conducting one-on-one interviews was similar for all participants. Data were collected until data saturation. In broad terms, saturation is used in qualitative

research as a criterion for discontinuing data collection and or analysis. Data saturation also determined the sample size. This is achieved when there is no new information and there is redundancy in the responses obtained from additional participants (Polit and Beck 2006: 321). The minimum number of participants that the study intended to include was 7 Diagnostic Radiography clinical tutors from public hospitals in the eThekwini district.

All interviews were conducted within each participant's natural setting, such as offices in the relevant workplaces. Before the interviews, the researcher briefly explained the research study. The informed consent letter was signed by all participants. In cases of the researcher wanting to audio record the interview, permission was obtained. In addition, during the interview the researcher, took limited notes which enabled the reviewing of answers. These notes are helpful in terms of the researcher asking additional questions or clarifications at the end of an interview.

To maintain confidentiality, all personal information obtained from this study was kept strictly confidential. For anonymity, pseudonyms were used. The collected data was stored on a computer and the password was known to only the researcher. Data was used solely for the study and is to be disposed of after five years once it has been processed for research purposes.

4.6 PRE-TESTING AND DATA COLLECTION (PILOT STUDY)

Leon, Davis and Kraemer (2011: 626) define a pilot study as a small-scale test of the methods and procedures to be used on a larger scale. They additionally expressed that the fundamental purpose of conducting a pilot study is to examine the feasibility of an approach that is intended to ultimately be used in a larger-scale study. This applies to all types of research studies. As indicated by NIMH (2010: para. 3 line 3) pilot studies play a key role in the development or refinement of new interventions, assessments, and other study procedures. Usually, the results from pilot studies are used to support more expensive and lengthier pivotal efficacy or effectiveness studies. Pilot studies are exploratory ventures. Moreover, pilot studies generate pilot data and; their design need not be guided with the support of prior pilot data. It is quite reasonable and expected that

a pilot study is proposed with no pilot or other preliminary data supporting the proposal and that its proposed sample size is based on pragmatics (Leon *et al*. 2011: 627).

Faux (2010: 103) stipulates that the resulting discussion on the survey instrument and the pre-test provides information on how the issues of reliability and validity are resolved. The study chooses or picked pre-testing of data collection using a pilot study because one of the advantages of conducting a pilot study is that it might give a warning about where the main research project could fail. Van Teijlingen and Hundley (2010: 50) found that pilot studies may also try to identify potential practical problems in following the research procedure. They added that pilot studies are a crucial element of a good study design.

In the study, general issues of question flow, the usefulness of instructions, and the readability of the questionnaire were considered on several occasions before pre-testing. The interview questions were sent to the supervisor for evaluation before the pilot stage. The supervisor then reviewed the questions and suggest amendments. The questions were finalized after adjustments were made. The study, purpose of the pilot study interviews aimed or pointed out two things. Firstly, it helped to establish whether the interview questions were aligned with the research questions. Secondly, it helped to establish the accuracy, appropriateness, and relevance of the questions. The proposed plan for this study was to interview seven Diagnostic Radiography clinical tutors. The appropriate responses obtained from them verified whether the questions were relevant, accurate, and appropriate for addressing the research questions.

4.7 DATA ANALYSIS

Qualitative data analysis ideally occurs concurrently with data collection so that the investigator can generate an emerging understanding of the research questions (Gill *et al.* 2008: 317). Data analysis is the central step in a qualitative study (Flick 2013: 3). Flick (2013: 5) further states that qualitative data analysis is the classification and interpretation of linguistic material to make statements about implicit and explicit dimensions. In addition, data analysis is applied to discover and describe issues in the field of structures

and processes in routines and practices. Often qualitative data analysis combines approaches of rough analysis of the materials (overviews, condensations, summaries) with approaches of a detailed analysis.

According to Miles, Huberman and Saldana (2013: 12), data analysis comprises data condensation, display, and drawing and verifying conclusions. They stated that data condensation refers to the process of selecting, focusing, simplifying, abstracting, and transforming data that appear in the full body of interview transcripts, documents, and other empirical materials.

Once data is collected, that data is largely unstructured and sometimes makes no sense when looked at. The solution to that would be to transcribe the data collected and then analyze data systematically and convert it into a text format. Data was then organized after being transformed and arranged. To organize the data, the researcher went back to the research objectives and then organized the data based on the questions asked. The data collected was then arranged into codes. Coding qualitative data simply means categorizing and assigning properties and patterns to the collected data. After codes are assigned to the data, the researcher then begins to build on the patterns to gain in-depth insight into the data which helps to make informed decisions.

Data display is an organized compressed assembly of information that allows conclusion drawing and action (Miles, Huberman and Saldana 2013: 13). Furthermore, the third stream of data analysis is conclusion drawing and verification. From the start of data collection, the qualitative analyst interprets what the data means by noting patterns, explanations, and propositions. Conclusions of the study were made when data collection was over.

It is important to finally conclude data, which means systematically presenting data in, a report that can be readily used. The report stated the method used by the researcher to conduct the research studies; the positives; and negatives; and study limitations. In addition, suggestions or inferences from the study findings and any related areas for future research were stated.

Qualitative data gathered from the interviews were analyzed using Tesch's steps of thematic analysis as described in Creswell (2009: 186). These steps entail that;

- The data collected were transcribed to get a general impression of the collected data.
- Then data were analyzed systematically and converted into a text format.
- Data was organized after being transformed and arranged.
- The data collected was arranged into codes.
- Coding qualitative data by means categorizing and assigning properties and patterns to the collected data; and
- After codes assigned to the data, the researcher will begin to build a pattern to gain in-depth insight into the data that helped to make informed decisions.

4.8 TRUSTWORTHINESS

According to Lincoln and Guba (1985: 438), trustworthiness is the term used in qualitative research for what is known as validity and reliability or objectivity in quantitative research. Measures to ensure the trustworthiness of the study, are a principle of good research, to evaluate whether the findings reflect the experience and discussions of the participants, rather than the perceptions of the researcher (Polit and Beck 2010: 1451).

Qualitative validity refers to the checks by the researcher to verify the accuracy of the findings by utilizing many procedures. Creswell and Miller (2000) (cited in Creswell 2009: 191) associated trustworthiness, authenticity, and credibility with validity. According to Elo, Kaariainen, Kanste, Tarja and Kati (2014: 1), trustworthiness is explained from data collection to analysis in qualitative research. The same authors mention that there are four criteria to determine the trustworthiness of data, namely credibility, dependability, confirmability, and transferability and authenticity. Polit and Beck (2012: 268) defined these as follows:

4.8.1 Credibility

Credibility is the self-confidence in the truth and in interpreting data and is confirmed through data or theory triangulation. This is achieved by using two theories (Duchscher's and Krammer's theories) to underpin the study. Random purposeful sampling also increased the study's credibility.

Credibility includes all activities that increase the probability that credible findings will be produced. In order to ensure credibility, the researcher employed the following measures. Prolonged engagement with the participants entailed asking questions until data saturation was reached. Time spent with participants was estimated to be approximately between 30-45 minutes and most interviews were within the schedule. In the session of interviews, probing was done, but some information was repetitive to what other participants said thus ensuring data saturation was reached. Member checking was done by consulting with participants about the results to see if they recognize the findings to be their true experiences (Streubert-Speziale and Carpenter 2007: 29). The criteria were met even during interviews where the researcher checked with the participants if the meaning of what they said, is what the researcher understood it to be. Transcripts were read back to the participants, and they were able to confirm that those were their initial responses.

4.8.2 Transferability

Transferability refers to the applicability of findings to other settings (Lincoln and Guba 1985: 156). The findings of the study cannot be applied to other settings where the environment may be different. Transferability refers to the probability that the study findings have meaning to others in similar situations. It was ensured through literature control as to whether there will be similar findings from other research studies (Streubert-Speziale and Carpenter 2007: 29). The purpose was to understand the transitioning of Diagnostic Radiography clinical tutors only in a given context and not to generalize findings.

4.8.3 Dependability

Dependability refers to the replicability of the results or the same results being obtained if research is to be repeated in a similar sample and context (Lincoln and Guba 1985:299). This will be established by auditing the research process as well as practicing researcher reflexivity through a reflective journal (Creswell 2013: 661).

The criterion is met once the researcher has demonstrated the credibility of findings and is met through a triangulation of methods (Streubert-Speziale and Carpenter 2007: 29). The researcher in the study will collect data through in-depth individual interviews and triangulate data capturing methods by using an audio recorder and field notes.

4.8.4 Confirmability

Confirmability is concerned with whether the data presented represents what the participants said and are without the biases of the researcher (Lincoln and Guba 1985: 319). Excerpts and direct quotes from the data were used to support the themes that emerged from the data. Interview material, transcripts, documents, findings, interpretations, and recommendations were kept for an audit trail (Streubert-Speziale and Carpenter 2007: 29). Audio recordings are kept, and data saturation was ensured.

4.9 ETHICAL CONSIDERATIONS

All ethical standards of research were observed: anonymity, voluntary and rights to refuse to participate were guaranteed to respondents (Burns and Grove 2010: 197). The researcher obtained permission from the supervisor or department gatekeepers to collect data. Approvals from IREC (Appendix 1b) were attached as appendices. Copies of the approval letter were attached to all request for permission letters. Permission was requested from the provincial Health Research Committee, eThekwini District Manager (Department of Health) (Appendices 2a and 3a) and all the CEOs of the selected hospitals (Appendices 4a, 5a, 6a, 7a, and 8a).

When conducting interviews, the participants were given a letter of information about the research, and informed consent was obtained from all participants. Issues of confidentiality and anonymity were clarified before participants signed the consent form (Appendix 10), after reading the letter of information attached in Appendix 2. Interviews with participants were conducted in English (Appendix 11). The interviews involved Diagnostic Radiography clinical tutors in public hospitals.

All personal information obtained from the study was kept strictly confidential and presented as anonymous. Pseudonyms were utilized to ensure the privacy of all the participants and their workplaces. After consent was obtained, the participants were interviewed using the questions in the interview guide (Appendix 11). The researcher then requested permission to audiotape the interview. However, if a participant refused, then notes were to be used to collect data. The researcher analysed data and reported it objectively. No participant received any form of remuneration. The participants' information and any details utilized in the study were protected. The researcher made sure that the data obtained was protected by limiting access to it. Only the supervisor had access to the confidential information of the participants.

4.10 SUMMARY OF THE CHAPTER

In the chapter, the choice of design and methodology have been described and justified. Reasons were given as to the choice of the particular methodology selected for this study. The use of interviews and observations for data collection implementation was explained. The inclusion and exclusion criteria were outlined and justified. The methods used for the treatment of the data were described. The findings obtained from the analysis of the data will be discussed in Chapter five.

CHAPTER 5: PRESENTATION OF FINDINGS

5.1 INTRODUCTION

Chapter Five explores and describes the perceptions of Radiography clinical tutors on the transition from being a Radiographer to being a clinical educator in public hospital in the eThekwini district of KwaZulu-Natal. Data was collected using semi-structured interviews. An interview guide was used to ask a list of questions that would generate rich data from the participants who have experienced the phenomenon. All the interviews were audio-recorded with the permission of the participants. The rooms used for the interviews were inside the hospitals in the Radiology Department. These venues had limited sound distraction; therefore, the recording of the conversations was possible. Moreover, the researcher ensured that all Covid-19 regulations were followed during data collection processes. Some interviews were conducted using Teams meetings or Zoom sessions depending on the participant's preference.

Data analysis presents a challenging task for researchers (Creswell and Poth 2016: 302). They further stated that the process of analysis involves organizing data; conducting a preliminary read-through of the database; coding and organizing themes; representing data; and forming an interpretation of them. Therefore, after each interview was completed, data was transcribed, and categories were acknowledged, emanating the themes, and later the subthemes. All the interviews were initiated by the main research question as per the interview guide. Creswell (2014: 245) specified that in cases where data is rich and dense, data should be collacted into small numbers of themes to allow easy conceptualization of the participants' accounts. The fact that the interviews were one on one, allowed deep examination into more personal issues that participants were faced when they transition from being a Radiographer to clinical tutoring.

5.2 DEMOGRAPHIC DATA OF THE PARTICIPANTS

A total of seven Diagnostic Radiography clinical tutors were approached and identified in public hospitals. All participants are described according to gender, race, age (years), marital status, number of years as a clinical tutor, and the type of hospital. Table 1.2. below illustrates the interviewees' details. Non-probability purposive sampling was used by the researcher to identify seven Diagnostic Radiography clinical tutors who participated in the study. Six females and one male were included in the study. There were five Indians, one African and one Coloured. Their ages ranged from 42 to 67 years of age, most of the participants were between the ages of 42 and 57 years old. The number of participants stopped at data saturation, which was upon interviewing the seventh participant. All participants were married.

The questions asked during the interview process are as follows:

5.2.1. Grand Tour Question:

1. How would you describe your experiences in transitioning from being a Radiographer to being a clinical tutor?

5.2.2. Probing questions:

2. What will facilitate the effective transition of Radiography clinical tutors in a public hospital?
3. What are the barriers to the effective transition of a Radiographer to a clinical tutor in public hospitals?
4. How has Covid-19 changed your role of being a clinical tutor?
5. What can be recommended to DUT/ DOH to improve the effective transition from being a Radiographer to being a clinical tutor in public hospitals?

Table 1.2. Demographic profile of the Diagnostic Radiography clinical tutors.

No. of participants	Gender			Race					Age			Marital status						Number of years as a clinical tutor					Type of hospital				
	Male	Female	Other	African	Indian	Coloureded	White	Other	26-41	42-57	58-67	Married	Divorced	Widowed	Single	Engaged	Other	1-5	6-10	11-15	16-21	>22	Clinic	District	Provincial	Regional	Tertiary
1		✓			✓					✓		✓								✓						✓	
2		✓			✓						✓	✓									✓							✓
3		✓			✓					✓		✓								✓						✓	
4		✓		✓						✓		✓								✓					✓		
5		✓			✓					✓		✓									✓				✓		
6	✓					✓				✓		✓								✓					✓		
7		✓			✓					✓		✓						✓									✓

5.3 CONCEPTUALISATION OF THE PERCEPTIONS OF RADIOGRAPHY CLINICAL TUTORS OF THE TRANSITION FROM BEING A RADIOGRAPHER TO BEING A CLINICAL EDUCATOR IN THE ETHEKWINI DISTRICT OF KWAZULU-NATAL.

The thematic analysis used on transcripts stimulated key concepts that were identified in the data. The main categories in this study were generated from Schlossberg's Transition Theory which comprises four main elements namely, Situation, Social supports factor, Strategy, and Self-factor. Sub-themes emerged from the analysis of the participants' responses.

These themes assisted in realizing the participants' experiences as per the interviews conducted. These molded the main themes of the study (Table 1.3). From the outline of the results stated above, the researcher discussed the sub-themes that emerged in four categories namely: Situation, Social support, Strategy, Self-factor. In the following section, the researcher presents each category, theme, and its related subthemes. To validate the developed themes and sub-themes, quotations from the transcribed interviews are used. A sample of the interview transcript is provided (Appendix 5).

Table 1.3. Summary of themes, subthemes, and categories.

