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**EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO  
ASSESS FOUR-YEAR DIPLOMA NURSING STUDENTS AT A SELECTED  
NURSING COLLEGE IN TSHWANE**

by

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for the degree  
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## DECLARATION

I, Mikateko Esther Mageza,  
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declare that:

**“EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO  
ASSESS FOUR-YEAR DIPLOMA NURSING STUDENTS AT A SELECTED  
NURSING COLLEGE IN TSHWANE”**

is my own work and has not been previously submitted for another degree at another Tertiary institution. Where secondary material has been used, this has been carefully acknowledged and referenced in accordance with the University requirements. I am aware of the university policies and implications regarding plagiarism.

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**Signed**

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**Date**

## DEDICATION

I dedicate this work to God Almighty for giving me the strength and wisdom I needed to succeed in my studies.

## ACKNOWLEDGEMENT

I would like to thank all who contributed towards the success of this study.

Faculty of Health Sciences of the University of Pretoria for giving me the opportunity to be one of their master's degree student. The Research Ethics Committee of the Faculty of Health Sciences of the University of Pretoria for approval to conduct the study.

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The lecturers who assisted with assessment of the evaluation tools.

Lastly, I give thanks to my family for supporting me during the study period.

## ABSTRACT

**Name:** ME Mageza

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**TITLE:** “EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO ASSESS FOUR-YEAR DIPLOMA NURSING STUDENTS AT A SELECTED NURSING COLLEGE IN TSHWANE”

**Introduction:** The emphasis on the quality and safety of health care has a big influence on ensuring that the accurate assessment of students' performance is implemented in clinical practice. In nursing education clinical assessment tools are used to assess the clinical competence of students. A non-reliable assessment tool can cause a student with inadequate clinical skills to complete the course and work as a professional nurse without adequate clinical knowledge.

**Objectives:** The objective of this study was to evaluate the quality and the content of the clinical assessment tools used to assess clinical competence of four-year diploma nursing students in one of the nursing colleges in Tshwane.

**Methods and procedures:** A quantitative, descriptive design was used to evaluate the quality and content of clinical assessment tools used for students at the selected Nursing College. Purposive sampling was used to select the unit of analysis since it can be used to advantage in certain situation. One assessment tool was purposively selected from each level to assess the following disciplines GNS 100, PNS 100 and CNS 100 except level two where two clinical assessment tools were selected. The two clinical assessment tools selected in level two were GNS 200 and MNS 100. The investigator evaluated all the clinical assessment tools while 20 lecturers who were considered as experts validated the results. A checklist was developed and utilized as a data collection tool. Statistical tests were used to analyze data as recommended with the assistance of the statistician. All ethical issues and quality control measures were maintained throughout the study.

**Results:** Amongst others, the results indicated that less than 50% of the assessment tools had the rating scale provided. The results also showed that only 20% of the assessment tools had assessment objectives clearly described. More than 50% of the assessment tools had the name of the institution, the assessment procedure name, the type of the assessment to be done and the level of the student to be assessed indicated.

**Conclusion:** The study concentrated on the evaluation of clinical assessment tools used to assess diploma nursing students at a selected nursing college in Tshwane. The results indicated areas of concern regarding the quality and the content of clinical assessment tools. Positive results were also indicated. The study further recommended that standardization and guidelines for development of clinical assessment tools for all levels be conducted.

**Key words:** Evaluation, assessment tool, clinical assessment, competence, content.

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## ABBREVIATIONS

Abbreviations	Title
SANC	South African Nursing Counsel
CNS 100	Community nursing science 100
GNS 100	General nursing science 100
GNS 200	General nursing science 100
MNS 100	Midwifery nursing science 100
PNS 100	Psychiatric nursing science 100

# CHAPTER 1

## OVERVIEW OF THE STUDY

### 1.1 INTRODUCTION AND BACKGROUND

Clinical assessment tools in nursing education are tools developed to assess the clinical competence of students in clinical practice. Those are instruments used for determining or measuring the extent to which practical learning has taken place (Oermann, 2015:191). Clinical assessment tools are used not only to assess the nursing student's ability to perform a task, but also the quality of the nursing care rendered (Ulfvarson & Oxelmark, 2012:705). Assessment should be inclusive and equitable, meaning that academic standards are not compromised, and no group or individual student disadvantaged (Kelly, Vottero, Carolyn & McAuliffe, 2014:3).

The incompetency of newly qualified professional nurses often affects the quality of nursing care rendered to the patients. The assessment tools utilized to assess student's clinical skills should improve the competency of students when placed in clinical facilities.

In a study conducted in Canada on the identification of nursing assessment models/tools, it is asserted that the increased focus on the effectiveness and efficiency in health services are geared towards patient safety and risk management (Higginbotton, Richter, Mogale, Ortiz, Young & Mollel, 2011: 9). Assessment in clinical practice assures that nurse graduates who become registered nurses are able to provide quality nursing care in accordance with their scope of practice as prescribed by the relevant registration authority, for example the South African Nursing Council in South Africa (Ulfvarson & Oxelmark, 2012:703).

The content of the clinical assessment tools should be an integral part of programme design and should relate directly to the programme aims and learning objectives. Non-research informed assessment tools have been based on clinical experience, as suggested by Higginbotton et al. (2011:10). Ulfvarson and Oxelmark (2012:703) argue that clinical practical assessment tools should be a true reflection of what the students have been taught rather than routine formality. It is a challenge for lecturers to update reliable and valid clinical nursing assessment tools, since they understand the process of assessment differently

(Ulfvarson & Oxelmark, 2012:703). Due to lack of guidelines on the development of clinical assessment tools, each group of clinical lecturers update their respective assessment tools according to their own standards and this creates challenges regarding validity and reliability of the assessment tool (Wu, Enskar, Lee & Wang, 2015:357). According to Yanhua and Watson (2011:4), many tools require further testing of their validity and reliability because they are the core components of quality clinical assessment. Evaluation of the reliability and validity of clinical assessment tools should be done to ensure their consistency and certainty.

## 1.2 PROBLEM STATEMENT

Clinical assessment tools are aimed at evaluating nursing students' knowledge, skills and attitudes related to the programme and course outcomes. The content of the assessment tools should be written in a scientific approach, compliant to the curriculum expectation and communicate with the practical guide (Quinn & Hughes 2007:140). Macnee and McCabe (2008:2) affirmed that problems with assessment of student's clinical practice are long standing emanating from lack of reliable and valid clinical assessment tools.

A non-reliable assessment tool can lead a student with inadequate clinical skills to complete the course and work as a professional nurse without adequate clinical knowledge, which will automatically affect the safety and quality of care rendered to the patients (Hill, 2012:5). Wu et al. (2015:357) affirmed that although assessment tools are updated and in use in most institutions, their content and quality are often not compliant to the curriculum expectations and sometimes do not communicate with the practical guides. In addition, measures on how these assessment tools can be reviewed are not readily available.

Lack of measures to review clinical assessment tools affects their content and quality, therefore creates a challenge for clinical lecturers at the selected nursing college updates their respective assessment tools according to their own standards. The process of updating the assessment tools often creates challenges regarding their content, validity and reliability which are sometimes neglected, leading to lack of certainty and consistency of these assessment tools. Therefore, the investigator saw it necessary to evaluate the content and the quality of clinical assessment tools used to assess clinical competence of diploma nursing students.

## **1.3 RESEARCH QUESTIONS, AIM AND OBJECTIVES**

### **1.3.1 Research questions**

- What is the quality of existing clinical assessment tools used to assess four-year diploma nursing student's clinical competence?
- What are the contents of the clinical assessment tools used for assessing four-year diploma nursing student's clinical competence?

### **1.3.2 AIM**

The aim of the study was to evaluate the quality and the content of existing clinical assessment tools used to assess four-year diploma nursing students at the selected nursing college in Tshwane in order to improve the assessment of students.

### **1.3.3 OBJECTIVES**

The objective was to evaluate the quality of existing clinical assessment tools used to assess four-year diploma nursing students at the selected nursing college in Tshwane and to determine the content of the clinical assessment tools commonly used for four-year diploma nursing students at the selected nursing college in Tshwane.

## **1.4 SIGNIFICANCE AND BENEFITS OF THE PROPOSED STUDY**

### **1.4.1 NURSING EDUCATION**

The study might benefit the lectures responsible for reviewing and assessing clinical competencies of students in that their knowledge and understanding with regard to the quality and contents of the assessment tools will be improved through dissemination of the results and recommendations of the study. This will add on the body of knowledge related to reviewing and updating of clinical assessment tools.

### **1.4.2 PATIENTS**

Patients might also benefit from the study results, as the quality of care that will be rendered by nursing students who would be assessed by the reviewed clinical assessment tools might

improve. The safety of patients will also be improved since the student's level of accountability and responsibility would be increased.

### **1.4.3 Nursing students**

Nursing students might have reviewed clinical assessment tools that will guide their daily nursing practice in terms of their professional accountability and responsibility. The competency of newly qualified professional nurses will also improve since the clinical assessment tool will ensure that only those with adequate clinical skills are promoted to the next level of training.

## **1.5 PARADIGM AND ASSUMPTIONS**

### **1.5.1 Paradigm**

Paradigm refers to a basic set of beliefs that guide actions and how these actions interact (Guba, 1990:17, cited in Creswell, 2007:19). Polit & Beck, 2012:12 define paradigms as a worldview, a general perspective of the world's complexities. In this study, the paradigm of choice is positivist. Two types of paradigms and the research methods associated with them are described in nursing namely: positivist and constructivist paradigms. Positivist paradigm refers to the traditional scientific approach of doing research using the 19<sup>th</sup> century thought (Polit & Beck, 2012:12). Positivists value objectivity and personal beliefs. Positivists see objectivity as a goal and strive to be as neutral as possible (Polit & Beck, 2012:12). In this study, the positivist paradigm informed the research method and strategies on how data was collected to evaluate the contents and quality of clinical assessment tools used to assess the clinical competence of four-year diploma nursing students. Measures to prevent biasness were ensured.