Categories	**Themes**	**Sub-themes**
5.3.1 Situation	5.3.1.1 Experience in transition	5.3.1.1.1 Positive experience
		5.3.1.1.2 Negative experience
	5.3.1.2 Barriers to transition	5.3.1.2.1 Heavy workload
		5.3.1.2.2 Poor Infrastructure
		5.3.1.2.3 Lack of communication
5.3.2 Social support factor	5.3.2.1 Lack of support	5.3.2.1.1 Hospital managerial support

		5.3.2.1.2 Institutional support
5.3.3 Strategy	5.3.3.1 Proposed solutions	5.3.3.1.1 Standardization of protocols by DUT and DOH
		5.3.3.1.2 Appointment of a dedicated clinical tutor
		5.3.3.1.3 Forums for clinical tutors
5.3.4 Self-factor	5.3.4.1 Job knowledge	5.3.4.1.1 Clinical work experience

5.3.1 CATEGORY: SITUATION

This category is the first factor under SCHLOSSBERG'S Transition Theory. The situation factor is used to understand how the participants controlled the situation when they transitioned into clinical tutoring. In addition, this factor also helps to check whether the participants have adequate knowledge and experience in clinical tutoring as well as to see how they are coping with the transition.

5.3.1.1 THEME ONE: EXPERIENCES IN TRANSITION

The interviewees had different views regarding their experiences in transition as Diagnostic Radiography clinical tutors. Their responses showed that some had positive experiences, and whilst some had negative experiences. These concepts formed the sub-themes which are positive and negative experiences.

5.3.1.1.1 SUB-THEME: POSITIVE EXPERIENCE

Theme One explored and described the experiences of Diagnostic Radiography clinical tutors transitioning from being a Radiographer to being a Clinical educator in public hospitals. Some participants had positive experiences in clinical tutoring in the public hospital. In addition, some clinical tutors experienced a big transition that has benefited them since they had to be responsible and guide the students all the time. Participants expressed that when they were appointed to be clinical tutors, they were very happy. Additionally, some felt that they can make a big difference in student learning. Participants further stated that the transition was very easy since there was a mentor that showed the participant the ropes. This is further illustrated in the subtheme that emerged during data analysis, in which a positive experience was highlighted. This was evident in the quotes below:

"The experience in translation, I think I was very fortunate that I had a mentor that knew what they were looking for and so, the transition for me personally, I did not have any issues. It made me realize that radiography is something where you can be a good radiographer, but you also have to know the tools of teaching it to others……What I have learned from my mentor was that to teach radiography, you have to make things simple, do not complicate things, because you are dealing with undergraduate student whereas when you are a postgraduate you can deal with the complicated stuff" - **Participant 1**

"It was a very big transition because I had to be responsible, and you must remember that the students are looking up to you for guidance all the time. So, everything that you do has to be perfect. There are no shortcuts in every action as a radiographer. From the time that you enter the workplace till the time you leave, you must behave in a professional, ethical way all the time so that you are setting a good example for the students" -**Participant 2**

"*When it comes to the education part of it, you must remember to keep abreast with all the modern technology so that you can pass on this information to the students*

because if you do not keep abreast, the students will question you and you cannot look like you do not know…So, when it comes to the technology and the information, it means that you must further your studies" -**Participant 2**

"For myself, it was easy because by the time I became a clinical tutor, I was already qualified for over 20 years. So, I had experience in training younger radiographers as they were qualified. So, for training students, I only had to be familiarized myself with all the rules of the university or what my scope entailed for being a tutor or a clinical educator in a hospital setting. So, it was easy for me" **Participant 3**

"The change was very good; I liked the change because I felt I could make a difference to the students" -**Participant 5**

5.3.1.1.2 SUB-THEME: NEGATIVE EXPERIENCE

Theme One explored and described the experiences of Diagnostic Radiography clinical tutors transitioning from being a Radiographers to being a clinical educator in public hospitals. Some participants felt that there were positive experiences, and some felt that there were negative experiences. The cause of different views was that clinical tutoring occurs in different hospitals with different experiences. Some participants complained that when they were appointed to be clinical tutors, they did not have the skills for teaching, and they did not know what they were doing because there were no clear guidelines from the university. A participant shared that, the transition was not good at all because the participants are required to do clinical work on one hand and deal with the students on the other hand. The highlighted subtheme that emerged during data analysis was the negative experiences of Diagnostic Radiography clinical tutors in public hospitals. The following excerpts illustrated this:

"OK, my experience, I would say I was very happy initially to be involved with the students. However, I felt like I have been just thrown into the deep end because they did not give us any proper guidelines on what we are supposed to do as clinical tutors. They also did not give us a time slot that is going to be dedicated to the students. It was very haphazard because I must do a clinical workload and I am also supposed to

teach the students. The students end up being left behind because as clinical tutors we do not get to know them properly and assess their strengths and weaknesses. So, the transition was not good at all, since I did not receive any guidelines from the university to say, this is what is required from me or what is needed to the clinical tutor" -**Participant 7**

"I was a radiographer with the B-Tech that had just been appointed as an assistant director (AD). I was given this position to also do clinical tutoring for the students. I had no experience with the clinical tutoring of students before. They were no documents and there was no support from the university and DOH, to say this is what is expected from me as a clinical tutor, so I had to find out my way" -**Participant 4**

"For me transitioning from being a radiographer that is also a manager to clinical tutoring does not work for me because to be a clinical tutor you need to have a structured plan to teach the students. There's no structure and there is no proper communication. So, I have got so much to deal with here with the dynamics of our institution. Now we need to deal with the inefficiency of proper communication between us and the university and it is very difficult" -**Participant 6**

5.3.1.2 THEME TWO: BARRIERS TO TRANSITION

This theme looks at the hurdles and challenges of transitioning from being a Radiographer to being a clinical tutor. The responses relating to this theme emerged from the question "*What are the barriers to an effective transition from a Radiographer to being a clinical tutor in public hospitals*?". These barriers as per participants include high workload, infrastructure, lack of communication from the university, and the lack of a memorandum of understanding between the university and training centres.

5.3.1.2.1 SUB-THEME: HEAVY WORKLOAD

Amongst the barriers that participants mentioned, high workload due to a shortage of staff is one of the major barriers which also affect students' learning as well as an effective

transition. Participants further stated that they are expected to do other clinical work besides tutoring, which becomes a burden that is not easy to handle. This further jeopardizes their ability to provide full supervision to students. This was evident in the following excerpts:

"We specialize in certain areas, so we are not always allocated in the areas where the students are. There is always a clinical workload that needs to be done first…. At times it gets very busy, so it is difficult to be with the students and to help them because of time…. Time is another factor because obviously if you are working with the students, you need to be a little slower and most of the time you just trying to push work so that is one of the barriers"- **Participant 7**

"They allocate a so-called radiographer to supervise the students, but that radiographer is expected to push clinical work, managerial work, run the department, or work as an ordinarily qualified radiographer and it is only secondary to supervising your students"- **Participant 1**

"*It is difficult to take a manager that's got multiple functions to deal with in the department and say that manager must also spend time with the very difficult students. In terms of statistics, the number of patients that we deal with is too high, so I think this hospital is not ideal for students to learn*"- **Participant 6**

"I have a lot of things in my job description, and I cannot be with the students all the time, so I must fulfill those roles as well"- **Participant 3**

5.3.1.2.2 SUB-THEME: POOR INFRASTRUCTURE

The findings revealed that infrastructure is part of the barriers to transition affecting almost all the participants. Participants complained that in public hospitals there is a lack and shortage of equipment which limits effective transition. There is also a limited number of working rooms. The excerpts below displayed this:

“When I listen to how things are in private practice, it's like we pulled apart. Equipment and resources are the major problems. So, if DOH wants the best students they need to step up the game……. what we have is what we can give the students most of the time it is broken equipment or non-functioning equipment, no resources very little human resources as well very few radiographers. ……Since DOH is in partnership with DUT, I feel that the memorandum of understanding has not been renewed to my knowledge. They have not done anything to make sure that our equipment is functioning so that students can learn”- **Participant 3**

5.3.1.2.3 SUB-THEME: LACK OF COMMUNICATION

The participants’ responses demonstrated that a lack of communication and support from the institution are the most dominant barriers, as most participants share the same sentiments.

“I think mentorship and the lack of support……. There is a lack of mentorship and communication as well. Communication plays a big part in terms of the communicating between your management, in terms of supervising your students whether are they giving you the support?”- **Participant 1**

“The biggest barrier is communication, and that is the communication from DUT. There must be two-way communication. Since the students are DUT registered students, DUT must guide the clinical tutors all the way and respond to any queries that they have promptly not to leave it for a long time or ignore it and that is what's been happening as well”- **Participant 2**

Participant 5’s response included both lack of support and communication as well as a lack of education as barriers to transition: *“I don't know how it's done in other institutions but in our institution, it is the senior people that are given that opportunity. So, the barrier is that you are given that opportunity to oversee the students, but you are alone there. You do not know what your expectation is from DUT to be the clinical tutor. This year I*

am the clinical tutor because every three years we rotate. So, I have been rotating now from 2000 until today 2022…. But I do not know what my expectation is from DUT. I am doing what I think is right. I did not have a meeting with DUT to tell me this is our expectation from the clinical tutor in your hospital. We want the students by this month to know this. …. We don't do that…. If they say we will be allocating students to your hospital for four weeks and they must know at least how to do a CT abdomen. Then I will know that I need to allocate these guys to CT so that they know because this is what DUT is expecting from them. One of the barriers is that DUT will send a roster to say, Mr. X or Mrs. X must go into a mammo, but the university does not understand that our mammo department is closed. So, students that were sent here now are disadvantaged because they are not being exposed to mammo. The biggest challenge is the communication with DUT and the clinical tutors.

5.3.2 CATEGORY: SOCIAL SUPPORT FACTOR

This category is one of the factors under SCHLOSSBERG'S Transition Theory. The social support factor is one of the most important factors because it focuses on the support systems that serve to organize and operationalize an individual's resources, which may include having people in one's life willing to share tasks (Schlossberg 2008: 2). Moreover, participants stated that when they transitioned into clinical tutoring no one provided them with support, skills of clinical tutoring or guidance on how things are done, nor ways to cope with the transition. These concepts formed the theme of 'lack of support', which was followed by a sub-theme: hospital managerial support and institutional support.

5.3.2.1 THEME THREE: LACK OF SUPPORT

The participants had the same views regarding their social support in transitioning from Diagnostic Radiography to becoming clinical tutors. Their responses showed that there is a lack of support from the university, departmental management as well as DOH. These concepts formed the sub-themes 'hospital managerial support' and 'institutional support'. This was evident in these quotes:

“I think the other one would also be resistance from other staff members maybe when there are students, they should be told that they are also required to supervise students. They should do it willingly and wholeheartedly because they also going to play an important role in molding future radiographers. I think some radiographers do not have a passion for radiography. It is just the work and money that is all. So, I mean, if you do not have a passion for what you are doing, you are not going to give your all even in teaching somebody else. Lastly, some radiographers will try it because there are a lot of clinical workloads, but they will not give the students their best”-**Participant 7.**

Participant 7 further highlighted that support from colleagues (other Radiographers) is also necessary.

*“I think the managers themselves in the institutions need to understand that you are not dealing with students only, you also do your duties as radiographer…. I think they also need to give clinical tutors some time to deal with students because in the end when students are not doing well or they are not behaving properly everything and all the fingers will point at you as a person, who is not managing students properly, yet you have more other duties that you need to perform”- **Participant 4***

*“Like my manager must give me that full support as a clinical tutor. I have a lot of things in my job description, and I cannot be with the students all the time, so I must fulfill those roles as well. So, if I have more time allocated to me to be with students, then, yes, obviously that would not be a barrier. So, time is a barrier, lack of support from my manager would be a barrier, and support from radiographers themselves. I find that radiographers do not like to teach students”- **Participant 3***

*“So, both the university and the hospital need to come together and in advance and inform clinical tutors that will be dealing with students so that they will be in the gear, that they will be dealing with students, and this is what would be expected from them”-**participant 4***

5.3.3 CATEGORY: STRATEGY

This category is an attribute of SCHLOSSBERG'S Transition Theory. Strategy is the factor that focuses on how the participants modify the situation, control the meaning of the problem, and manage the stress in the transition process. Participants proposed solutions that can assist them in the transition process. The prevalent theme that emerged was the proposed solution, subsequently followed by a sub-theme of standardization of protocols and appointment of a dedicated clinical tutors.

5.3.3.1 THEME FOUR: PROPOSED SOLUTIONS.

When the work environment is hindering the learning process, some changes should be made. The participants in the study included their solutions to improve the effective transition of Radiography clinical tutors in public hospitals. The responses relating to this theme emerged from the question: *"What can be recommended to for DUT/ DOH?" to improve the effective transition from being a Radiographer to being a clinical tutor in public hospitals?* The sub-themes that emerged from this theme are as follows: Standardization of protocols, the appointment of a dedicated clinical tutor; and forums for clinical tutors. This theme concentrates on the efforts required to achieve a positive outcome and create an effective transition as well as a workable environment for clinical tutors. This was evident in these quotes:

"You need proper training. The university has a structured plan or model answers when it comes to assessing the students. So here we are dealing with the management of the x-ray department….so, when it comes to assessing the students that means I must go back to my notes so that I will know the in-depth things of radiography since we do not get the continuous training"- **Participant 6**

"There should be a clear criterion for choosing the clinical tutors. I think we have discussed this with them because some radiographers like myself don't have a degree, we just have our national diploma in radiography and the students that are coming out

now are all degree students…… Uh, so maybe in a way we also need to fill in the gap between us and the students because what they need to know maybe we won't be able to offer it" -**Participant 7**

5.3.3.1.1 SUB-THEMES: STANDARDIZATION OF PROTOCOLS BY DUT AND DOH.

Participants revealed that there is a lack of uniformity when it comes to the training of the students. Participants mentioned that protocols in each hospital are different, which and makes teaching more difficult and it also confuses the students. The students must be taught something universal so that they can adapt to each clinical centre. Therefore, the participants recommended that there should be a standardization of protocols in all the training canters in order to promote an easy teaching and learning process. The following excerpts advocate this:

"Firstly, whether it's the DUT instructor or the DOH assessors the ones that are assessing students, they should all attend some assessment course that is common to both. So, there will be a standardization of the way students are taught and the way they are assessed. At the moment I feel like it is done in a biased way. It's done in a way I feel fit I do the assessment but not in a standard that is acceptable across the border. So, there should be an assessment course that is offered. The students should be taught so it should be a universal thing that is across the board for hospital and DUT staff. So, we all speak the same language to the students because with the rotation of the students they go to all the hospitals."- **Participant 2**

"Everybody has got their way of doing the assessments. I'm not sure whether there is a standard or is just a book and then you assess. I may be very stern and you in another institution you go in your way. There is no standardization with the assessment" - **Participant 6**

"*At one point, I thought I had drawn up a list of things that DUT could workshop us on as clinical tutors and the rules, code of conduct for students' absenteeism, the protocols in terms of pathologies, that it's new, that all students need to know because they are coming from different hospitals and they are coming with that hospital's protocol to our hospital, which may not apply here….. So, I wanted us to have the same protocols……. I am involved in a lot of policymaking in the hospital itself…. So, I thought that we could brainstorm with other hospitals and come up with stuff that applies to all the students going from hospital to hospital and make it easier for the student"*-**Participant 3**

5.3.3.1.2 SUB-THEMES: APPOINTMENT OF A DEDICATED CLINICAL TUTOR

It was revealed that most of the clinical tutors that are appointed are also managers or clinical expects in certain areas in Radiology departments. This made the participants spend more time doing managerial work, during which time students are left behind. Therefore, the participant recommended that there should be a dedicated clinical tutor who will only focus on training students and not worry about things that are happening in the department. The excerpts below advocate this:

"Okay. There are a lot of things that can be done. I think they need to communicate with each other and create these posts called clinical tutors, where these clinical tutors are dedicated to teaching radiography students…… When you get a clinical tutor post, put it into a place in a specific training Institute, that person must know they are there to train students. Your primary job should be training students, not worrying about the quality control of the department, not worrying about running the department and doing X-rays on patients. It must be there to train students as your priority. That is what I feel, and that person must be the link between DUT and the Institute they employed at and currently, we are lacking that greatly"- **Participant 1**

"The best solution is to have a dedicated clinical tutor… then you know that this person does not do any operational work they only deal with students and I think in that way students will be more managed, they will learn a lot ….they will have time to have their

training in between and I think the management of the students will be much better if there is dedicated clinical tutor in every hospital"- **Participants 4**

"What I can recommend from DOH side is that they should allocate a dedicated clinical tutor because we serving as the clinical aspect of radiography as well in our in our workplaces, but maybe they should consider allocating a time solely for the students, even if it's just an hour a day" **Participant 7**

5.3.3.1.3 SUB-THEME: FORUMS FOR CLINICAL TUTORS

The university must ensure that the clinical tutors they choose are trained in terms of knowing how to handle students and what is expected from them. The participants mentioned that when they were appointed to be clinical tutors, there was no training done to facilitate the effective transition and they did not have skills for teaching. It becomes a challenge when clinical tutors who are supposed to train students hinder their learning process which hence requires attention. The excerpts below displayed this:

"It will be better if the clinical tutors are given some training before and the institution itself needs to inform the person that is going to do that and get the consent, that person must agree because it's quite a challenge to deal with students"-**Participant 4**

"*I think we can create a forum where clinical tutors engage with the university to discuss issues and challenges of students during clinical training.*"- **Participant 5**

"The university can run a workshop even if it is just a one-day workshop or zoom session with all the clinical tutors just to keep us informed about what is happening with the students and in the same sessions they can tell us what is required from clinical tutors because sometimes you don't want to overstep yourself"- **Participant 7**

“I think clinical tutors need training because a teacher must go for training to be a teacher not anybody can teach. You can have your matric and a degree with 10 distinctions and still fail to teach. You are trained to be a teacher; they should be ongoing in-service training for clinical tutors”-**Participant 5**

5.3.4 CATEGORY: SELF-FACTOR

This category is an attribute of SCHLOSSBERG’S Transition Theory. The Self-factor is considered important because it is concerning the self, and it is classified into two categories, namely personal and demographic characteristics that affect how an individual views transition. The prevalent theme was ‘job knowledge’ which was followed by the sub-theme ‘clinical work experience’.

5.3.4.1 THEME FIVE: JOB KNOWLEDGE

Participants shared the importance of job knowledge and further mentioned that before one becomes a clinical tutor, one is expected to have experience and information in the field of study and have skills to pass that information to others. The following excerpts advocate this:

“*I think, Job knowledge in two ways. When you talk about job knowledge in terms of not just as a radiographer, but you also need to know how to become an educator…. That I feel would make the transition easier, because if you know your radiography, but if you don't know how to deliver it to your undergraduate students, that is going to be a challenge…. So, I think that job knowledge, two-fold radiography, and being an educator*”-**Participant 1**

“*Okay, first and foremost, that clinical tutor must have enough clinical experience in their workplace because you cannot have somebody that just newly qualified and become a clinical tutor. They must have enough clinical experience so that when students come to them with their questions from the experience, they must be able to answer, which is the most important. They must have the experience and then they can build up their*

knowledge on studying further but, it must be like a supervision course, a management course, and human resources skills but it must be in connection with a person or a teaching course because they must have abilities and skills to pass on to the students. It is not just plain radiography, it's not just a B-Tech course, but it has to be beyond that, any other courses that enhances the students' progress"-**Participant 2**

5.4 SUMMARY OF THE CHAPTER

This chapter presented and analysed the findings of this study which included the demographics of the clinical tutors that participated. It further presented the results of how the Diagnostic Radiography clinical tutor transitioned from being a Radiographer to being a clinical educator. This was accomplished by constructing a narrative and then substantiating themes and categories with quotations from the verbatim transcribed interviews. From the analysis of 7 interviews, four main categories of SCHLOSSBERG'S Transition Theory were used: situation, social support factor, strategy, and self-factor. Five main themes emerged, namely: experience in transition, barriers to transition, lack of social support, recommendation, and job knowledge. Findings were further divided into sub-themes to provide a better understanding and to align with the aim of the study. Findings presented in this chapter suggest that participants have different perceptions regarding their experiences in the transition from being a Radiographers to being a clinical educator. Some believed that their transition was easy because they had mentors to guide them whereas some disagree with statement. As evidenced above, there are many recommendations from the participants, suggesting that there must be changes in both the institution and training centres. In Chapter 6, these results will be discussed in the context of the existing literature on clinical instructors and clinical education.

CHAPTER 6: DISCUSSION OF THE FINDINGS

6.1. INTRODUCTION

Chapter Six presents a discussion of the findings of the study. This is based on the analysis and interpretation of the experiences of Radiography clinical tutors on the transition from being a Radiographers to being a clinical educator in the eThekwini district of KwaZulu-Natal. The description of the setting as well as the use of rich thick descriptions from the findings were detailed (Creswell 2009: 191,192). Content analysis was employed as described by Flick (2009: 323, 328), where all the views and/or points collected from the interviews were analysed.

In this chapter, the researcher presents a discussion that makes sense of the results in a brief but comprehensive manner (Van Der Walt and Van Rensburg 2008: 193). Therefore, this chapter will be in three sections. The demographic profile of the participants will be presented first. Secondly, the findings presented in Chapter 5 will be discussed in relation to literature. This will be structured based on Chapter 5 and with reference to Table1.3. Thirdly, a discussion of the findings in relation to the aim of the study will be presented.

6.2. DEMOGRAPHIC PROFILE OF PARTICIPANTS

The participants involved in the study all were diagnostic radiography clinical tutors in KwaZulu-Natal at eThekwini district. They were registered with the Health Professions Council of South Africa (HPCSA) as an independent practitioner. Therefore, the demographic profile of the participants will be discussed in detail.

A total of seven Diagnostic Radiography clinical tutors were approached and identified in public hospitals. This study was dominated by female participants as they make up 86% of the participant population, while male made up 14%. This is similar to a study conducted by Stevens (2011: 949), which was also dominated by female participants. Racial distribution is as follows: five Indians make up 71% of the participant population, one African and one Coloured each making up 14.5% of the participants. The majority

(86%) of the participants' ages range between 42- 67 years, while the rest of the participants (14%) range between 58-67 years of age. This implies that this study is dominated by participants from generation X, which is made of ages ranging from 41- 67 years. This generation is described as a generation with work-life balance and independence values as they grew up with minimal parental supervision. They also value informality and are well-educated (Berkup 2014: 218). Their age range corresponds with the number of years of experience as a clinical tutor, as 29% of the participants have experience ranging between 16-21 years, while 57% have experience ranging between 11-15 years and only 1 participant has a 1-year experience.

6.3 DISCUSSION OF THEMES

The theoretical framework used in the study was derived from Schlossberg's Transition Theory. Schlossberg (1981: 2) defined a transition as any event, or non-event that results in changed relationships, routines, assumptions, and roles. Furthermore, the transition framework assesses where the individuals are in the learning experience and what their resources are to cope with it (Gamez 2017: 7). Schlossberg (1981: 2) further states that there is a model or mechanism for analysing human adaptation to transition. According to Schlossberg (1981: 2), adaptation is based on three sets of variables: the individual's perception of the transition; the characteristics of pre-transition and post-transition environments; and the characteristics of the individual experiencing the transitions. Hence, this study explores the perceptions of Radiography clinical tutors of the transition from being Radiographers to being a clinical educator in public hospitals and ultimately recommends the support needed from the university to improve the effective transition of Radiographers to being clinical tutors at public hospitals. In addition, Schlossberg (1981: 2) outlined the factors that influence peoples' ability to cope with the transition, including situation, self, support, and strategies (Schlossberg 1981: 2). This theoretical framework deals with the factors that influence transitions. Therefore, it was better suited to this study as the aim of this study was to explore the perceptions of Radiography clinical tutors on their transition from being Radiographers to being a clinical educator.

6.3.1 SITUATION

This is the first factor under SCHLOSSBERG'S transition theory. The situation factor is used to understand how the participants controlled the situation when they transition into clinical tutoring. In addition, this factor also helps to check whether the participants have adequate knowledge and experience in clinical tutoring as well as to see how they are coping with the transition. This study looked at the different experiences of clinical tutors when they transitioned from Radiographers to being clinical tutors, and the situations that triggered those experiences. Findings indicate that some had positive experiences while others had negative experiences.

6.3.1.1 Positive Experience

With regard to the positive experience, some clinical tutors experienced a big transition that has also benefited them since they had to be responsible and guide the students all the time. *"I had to be responsible, and you must remember that the students are looking up to you for guidance all the time. So, everything that you do has to be perfect. There are no shortcuts in every action as a radiographer. From the time that you enter the workplace till the time you leave, you must behave in a professional, ethical way all the time so that you are setting a good example for the students"*- **Participants 2.** This is supported by Chapman (2013: 6) who he describes a clinical tutor as someone responsible for providing effective instruction and assessment during the clinical practice training of undergraduate Radiography students in the hospital. Chapman (2013: 6) further states that clinical tutors identify the strengths and weaknesses of students, while providing a nurturing atmosphere of experiential training where students can grow intellectually as well as professionally. This implies that a positive experience for this participant was triggered by the situation and the working environment.

Some participants stated that they had a positive experience because they had mentors who guided them throughout the orientation process. *"I think I was very fortunate that I had a mentor that knew what they were looking for and so, the transition for me personally, I did not have any issues. It made me realize that radiography is something where you can be a good radiographer, but you also have to know the tools of teaching*

it to others"- **Participants 1**. This again implies that the positive experience was triggered by the working situation, i.e., the presence of a mentor. This is supported by Alzahrani (2014: 15) who he states that mentorship makes the transition easier because it creates a positive clinical tutor-student relationship and provides students with educational and emotional support thus enhancing students' clinical education experience. Furthermore, mentorship is a kind of relationship between two people where one person is experienced and knowledgeable and the other person is learning. The findings of Shajani (2020: 60) postulate that mentorship can impact the transition and socialization into a new role. McDonald (2010: 1) supports the previous statement but states that, continuous mentoring is also necessary to support new instructors as they transition into education.

6.3.1.2 Negative experience

Findings in this study indicate that the negative experience of transitioning was triggered by a lack of education and training. On the other hand, Vogl (2018: 8) states that transitioning into the clinical educator role involves new skills development and that clinical education and training must be well defined with the added support of a formalized system. A study by Campos (2013: 4) which supports the above statement, stated that clinical tutors need to be aware of the role they play in the futures of the students they work with as students will eventually become staff that will train other future students.

Participants state that when they were appointed to be clinical tutors, they did not have skills for teaching, and they did not know what they were doing because there were no clear guidelines from the university…. *"I was very happy initially to be involved with the students. However, I felt like I have been just thrown into the deep end because they did not give us any proper guidelines on what we are supposed to do as clinical tutors. They also did not give us a time slot that is going to be dedicated for the students"*-**Participants 7**……A similar response is noted in the studies by Knight (2018: 100) where it is stated that most clinical tutors are typically well prepared to perform their clinical duties but, few are formally prepared to teach. Most clinical tutors are hired as staff Radiographers because of their clinical expertise. Only a few individuals will have had formal training in teaching methodology, learning styles, or the effective evaluation of student learning and clinical performance (Knight 2018: 100). The faulty underlying assumption inherent in the

practice of hiring expert practitioners to be teachers is the belief that competent clinicians, because of their job expertise, should be able to effectively facilitate students' learning of the appropriate knowledge, attitudes, and skills needed to become competent clinicians themselves (Knight 2018: 100). O'Conner (2015: 37) further states that clinical expertise alone is not a satisfactory criterion for becoming a clinical teacher.

Another factor that triggered negative experiences in transitioning is increased workload. A participant shared that, the transition was not good at all because the participants are required to do clinical work and deal with the students as well…. *"It was very haphazard because I must do a clinical workload and I am also supposed to teach the students. The students end up being left behind because as clinical tutors we do not get to know them properly and assess their strengths and weaknesses. So, the transition was not good at all, since I did not receive any guidelines from the university to say, this is what is required from me or what is needed to the clinical tutor"*- **Participant 7***.* A study conducted by Knight (2018: 100) in the United States (US) shared a similar view with the participants by stating that clinical tutors are expected to effectively blend two occupations, clinical practitioner, and teacher, often within the same resource constraints and reward systems afforded practitioners who do not have teaching responsibilities.

Participants further mentioned that one of the biggest barriers to effective transitioning is high workloads due to shortages of staff, and infrastructure which also affects students' learning. "*Equipment and resources are the major problems. So, if DOH wants the best students they need to step up the game……. what we have is what we can give the students most of the time it is broken equipment or non-functioning equipment, no resources very little human resources as well very few radiographers"*- **Participants 3***.* The findings of Mabuda, Potgieter and Alberts (2008: 20), emphasized that the lack of staff and equipment affects favourable clinical learning environments. Kyei *et al*. (2015: 38) share similar views, that there are financial constraints on health care; high numbers of patients; a lack of staff and equipment; and a worsening situation where clinical tutors are frustrated and depressed by the lack of resources and insufficient time to effectively attend to students' needs. Kyei *et al.* (2015: 39) state that clinical training relies primarily on the availability of resources to make it more efficient and beneficial to the students.

Jamshidi *et al.* (2016: 2) reveal that inadequate resources meant that only a few students would benefit from clinical training because the number of students in a special examination room will far outnumber the equipment available. This implies that students will spend less time on the equipment, and which can adversely affect the quality of clinical training they are receive.

6.3.2 SOCIAL SUPPORT FACTOR

This is the second factor under SCHLOSSBERG'S Transition Theory is one of the most important factors because it focuses on the support systems that serve to organize and operationalize an individual's resources, which may include having people in one's life willing to share tasks. Moreover, participants stated that when they transition into clinical tutoring no one provided them with support, skills of clinical tutoring, or guidance on how things are done as well as ways to cope with the transitioned. This factor supports the statement by Kelly (2007: 68), that the transition will be easier for the clinical tutors if they were provided with supported mentorship, which includes creating and maintaining an open relationship; adapting the experience to the student; facilitating clinical reasoning; making time for the student, and environmental support which will be beneficial for any clinical instructor.

Findings indicate that participants lack support and stated that support must come from all levels including, hospital management, Radiographers (colleagues) as well as the teaching institute. "*I think the other one would also be resistance from other staff members (radiographers) maybe when there are students, they should be told that they are also required to supervise students. They should do it willingly and wholeheartedly because they also going to play an important role in molding future radiographers. I think some radiographers do not have a passion for radiography. It is just the work and money that is all. So, I mean, if you do not have a passion for what you are doing, you are not going to give your all even in teaching somebody else. Lastly, some radiographers will try it because there are a lot of clinical workloads, but they will not give the students their best*"- **Participant 3**

The participants had the same views regarding their social support in transition as Diagnostic Radiography clinical tutors. Their responses showed that there is a lack of support from the university, departmental management as well as DOH. *"Like my manager must give me that full support as a clinical tutor. I have a lot of things in my job description, and I cannot be with the students all the time, so I must fulfill those roles as well"*- **Participant 3***.* A study by Shajani (2020: 61) on the lived experiences of expert nurse clinicians' role transition process into academia as novice nurse educators revealed that, novice nurse educators experience emotional exhaustion due to insufficient support. Fong (2016: 108) agrees with Shajani (2020: 61) regarding the above statement but further mentions that the lack of support can lead to attrition. Bailey (2012: 120) reveals that support and mentoring prepare the clinical instructor for the roles and responsibilities of teaching. Supported mentorship includes creating and maintaining an open relationship; adapting the experience to the student; facilitating clinical reasoning; making time for the student; and environmental support which will be beneficial for any clinical instructor (Kelly 2007: 68). In addition, Shajani (2020: 61) mentions that it is the responsibility of each faculty member and administrator to restructure the workload, strengthen professional ties, and create personal situations conducive to improved performance and satisfaction. Mentorship relationships would not only assist new clinical instructors with the transition, but it will create a bond in which the mentors can support the clinical instructors as they continue to evolve as instructors.