### **1.5.2 Assumptions**

Assumptions are ideas that are seen to be true without proof (Macnee & McCabe, 2008:254). The beliefs of the scientific approach assume that nature is basically ordered and regular and that objectivity reality exists independent of human observation (Polit & Beck, 2012:12). In other words, the world is assumed not to be merely a creation of the human

mind. The related assumption of determinism refers to the positivist belief that phenomena are not haphazard or random events, but has antecedent causes (Polit & Beck, 2012:12). In this study, assumptions include the following: ontology, epistemology and methodology.

### **1.5.2.1 Ontological assumption**

Ontology is a part of philosophy that deals with the nature of reality. It involves how we view the world and what is happening in the world (Botma, Greef & Mulaudzi, 2010:40). Ontology consists of a pre-existing order that can be researched, influenced by external factors that have the same effect to everyone. Positivist ontology believes that reality exists and there is a real world driven by real natural causes (Polit & Beck 2012:13). In this study, the reality is that the clinical nursing assessment tools are used to assess clinical competency of the four-year diploma in nursing science students at the selected nursing college in Tshwane.

### **1.5.2.2 Epistemological assumption**

Epistemology refers to the branch of philosophy that deals with knowledge and focuses on the structure of the knowledge, not the content (Botma et al., 2010:40). The knowledge from this study is that clinical assessment tools are used to assess performance of four-year diploma nursing students at the selected nursing college in Tshwane. In this study, the knowledge was obtained by evaluating the clinical assessment tools that are used to assess clinical competency of the four-year diploma Nursing Science students at the selected nursing college in Tshwane.

### **1.5.2.3 Methodology**

Methodology refers to principles that show what the investigator must investigate and what must be known (Botma et al., 2010:41). Methodology was objective, quantifiable and the investigator was neutral (Polit & Beck, 2012:12). Measures to prevent biasness were implemented throughout the study. Quantitative descriptive survey was conducted using a fixed data collection tool. Descriptive statistics recommended by the statistician were used to analyze the data. In this study, fixed designs, for example a checklist, was used to collect data for evaluating the quality of clinical assessment tools at the selected nursing college in Tshwane.

## 1.6 DEFINITION OF KEY TERMS

The following concepts are important for the purpose of the study:

- **Assessment tool:** Assessment tool is an instrument used to determine or measure the extent to which learning has taken place (Oermann, 2015:191). In this study, assessment tool refers to the clinical tool used to assess clinical skills for four-year diploma nursing students.
- **Nursing student:** Nursing student refers to a person who is training as a nurse at a nursing institution registered as such under Section 23 (Nursing Act no 33 of the Republic of South Africa). In this study, student nurses refer to all the four-year diploma students in training at the selected Nursing Education Institution in Tshwane.
- **Quality:** Quality of clinical assessment tools implies an exclusive service produced to high standards, its principles include grade of goodness, fitness for purpose, zero defects and right first time (Quinn & Hughes, 2007:142). In this study, quality mean fitness for purpose, validity and reliability of clinical assessment tools.
- **Four-year diploma:** In this study four-year diploma refers to a four-year programme of education and training leading to obtaining of a qualification that confers on the holder thereof the right to registration as a nurse (general, psychiatric and community) and midwifery (SANC Regulation: Education and Training Government Notice No R425).
- **Evaluation:** For the purpose of this study evaluation refers to judging to what extent the teaching has been successful and to what extent student outcomes have been attained (Quinn & Hughes, 2007:267).
- **Assessment:** For the purpose of this study assessment refers to the process of collecting, measuring and interpreting information relating to student's responses to the process of learning (Quinn & Hughes, 2007:267).
- **Content:** For the purpose of this study content refers to the relevancy, readability and usefulness of the information in the clinical assessment tool. It includes both information and communication (Polit & Beck, 2012: 723).

## **1.7 RESEARCH DESIGN AND METHOD**

Methodology refers to principles that show what the investigator must investigate and what must be known (Botma et al., 2010:41). The method section in research explains the entire process of how the research was implemented in the study.

### **1.7.1 STUDY DESIGN**

Research design has been defined as the investigator's overall plan for acquiring new knowledge or confirming existing knowledge (Macnee & McCabe, 2008:195). Quantitative, descriptive survey has been used in this study. See a detailed description of the research design in Chapter 3.

### **1.7.2 STUDY SETTING**

The investigator conducted the research in one of the classes in the skills laboratory at the selected Nursing College in Tshwane (Gauteng Province). The skills laboratory consists of five classes that are used for simulation and skill assessment of students. The investigator used class A400 on the fourth floor as the setting for data collection. This was a proper setting, as the class was away from lecturing classes and lectures offices.

### **1.7.3 UNIT OF ANALYSIS**

Polit and Beck (2008:330) defined population as a group about which information is gathered and conclusions are drawn. It can be defined in respect of a person, place and time including other factors relevant to the study. Botma et al. (2010:108) state that the population is sometimes referred as the unit of analysis if objects or events are included in the study. In this study, the unit of analysis was the clinical assessment tools used in 2015 to assess level 1-4 four-year diploma Nursing Science students. Chapter 3 includes a detailed description of the criteria used for the population.

### **1.7.4 SAMPLING METHOD AND SIZE**

Sampling refers to choosing part of the population to represent the whole population so that the true facts about the population can be made (Polit & Beck 2012:275). Sampling has two core sampling approaches namely: probability and non-probability sampling. Non-probability sampling was used to select the sample size. Non-probability sampling uses approaches that

do not necessarily ensure that everyone in the population of interest has an equal chance of being included in the study (Burns & Grove, 2011:299; Macnee & McCabe, 2008:123). The three mostly used non-probability sampling designs are convenience and snowball, quota and purposive sampling. Purposive sampling was used to select the unit of analysis since it can be used to advantage in certain situation (Polit and Beck 2012:279).

One clinical assessment tool was selected from each level of training namely: General Nursing Science and Art 1<sup>st</sup> and 2<sup>nd</sup> level, Midwifery 1<sup>st</sup> level, Community Nursing Science 1<sup>st</sup> level and Psychiatric Nursing Science 1<sup>st</sup> level. The checklist had twenty-four items to be answered of which one clinical assessment tool would give twenty four responses. This mean that hundred and twenty responses came out of the checklists used by the investigator since she evaluated all the five clinical assessment tools. Formula: number of items in the checklist multiply by the number of assessment tools divide by one, which is  $24 \times 5 / 1 = 120$ . The selected clinical assessment tools were evaluated by the investigator using a checklist, see annexure B. The selected lecturers used annexure B to verify and validate the investigator's results. The selected lecturers had knowledge, experience and expertise. The investigator collected data within two days, from the 24<sup>th</sup> August 2016 to the 25<sup>th</sup> of August 2016. The selected lecturers verified and validated the investigator's results from the 1<sup>st</sup> of September 2016 till the 30<sup>th</sup> of September 2016.

### **1.7.5 MEASUREMENT TOOLS**

A checklists was used as the measurement tool for collecting data to determine the contents and the quality of clinical assessment tools for diploma nursing students at the selected Nursing College in Tshwane. Oermann and Gaberson (2014:253) defined a checklist as a list of specific actions or behaviors to be observed, provided with a space for marking the response. A checklist was developed with the assistance of the supervisor, who is an expert in nursing education. The checklist was developed from the literature on clinical assessment tools and different procedure manuals from the curriculum of the four-year nursing diploma course. The service of the statistician was also employed in structuring the checklist. The checklist was available in English, which is the official language for training students. The investigator chose to use a checklist because it is efficient and commonly used in quantitative studies to assess skills for nurses (Brink & van Rensburg, 2015:143). The checklist contains the information on content and quality of clinical assessment tools. (Annexure B).

### **1.7.6 Measurement method**

The investigator took all five (5) clinical assessment tools to the skills laboratory room where the assessment was done. The clinical assessment tools were evaluated using the data collection tool (Annexure B). Annexure B was used to collect data by the investigator and the selected lecturers used the same checklist to verify and validate the investigators results.

### **1.7.7 Reliability**

Macnee and McCabe (2008:180) defined reliability as a measure that can be relied on consistently to give the same results if the aspect being measured has not changed. In this study, the investigator maintained consistency when gathering data by making use of the same checklist for all the clinical assessment tools evaluated. Secondly, the statistical measure of reliability was needed. Refer to Chapter 3 for more details.

### **1.7.8 Validity**

De Vos, Strydom, Fouche and Delport (2011:172) defined validity as the measurement tool's ability to reflect the full range of the attributes of the concept being measured. In this study, content and face validity were maintained by ensuring that the competencies assessed in the assessment tools are from the prescribed curriculum and the procedure manual for four-year diploma nursing students. This is described in detail in Chapter 3.

## **1.8 PILOTING OF THE DATA COLLECTION INSTRUMENT**

Macnee and McCabe (2008:267) defined pilot study as a preliminary research study that is done for the reason of evaluating the effectiveness of the developed structured data collection instrument to be used in the main research study. In this study, the investigator used purposive sampling to select two GNS level 1 clinical assessment tools at the selected nursing college to test the effectiveness of the checklist. One formative GNS and one summative FNS 100 clinical assessment tools were evaluated in one of the classes at the skills laboratory. Pilot study was done a week before the main research study to test the effectiveness, reliability and consistency of the data collection tool which took only one day. The data collection tool (Annexure B) was used correctly. Questions that needed to be rephrased and corrected were corrected with the help of the supervisors. The two clinical assessment tools used for the pilot study were not included in the main research study.

## 1.9 DATA MANAGEMENT AND ANALYSIS

### 1.9.1 Data management

Data collected was prepared for capturing on a Microsoft Excel spread sheet for analysis by the statistician. This included checking, editing and coding collected data (De Vos et al., 2011:252). Coding means accurate arrangement of raw data in a way that can be read by a machine (De Vos et al., 2011:252). Identified errors were corrected, missing data points were identified (Burns & Grove, 2009:403).

### 1.9.2 Data analysis

Data analysis refers to the gathering of information to make a clear picture of all the information (Macnee & McCabe, 2008:25). Polit and Beck (2012:556) stated that the reason for data analysis is to organize, give structure and make data to be understandable. The chi-square test ( $\chi^2$ ) for equal proportion technique was used to analyze the closed-ended questions. The chi-square test ( $\chi^2$ ) was also used to test for independence in a two-way contingency table. This was used to compare the achieved sample proportions for the categories of variables for the qualitative data such as the demographic data. Descriptive statistics utilize measures such as frequency distribution, measures of central tendency, variability and measures of relationships (Brink, 2015: 179).

## 1.10 ETHICAL CONSIDERATIONS

The investigator adhered to several ethical principles. Ethics approval to conduct the study was granted by the University of Pretoria Ethics Committee. Furthermore, permission to conduct the study was granted by the Gauteng Department of Health. The investigator requested permission to enter the premises of the institution by writing a letter of request to the principal of the selected nursing college (See Annexure C). The study was conducted after the permission to conduct the study was granted by the principal of the institution. Different ethical principles have been developed in response to human rights violation (Burns & Grove, 2009:168). According to Polit and Beck (2012:170), there are three standard for ethical principles conduct known as the Belmont Report. These standard principles include beneficence, respect for human dignity and justice (Burns & Grove, 2009:170). The investigator adhered to these ethical principles in this study.

### **1.10.1 Beneficence**

Polit and Beck (2012:170) described beneficence as the right to freedom from harm and discomfort of any form. Beneficence refers to the investigator's duty to maximize benefits and to reduce possible dangers or harm to the respondent. A research problem that can expose respondents to harmful treatment should be stopped (Brink & van Rensburg, 2015:32). The results were not used to disrupt the image of the institution but to improve the clinical competency of four-year diploma nursing students. The name of the institution has not been revealed and the results were kept confidential for dissemination.

### **1.10.2 Respect**

Respect for human dignity forms the foundation of rights to informed consent, privacy and confidentiality. According to Burns and Grove (2009:189), human rights are demands that have been justified by a consensus of a group of individuals. Wood and Haber (2010:250) discussed respect for persons as the right to self-determination and to treatment as autonomous agents. Wood and Haber (2010:250) further indicated that they have the freedom to participate or not to participate in research. In this study, confidentiality and protection of the records from the selected nursing college has been ensured by keeping the information confidential.

### **1.10.3 Justice**

Justice involves the unit of analysis' right to fair selection and treatment (Brink & van Rensburg, 2015:33). The right to justice means that all the assessment tools stand an equal chance of being included in the research (Polit & Beck, 2012:173). The assessment tools should be selected for reasons related to the research questions, not because they are easily accessible or can be manipulated with ease (Burns & Grove, 2009:170). The assessment tool's right to privacy has been ensured whereby the right to share institutional information was obtained from the head of the institution (Brink & van Rensburg, 2015:32).

## 1.11 ORGANISATION OF CHAPTER

**Chapter one:** Overview of the study explains the background, problem statement and a short description of all the chapters.

**Chapter two:** Literature review explains how literature was reviewed and the literature used to support the problem statement.

**Chapter three:** Research design and methodology explains the entire process of how the investigator implemented the study.

**Chapter four:** Data analysis and discussion of results indicate how data was organized and analyzed.

**Chapter five:** Recommendations and conclusion, this chapter explain the recommendations and how the students, lecturers and patients may benefit from study.

## 1.12 CONCLUSION

This chapter described the overview of the study by discussing background information about the research problem, the aim and the significance of the study. It also included a brief discussion of the research design and the method of the study. Chapter 2 focuses on literature review.

## CHAPTER 2

# LITERATURE REVIEW

### 2.1 INTRODUCTION

Chapter 1 described the overview of the study by explaining the background of the information about the research problem, the aim, objectives and the significance of the study. Description of the research method, design and the scope of the study were done. This chapter focuses on the literature review with regard to evaluating the quality and the contents of existing clinical assessment tools used to assess four-year diploma nursing students at the selected Nursing College in Tshwane.

Macnee and McCabe (2008:235) defined literature review as the summary or synthesis of the literature that describes what is known or published about the research question to be studied. Literature review was done to find out updated information about clinical assessment tools. In this study, the investigator focused on reviewing the literature related to the clinical assessment tools used to assess nursing students.

Various literature regarding quality of assessment tools and development of assessment tools were analyzed. Sources of information such as PubMed, Google Scholar, Medline and CINAHL as well as other books were used. The selected data bases were used because of their relevance to the subject being researched. The search terms included clinical, assessment tools, quality, challenges of assessment tools and development of assessment tools.

### 2.2 CLINICAL ASSESSMENT TOOLS

A clinical assessment tool is an instrument used for measuring the extent to which learning has taken place (Oermann, 2015:191). In a study conducted in Canada on the effectiveness and efficiency in health services are geared towards patient safety and risk management (Higginbotton et al., 2011:9). Nurses with inadequate clinical skills contribute to medico legal hazards and other patient unsafe incidence occurring in the wards. In order to ensure the provision of responsive and competent nursing care, competent nurses

are required, which necessitate the need to evaluate the quality and the content of clinical assessment tools used in training institutions. Assessment tools play a major role in determining whether the nursing student can be promoted to the next level or to be qualified as a registered nurse.

In nursing education, clinical assessment tools are used to assess the competence of students in clinical practice. The clinical assessment tools do not only assess the nursing student's ability to perform a task but also the quality of the nursing care rendered (Ulfvarson & Oxelmark, 2012:705). Assessment is central to nursing education programme in order to ensure that those who become registered nurses are safe and competent nurse practitioners (McCarthy & Murphy, 2008:1). The major role of clinical assessment tools is to ensure that nursing students master basic clinical skills on completion of the programme (El-Nemer & Kandeel, 2009:2465). It is important to evaluate the quality and the contents of the clinical assessment tools, since they play a major role in decision making on whether the student is competent to be moved to the next level of training or not.

Ulfvarson and Oxelmark (2012:703) asserted that merging theory and practice creates a challenge because nursing teachers might have different theoretical perspectives. Earlier studies indicated shortcomings in assessments of nursing student's practical competence (Roberts, 2010:75), one of the problems was that sometimes students were judged for their personality and not for their knowledge and skills. Redfern, Norman, Calm Watson and Murrells (2010:59) affirmed that every method used to assess clinical practice has strengths and weaknesses hence the need to test clinical assessment tools for their validity and reliability. The need for guidelines on development and reviewing of clinical assessment tools cannot be overlooked because it creates inconsistency amongst the lectures and negative impact on the quality of care to the patients.

Patient safety and risk management require competent professional nurses from various nursing educational institutions (Higginbotton et al., 2011:9). It is important to ensure that nursing students have adequate basic clinical skills upon completion of their studies. There is a need to improve the quality of clinical skills assessment and it is important to search for a standardized, effective and objective clinical assessment tool (El-Nemer & Kandeel, 2009:2465). Amongst the clinical assessment tools developed and used to assess nursing practice, most of them are not informed by research (Higginbotton et al., 2011:1). Non-research informed assessment tools might cause nursing institutions to have difficulties in producing competent professional nurses. Clinical experience has been utilized to develop most of the available assessment tools (Higginbotton et al.,

2011:10). Clinical practical assessment should be a true reflection of what the students have been taught than routine formality (Ulfvarson & Oxelmark, 2012:703). In a study conducted in Canada on identification of nursing assessment tools Higginbottom et al. (2011:10) affirmed that most of the assessment tools developed and used to assess nursing practice are not informed by research but based on clinical experience. It is a challenge for lecturers to develop a reliable and valid clinical nursing assessment tool since they understand the process of assessment differently (Ulfvarson & Oxelmark, 2012:703). Development of clinical assessment tools requires collaboration between clinical lecturers and academic staff (Wu et al., 2015:357).

### **2.3 QUALITY OF CLINICAL ASSESSMENT TOOLS**

Lack of guidelines on reviewing and updating clinical assessment tools is a global challenge for clinical lecturers. Reviewing of clinical assessment tools using different standards result in lack of certainty and consistency of the clinical assessment tools (Zasadney & Bull, 2015:127). In a study conducted by Zasadney and Bull (2015:127) in Australia, the lack of guidelines to review clinical assessment tools was confirmed resulting in the reliability and validity of clinical assessment tools being subjected to debate. Zasadney and Bull (2015:126) conducted a study in Australia on assessing competence in undergraduate nursing students and that there are many challenges related to assessment of performance of students in clinical practice whereby inadequacies in clinical assessments were identified. In addition, Ulfvarson and Oxelmark (2012:704) conducted a study in Sweden on developing an assessment tool where one of the problems was that students were not assessed for their knowledge but for their personality. The stance of Zasadney and Bull (2015:126) is that the accurate assessment of undergraduate nurse students' performance in practice is achievable if the emphasis is on the quality and safety of the health care they deliver.

According to Redfern et al. (2010:55) the search for reliable and valid methods of clinical assessment in nursing is a matter of concern. Redfern et al. (2010:55) further indicated that several limitations in clinical assessment of students has been confirmed with the current methods of clinical assessment. The authors affirmed that the issue that lecturers in nursing institutions develop their own clinical assessment tools often result in invalidated methods. Lack of testing or inadequate testing of most clinical assessment tools for validity and reliability has been identified in the in the United State (Redfern et al., 2010:55). The United States nursing research indicated that lecturers are uncertain about

their role in development and reviewing of clinical assessment tools and are not credible assessors (Redfern et al., 2010:59).

Despite consistent results of high face validity, the large number of adaptations of clinical assessment tools has resulted in inconsistency in the reliability and validity, which have been well documented (Rushford, 2007:486). There, is a need for more rigorous evaluation of clinical assessment tools in nurse education programs. It is only by utilizing a variety of appropriate assessment strategies, that a rigorous and valid assessment of the competency of an individual can be achieved (Mitchell, Henderson, Michele, Groves, Dalton & Nulty, 2009:403). According to the study conducted by Lapkin, Levett-Jones, Bellchambers, Geronta and Fernandez (2010:221) on the effectiveness of patient simulation manikins in teaching clinical reasoning skills to undergraduate nursing students, none of the studies identified were specifically designed to evaluate the effectiveness of the clinical assessment tools used for diploma nursing students. Lapkin et al. (2010:221) further indicated that the guide for future priorities of research should include the development of reliable and valid outcome measurement tools that can offer direct measurement of clinical reasoning skills, knowledge acquisition and critical thinking.