6.3.3 STRATEGY

This is the third factor under SCHLOSSBERG'S Transition Theory. Strategy is the factor that focuses on how the participants modify the situation, control the meaning of the problem, and manage the stress in the transition process. As stated by Harvey (2020: 18), in the clinical setting there is a lack of formal education in pedagogical skills, unrealistic expectations, poor orientation procedures, a lack of mentoring, and ambiguity of role responsibilities. This study intended to understand how the clinical tutor coped with these situations and continued to provide the student with the best education. Participants proposed solutions that can assist them in the transition process.

Additionally, participants revealed that there is a lack of uniformity when it comes to the training of the students. Participants mentioned that protocols in each hospital are different, which makes teaching more difficult and also confuses the students. "*I thought that we could brainstorm with other hospitals and come up with stuff that applies to all the students going from hospital to hospital and make it easier for the student"*-**Participant 3***.* The study conducted by Lee (2015: 26) shared a similar result, whereby clinical tutors develop a teaching style that is based on practice wisdom, their experience and comfort level, and their training. These individual teaching styles may or may not include a skills repertoire that lends itself to dealing with challenging teacher-student relationships (Lee 2015: 26). The majority of the participants postulated that the standardizations of protocols would assist them in the transition process, as well as students' learning.

According to Lee (2015: 27), workshops and constant mentorship could groom novice clinical teachers for new responsibilities with students. In the findings, participants mention that universities must make sure that the clinical tutors they choose are trained in terms of knowing how to handle students and what is expected from them. *"The university can run a workshop even if it is just a one-day workshop or zoom session with all the clinical tutors just to keep us informed about what is happening with the students and in the same sessions they can tell us what is required from clinical tutors because sometimes you don't want to overstep yourself* "-**Participant 7.** Lee (2015: 26), shares a similar view with the participants that, a new clinical instructor needs an orientation or training for their transition from clinical practitioner to clinical instructor. A study by Hewitt and Lewallen (2010: 407) on how to transform the clinical nurse expert into the part-time clinical nurse instructor agrees with Lee (2015: 26), but further states that new clinical instructors should have an orientation to the school as well as a clearly stated job description. Orientation is also a good time to discuss the role conflict that may occur during the transition from clinical expert to clinical instructor (Hewitt and Lewallen 2010: 407). Moreover, Mallek and El-Hosany (2020: 379) define training as an organized method of ensuring that clinical instructors know, skills for a specific purpose, and that they acquired the necessary knowledge and competencies to perform the duties of the job.

Furthermore, Campos (2013: 4) states that clinical education is unlike the academic setting, in which classroom educators are trained in educational pedagogy. In the clinical setting, professionals with little or no training in educational methods are given the responsibility of student instruction. Participants experienced something similar because they mention that when they were appointed to be clinical tutors, there was no training to facilitate the effective transition and they did not have skills for teaching. *"I think clinical tutors need training because a teacher must go for training to be a teacher not anybody can teach"*-**Participant 5***.* A study conducted by Thompson and Taylor (2020: 203) states that for most Radiography clinical tutors there is a lack of support for teaching, such as attending workshops related to supervision and teaching. In the absence of such support, clinical tutors are supposed to teach by using their experience of being a learner, trial, and error, and observing the teaching practice of others (Thompson and Taylor 2020: 203).

6.3.4 SELF-FACTOR

This is the last factor under SCHLOSSBERG'S transition theory. The Self-factor is considered important because it is in relation to the self. It is classified into two categories, namely personal and demographic characteristics that affect how an individual views the transition process.

Participants shared the importance of job knowledge and further mentioned that before one becomes a clinical tutor, one is expected to have experience and information in the field of study and have skills to pass that information on to others. "*I think, Job knowledge in two ways. When you talk about job knowledge in terms of not just as a radiographer, but you also need to know how to become an educator"*-**Participant 1**….The previous statement was supported by JRCERT (2010: 44) who mentioned that, a clinical tutor must be knowledgeable of program goals; understand the clinical objectives and clinical evaluation system; understand the sequencing of didactic instruction and clinical education, provide students with clinical instruction and supervision; evaluate students' clinical competence; maintain competency in the professional discipline and instructional

and evaluative techniques through continuing professional development, and maintain current knowledge of program policies, procedures, and student progress.

6.4 RESULTS IN RELATION TO THE AIM OF THE STUDY

The study aimed to explore the perception of Radiography clinical tutors on the transition from being Radiographers to being a clinical educator in public hospitals. Ultimately, the study aimed to recommend measures to be put in place to allow for effective transitioning of Radiographers to being clinical educators at public hospitals. The results in relation to the aim of the study and research questions are discussed below. The participants responded to the following questions:

6.4.1 WHAT ARE RADIOGRAPHY CLINICAL TUTORS' EXPERIENCES IN THE TRANSITION FROM BEING RADIOGRAPHERS TO BEING A CLINICAL TUTORS?

The main aims of this study were to explore the perception of radiography clinical tutors on the transition from being radiographers to being a clinical educators in public hospitals. The current study achieved this aim such that the participants had the same understanding of their experiences in the public hospitals during their transition process but their views on this differed. They associated their experience with positives and negatives. Our primary question was ***"****what are the Radiography clinical tutors' experiences in the transition from being a Radiographers to being a clinical* educator?". The findings of this study demonstrate that some participants described their experiences as being positive since they felt that they can make a difference in the students learning (*"I had experience in training younger radiographers as they were qualified. So, for training students, I only had to be familiarized myself with all the rules of the university or what my scope entailed for being a tutor or a clinical educator in a hospital setting. So, it was easy for me")*-**Participants 3.** Furthermore, some clinical tutors also criticized their experiences. They felt like they had been just thrown into the deep end because they did not receive any proper guidelines on what they were supposed to do as clinical tutors

("*There were no documents and there was no support from the university and DOH, to say this is what is expected from me as a clinical tutor, so I had to find out my way")*-**Participants 4**. Participants further mentioned that since they are departmental managers, it is very difficult for them to do clinical tutoring and managerial work, which that makes the transition difficult.

6.4.2 WHAT WILL FACILITATE THE EFFECTIVE TRANSITION OF RADIOGRAPHY CLINICAL TUTORS IN PUBLIC HOSPITALS?

The findings obtained in this study are that participants must have enough clinical experience so that when students come to them with their questions on the experience, they must be able to answer. Participants also stated that it must be ensured that a potential candidate has adequate job (clinical tutoring and other basic Radiographic principles) knowledge. They added that there training should be offered (e.g., supervision, teaching, and management courses) to allow for effective transitioning.

"*Okay, first and foremost, that clinical tutor must have enough clinical experience in their workplace because you cannot have somebody that just newly qualified and become a clinical tutor. They must have enough clinical experience so that when students come to them with their questions from the experience, they must be able to answer, which is important. They must have the experience and then they can build up their knowledge on studying further but, it must be like a supervision course, a management course, and human resources skills but it must be in connection with a person or a teaching course because they must have abilities and skills to pass on to the students. It is not just plain radiography, it's not just a B-Tech course, but it must be beyond that, any other courses that enhances the students' progress."*-**Participant 2**

"Clinical tutors need to be trained before they even start dealing with the students, even if it's an interview, training for a day or few hours at least just to have an idea of what is expected from you"

Participant 1 emphasized the importance of having both adequate Radiographic skills and adequate knowledge and skills to be an educator.

“I think, Job knowledge in two ways. When you talk about job knowledge in terms of not just as a radiographer, but you also need to know how to become an educator…. That I feel would make the transition easier, because if you know your radiography, but if you don't know how to deliver it to your undergraduate students, that is going to be a challenge….”- **Participant 1**

Participant 7 added that there should be constant supervision and training offered by the University to raise awareness of what is expected of them, especially prior to students’ assessments.

“I also feel like the university should offer us workshops as clinical tutors where they would cover what is required from us and what is expected from students as well, so we can prepare the students for their assessments and to be better radiographers”- **Participant 7**

6.4.3 WHAT ARE THE BARRIERS TO AN EFFECTIVE TRANSITION FROM A RADIOGRAPHER TO BEING A CLINICAL TUTOR IN PUBLIC HOSPITALS?

This question focussed on the hurdles and challenges of transitioning from being a Radiographer to being a clinical tutor. The findings of the study showed that participants are experiencing a high workload due to shortages of staff, this was one of the major barriers which affected students’ learning as well as an effective transition. *“There is always a clinical workload that needs to be done first…. At times it gets very busy, so it is difficult to be with the students and to help them because of time”*- **Participant 7***.* According to participants poor infrastructure, a limited number of working rooms, and a shortage of equipment were also part of the barriers to an effective transition. *“What we have is what we can give the students most of the time it is broken equipment or non-functioning equipment, no resources very little human resources as well very few radiographers”*-**Participant 3.** Participants further indicated that a lack of communication and support from the teaching institute is the most dominant barrier as most participants share the same sentiments. *There is a lack of mentorship and communication as well. Communication plays a big part in terms of the communicating between your*

management, in terms of supervising your students whether are they giving you the support?"-**Participant 1**

6.4.4 WHAT CAN BE RECOMMENDED TO DUT/ DOH TO IMPROVE THE EFFECTIVE TRANSITION FROM RADIOGRAPHER TO CLINICAL TUTOR IN PUBLIC HOSPITALS?

The findings indicate that all participants agreed with the solutions proposed in the study to improve the effective transitioning of Radiography clinical tutors in public hospitals. According to participants, protocols in each hospital are different which that makes teaching more difficult. In addition, participants postulated that students must be taught something universal so that they can adapt to each clinical centre. *"I think clinical tutors must attend assessment courses that will be common to all of them so that there will be a standardization of the way students are taught and the way they are assessed"*- **Participant 2.** The study found that most of the clinical tutors appointed are also managers or clinical expects in certain areas in Radiology departments. Participants added that they spend more time doing managerial work than clinical tutoring. Therefore, the participants suggested that there should be a dedicated clinical tutor who will only focus on training students and not worry about things that are happening in the department. *"The best solution is to have a dedicated clinical tutor… then you know that this person does not do any operational work they only deal with students, and I think in that way students will be more managed, they will learn a lot"*- **Participants 5.** Furthermore, participants suggested that the appointed clinical tutor must undergo training before they start their job, where the job description will be clearly stated they will have skills of knowing how to handle students. All participants agreed with each other when it comes to creating a forum for clinical tutors whereby participants will engage with the university to discuss issues and challenges of students during clinical training and assist each other with teaching skills.

6.5 SUMMARY OF THE CHAPTER

This chapter presented a discussion of the findings of the study. The demographic profile of the Diagnostic Radiography clinical tutors interviewed in the study was described first. The findings on the perceptions of Radiography clinical tutors on the transition from being Radiographers to being a clinical educator in the eThekwini district of KwaZulu-Natal. The results were then explored concerning the environmental enablers and outlining of interventional strategies. Chapter 7 will concentrate on the conclusion, limitations, and recommendations for further research.

CHAPTER 7: CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS OF THE STUDY

7.1. INTRODUCTION

Chapter Seven summarizes the findings, limitations, and recommendations of the study, and concludes with a summary. The study aimed to explore the perceptions of Radiography clinical tutors on the transition from being Radiographers to being clinical educators in public hospitals. Ultimately, the study aimed to recommend measures to be put in place to allow for the effective transitioning of Radiographers to being clinical educators at public hospitals. The focus of this study was based on the research questions, namely:

- How would you describe your experiences in transitioning from being a Radiographer to being a clinical tutor?
- What will facilitate the effective transition of Radiography clinical tutors in a public hospital?
- What are the barriers to an effective transition from a radiographer to clinical tutor in public hospitals?
- What can be recommended to DUT/DOH to improve the effective transition from Radiographer to clinical tutor in public hospitals?

7.2 SUMMARY OF THE FINDINGS

The study aimed to explore the perceptions of Radiography clinical tutors on the transition from being Radiographers to being clinical educators in public hospitals. Ultimately, the study recommends measures to be put in place to allow for the effective transitioning of Radiographers to being clinical educators at public hospitals. To achieve this, the study set research objectives that aided in obtaining relevant information.

7.2.1 WHAT ARE THE RADIOGRAPHY CLINICAL TUTORS' EXPERIENCES IN THE TRANSITION FROM BEING RADIOGRAPHER TO BEING CLINICAL TUTORS?

The first objective was in line with the first factor under SCHLOSSBERG'S Transition Theory. The first factor was a situation that helped to check whether the participants had adequate knowledge and experience in clinical tutoring as well as to see how they coped with the transition. Most participants had the same understanding of their experience in the public hospitals for their transition process but their views on this differed. The majority of participants stated that they have had major challenges which have led to negative experiences and only a few had a positive experience. However, they also stated that they experienced similar challenges. Participants revealed that they felt like they had been thrown into the deep end because they did not receive proper guidelines from the institution on what was expected of them as clinical tutors. This concludes that the transitioning experience has not been good overall.

7.2.2 WHAT WILL FACILITATE THE EFFECTIVE TRANSITION OF RADIOGRAPHY CLINICAL TUTORS IN PUBLIC HOSPITALS?

The second objective was in line with the last factor under SCHLOSSBERG'S Transition Theory, which was the Self-factor. The self-factor was considered important because it was concerning the self and characteristics that affect how an individual views transition. The findings obtained in this study are that participants must have enough clinical experience so that when students come to them with their questions from the experience, they must be able to answer. They further mention that participants must be ensured that a potential candidate has adequate job (clinal tutoring and other basic radiographic principles) knowledge. To ensure this, training courses should be offered (e.g., supervision, teaching, and management courses), to allow for effective transitioning. The majority of participants emphasized the importance of having adequate Radiographic skills and adequate knowledge and skills to be an educator. They also stated that there should be constant supervision and training offered by the University to raise awareness of what is expected from the clinical tutors, especially before students' assessments. This,

therefore, leads to a conclusion that training, constant supervision, and support from all concerned stakeholders are the main factors that will facilitate effective transitioning.

7.2.3 WHAT ARE THE BARRIERS TO AN EFFECTIVE TRANSITION FROM RADIOGRAPHER TO CLINICAL TUTOR IN PUBLIC HOSPITALS?

The third objective was the combination of two factors under SCHLOSSBERG'S Transition Theory which was social support and situation factors. The social support factor was considered important because it focused on the support systems that serve to organize and operationalize an individual's resources, which may include having people in one's life willing to share tasks. The findings of the study showed that participants are experiencing high workloads due to shortages of staff. This was one of the major barriers which also affected students' learning in addition to make an effective transition. Moreover, participants complained about poor infrastructure, a limited number of working rooms, shortages of equipment that were also part of the barriers to an effective transition. The majority demonstrated that lack of communication and support from the teaching institution was the most dominant barrier as most participants share the same sentiments. They further stated that they do not receive any form of training or education on supervising students, thus they are not aware of what is expected of them. This study concludes that barriers to transition based on this research include a lack of training and education, high workload, poor infrastructure, as well as a lack of communication and support from relevant stakeholders.