## **2.4 CONTENT OF CLINICAL ASSESSMENT TOOLS**

The content of the clinical assessment tools should be an integral part of programme design and should relate directly to the programme aims and learning objectives. The study conducted in Karolinska Institute in Sweden (Medical University) indicated that an assessment form in clinical education was used to assess clinical practice. However, the assessment ended up in the assessment of students being focused on the traditional image of the professional functions of a nurse rather than focusing on the intended learning outcomes of the course (Ulfvarson & Oxelmark, 2012:704). Furthermore, it was asserted in a study conducted in England (Cox, Editor & Irby, 2007:2) that all methods of assessment have strength and weaknesses hence there is a need to evaluate their quality and determine their content The study further indicated that educators also face a challenge in developing clinical assessment tools of good quality (Cox, et al, 2007:2).

In a study done in Ireland on assessing undergraduate nursing students in clinical practice McCarthy and Murphy (2008:3) further indicated that since updating and reviewing of clinical assessments tools is done by different lecturers, it is likely that lecturer's interpretation of the clinical assessment tools will vary. Irrespective of having developed clinical assessment tools, lecturers may have their own interpretation and understanding when updating or reviewing the existing clinical assessment tools. According to Zasadney

and Bull (2015:127) the subjectivity of clinical assessment strategies has already been acknowledged as a problem for assessors. Despite the range of clinical assessment tools developed and used to assess clinical competence, there has been little evaluation of the effectiveness of the clinical assessment tools (Hanley & Higgins, 2005:281). Hanley and Higgins (2005:281) further indicated that very little is written about qualified practitioner's ability to assess their own clinical practice and yet they are expected to assess student's clinical competence. McCarthy and Murphy (2008:11) further indicated that the clinical assessment of undergraduate nursing students is an under-researched concept in nursing education in the Republic of Ireland and other countries. It is important to assess the quality of available different assessment tools in order to search for common dimensions that can form the basis of good quality assessment tools (Yanhua & Watson, 2011:835).

Criteria should be identified before the development of clinical assessment tool to select topics and learning outcomes to be included in the assessment tool (Ulfvarson & Oxelmark, 2012:704). There is a need for a holistic conception of competence including knowledge, skills, performance and attitude when clinical assessment tools are developed (Yanhua & Watson, 2011:833). Many tools require further testing of their validity and reliability because they are the core components of quality clinical assessment (Yanhua & Watson, 2011:4). The rigour, objectivity, reliability and validity of clinical assessment tools are subject to debate due to lack of consensus amongst clinical lecturers (Zasadney & Bull, 2015:127). In the study of 39 Australian nursing programmes it was found that there was no consistency between assessment tools and it was also confirmed from this study of assessment tools used by seven Australian universities that none of their assessment tools were reliable (Zasadney & Bull, 2015:127).

Hill (2012:5) assert that a non-reliable assessment tool can make a student with inadequate clinical skills to complete the course and work as a professional nurse without adequate clinical knowledge. Furthermore, it means that the care rendered to the patient will be of poor quality. Ulfvarson & Oxelmark, (2012:707) affirm that before the assessment tool is constructed, a set of criteria should be identified to determine what has been done and the learning outcomes to be met. They further indicated that the criteria should be derived from different sources, the most being the recognition of the professional qualification. Ulfvarson and Oxelmark (2012:705) asserted that the assessment tool should be perceived as a prompter for the clinical preceptor and the student to undertake all the listed learning outcomes so that nothing will be overlooked.

Ulfvarson and Oxelmark (2012:707) emphasized that without a criterion an assessment tool will never be trustworthy, since an assessment without criteria can be valid but not reliable. El-Nemer and Kandeel, 2009:2465 affirmed that nursing students has to have basic mastery of clinical skills upon graduation and in order to achieve that there is a need to improve the quality of clinical assessment tools. El-Nemer and Kandeel, 2009:2465 further indicate that institutions need to search for standardized, more effective and objective assessment tools for student's clinical performance. Zasadney and Bull, 2015:127 assert that assessment of competence should have more than one indicator and that available tools are time consuming or blunt instruments suited for mono- dimensional measurement with limited ability to diagnose specific problem areas.

Some of the clinical assessment tools may not be able to adequately assess the range of behaviors within the concept of caring thus, the assessment of complex and essentially subjective constructs, such as caring, empathy and other interpersonal skills are vulnerable to results of low validity and poor inter-rater reliability (Mitchell et al., 2009:403). Furthermore, Mitchell et al. (2009:403) indicated that another concern when developing an assessment tool is its potential to reduce nursing practice to a mere set of tasks to be performed, raising concern that the patient will not be viewed holistically. This can be overcome by structuring the assessment in such a way that all stations relate to one scenario reflecting the philosophy of holistic patient care. The authors reported that this could enable students to "integrate a range of knowledge and skills and to demonstrate the use of these in planning, implementing and evaluating care given in response to a single patient encounter. The level of the assessment task should be consistent with the expected level of performance and limited clinical experience, rather than attempting an integrated holistic approach which requires complex cognitive processes beyond the level of the student (Mitchell et al., 2009:409). The properties of validity, reliability and sensitivity of assessment tools designed to assess nursing students are sometimes neglected leading to lack of certainty and consistency.

## **2.5 CONCLUSION**

Chapter Two focused on the literature review related to evaluation of clinical assessment tools used to assess four-year diploma nursing students by explaining the previous researched information, the following chapter will focus on research design and methodology.

## CHAPTER 3

# RESEARCH DESIGN AND METHODOLOGY

### 3.1 INTRODUCTION

The previous chapter discussed the literature review on evaluation of clinical assessment tools used to assess four-year diploma nursing students. Chapter 3 focuses on how the investigator collected data, and the analysis and publication of data. It focuses on the research design and methodology. The research method is described with reference to: the study population, sampling, method, sample size, data collection, testing of data collection and data analysis including reliability and validity of the study. The objectives of the study were to evaluate the quality of existing clinical assessment tools used to assess students and to determine the content of the clinical assessment tools commonly used to assess students at the selected nursing college in Tshwane.

The approach which allowed objectivity and a detached viewpoint of the investigator, avoiding biasness during data collection and data analysis, enhancing the accuracy and credibility of the study. The study was conducted using quantitative approach as it is important in developing the body of knowledge needed for evidence-based practice (Burns & Grove, 2009:34).

The investigator chose to use a descriptive survey. It is a non-experimental design, used when an investigator needs to describe variables of interest used mostly when there is little or no information known about the topic (Botma et al., 2010:108). A descriptive survey describes what exists and discover new meanings and information which was not known before (Offredy & Vickers, 2010:83). The study helped to generate new knowledge about the clinical assessment tools used to assess four-year diploma nursing students. The study was conducted in one of the nursing colleges in Gauteng Province. Control measures were implemented to ensure the accuracy, meaningfulness and validity of the research results.

### 3.2 RESEARCH DESIGN

Research design has been defined as the overall plan for acquiring answers to the research question (Polit & Beck, 2008:66). Measures for handling challenges encountered during the research are included in the design. A quantitative research design was followed. A non-experimental design was used to evaluate the quality and content of clinical assessment tools used to assess four-year diploma nursing students' clinical competence. A non-experimental research design refers to a research design in which there is no manipulation of variables, mostly used in descriptive studies (De Vos, Fouche & Delpont, 2011:155). Descriptive surveys can be used for all types of quantitative studies (Brink & van Rensburg, 2015:143).

### 3.3 QUANTITATIVE RESEARCH DESIGN

Quantitative research is a formal, goal oriented systematic process of obtaining information about the world presented in numbers and analyzed using statistic (Macnee & McCabe, 2008:29). Burns and Grove (2009:34) define quantitative research as a formal, objective, rigorous, systematic process for generating numerical information about the world. With the assistance of 20 lecturers, the Investigator evaluated the clinical assessment tools used to assess the four-year diploma nursing students to determine the quality and the content of the clinical assessment tools. The investigator chose to use quantitative approach because the study is quantitative in nature.

### 3.4 DESCRIPTIVE SURVEYS

A descriptive survey is the research design in which phenomenon are determined and described (Burns & Grove, 2009:49). Descriptive research is a non-experimental design used when an investigator needs to describe variables of interests used mostly when there is little, or no information available on the topic (Botma et al., 2010:108). A descriptive survey describes what exists and discovers new meanings and information that was not known before (Offredy & Vickers, 2010:83). A descriptive approach is also used to generate new knowledge about concepts or topics about which limited, or no research has been done (Grove et al., 2013:49).

### 3.5 RESEARCH SETTING

The investigator used one of the classes in the skills laboratory as the setting for data collection at a selected nursing college. The skills laboratory consisted of three classrooms used during simulations and OSCE (Objective Clinical Evaluations). The investigator used one of the classes within the skills laboratory as the setting for the data collection. The setting was suitable, since it was far away from the classes and the lecturer's offices to prevent distractions.

### 3.6 UNIT OF ANALYSIS

Polit and Beck (2008:330) define a unit of analysis as a group of objects or events about which information is gathered and conclusions are drawn. It can be defined in respect of a person, place and time including other factors relevant to the study. Botma et al. (2010:108) stated that the population is sometimes referred to as the unit of analysis if objects or events, not persons, are included in the study. In the study, the unit of analysis were the clinical assessment tools used to assess level one, two, three and four diploma students in 2015 at the selected nursing college in Tshwane. In level one, one clinical assessment tools for GNS 100 was evaluated by the investigator and validated by 20 lecturers. In level two, one clinical assessment tool for GNS 200 and MNS 100 clinical assessment tool were evaluated by the investigator and validated by 20 lecturers. Level three, one clinical assessment tool for PNS 100 and one clinical assessment tool for CNS 100 was evaluated by the investigator and validated by 20 lecturers.

#### 3.6.1 Inclusion criteria

The inclusion criteria included all clinical assessment tools used to assess level one, two, three and four nursing students at the selected nursing college. The time frame included all the clinical assessment tools used to assess four-year diploma nursing students enrolled at the selected nursing college in 2015.