7.2.4 WHAT CAN BE RECOMMENDED TO DUT/DOH TO IMPROVE THE EFFECTIVE TRANSITION FROM RADIOGRAPHER TO CLINICAL TUTOR IN PUBLIC HOSPITALS? FOR DUT/ DOH

This objective was in line with the strategy factor under SCHLOSSBERG'S Transition Theory. The strategy was the factor that focused on how participants modified the situation, controlled the meaning of the problem, and managed the stress in the transition process. The majority of participants demonstrated that protocols in each hospital are

different, which made teaching more difficult. Therefore, participants proposed that students must be taught something universal so that they can adapt to each clinical centre. The study also revealed that most of the clinical tutors that are appointed are also managers or clinical expects in certain areas in Radiology departments and they spend more time doing managerial work than clinical tutoring. Therefore, the participants suggested that there should be a dedicated clinical tutor who will only focus on training students and not worry about things that are happening in the department.

Furthermore, participants suggested that the appointed clinical tutor must undergo training before they start their job, where the job description will be clearly stated including the skills required. To implement the above recommendations, clinical tutors and teaching institutes must create a forum for clinical tutors where they will engage with the university to discuss issues and challenges of students during clinical training and assist each other with teaching skills.

7.3 SUMMARY OF THE STUDY

The primary objective of this study was to explore the perceptions of Radiography clinical tutors on the transition from being Radiographers to being clinical educators in public hospitals in the eThekwini district. Ultimately, the study recommends measures to be put in place to allow for the effective transitioning of Radiographers to being clinical educators at public hospitals. The researcher chose to utilize a Constructivist paradigm using a qualitative, exploratory, and descriptive design. The research question of: what are the experiences of Radiography clinical tutors in the transition from being a Radiographers to being clinical tutors in a public hospital in the eThekwini district was answered and revealed four primary themes that influence clinical tutors' transition. These were: situation, social support factor, self-factor, and strategy.

7.4 RECOMMENDATIONS

The recommendations, based on the findings of the study, relate to the categories SCHLOSSBERG'S Transition Theory which are: situation, social support, strategy, self-factor. and further research

7.4.1.1 Situation.

- The study demonstrated that clinical tutors must keep abreast of all the modern technology so that they can pass on this information to the students.
- The study demonstrated that there is a lack of mentorship and communication and clinical tutors suggested that there should be continuous or two-way communication between the university and clinical tutors, whereby the clinical tutors will be given guidance on what is expected from them.

7.4.1.2 Social support.

- Clinical tutors postulated that their managers must give them full support as clinical educators because they have many responsibilities in their job description.
- The university and the hospital need to come together in advance and inform clinical tutors that will be dealing with students so that they will be in the right gear.

7.4.1.3 Strategy.

- There should be a clear criterion for choosing clinical tutors because some clinical tutors do not have degrees that are equivalent to what is offered now by the university.
- Clinical tutors suggested that students must be taught something universal so that they can adapt to each clinical centres. To enhance an effective transition, it was recommended that there should be a standardization of protocols in all the training canter to promote an easy teaching and learning process

- There must be a dedicated clinical tutor who will only focus on training students and not worry about things that are happening in the department.
- The creation of a forum where clinical tutors engage with the university to discuss issues and challenges of students during clinical training was suggested.
- The public hospitals should be provided with better working x-ray rooms and well-functioning equipment to help the transition of clinical tutors.
- The university must run a workshop or Zoom session with all the clinical tutors just to keep them informed about what is happening with the students and in the same sessions, they can be informed of what is required from them as clinical tutors.

7.4.1.4 Self-factor

- A potential candidate must have adequate job (clinical tutoring and other basic Radiographic principles) knowledge.
- There should be training courses offered (e.g., supervision, teaching, and management courses), to allow for effective transitioning.
- Clinical tutors must attend assessment courses that will be common to all of them so that there will be a standardization of the way in which students are taught and the way they are assessed.

7.5 RECOMMENDATIONS FOR FUTURE RESEARCHERS

- More quantitative studies with a larger sample size that assesses the perceptions of Radiography clinical tutors on the transition from being Radiographers to being clinical educators in KwaZulu-Natal's eThekwini district.
- Similar qualitative research can be undertaken in private hospitals in the eThekwini district or another provinces or countries.
- Research is necessary to identify if the clinical tutors have the same transition experience whether they are in public hospitals or private hospitals.

7.6 STRENGTH OF THE STUDY

This study was conducted within qualitative research paradigm with the hope of achieving rich data from the participants as to their experience in the transition process from being a Radiographer to being a clinical tutor in a public hospital. This qualitative study is the first of its kind regarding diagnostic radiography clinical tutors' transition experience within the South African context contributes new knowledge about clinical tutors' transition experiences in public hospitals. While this study included some standard ideas that can help clinical tutors in the transition process, it also touched on some unique issues that are unique to Diagnostic Radiography clinical tutors in the public hospitals in eThekwini district.

7.7 LIMITATIONS OF THE STUDY

Limitations are regarded as the weaknesses of a study (Van Der Walt and Van Rensburg 2008: 118). According to Creswell (2003: 18) and Atieno (2009: 15), all methods have limitations and inherent biases.

In this study, the participants were chosen from only the Diagnostic Radiography clinical tutors in public hospitals using nonprobability purposive sampling. This setting limited the researcher in that there was a smaller number of participants because there are few public hospitals that are credited to be training centres. This led to a reduced or prejudiced sample size.

The study only had 7 participants. It took some time to analyse and interpret the data acquired to complete the presentation of findings by getting all transcripts of each participant. This qualitative study just focused on the perceptions of Radiography clinical tutors on the transition from being Radiographers to being clinical educators in public hospitals and the researcher noted that there was limited literature on the perceptions of Radiography clinical tutors' transition from being a Radiographers to being clinical educators in public hospitals in the eThekwini district.

The study consisted of interviews, hence it allowed for the limitation of ambiguity and bias to be present.

7.8 CONCLUSION

Being a clinical tutor is an evolving process, mirroring in some ways the evolving process that clinical instructors try to encourage amongst their respective students. This qualitative study explored the perceptions of Radiography clinical tutors on the transition from being Radiographers to being clinical educators in a public hospital. The study described the various experiences of Diagnostic Radiography clinical tutors in the transition from being radiographers to being clinical tutors. The findings indicate that majority of the participants have had negative experiences in transitioning, while only a few participants had a positive experience.

Major challenges to transitioning include a lack of training and education; high workload; lack of communication and support from the institution, as well as a lack of guidelines / standard frameworks. It was also revealed that the clinical tutors are not aware of their expectations, especially about students' assessments. Participants further stated that having many students from all levels in one hospital can be very challenging, mainly due to a lack of resources. These experiences need to be supported by the teaching institute to best equip the transition of clinical tutors, thus improving the educational experience and adhering to the institutional and departmental vision and mission. The few participants that had a positive experience also stated that they experienced similar challenges. However, these did not have a significant impact on their transitioning. The findings of this study can be used as the foundation for helping clinical tutors cope with the transition process and how succeed with the varying roles, responsibilities, and experiences of being a clinical tutor in today's clinical education setting

Participants in this study suggested that there should be a dedicated clinical tutor as they are currently expected to supervise students while running other duties in the workplace. This becomes a burden that is not easy to handle and further jeopardizes their ability to provide full supervision to students. Furthermore, the appointed dedicated clinical tutors must undergo training before they start their jobs, where job descriptions will be clearly stated as well as the skills of knowing how to handle

students. Findings in this study also reveal that clinical tutors are not provided adequate support or guidance on how things are done as well as ways to cope with the transition. They further stated that support must be received from hospital management, the teaching institute as well as other Radiographers (colleagues). Support from other Radiographers was emphasized to ensure that all students are always supervised, and they can get adequate knowledge and training.

It can be concluded that the majority of clinical tutors are facing challenges in transitioning from being a Radiographer. These challenges affect their abilities to supervise students, which in turn affects the clinical learning progress of students. This, therefore, calls for an extensive intervention of both the learning institution, the hospital management, and other relevant stakeholders to best figure out how these challenges can be tackled. This will allow for a smooth transition and improve students' supervision and ability to learn at the clinical venues.

REFERENCES

Abay, E.Ş., Turan, S., Odabaşı, O. and Elçin, M. 2017. Who is the preferred tutor in clinical skills training: physicians, nurses, or peers?. *Teaching and Learning in Medicine*, *29*(3): 247-254. Available: https://www.tandfonline.com/doi/abs/10.1080/10401334.2016.1274262 (Accessed 15 July 2021).

Acharya, A.S., Prakash, A., Saxena, P. and Nigam, A. 2013. Sampling: Why and how of it. Indian Journal of Medical Specialities, 4(2): 330-333.

Adom, D., Hussein, E.K. and Agyem, J.A. 2018. Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research*, *7*(1): 438-441.

Alahmadi, F. 2015. Perceptions of Clinical Instructors and Respiratory Therapy Students on Effective Teaching Characteristics of Clinical Instructors in Saudi Arabian Universities. Available:https://scholarworks.gsu.edu/cgi/viewcontent.cgi?article=1032&context=rt_theses (Accessed 12 April 2021).

Ali, P.A., and Panther, W. 2008. Professional development and the role of mentorship. *Nursing standard*, *22*(42). Available: https://sci-hub.se/http://doi.org/10.7748/ns2008.06.22.42.35.c6579 (Accessed 25 July 2021).

Alzahrani, H.A. 2014. Mentorship teaching in clinical teaching of nursing. *Middle East Journal of Nursing*, *8*(4): 15-18.Available: http://www.me-jn.com/November2014/MENTOPRSHIP.pdf (Accessed 25 July 2021).

Bailey, P.D. 2012. *From clinical to academia: The lived experience of the advanced practice nurse transition to nurse educator* (Doctoral dissertation, Capella University).

Bensusan, A. D. 1967. Early history of radiography in South Africa 1896-1900.South African Medical Journal= Suid-Afrikaanse Tydskrif vir Geneeskunde,41 (31): 778.

Bentley, H. B. 2005. Early days of radiography. Radiography, 11(1): 45-50.

Berkup, S.B. 2014. Working with generations X and Y in generation Z period: Management of different generations in business life. *Mediterranean Journal of Social Sciences*, *5*(19): 218-218. Available:

https://www.richtmann.org/journal/index.php/mjss/article/view/4247 (Accessed 7 February 2022).

Bourne Jr, L.E., Kole, J.A. and Healy, A.F. 2014. Expertise: defined, described, explained. *Frontiers in Psychology*, *5*: 186.

Brophy, D.M. 2015. *Occupational challenges faced by nursing personnel at a state hospital in Cape Town, South Africa*(Doctoral dissertation, Cape Peninsula University of Technology. Available: http://ir.cput.ac.za/bitstream/20.500.11838/2082/1/203024923_Brophy_DM_MTech_HRM_Bus_2016.pdf (August 2021).

Buccieri, K.M., Pivko, S.E. and Olzenak, D.L. 2011. How does a physical therapist acquire the skills of an expert clinical instructor?. *Journal of Physical Therapy Education*, *25*(2): 17-23.Available: https://journals.lww.com/jopte/Fulltext/2011/01000/How_Does_a_Physical_Therapist_Acquire_the_Skills.5.aspx (Accessed 11 April 2021).

Bucknell, D. 2006. Outcome-focused supervision. *Providing Support And Supervision: An Introduction for Professionals Working With Young People*: 41-56.

Buhr, W. 2003. *What is infrastructure?* : 107-03. Volkswirtschaftliche. Diskussionsbeiträge.

Burgess, A. and Mellis, C. 2015. Feedback and assessment for clinical placements: achieving the right balance. *Advances in Medical Education and Practice*, *6*: 373.Available: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4445314/pdf/amep-6-373.pdf (Accessed 3 August 2021).

Burns, N. and Grove, S.K. 2010. *Understanding Nursing Research-eBook: Building an Evidence-Based Practice*. Elsevier Health Sciences.

Campos, S. 2013. *What's stopping them? A study of teachers' use of formative feedback with students learning in the clinical setting* (Doctoral dissertation, Capella University).

Cantatore, F., Crane, L. and Wilmoth, D. 2016. Defining clinical education: Parallels in practice. *Australian Journal of Clinical Education*, *1*(1): 5087.

Chapman, L. 2013. *A perspective on role transition from practitioner to educator among clinical nurse faculty* (Doctoral dissertation, Walden University).

Creswell, J.W. 2009. Research design: qualitative, quantitative, and mixed methods approach. 3rd ed. Thousand Oaks, CA: SAGE Publications.

Creswell, J.W. 2014. Research design: qualitative, quantitative, and mixed methods approach. 4th ed. Thousand Oaks, CA: SAGE Publications.

Creswell, J.W. and Poth, C.N. 2016. *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Cuenca, A. 2010. Self-Study Research: Surfacing the Art of Pedagogy in Teacher Education. *Journal of Inquiry and Action in Education*, *3*(2): 15-29.

Davidson, K.M. and Rourke, L. 2012. Surveying the orientation learning needs of clinical nursing instructors. *International Journal of Nursing Education Scholarship*, *9*(1).Available: https://sci-hub.do/10.1515/1548-923X.2314 (Accessed 29 July 2021).

de Caestecker, J. 2002. Role of the clinical tutor. *Postgraduate medical journal*, *78*(925), pp.639-640. Available: https://www.researchgate.net/publication/10979079_Role_of_the_clinical_tutor (Accessed 26 June 2021).

Decker, S. 2009. The lived experience of newly qualified radiographers (1950–1985): An oral history of radiography. Radiography, 15(1): e72-e77.

Dludla, Z.C. 2015. Exploring Signature Pedagogies in Radiography Education at a South African University (Doctoral dissection, University of KwaZulu-Natal, Edgewood), December: 186. Available: https://scholar.google.co.za (Accessed 11 April 2021).

Elliott, B. 1987. The transition process: A definition of transition in rural areas. *Rural Special Education Quarterly*, *8*(3): 9-15.

Elo, S., Kaariainen, M., Kanste, O., Tarja, P. and Kati, U.H. 2014. K. 2014. Qualitative content analysis: A focus on trustworthiness. Available: https://doi.org/10.1177/2158244014522633 (Accessed 19 August 2021).

Etikan, I., Musa, S.A. and Alkassim, R.S. 2016. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1): 1-4. Available: file:///C:/Users/Administrator/Downloads/Comparison_of_Convenience_Sampling_and_Purposive_S.pdf (Accessed 11 October 2018).

Faux, J. 2010. Pre-testing survey instruments. *Global Review of Accounting and Finance*, 1(1): 100-111

Flick, A. 2009. An introduction to qualitative research. 4th ed. London: SAGE Publications Ltd.

Flick, U. ed. 2013. *The SAGE handbook of qualitative data analysis*. Sage.

Fong, C.M. 2016. Role overload, social support, and burnout among nursing educators. *Journal of Nursing Education*, *29*(3): 102-108.Available: https://journals.healio.com/doi/abs/10.3928/01484834-19900301-07 (Accessed 26 Juky 2021).

Fortsch, P. 2007. How the clinical settings of radiography programs affect learning perceptions. Available: https://scholarworks.uni.edu/etd/762/ (Accessed 10 April 2021).

Foxcroft, C. and Roodt, G. eds. 2005. *An introduction to psychological assessment in the South African context*. Oxford University Press.

Franco, J.V.A., Arancibia, M., Meza, N., Madrid, E. and Kopitowski, K. 2020. Clinical practice guidelines: concepts, limitations and challenges. *Medwave*, *20*(3).

Gamez, S.I. 2017. *Moving in, moving through, and moving out: The transitional experiences of foster youth college students*. California State University, Long Beach. Available:https://www.proquest.com/openview/093655501de81572c20e270d7acc9011/1?pq-origsite=gscholar&cbl=18750 (Accessed 8 August 2021).

Gemuhay, H.M., Kalolo, A., Mirisho, R., Chipwaza, B. and Nyangena, E. 2019. Factors affecting performance in clinical practice among preservice diploma nursing students in Northern Tanzania. *Nursing Research and Practice*.Available: https://www.hindawi.com/journals/nrp/2019/3453085/ (16 April 2021).