### 3.7 SAMPLING

Sampling involves selecting a portion of the population to represent the population (Polit & Beck, 2012:162). Purposive sampling was used to select the sample: clinical assessment tool from level 1, 3, 4 and 2 clinical assessment tools from level 2. The investigator requested permission from the college principal to access the clinical assessment tools for level one,

two, three and four of the diploma nursing students. Purposive sampling is defined as the type of non-probability sampling whereby the investigator's knowledge about the population can be used to hand pick type of cases or subjects for inclusion in the sample in order to ensure that the elements will have certain characteristics relevant to the study (Polit & Beck, 2012:164).

### 3.7.1 Sample size

Five different clinical assessment tools were selected from 4 different levels of training namely: General Nursing Science and Art 1<sup>st</sup> and 2<sup>nd</sup> level, Midwifery 1<sup>st</sup> level, Community Nursing Science 1<sup>st</sup> level and Psychiatric Nursing Science 1<sup>st</sup> level. Each assessment tool was evaluated by 20 lectures which makes a total of 100 assessment tools. The selected Nursing College has a total of 700 nursing students and 70 lectures from which 20 were purposively selected to verify the investigator's results since they were involved in facilitation and clinical assessment of students in different levels of training.

### 3.8 DATA COLLECTION

Data collection refers to the information gathered in a study that is related to the research question (Macnee & McCabe, 2008:25). In this study, the investigator used a structured data collection instrument (checklist) developed by the investigator with the help of the statistician, the supervisors and the information gathered from the reviewed literatures. The checklist consisted of closed-ended questions to guide the investigator in gathering preliminary information from the five selected clinical assessment tools (see Annexure B1). The sampled group of twenty (20) lecturers had to use checklist (Annexure B1) to collect data. The statistician and the supervisors confirmed the relevancy and refinement of items in the checklist.

The investigator conducted the study and collected data from the five selected clinical assessment tools from each level using the checklist. Data was collected for two days, the 24<sup>th</sup> and the 25<sup>th</sup> of August 2016, in one of the skills laboratory classrooms of the selected nursing college. The lecturers had to participate in the study in order to validate and verify the investigator's results. Learning outcomes and the checklist (Annexure B1) were distributed to the lecturers for reference. Four different clinical assessment tools were distributed to the group of 20 selected lecturers. Lecturers could not evaluate all the five clinical assessment tools, one clinical assessment tool for the subject that the lecturer is facilitating was excluded. Each

lecturer had to evaluate four clinical assessment tools depending on the qualifications they have and the level they teach. The lecturers used a checklist (annexure B) to evaluate the clinical assessment tools. The investigator experienced a challenge in receiving back the checklists completed, because verification and validation was done during the time when students were writing examinations and the lecturers were marking. The validation and verification process took place from the 1<sup>st</sup> of September 2016 to the 31<sup>st</sup> of September 2016.

### **3.9 QUALITY CONTROL**

#### **3.9.1 Validity and reliability**

In this study, the investigator maintained quality and integrity by making sure that the data was reliable and valid. Validity and reliability are two major components in evaluation of a measurement tool. Reliability of an instrument is closely associated with its validity (Tavakol & Dennick (2011). Validity and reliability of the assessment tools were maintained and discussed below.

##### **3.9.1.1 Validity**

De Vos et al. (2011:172) define validity as the measurement tool's ability to reflect the full range of the attributes of the concept being measured. An instrument cannot be valid unless it is reliable (Tavakol & Dennick (2011). All five clinical assessment tools evaluated by the investigator were further evaluated by the group of 20 lecturers to ensure validity of the results. The investigator captured and analyzed the data from lecturers thereafter and compared the investigator's results and the lectures to make conclusion about the assessment tools. In order to ensure quality of the collected data by the lecturers, the investigator randomly selected five lectures checklist and ask five of the selected lectures to re-evaluate them.

- **Content validity**

Polit and Beck (2008:458) assert that content validity is when the research instrument contained questions appropriate to the research. Content validity represents the universe of content, or the domain of a given construct. When the investigator develops an instrument, the concern is whether the measurement instrument and the items contained are representative of the content domain that the investigator intends to measure (Wood & Haber, 2010:288). The investigator conducted an extensive literature search to guide on what to include in the checklist. The investigator made use of the supervisor's and the

statistician's expert opinion while developing the checklist to ensure that the content of the checklist is relevant to the research question. The procedure manual and the learning outcomes of each level were utilized in the development of the checklist. In this study, content validity was achieved by giving the checklist to the supervisor and the statistician to verify the contents before data is collected.

- **Face validity**

Polit and Beck (2008:458) define face validity as the instrument's ability to match the research question appropriately. Wood and Haber (2010:289) define face validity as rudimentary type of validity that verifies that the instrument gives the appearance of measuring the concept. Wood and Haber (2010:289) further indicated that face validity is an intuitive type of validity in which colleagues or subjects are asked to read the instrument and evaluate the contents in terms of whether it appears to reflect the concept the investigator intends to measure. In this study, the investigator used a typed checklist to ensure legibility of the instrument and verification of the contents was done by the supervisors and the statistician.

### 3.9.1.2 Reliability

Macnee and McCabe (2008:180) define reliability as a measure that can be relied on consistently to give the same results if the aspect being measured has not changed. Wood and Haber (2010:289) define reliability of the research instrument as the extent in which the instrument yield the same results on repeated measures. Reliability is concerned with consistency. Cronbach's alpha reliability coefficient was used to determine the internal consistency of the measuring tool. Cronbach's alpha reliability coefficient normally ranges from 0 and 1 and the closer Cronbach's alpha reliability coefficient is to 1.0 the greater the internal consistency of the items in the scale, (Ritter, 2010).

The rules of thumb for Cronbach's alpha are given as follows:

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

In this study, the Cronbach's alpha is **0.7** which implies that the reliability of the measuring tool is acceptable and also the measuring tool is valid. The three main attributes of reliability are explained below.

- **Stability**

Stability is concerned with the consistency of repeated measures of the same attributes with the use of the same scale or measuring instrument (Burns & Grove, 2009:333). Stability of an instrument refers to the instrument's ability to produce the same results with repeated testing (Wood & Haber, 2010:295). In this study, stability refers to the degree in which the checklist can be depended upon to yield consistent results if used repeatedly on the same assessment tool or if used by two investigators (De Vos et al., 2011:177). The investigator and the selected 20 lecturers used the same checklist to evaluate the assessment tools.

- **Homogeneity**

The homogeneity of an instrument means that all the items in an instrument measure the same content or characteristics (Wood & Haber, 2010:295). In this study, all the items in the checklist measured the same content in all five assessment tools.

- **Equivalence**

An instrument is said to exhibit equivalence if it produces the same results when equivalent or parallel instruments or procedures are used (Wood & Haber, 2010:295). Equivalence involves the comparison of two versions of the same paper and pencil instrument or of two observers measuring the same even (Polit & Beck, 2011:333). In this study, the investigator and the lecturers used checklists to evaluate all the clinical assessment tools.

### **3.10 PILOTING OF STUDY**

A pilot study is a preliminary research study that is done to evaluate the appropriateness of the developed structured data collection instrument to be used in the main research study (Macnee & McCabe, 2008:267). In this study, the investigator used purposive sampling to select two clinical assessment tools for the pilot study namely: FNS 100 and GNS 100 formative clinical assessment tool to test the effectiveness of the checklists. The pilot study was conducted during the 3<sup>rd</sup> week of August 2016 before the main research study, and it was conducted in one day. A week was kept available after the pilot study in order to allow time to amend the checklist. The feedback of the pilot study was presented to the

supervisor and the statistician for their opinion and it was corrected accordingly a week before the main study was commenced.

### **3.11 DATA ANALYSIS**

Polit and Beck (2012:556) indicated that the reason for data analysis is to organize, give structure and make data to be understandable. De Vos et al. (2011:249) described quantitative data analysis as the method that the investigator uses to convert data into numerical form to make it suitable for statistical analysis. The investigator used descriptive statistics to describe, synthesize and analyze data in an orderly manner. The investigator organized the data first, going through each completed checklist per subject, capturing data on the computer. Lastly the captured data was sent to the statistician for analysis. Graphs and tables were used to present the collected data (Polit & Beck, 2012:561).

### **3.12 CONCLUSION**

Chapter 3 focused on the research design and methodology, by describing the following: the unit of analysis, sampling method, the sample size, data collection and data management. Furthermore, validity and reliability of the study was ensured. In Chapter 4, the report on the research data will be presented

# CHAPTER 4

## PHASE 1: DATA ANALYSIS, INTERPRETATION AND DISCUSSION OF RESULTS

### 4.1 INTRODUCTION

The previous chapter focused on how the investigator intends to collect data, the analysis and publication of data. The purpose of this chapter is to present results and to interpret data. The aim of the study was to evaluate the quality and the contents of existing clinical assessment tools used to assess four-year diploma nursing students at the selected nursing college in Tshwane.

This study includes a descriptive statistical procedure using a descriptive survey for a quantitative study. Data has been simplified into organized understandable, numerical information to evaluate the quality and the contents of the clinical assessment tools (Polit & Beck, 2012:556). The checklist was divided into two sections: Section A, assessing the quality of the assessment tools and Section B, evaluating the contents of the assessment tools.

### 4.2 OBJECTIVES OF THE STUDY

The following are the objectives of the study:

- To evaluate the quality of existing clinical assessment tools used to assess four-year diploma nursing students at the selected nursing college in Tshwane.
- To determine the content of the clinical assessment tools commonly used for four-year diploma nursing students at the selected nursing college in Tshwane.

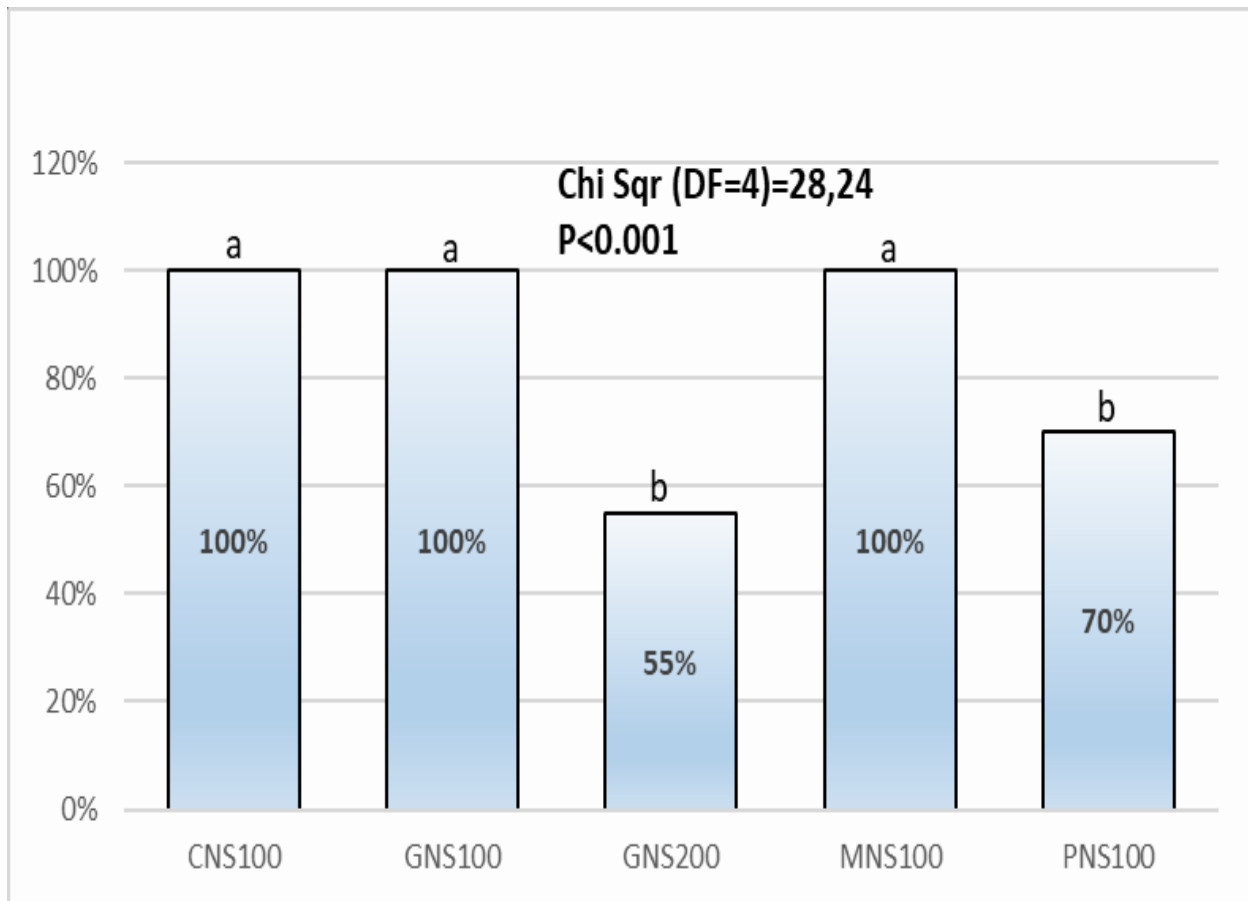
**Table 4.1: The key used during data analysis and interpretation of results**

SUBJECT	CODE	NUMBER OF ASSESSMENT TOOLS	CHECKLISTS	FREQUENCY
Community nursing science 100	CNS 100	1	20	100
General nursing science 100	GNS 100	1	20	100
General nursing science 200	GNS 200	1	20	100
Midwifery nursing science 100	MNS 100	1	20	100
Psychiatric nursing science	PNS 100	1	20	100
<b>Total</b>	<b>5</b>	<b>5</b>	<b>100</b>	<b>500</b>

### 4.3 QUALITY OF CLINICAL ASSESSMENT TOOLS

Quality is defined as a product or service of a very high standard (Quinn & Hughes, 2007:142). In this study, quality pertains to the fact that the principles of assessment, namely validity and reliability are included and adhered to in the assessment tool.

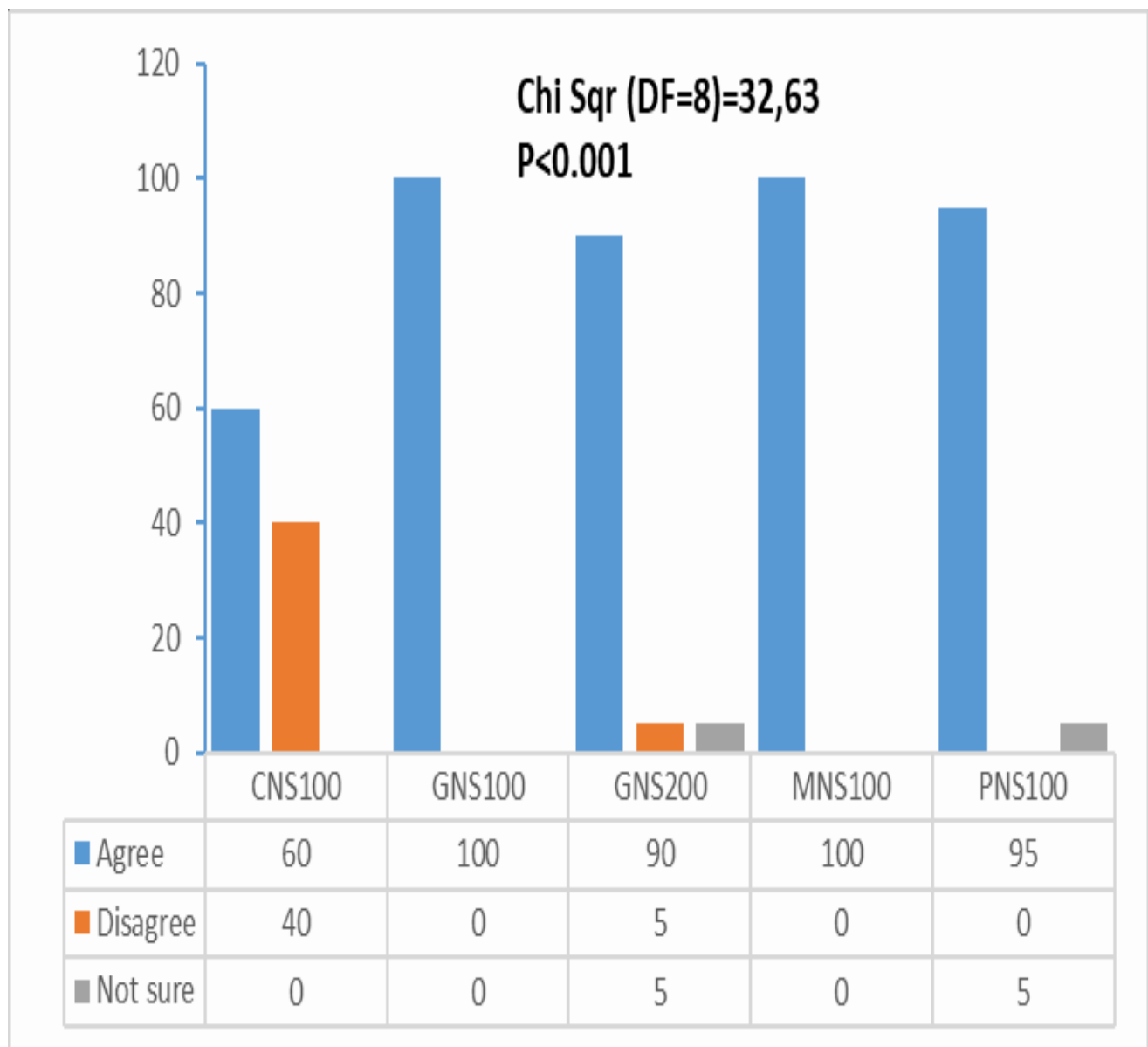
Assessment should be inclusive and equitable, this means ensuring that academic standards are not compromised, and no group or individual student is disadvantaged (Kelly et al., 2014:3).



**Figure 4.1: Name and logo of the institution**

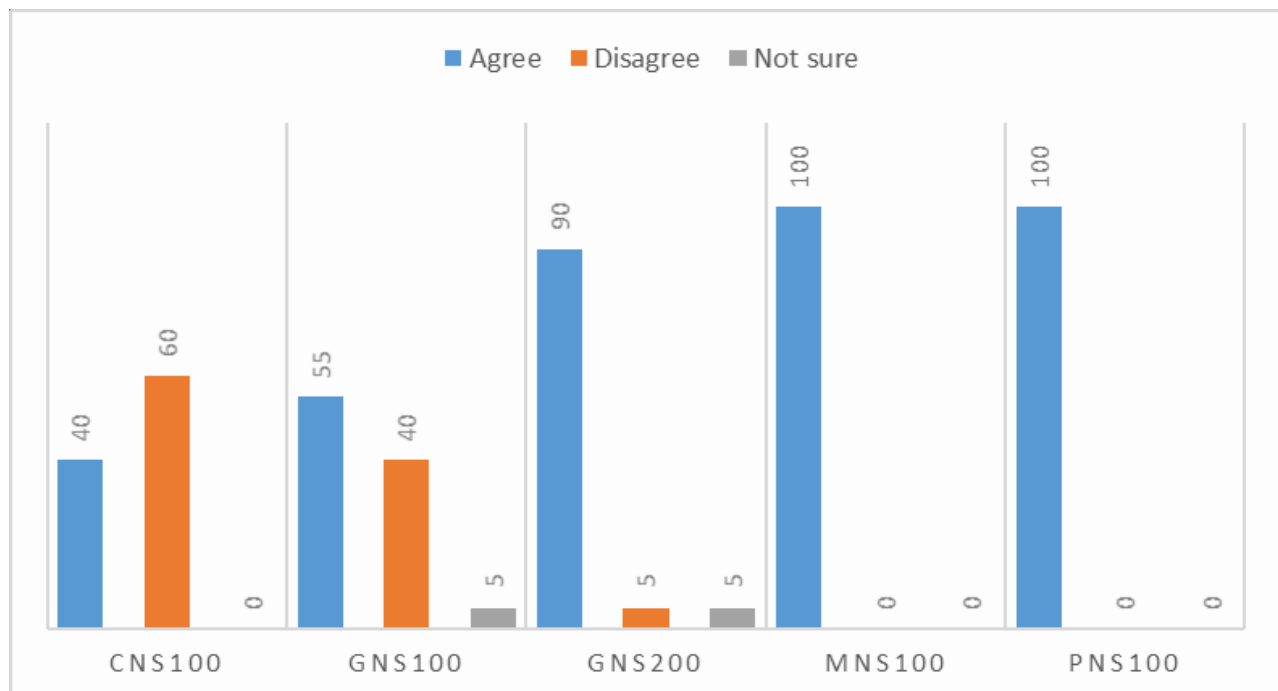
The investigator's results from the checklist indicated that all the assessment tools have the name and the logo of the hospital reflected. (See annexure B). The results from the lectures checklists revealed that from all the clinical assessment tools, all (100%) of the clinical assessment tools for CNS 100, GNS 100 and MNS 100 had the name and the logo of the institution reflected. The results also revealed that 11 checklists (55%) for GNS 200 revealed that the assessment tools bear the name and the logo of the institution, while nine checklists indicated that (45%) of the clinical assessment tools did not have the name and the logo of the institution. Fourteen checklists indicated that (70%) of the PNS100 assessment tools, had the name and the logo of the institution while six checklists revealed that (30%) of the assessment tools did not bear the name and the logo of the institution. The chi-squared test for proportional tests indicated that the 20 selected lecturer's response to this question on the GNS200 and PNS100 differ significantly to the main investigators' response, with  $\chi^2(4, N = 100) = 28.24, p < 0.01$ . Results for those who disagreed indicated that these two assessment tools only displayed a provincial logo for