Gill, P., Stewart, K., Treasure, E. and Chadwick, B. 2008. Methods of data collection in qualitative research: interviews and focus groups. *British dental journal*, *204*(6): 291-295. Available: https://scholar.google.co.za/scholar?hl (Accessed 5 August 2021).

Giordano, S. 2004. Remedying an educator shortage. *Radiologic technology*, *75*(6):471-473.

Giordano, S. 2008. Improving clinical instruction: comparison of literature. *Radiologic Technology*, *79*(4): 289-296.Available: http://www.radiologictechnology.org/content/79/4/289.short (Accessed 11 April 2021).

Giordano, S. and Harris, K. 2012. Using athletic training clinical education standards in radiography. Radiologic technology, 83(3): 218-225.Available: https://www.researchgate.net/profile/Nina_Kowalczyk/publication/221768715_Perceptions_of_the_use_of_critical_thinking_teaching_methods/links/54199b5c0cf203f155ae0831.pdf#page=8 (Accessed 11 April 2021).

Goodman, J. Schlossberg, N.K. and Anderson, M.L. 2006. *Counseling adults in transition: Linking practice with theory*. Springer Publishing Co.

Guest, G., Namey, E. and Mitchell, M. 2013. *Collecting qualitative data: A Field Manual for Applied Research*. Thousand Oaks, CA: Sage.

Hababeh, M.O. and Lalithabai, D.S. 2020. Nurse trainees' perception of effective clinical instructor characteristics. *International Journal Of Nursing Sciences*, *7*(3): 285-290.Available: https://www.sciencedirect.com/science/article/pii/S2352013220300879 (Accessed 16 April 2021).

Hager, P. and Gonczi, A. 1996. What is competence? *Medical teacher*, *18*(1): 15-18.

Hanlon, B. and Larget, B. 2011. Samples and populations. Article: *Department of Statistics*: 121. Available: https://scholar.google.co.za (Accessed 14 May 2021).

Hart, A.J. 2009. The perception of novice approved clinical instructors on their preparedness as clinical educators. Available: https://researchrepository.wvu.edu/cgi/viewcontent.cgi?article=5512&context=etd (Accessed 20 April 2021).

Harvey, M.A. 2020. *Perceptions of clinical adjunct instructor preparedness in nurse education* (Doctoral dissertation, Walden University). Available:

https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=9998&context=dissertations (Accessed 20 July 2021).

Hewitt, P. and Lewallen, L.P. 2010. Ready, set, teach! How to transform the clinical nurse expert into the part-time clinical nurse instructor. *The Journal of Continuing Education in Nursing*, *41*(9): 403-407. Available: https://libres.uncg.edu/ir/uncg/f/l_lewallen_ready_2010.pdf (Accessed 23 July 2021).

Hsu, L.L., Hsieh, S.I., Chiu, H.W. and Chen, Y.L. 2014. Clinical teaching competence inventory for nursing preceptors: instrument development and testing. *Contemporary nurse*, *46*(2): 214-224.Available: https://www.researchgate.net/profile/Suh-Ing-Hsieh/publication/262023525_Clinical_Teaching_Competence_Inventory_for_Nursing_Preceptors_Instrument_Development_and_Testing/links/5a2cbf9e0f7e9b63e53aeb85/Clinical-Teaching-Competence-Inventory-for-Nursing-Preceptors-Instrument-Development-and-Testing.pdf (Accessed 24 July 2021).

Ingrassia, J.M. 2011. Effective radiography clinical instructor characteristics. *Radiologic Technology*, *82*(5): 409-420.Avaiable: http://www.radiologictechnology.org/content/82/5/409.short (Accessed 18 April 2021).

Jamshidi, N., Molazem, Z., Sharif, F., Torabizadeh, C. and Najafi Kalyani, M. 2016. The challenges of nursing students in the clinical learning environment: a qualitative study. The Scientific World Journal, 2016. Available: http://file:///C:/Users/Studentaccc/Downloads/1846178.pdf (Accessed 19 August 2021).

Jay, M.V. 2007. *Learning outcomes towards the formal training of nurse case managers practising in South Africa*(Doctoral dissertation, Cape Peninsula University of Technology).

Jenny, K., Megan D, and Megan, D. 2017.Assessment and clinical education.

Kelly, R.E. 2006. Engaging baccalaureate clinical faculty. *International Journal of Nursing Education Scholarship*, *3*(1).Available: https://www.degruyter.com/document/doi/10.2202/1548-923X.1186/html (Accessed 24 July 2021).

Kelly, S.P. 2007. The exemplary clinical instructor: a qualitative case study. *Journal of Physical Therapy Education*, *21*(1): 63-69.Available: https://www.researchgate.net/profile/Stephanie-Kelly-5/publication/282157824_The_Exemplary_Clinical_Instructor_A_Qualitative_Case_Study/links/5605ac2e08aea25fce33fa5c/The-Exemplary-Clinical-Instructor-A-Qualitative-Case-Study.pdf (Accessed 27 july 2021).

Kivunja, C. and Kuyini, A.B. 2017. Understanding and Applying Research Paradigms in Educational Contexts. *International Journal of Higher Education*, *6*(5):26-41.

Knight, A.W. 2016. *A self-determination theory-based analysis of the effects of clinical instructor behavior on student clinical engagement*. The University of Iowa. Available: https://ir.uiowa.edu/cgi/viewcontent.cgi?article=6467&context=etd (14 July 2021).

Knight, A.W. 2018. How clinical instructor behavior affects student clinical engagement from a motivational perspective. *Journal Of Nuclear Medicine Technology*, *46*(2):99-106.Available: https://tech.snmjournals.org/content/jnmt/46/2/99.full.pdf (Accessed 16 April 2021).

Kyei K. A., Antwi W. K., Bamfo-Quaicoe K., Offei R. O. 2015. Challenges Faced by Radiography Students during Clinical Training, Clinical Medicine Research, 4(3-1):3642. Available: https://pdfs.semanticscholar.org/94d8/d055c60e2697c9d4cdc7fb97b3ed46a5803d.pdf (Accessed 19 August 2021).

Lee, C.G. 2015. Radiography Clinical Instructors' Perceptions of the Transition from Technologist to Educator. Available: https://dc.etsu.edu/etd/2587/ (Accessed 10 April 2021).

Leon, A.C., Davis, L.L. and Kraemer, H.C. 2011. The role and interpretation of pilot studies in clinical research. *Journal Of Psychiatric Research*, 45(5): 626-629.

Lincoln, Y. S. and Guba, E. G. 1985. Naturalistic inquiry. *International journal of intercultural relations*, 9(4): 438-439. Available: https://doi.org/10.1016/0147-1767(85)90062-8 (Accessed 14 May 2021).

Lindstrom, D.D. 2019. From Community College Faculty to Dean: Using Schlossberg's Transition Theory to Understand the Transition Experience. Available:

https://repository.stcloudstate.edu/cgi/viewcontent.cgi?article=1036&context=hied_etds (Accessed 7 August 2021).

Mabuda, B.T., Potgieter, E. and Alberts, U.U. 2008. Student nurses' experiences during clinical practice in the Limpopo Province. Curationis, 31(1): 1927. Available: http://www.scielo.org.za/pdf/cura/v31n1/02.pdf (Accessed 19 August 2021).

Mack, L. 2010. The philosophical underpinnings of educational research.

Mallek, S.S. and El-Hosany, W.A.E.A. 2020. Training program for improving clinical teaching knowledge as a competence of clinical instructors. *American Journal of Nursing*, *8*(3): 379-391.

Mateo, M.A. 2013. *Research for advanced practice nurses: From evidence to practice*. Springer Publishing Company.

Maxwell, J. 2012. *Qualitative research design: an interactive approach*. 3rd ed. Thousand Oaks, CA: Sage.

McDermid, F., Peters, K., Daly, J. and Jackson, D. 2016. Developing resilience: Stories from novice nurse academics. *Nurse Education Today*, *38*: 29-35. Available: https://researchdirect.westernsydney.edu.au/islandora/object/uws:33696/datastream/PDF/view (Accessed 26 July 2021).

McDonald, P. (2010). Transitioning from clinical practice to nursing faculty: Lessons learned. *Journal of Nursing Education.* 49(3). 126-131.

McLeod, P., Steinert, Y., Chalk, C., Cruess, R., Cruess, S., Meterissian, S., Razack, S. and Snell, L. 2009. Which pedagogical principles should clinical teachers know? Teachers and education experts disagree Disagreement on important pedagogical principles. *Medical teacher*, *31*(4):117-e124.Available: https://www.tandfonline.com/doi/full/10.1080/01421590802335900 (Accessed 11 April 2021).

Miles, M.B., Huberman, A.M. and Saldana, J. 2013. *Qualitative data analysis.* Sage.

Modisenyane, A.T. 2014. *Factors relating to the effective implementation of work integrated learning in South African higher learning* (Doctoral dissertation).

Natesan, S., Bailitz, J., King, A., Krzyzaniak, S.M., Kennedy, S.K., Kim, A.J., Byyny, R. and Gottlieb, M. 2020. Clinical teaching: An evidence-based guide to best practices from the council of emergency medicine residency directors. *Western Journal of Emergency Medicine*, *21*(4): 985.Available: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7390547/ (Accessed 3 August 2021).

National Institute of Mental Health. 2010. *Pilot intervention and services research grants* (R34).

O'Connor, A.B. 2014. *Clinical instruction & evaluation: A teaching resource*. Jones & Bartlett Publishers.

O'Neil, S. (2009). A (very) brief journey through qualitative research: Theme 8 of class notes. Pretoria: *Department of Human Resource Management, University of Pretoria*.

Osanloo, A. and Grant, C. 2016. Understanding, selecting, and integrating a theoretical framework in dissertation research: Creating the blueprint for your "house". *Administrative issues journal: connecting education, practice, and research*, *4*(2): 7.

Plakht, Y., Shiyovich, A., Nusbaum, L. and Raizer, H. 2013. The association of positive and negative feedback with clinical performance, self-evaluation and practice contribution of nursing students. *Nurse education today*, *33*(10): 1264-1268.Available: https://www.sciencedirect.com/science/article/abs/pii/S0260691712002596 (Accessed 24 July 2021).

Polit, D. F. and Beck, T. C. 2010. Generalization in quantitative and qualitative research: Myths and strategies. International journal of nursing studies, 47(11): 1451. Available: http://doi.org/0.1016/j.ijnurstu.2010.06.004 (Accessed 11 April 2021).

Ponterotto, J.G. (2005). Qualitative research in counselling psychology: a pnmer on research paradigms and philosophy of science. *Journal of Counselling Psychology,* 52(2): 126-136.

Potgieter, E. and Alberts, U.U. 2008. Student nurses' experiences during clinical practice in the Limpopo Province. Curationis. Available: http://www.scielo.org.za/pdf/cura/v31n1/02.pdf (Accessed 19 August 2021).

Price, R.C. 2001. Radiographer reporting: origins, demise and revival of plain film reporting. *Radiography*, *7*(2): 105-117.

Rahi, S. 2017. Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, *6*(2): 1-5.

Reeves, P. J. 2009. Reflections of a diagnostic radiographer. Radiography, 15, Supplement 1(0): e1-e2. Available: http://dx.doi.org/10.1016/j.radi.2009.04.001. (Accessed 12 April 2021).

Robinson, O.C. 2014. Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research In Psychology*, *11*(1): 25-41.

Saunders, M., Lewis, P. and Thornhill, A. 2007. Research methods for business students. 4th. *Harlow, Essex: Pearson*.

Schlossberg, N. K., and, O. (1981). Adult Transitions. *Counseling Psychologist*, 9(2): 2-51

Schlossberg, N.K. 2008. Overwhelmed: coping with life's ups and downs, 2nd edn, M. *Evans, Lanham, MD*.

Shajani, Z. 2020. *The lived experiences of expert nurse clinicians' role transition process into academia as a novice nurse educator* (Doctoral dissertation, University of Liverpool). Available:https://livrepository.liverpool.ac.uk/3090823/10/H00014491_June2020_edited_version.pdf (Accessed 22 July 2021).

Shenton, A.K. 2004. Strategies ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2): 63-75. Available: https://content.iospress.com/articles/education-for-information/efi00778 (Accessed 21 August 2021).

Silverman, D. ed. 2016. Qualitative research. London: Sage.

Singh, A.S. and Masuku, M.B. 2014. Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of Economics, Commerce and Management,* 2(11): 1-22.

Smith, J.A. and Osborn, M. 2007. Four interpretative phenomenological analysis. *Doing social psychology research*. September: 53-80.

Sousa, M.P. and Resha, C.A. 2019. Orientation learning needs of adjunct clinical faculty in the United States. *Nursing education perspectives*, *40*(4), pp.222-227.Available: https://journals.lww.com/neponline/Abstract/2019/07000/Orientation_Learning_Needs_of_Adjunct_Clinical.7.aspx (Accessed 20 July).

Spencer, J. 2003. Learning and teaching in the clinical environment. BmJ, 326(7389): 591-594.Available: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1125480/ (Accessed 20 April 2021).

Streubert-Speziale, H. J. and Carpenter, D. R. 2007. Qualitative research in nursing: *Advancing in humanistic imperative 4th ed*. Philadelphia: Lippincott.

Thomas, P.Y. 2010. *Towards developing a web-based blended learning environment at the University of Botswana*(Doctoral dissertation).

Thompson, A. and Taylor, D. 2020. Finding ways to support radiographers as teachers. *Journal of Medical Radiation Sciences*, *67*(3): 199-207.Available: https://onlinelibrary.wiley.com/doi/pdf/10.1002/jmrs.399 (Accessed 18 April 2021).

Tosuncuoglu, I. 2018. Importance of Assessment in ELT. *Journal of Education and Training Studies*, *6*(9): 163-167.Available: https://files.eric.ed.gov/fulltext/EJ1188961.pdf (Accessed 24 August 2021).

Van Der Walt, C. and Van Rensburg, G. 2008. Fundamentals of research methodology for healthcare professionals. 2nd ed. Cape Town: Juta and Company.

Van Teijlingen, E. and Hundley, V. 2010. The importance of pilot studies*. Social Research Update,* 35: 49-59.

Vogl, E.E. 2018*. Clinical instructor's experiences of clinical education at a chiropractic teaching clinic in KwaZulu-Natal (Doctoral dissertation).* Available: https://openscholar.dut.ac.za/bitstream/10321/3150/1/VOGLEE_2018.pdf (Accessed 16 August 2021).

Woolley, T., Clithero-Eridon, A., Elsanousi, S. and Othman, A.B. 2019. Does a socially-accountable curriculum transform health professional students into competent, work-

ready graduates? A cross-sectional study of three medical schools across three countries. *Medical teacher*, *41*(12): 1427-1433.

Wright, K. 2012. Student nurses' perceptions of how they learn drug calculation skills. *Nurse Education Today*, *32*(6), pp.721-726.Available: https://www.sciencedirect.com/science/article/abs/pii/S0260691711002590 (Accessed 24 July 2021).

Yambi, T.D.A.C. 2018. Assessment and evaluation in education.

9.0 APPENDICES

Appendix 1a: University provisional approval from IREC

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: irec@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

28 October 2021

Mr V S Nowane
P.O Box 155
Maphumulo
4470

Dear Mr Nowane

The perceptions of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district

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

- 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 220/21**. 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

Professor J K Adam
Chairperson: IREC

Appendix 1b: University full Ethics clearance

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

21 December 2021

Mr V S Ncwane
P.O Box 155
Maphumulo
4470

Dear Mr Ncwane

The perceptions of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district
Ethical Clearance number **IREC 220/21**

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letter.

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 Standard Operating Procedures (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

Appendix 2a: Letter of permission to the Provincial Heath Research Committee.

P.O.BOX 155
Maphumulo
4470

Health Research and Knowledge Management
330 Langalibalele Street
Private Bag X 95.1
Pietermaritzburg
3201

Dear: Gatekeeper at Provincial Health Research Committee

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

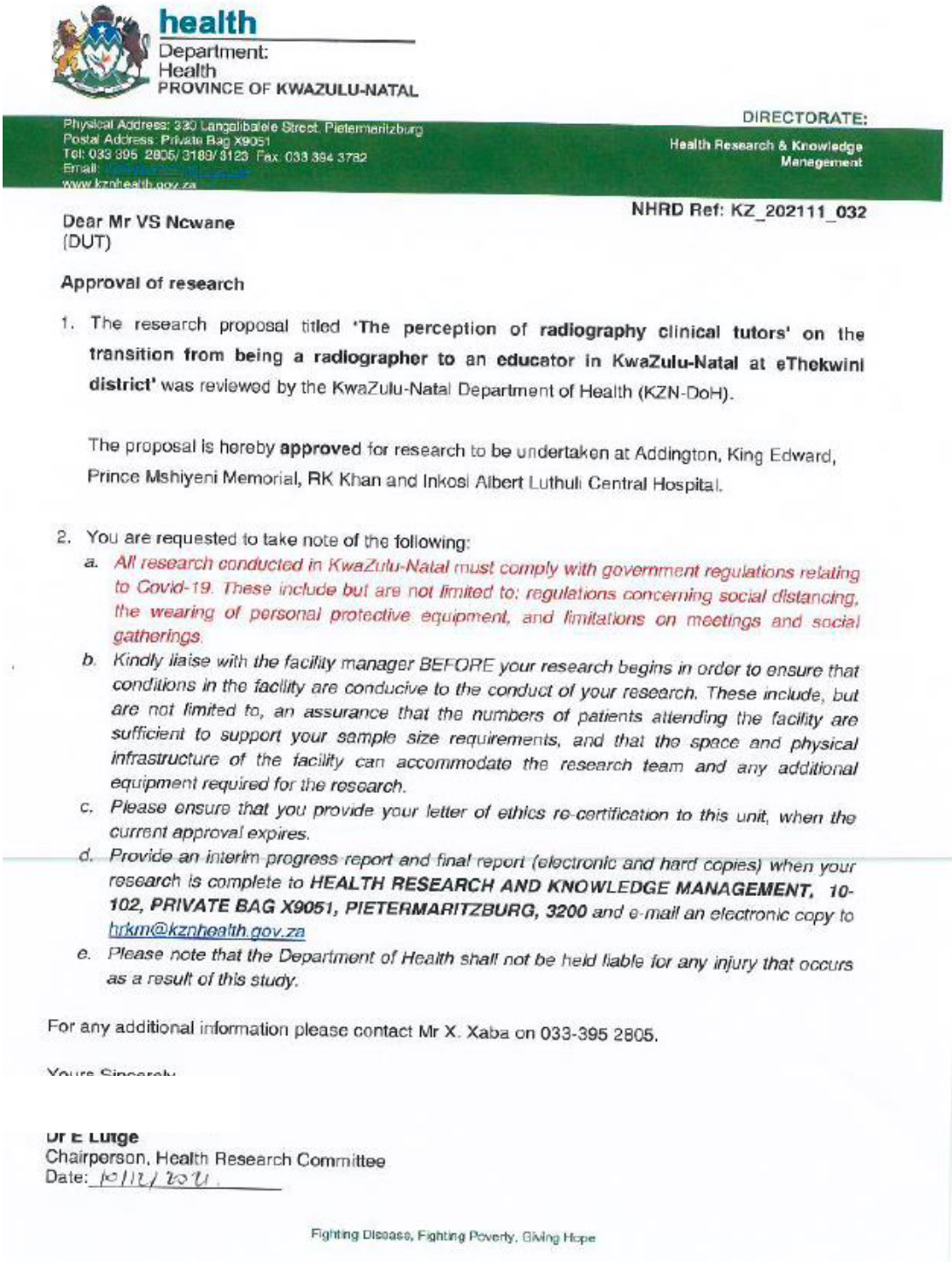
If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 2b: Approval letter from the Provincial Heath Research Committee.



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_202111_032

Dear Mr VS Ncwane
(DUT)

Approval of research

1. The research proposal titled **'The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

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

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: 10/12/2021

Fighting Disease, Fighting Poverty, Giving Hope

Appendix 3a: Letter of permission to the eThekwini District Manager.

P.O.BOX 155
Maphumulo
4470

eThekwini District Offices
83 Jan Smuts Mayville
P/bag X54318
Durban
4000

Dear: Gatekeeper at eThekwini District

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or via email address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 3b: Approval letter from the eThekwini District Manager.

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE: Monitoring and Evaluation
Physical address: 83 King Cetshwayo Highway; Highway House; Mayville 4091
Postal Address: private Bag X 54318, Durban 4000 eThekwini District Office
Tel: 031 240 5308 Fax: 031 240 5555 Email: Ntombenhle.Ngcobo@kznhealth.gov.za
www.kznhealth.gov.za

Enquiries: Mrs. N.P Ngcobo
Date: 03/12/2021

Mr Vukani Sphiwesihle Ncwane
Durban University of Technology

RE: SUPPORT FOR RESEARCH STUDY ON "THE PERCEPTION OF RADIOGRAPHY CLINICAL TUTORS' ON THE TRANSITION FROM BEING A RADIOGRAPHER TO AN EDUCATOR IN KWAZULU NATAL AT ETHEKWINI DISTRICT."

I have pleasure in informing you that the District is granting you support to conduct the research study titled **"The perception of Radiography Clinical Tutors' on the transition from being a Radiographer to an Educator in Kwa Zulu – Natal at eThekwini District"** at eThekwini Health District facilities.

Please note the following:

1. Please ensure you adhere to all the policies, procedures, protocols and guidelines of the department of health with regards to this research.
2. This research will only commence once this office has received confirmation from the provincial health research committee in the KZN department of health.
3. Please ensure this office is informed before you commence your research.
4. The District office/facility will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to the district office/facility.

Thank you.

Sincerely

Mrs. N.P. Ngcobo
(P, Monitoring and Evaluation Manager)
EThekwini Health District

GROWING KWAZULU-NATAL TOGETHER

Appendix 4a: Letter of permission to Hospital CEO at ADH

P.O.BOX 155

Maphumulo

4470

Addington Hospital

P.O. BOX 977

Durban

4000

Dear: Gatekeeper at Addington Hospital.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 4b: Approval letter from CEO at ADH

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

ADDINGTON HOSPITAL

Erskine Terrace, South Beach, DURBAN 4001
Postal Address: P.O. Box 997, DURBAN 4000
Tel: 031 3272970 Fax: 031 3883300
Email:

OFFICE OF THE CHIEF EXECUTIVE OFFICER

Reference: 9/2/3/R

Date: 24th November 2021

Principal Investigator:
- **Mr VS Ncwane**

PERMISSION TO CONDUCT RESEARCH AT ADDINGTON HOSPITAL: "THE PERCEPTIONS OF RADIOGRAPHY CLINICAL TUTORS' ON THE TRANSITION FROM BEING A RADIOGRAPHER TO AN EDUCATOR IN KWAZULU-NATAL AT ETHEKWINI DISTRICT"

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

Please note the following:

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

DR M NDLANGISA
CHIEF EXECUTIVE OFFICER
ADDINGTON HOSPITAL

Appendix 5a: Letter of permission to Hospital CEO at KED

P.O.BOX 155

Maphumulo

4470

King Edward VIII HOSPITAL

P/Bag X02

Congella

4013

Dear: Gatekeeper at King Edward VIII Hospital.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 5b: Approval letter from CEO at KED

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

KING EDWARD VIII HOSPITAL
CLINICAL MANAGER
Corner of Sydney and Rick Turner Roads, Umbilo, Durban
Private Bag x02, Congella 4013
Tel: 031 360 3854 Fax: 031 206 1457 Email: E-mail: KE8.MedicalManagerSecretary@kznhealth.gov.za
www.kznhealth.gov.za

Ref: KE 2/7/10/(11/2021
Enq: Mr L.S Ngcobo
Research Programming

10 November 2021

P. O Box 155
Maphumulo
4470

Dear Mr. V.S Ncwane

BREC REFERENCE NO: IREC 220/21
Protocol: "The perception of radiography clinical tutors' on transition from being a radiographer to an educator in KwaZulu-Natal eThekwini district."

Your request to conduct research at King Edward VIII Hospital has been approved.

Please ensure the following:

- That King Edward VIII Hospital receives full acknowledgment in the study on all publications and reports and also kindly present a copy of the publication or report on completion.

Before commencement:

* Discuss your research project with our relevant Clinical Head/Assistant Nursing Manager
* Sign an indemnity form at Room8, CEO's Complex, Admin. Block.

The Management of King Edward VIII Hospital reserves the right to terminate the permission for the study should circumstances so dictate.

Yours faithfully

SUPPORTED/NOT SUPPORTED

16/11/2021
DATE

DR. V. MKHIZE
CLINICAL MANAGER

GROWING KWAZULU-NATAL TOGETHER

Appendix 6a: Letter of permission to Hospital CEO at PMMH

P.O.BOX 155

Maphumulo

4470

Prince Mshiyeni Memorial Hospital

P/Bag X07

Mobeni

4060

Dear: Gatekeeper at Prince Mshiyeni Memorial Hospital.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 6b: Approval letter from CEO at PMMH

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE: Senior Manager: Medical

Postal Address : Manqosuthu Highway, Private Bag X 07, Mobeni — Name of Directorate: Prince Mshiyeni Memorial
Physical Address
Tel: 0319078317 Fax: 0319061044 Email address: myint.aung@kznhealth.gov.za
www.kznhealth.gov.za

Enquiry: Dr M AUNG
Ref No: 45/RESH/2021
Date: 19/11/2021

TO: Mr. V.S Ncwane

RE: LETTER OF SUPPORT TO CONDUCT RESEARCH AT PMMH

Dear researcher;

I have pleasure in informing you that support has been granted to you by Prince Mshiyeni Memorial Hospital (PMMH) to conduct research on "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district**".

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research will only commence once this office has received approval of your study from the Provincial Health Research and Ethics Committee (PHREC) in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. The PMMH will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to PMMH.
6. You are required to contact this office regarding dates for providing feedback when the research has been completed.

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

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

Thank you.

MYINT AUNG
Senior Medical Manager & specialist in Family Medicine
MBBS, DO(SA), PGDip in HIV (Natal), M.Med.Fam.Med (natal), PhD
Tel: 031 9078317
Fax: 031 906 1044
myint.aung@kznhealth.gov.za

Appendix 7a: Letter of permission to Hospital CEO at RKKH

P.O.BOX 155

Maphumulo

4470

RK Khan Hospital

P/Bag X004

Chatsworth

4030

Dear: Gatekeeper at RK Khan Hospital.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 7b: Approval letter from CEO at RKKH

health
Department:
Health
PROVINCE OF KWAZULU-NATAL

Physical Address : R.K. Khan Circle
Physical Address : CHATSWORTH
Tel: [031] 4596001 Fax:[031] 4011247 Email:Dianne.naicker@kznhealth.gov.za
www.kznhealth.gov.za

DIRECTORATE:
R.K. KHAN HOSPITAL
OFFICE OF THE SENIOR
MANAGER: MEDICAL SERVICES

ENQUIRIES: DR D. BEHADAR
TEL: 031-4596019

4 NOVEMBER 2021

Mr V.S. Ncwane
P.O. Box 155
Maphumalo
4470

Dear Mr Ncwane

RE: PERMISSION TO CONDUCT RESEARCH: "THE PERCEPTIONS OF RADIOGRAPHY CLINICAL TUTORS ON THE TRANSITION FROM BEING A RADIOGRAPHER TO AN EDUCATOR IN KWAZULU-NATAL AT ETHEKWINI DISTRICT"

Permission is granted to conduct the above research.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures protocols and guidelines of the institution with regards to this research.
2. Please ensure this office is informed before you commence your research study and your University's Ethics approval must be attached.
3. **You will be expected to provide feedback on your findings to this institution.**
4. You will be liaising with: Mr Selvam Pillay
   Radiography Manager
   X-ray Department
   Tel: 031-4596130

Yours faithfully

DR G.M. GOVENDER
ACTING SENIOR MANAGER: MEDICAL SERVICES

Appendix 8a: Letter of permission to Hospital CEO at IALCH

P.O.BOX 155

Maphumulo

4470

Inkosi Albert Luthuli Central Hospital

P/Bag X003

Mayville

4058

Dear: Gatekeeper at Inkosi Albert Luthuli Central Hospital.

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am Vukani S Ncwane, a registered student for a master's degree in Radiography at the Durban University of Technology. My research topic is: "**The perception of radiography clinical tutors' on the transition from being a radiographer to an educator in KwaZulu-Natal at eThekwini district".**

I hereby seek for permission to conduct semi-structured interviews with diagnostic radiography clinical tutors at the radiology department.

I have provided you with a copy of the summary of the proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com or my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. Thank you for your time and consideration in this matter.

Yours sincerely

Ncwane V.S

Durban University of Technology

Appendix 8b: Approval letter from CEO at IALCH

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Physical Address 800 Vusi Mzimela Road, Mayville - 4058
Postal Address: Private bag X03 Mayville – 4058
Tel: 031 240 1124 Fax: 031 240 1005 Email: linda.mtshali@ialch.co.za
www.kznhealth.gov.za

DIRECTORATE:
OFFICE OF THE MEDICAL MANAGER
INKOSI ALBERT LUTHULI CENTRAL HOSPITAL

Reference: IREC 220/21
Enquiries: Dr. A. Harrichandparsad

25th November 2021

Mr.VS Newane
Faculty of Health Sciences
Durban University of Technology

Dear Mr. VS Newane

Re: Approved Research: Ref No: IREC 220/21 – The perceptions of radiography clinical tutor's on the transition from being a radiographer to an educator in KwaZulu- Natal at eThekwini District

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

Kindly note the following.

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

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

Yours faithfully

...
Dr. A. Harrichandparsad
Clinical Care Manager
Office of the Medical Manager
IALCH

GROWING KWAZULU-NATAL TOGETHER

Appendix 8c: Approval letter from CEO at IALCH

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Physical Address 800 Vusi Mzimela Road, Mayville - 4058
Postal Address: Private bag X03 Mayville – 4058
Tel: 031 240 1124 Fax: 031 240 1005 Email: linda.mshali@ialch.co.za
www.kznhealth.gov.za

DIRECTORATE:
OFFICE OF THE MEDICAL MANAGER
INKOSI ALBERT LUTHULI CENTRAL HOSPITAL

Reference: IREC 220/21
Enquiries: Dr. A. Harrichandparsad

25th November 2021

Mr.VS Newane
Faculty of Health Sciences
Durban University of Technology

Dear Mr. VS Newane

RE: PERMISSION TO CONDUCT RESEARCH AT IALCH

I have pleasure in informing you that permission has been granted to you by the Medical Manager to conduct research on: **The perceptions of radiography clinical tutor's on the transition from being a radiographer to an educator in KwaZulu - Natal at eThekwini District**

Kindly take note of the following information before you continue:

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

Yours faithfully

.....