Gauteng Province and not for the institution. However, it could be that the institutional logo was too small to be recognized by some respondents. The checklists indicated that more than (70%) of the assessment tools bear the name and the logo of the institution in all the five disciplines, which indicate that the assessment tools display the official feature, namely the logo. Ulfvarson and Oxelmark (2012:705) affirm that the assessment tool must have a cover page with the logo and the name of the institution where the information on the course, student name, identification number and the date of the assessment is indicated.



**Figure 4.2. The type of assessment indicated on the assessment tool**

The investigator's results from the checklist indicated that all the assessment tools have the type of the assessment indicated. The results from the lectures checklists revealed that from all the assessment tools, thirteen assessment tools (60%) agreed that the type of assessment has been indicated in CNS 100 assessment tool, while eight assessment tools (40%) had no type of assessment indicated. The result from the lecturers checklists indicated that eighteen assessment tools (90%) had the type of assessment indicated, only one checklist revealed that (5%) of the assessment tools had no type of assessment indicated and another checklist indicated that in one assessment tool (5%) of the lecturers were unsure if the type of assessment was indicated or not. The lecturers checklists also revealed that nineteen assessment tools (95%) in PNS had the type of assessment indicated, only one lecturer (5%) was unsure whether the type of assessment was indicated or not. Lecturer's checklists indicated that all twenty assessment tools (100%) had the type of assessment indicated in GNS 100 and MNS 100 assessment tools. More than 50 per cent of the assessment tools indicated the type of the assessment to be done. This percentage differ significantly to the assessment tools, where the assessment type was not indicated, with  $X^2(8, N = 100) = 32.63, p < 0.01$ . The results are supported by Ulfvarson and Oxelmark (2012:705), who assert that the assessment tool must have a cover page where the information on the course, the level, the student name, identification number and the date of the assessment is indicated.



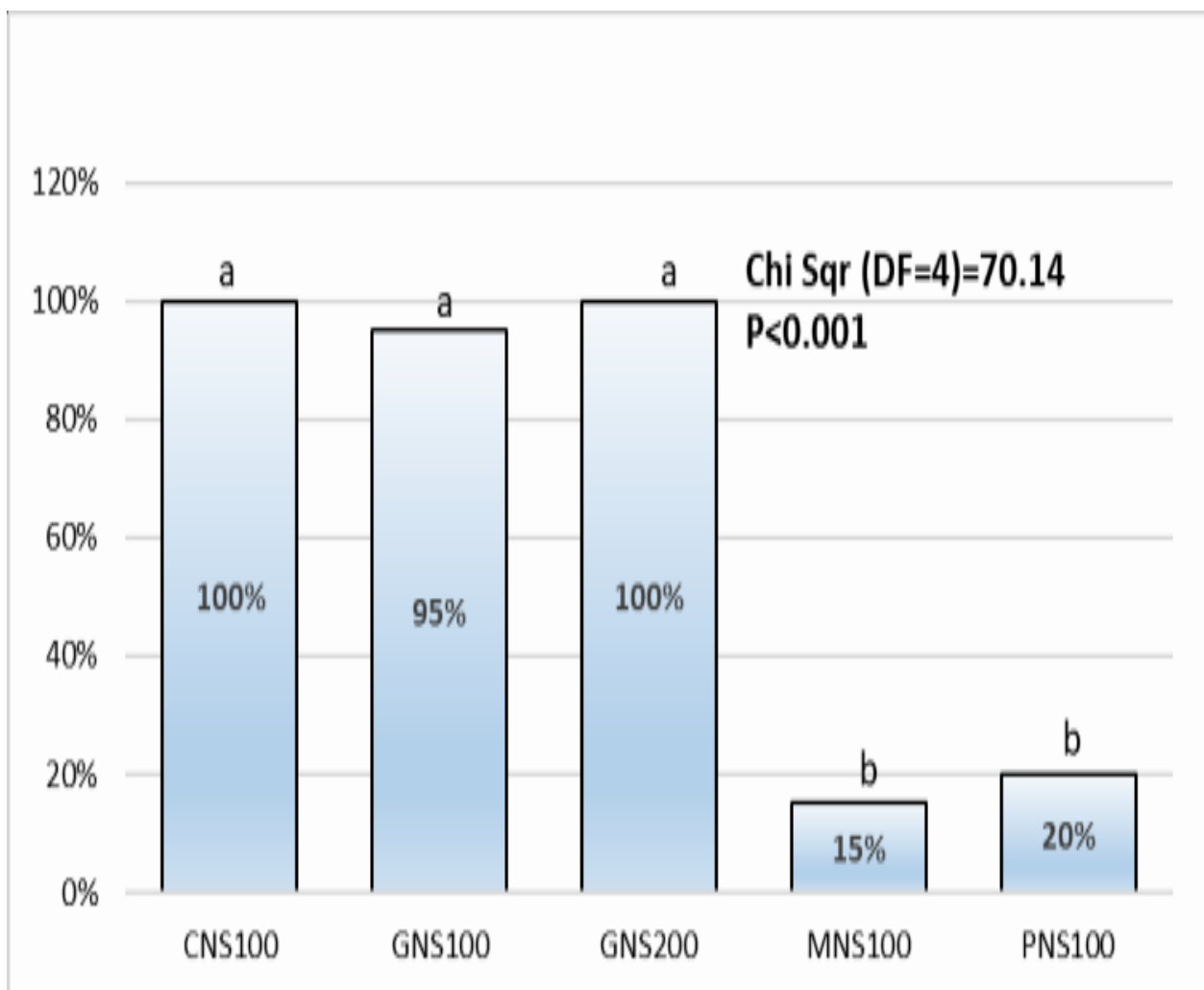
**Figure 4.3: Name of the Assessment procedure**

The lecturers' checklists revealed that eight assessment tools (40%) in CNS 100 indicated the assessment procedure to be done, while 12 assessment tools (60%) had no assessment procedure indicated. Lectures checklists further revealed that eleven assessment tools (55%) in GNS 100 had the assessment procedure indicated, while eight assessment tools (40%) had no assessment procedure indicated. Eighteen assessment tools (90%) in GNS 200 indicated the name of the assessment procedure. Only one assessment tool (5%) provided no indication of name of the assessment procedure. Twenty lecturers (100%) agreed that the name of the assessment procedure was written in PNS 100 and MNS 100. The difference in the number of assessment tools indicating the name of the assessment procedure and those not bearing the name of the assessment procedure shows that the tools are not standardized, guidelines might not be available, and that the assessment tool might not have been verified or checked by the moderator. The results are supported by Redfern et al. (2010:55) who reported that the fact that lecturers in nursing institutions develop their own clinical assessment tools often result in invalidated methods.

**Table 4.2: Level of training of students**

SUBJECT	NUMBER OF ASSESSMENT TOOLS	YES	%	NO	%	UNSURE	%
CNS 100	20	16	80	3	15	1	5
GNS 100	20	16	80	1	5	3	15
GNS 200	20	17	85	1	5	2	10
MNS 100	20	16	80	3	15	1	5
PNS 100	20	14	70	3	15	3	15

The investigators results indicated that only one assessment tool was not having the level of training of students whereas the lectures checklists showed that more than 60 per cent (60%) of the assessment tools in all the subjects indicated the student training level, while less than 20 per cent (20%) were either not sure or not indicated. The results indicate that the assessment tools were appropriately reviewed or developed. These results are supported by Phuma (2015:225), who assert that the student's personal information is indicated on the cover page of the assessment tool. The author further indicated that the student's personal details should include the name of the student, training institution, clinical placement area, assessor's name, subject and the date of assessment.