Dr. A. Harrichandparsad
Clinical Care Manager
Office of the Medical Manager
IALCH

Appendix 8d: Approval letter from DD at IALCH

KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE: PAMS

INKOSI ALBERT LUTHULI CENTRAL HOSPITAL
Private Bag X03, Mayville, 4058
800 Vusi Mzimela (Bellair) Road, Mayville,4091
Tel: 031 240 1950 Email: poppy.mfeka@ialch.co.za

NAME OF DEPARTMENT : RADIOLOGY

25 11 2021

TO WHOM IT MAY IT CONCERN

This is to confirm that **Vukani Ncwane** has requested to conduct research involving the Radiology department. Preliminary permission has been granted which is dependent on the final permission to be granted by the IALCH management.

It will be ensured that this exercise does not interfere with the service delivery in the Radiology department.

Yours Sincerely

B V MFEKA
DEPUTY DIRECTOR - RADIOGRAPHY

Appendix 9: Letter of information for participants

LETTER OF INFORMATION

Dear Participant

Thank you for agreeing to participate in the study. The information about the study is as follows:

Title of the Research Study: The perception of radiography clinical tutors on the transition from being a radiographer to a clinical educator in KwaZulu-Natal at eThekwini district.

Principal Investigator/s/researcher: Ncwane Vukani Siphiwesihle (Degree (Hons), Diagnostic Radiography

Co-Investigator/s/supervisor/s: Dr T.E Khoza (PhD in Health Sciences).

Brief Introduction and Purpose of the Study: Clinical education and experience in the clinical environment play an important role in shaping the clinical experience. This is accomplished through guidance and direction by instructors, tutors, and clinical staff. Furthermore, radiographers who transition into the role of clinical tutors are usually expert practitioners but may lack knowledge of best practices regarding student instruction and evaluation. The purpose of this research is to determine the perception of radiography clinical tutors' transition from being a radiographer to an clinical educator and ultimately recommend measures to be put in place to allow for effective transitioning of radiographers to being clinical educators at public hospitals

Outline of the Procedures: Should you agree to participate in this study, you will be required to sign a consent form. Ethics clearance and approval would be obtained before the start of the study. The researcher will conduct semi-structured interviews with a few participants and will take approximately 30 minutes or less. You must answer the questions as openly and honestly as possible. Your responses will form the basis of some of the questions which may be asked by the researcher. At the end of the interview, the signed consent page must be handed to the researcher. Should you wish to be informed of what your information contributed, and or / the results of this study, note that this will be provided at the end of the last interview. There are no

foreseeable risks or harm that can be imposed by the research study to you. Also, you will not incur any research-related injury or adverse reaction in this study. Participation involves an interview where you will be asked to relate on clinical tutors' experiences, and no names of people or sensitive information will be required of you. Participation in the study is voluntary. Should you decide not to be in the study anymore, you can withdraw at any time.

Reason/s why the Participant May Be Withdrawn from the Study: You are free to withdraw from the study at any time and no penalty will be imposed on you.

Risks or Discomforts to the Participant: None

Benefits: Challenges faced by radiography clinical tutors will be identified and the respective authorities may address those to improve the experiences and assist clinical tutors in achieving their academic goals.

Remuneration: You will not receive any remuneration of any kind for participation in this study.

Costs of the Study: You do not pay anything to participate in the study.

Confidentiality: All information and data will be kept strictly confidential. The interview guide will be coded; no names will be written on the guide. The list of names and corresponding research numbers will be stored on a password-protected computer. Only the supervisors will have access to this data. Upon completion of the study, the research material will be kept for five years thereafter it will be deleted by the researcher.

Persons to Contact in the Event of Any Problems or Queries: If you have any questions, concerns, or problems at any time about the study or the procedures feel free to contact me telephonically on 071 204 1667 or viaemail address ncwanevukani@gmail.com , my supervisor Dr. T.E Khoza on thandokuhlek@dut.ac.za. or the Institution Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and post graduate support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za Thank you for your time and consideration in this matter.

Appendix 10: Consent

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Vukani Siphiwesihle Ncwane (name of researcher), about the nature, conduct, benefits, and risks of this study - Research Ethics Clearance Number: IREC 220/21
- I have also received, read, and understood the above-written information regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- Given the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant	**Date**	**Time**	**Signature / Right Thumbprint**

I Ncwane Vukani Siphiwesihle herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher	**Date**	**Signature**
Full Name of Witness (If applicable)	**Date**	**Signature**

Appendix 11: Interview Guide

Interview guide

Introduction:

- Self-introduction and welcome participant.
- Inform participants about the use of audio recording device during the discussion.
- Participant is informed about confidentiality and anonymity during the interview and that their names will not be reflected in the transcribed text.
- Consent forms discussed and signed by participants.
- Participant is reminded of their free will to participate or terminate the interview at any point without repercussion.

SECTION 1: DEMOGRAPHIC DATA

PLEASE TICK THE APPROPRIATE BOX

1. GENDER

Male			
Female			
other			

2. RACE

African	
Indian	
Coloured	
White	
Other	

3. AGE (years)

26-41		42-57		58-67	

4. MARITAL STATUS

Married	
Divorced	
Widowed	
Single	
Engaged	
Living-together relationship	
Long-term relationship	
Other	

5. NUMBER OF YEARS AS CLINICAL TUTOR

1-5	6-10	11-15	16-21

6. TYPE OF HOSPITALS

Clinic	District	Provincial	Tertiary

Section 2: Interview Session

Session starts:

Good day, and welcome to this interview. Thank you for giving me your time and agreeing to participate. In this interview, we shall discuss issues pertaining to your perception as a diagnostic radiography clinical tutor and health care practitioner. The information will be used for research purposes only.

There are no right or wrong answers to the questions. Feel free to express yourself as you feel comfortable.

No names will be written in the research transcripts as well as the report. You are assured of complete **confidentiality.**

I would like to inform you once again that this interview is being audio recorded, and your participation is voluntary. We may stop at any point if you wish to discontinue.

Grand Tour Question:

1. How would you describe your experiences in transition from being a radiographer to a clinical tutor?

Probing questions will be based on the responses by participants

2. What will facilitate effective transition of radiography clinical tutor in public hospital?
3. What are the barriers for effective transition as a radiographer to clinical tutor in public hospitals?
4. How has Covid-19 changed your role of being a clinical tutor?
5. What can be recommended to improve the effective transition as a radiographer to clinical tutor in public hospitals? For DUT/ DOH

Closing the interview:

6. Is there anything else that you would like to add that you think may help me get a clearer picture of your experiences?

Thank the participant once more for their time and end the interview session.

Appendix 12: A sample of the transcript

Participant Number: 01

Interview Date: 11/01/2022

Section A: Demographic Data

Data not shown due to ethical reasons.

Section B: Interview

Interviewer: Greeted participant and introduced self as well as explaining the purpose of the interview.

Interviewer: May I begin with the interview?

Participant: Okay.

1. **Interviewer: How would you describe your experiences in transition from being a radiographer to a clinical tutor?**

Participant: The experience in translation? My personal experience, I think I was fortunate because I had a mentor that showed me the ropes…… So, there was somebody that was in an existing post and when I came, I was filling in a post of a second…. So, when I came in this hospital, there was two clinical tutors, and then obviously there was one that was in charge and the other one she retired…. So, when they advertised her post, that is when I got the second clinical tutor post…. So, I was very fortunate that I had a mentor that knew what they were looking for and so, the transition for me personally, I did not have any issues. It made me realize that with radiography it is something where you can be a good radiographer, but you also have to know the tools of teaching it to others……What I have learnt from my mentor was that to teach, radiography, you have to make things simple, simplify things do not complicate it, because when you are a student and you are an undergraduate student, you need things to be simplified…….Yes, when you are a postgraduate, then deal with the complicated stuff whereas you are an undergraduate student, you need things to be dished out simple.

Moreover, I think I was fortunate I was exposed to somebody that made things basic, and it helped me grasp because I was also exposed to someone that was always hyperluded…. she was a clinical tutor and a mentor in other aspects in radiography as profession itself. I felt that her methods were too hyperluded and it was a challenge. I found that, if you put things in simple forms, it was the best in terms of teaching radiography, and you have to have a background or the passion for teaching…. You can be a good radiographer, but you must also have a basic qualification of teaching. In the government Institute, every radiographer that is employed in a training Institute, must know that he/she will be training students. So, you must have the ability to supervise students…. What I found out over here is that there is a lot of qualified radiographers that can teach, and they have got the patience, but unfortunately, their radiography is poor, so it works both ways, vice versa. So, you got to find the balance.

2. **Interviewer: What will facilitate effective transition of radiography clinical tutor in public hospital?**

Participant: I think, Job knowledge in two ways. When you talk about job knowledge in terms of not just as a radiographer, but you also need know how to become an educator…. That I feel would make transition easier, because if you know your radiography, but if you don't know how to deliver it to your undergraduate students, that is going to be a challenge…. So, I think that job knowledge, two-fold radiography and an educator. when you talk about the government Institute over here when you talk about the role of clinical tutor, is there such role that exists?.....What is your Institute, how do they class or describe a clinical tutor?.....Is a clinical tutor there or it is a just a namesake or they are given the privileges to clinically tutors student?.....Or you are a part that is running the Department and not giving the student the time that they deserve…… You are not basically supervising the student or you're doing very indirect supervision and you expect everything to be done at university Whereas when they come over here, you just basically checking their register, but you're not doing one on one work

with them…… How does it work? That is something that needs to be looked at in details…. Where we will discuss job descriptions for clinical tutors in the health sector.

3. **Interviewer: What are the barriers for effective transition as a radiographer to clinical tutor in public hospitals?**

Participant: I think mentorship and having the lack of support…. There is nobody to show you how the clinical tutoring is done. For example, let say there is a new hospital, and they say it is going to be accredited as a training Institute. How do they go about getting this clinical tutor post and who is there to facilitate it? There is lack of the mentorship and obviously communication as well. Communication plays a big part in terms of the communicating between your management, in terms of supervising your students whether are they giving you the support?

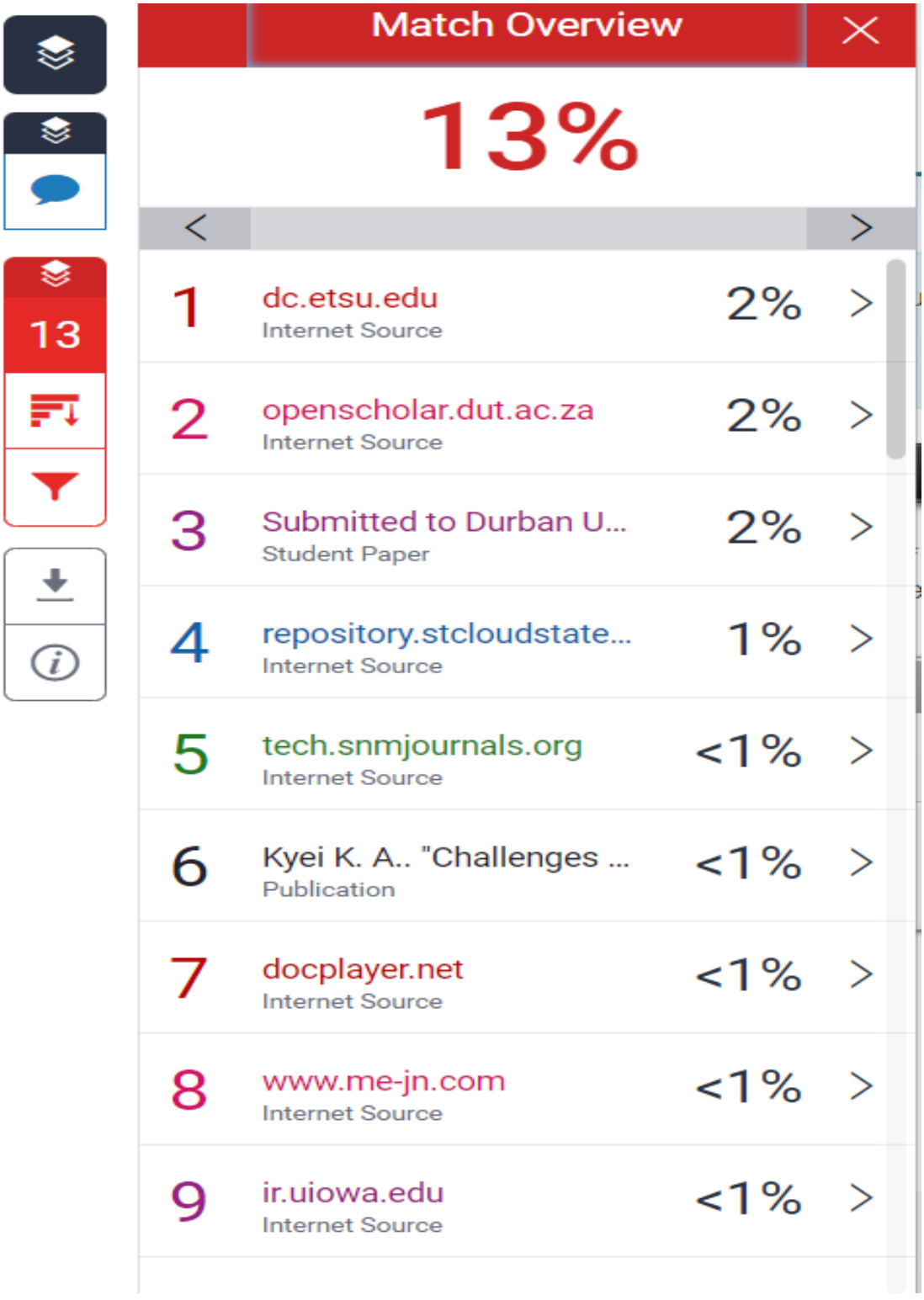
4. **Interviewer: How has Covid-19 changed your role of being a clinical tutor?**

Participant: Truth, I do not think it has changed in any sense. For me personally It showed me that, this is my calling. I am here because I am here to serve people……You realize a lot of people when they apply to do radiography, they are doing it for money. I feel when you are studying radiography or medicine or nursing, anything in the health sector, you have to have this vocation to teach.……..You must be there to help your patient and when we talk about Covid, you must know these are very ill patients and we are in this pandemic where you have every other sector that is sitting at home and you are at work since we are front line…….You are hands on every single patient that was suspected and we had to X-ray them. So, I realized, this is my calling I am in the right place, this is my job.

5. **Interviewer: What can be recommended to improve the effective transition as a radiographer to clinical tutor in public hospitals? For DUT/ DOH**

Participant: Okay. There is a lot of things that can be done. I think they need to communicate with each other and basically create these posts called clinical tutor, where these clinical tutors are dedicated for the teaching of radiography students. It is basically they allocate a so-called radiographer to supervise the students, but that radiographer is expected to push clinical work, managerial work, run the Department, or basically work as a normal qualified radiographer and it is only secondary to supervising your students…… When you get a clinical tutor post, put it into a place in a specific training Institute, that person must know they are there to train students. Your primary job should be training students, not worrying about the quality control of the department, not worrying about running of the department and doing X-rays on patients. It must be there to train students as your priority. That is what I feel, and that person must be the link between DUT and the Institute they employed at and currently, we are lacking that greatly.

6. **Interviewer: Is there anything else that you would like to add that you think may help me get a clearer picture of your experiences?**

Participant: I think we are not transparent enough right now because I feel students are not being trained properly in theses clinical health sectors and it has a lot to do with clinical tutor with the post as such. You need to analyse each institute you are going to, analyze those so called clinical tutors person that appointed over there. What their job description or basically what they are expected to do in relation to mentoring the students and in relation to service delivery of the department because you will find that, clinical tutoring is secondary where it should be primary concern. Where their goal is supposed to mentor students and tutor students. Is that happening the government sector..... that is the greatest down fall, we need to look at that and improve it. How we do that I do not know, where we need to perhaps create posts specifically for job. Thank you.

Plagirism report