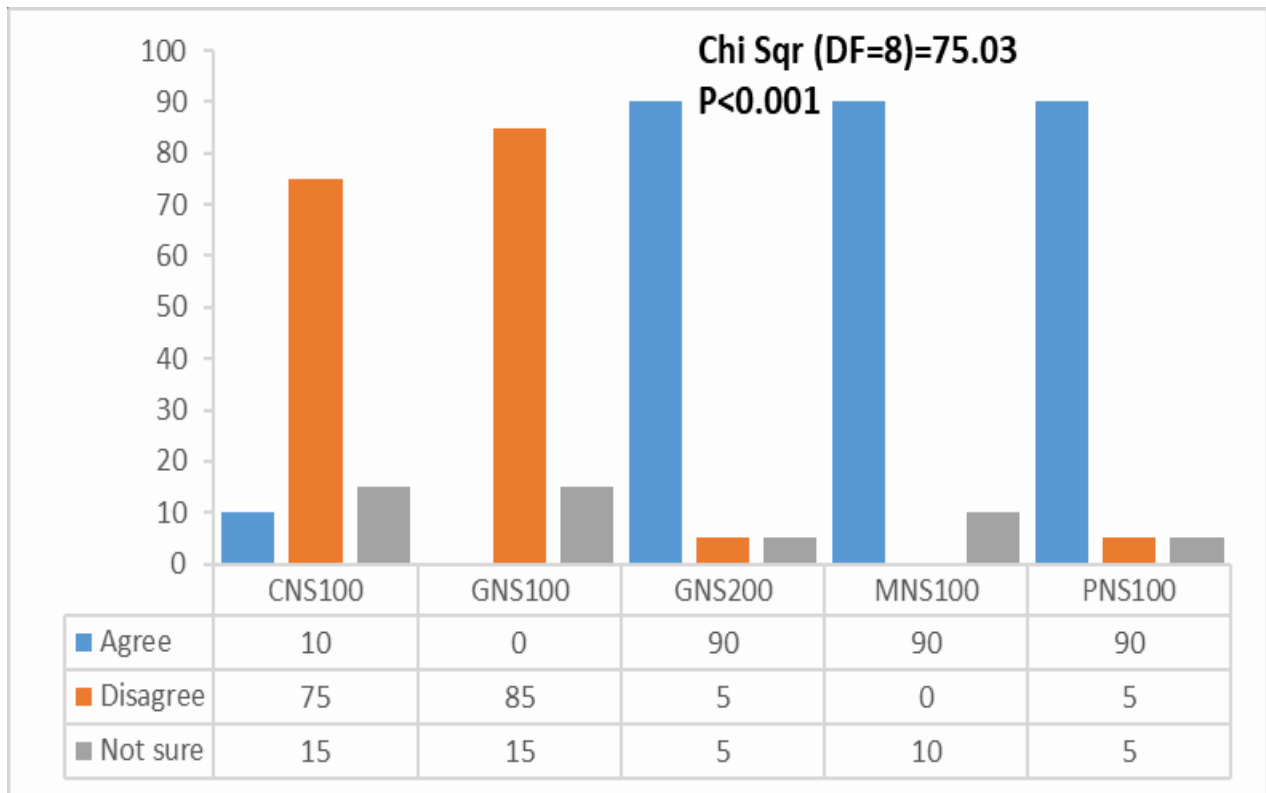
**Figure 4.4: Space for writing student's information**

The investigator's results indicated that two checklists namely: MNS 100 and PNS 100 did not provide the space for writing students information. Lecturers checklists revealed that twenty (100%) of the assessment tools allowed space for writing the student's information in CNS 100 and GNS 200, while 19 (95%) assessment tools for GNS 100 allowed space for writing the student's information. Only two (10%) assessment tool had no provision for space to write student's information. MNS 100 and PNS 100 assessment tools had the lowest percentage of assessment tools with provision of space for student's information. Of the twenty (100%) MNS 100 assessment tools and PNS 100 assessed, less than 25 (25%) allowed space for the student to write their name. Eighteen (90%) MNS 100 assessment tools provided no space for the writing of student's information and 16 PNS 100 assessment tools (80%) made no provision for space for writing student information. The percentage agreement for CNS 100, GNS 100 and GNS 200 assessment tools were significantly different to the MNS 100 and PNS 100  $\chi^2(4, N = 100) = 70.14, p < 0.01$ . This indicates that student information was not written on the assessment tool of MNS 100 and PNS 100 during assessment, which could result in performance not been assigned to the relevant student. More than 90 per cent (90 %) of the CNS 100, GNS 100 and GNS 200 assessment tools allowed space for the writing of student information. This clearly indicates that each discipline developed and updated the assessment tools using their own experiences and understanding. One could ask if the assessment tools for MNS 100 and PNS 100 had been checked or moderated. The lack of guidelines on development of clinical assessment tools result in each group of clinical lecturers updating or developing their respective assessment tools according to their own standards, and this creates challenges (Wu et al., 2015:357).

**Table 4.3: Space for writing the assessor's signature**

SUBJECT	NUMBER OF ASSESSMENT TOOLS	YES	%	NO	%	UNSURE	%
CNS 100	20	20	100	0	0	0	0
GNS 100	20	19	95	1	5	0	0
GNS 200	20	17	85	0	0	3	15
MNS 100	20	16	80	4	20	0	0
PNS 100	20	20	100	0	0	0	0

The investigator’s results indicated that all the assessment tools had the space for writing the assessors signature. The lecturers checklists also confirmed that more than 80 (80%) of assessment tools allowed space for the assessor’s signature. Twenty (100%) assessment tools for CNS 100 and PNS 100 had space for the assessor’s signature. Nineteen (95%) assessment tools for GNS 100, 17 (85%) assessment tools for GNS 200 and 16 (80%) assessment tools for MNS 100 allowed space for the assessor’s signature. Only one (5%) assessment tool provided no space for the assessor’s signature in GNS 100 and four (20%) MNS 100 assessment tools provided no space for the assessor’s signature. Three (15%) assessment tools were evaluated by lecturers who were unsure of whether space was provided or not. More than 80 per cent (80%) of the assessment tools had space provided for the assessor’s signature, which indicates that the people responsible for developing and reviewing clinical assessment tools understand the significance of having the assessor’s signature on the assessment tools. Ulfvarson and Oxelmark (2012:705) indicated that the assessment tool must have a cover page, where the information on the course, the level, the student name, identification number, and the date of the assessment is written.



**Figure 4.5: Student’s instructions included in the assessment tool**

The percentage of agreement between the checklists for CNS 100 assessment tools and GNS 100 was significantly different to that of GNS 200, MNS 100 and PNS 100, with  $\chi^2(8, N = 100) = 75.03$ ,  $p < 0.01$ . More than 70 per cent of the assessment tools in CNS 100 and GNS 100 did not contain student instructions. The investigator's checklist revealed that CNS 100 and GNS 100 assessment tools did not provide space for students instructions only two (10%) assessment tools provided instructions to student in CNS 100, eighteen (90%) assessment tools in GNS 200 provided student instructions, only one (5%) assessment tool had no student instructions.

In MNS 100, 18 (90%) assessment tools provided no student's instructions, while two (10%) assessment tools were evaluated by lecturers who were not sure whether student instructions were included or not. Only one (5%) assessment tool in PNS provided student instructions and (90%) assessment tools provided no student instructions. The remark given by the lecturers who disagreed was that most of the instructions for students are given separately, they are not attached to the assessment tool. The results are supported by Higginbottom et al. (2011:10) who affirmed that non-research informed assessment tools have been based on clinical experience.

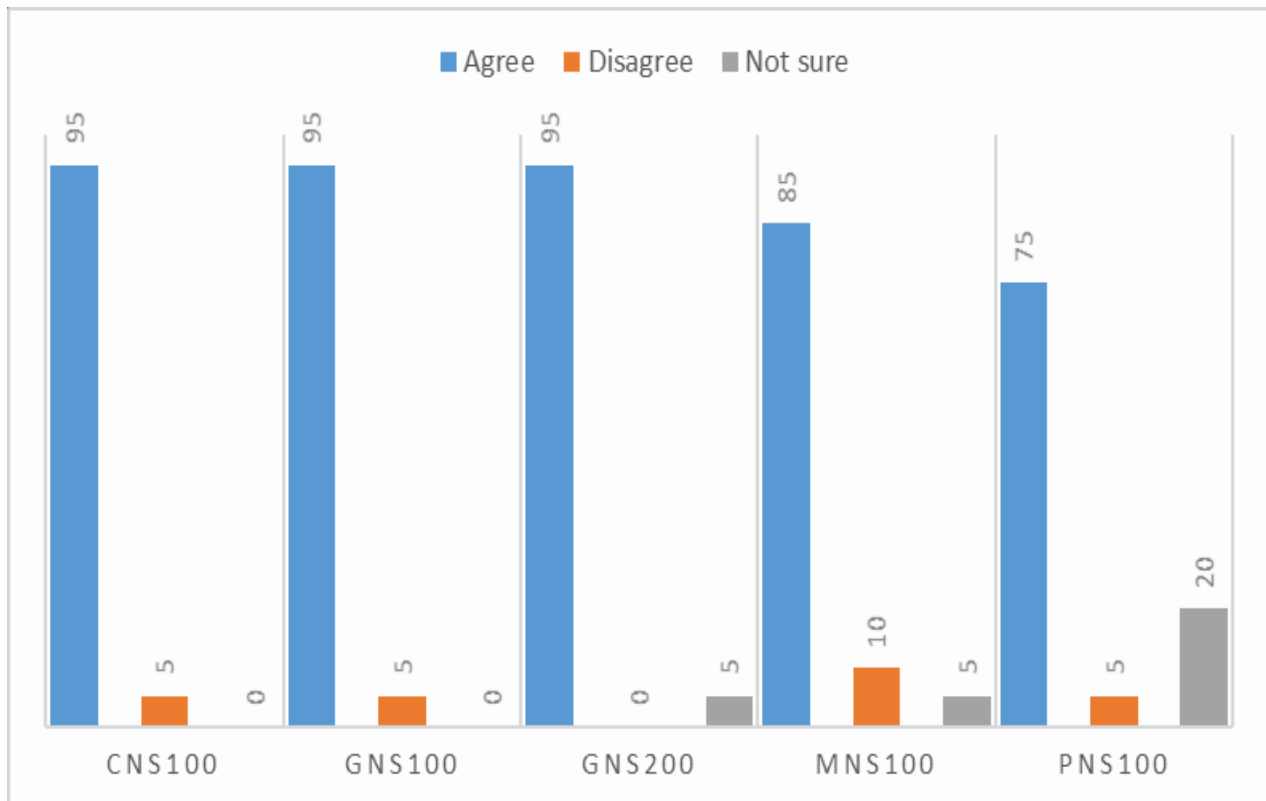
**Table 4.4: The assessment tool includes the assessor's instructions**

SUBJECT	NUMBER OF ASSESSMENT TOOLS	YES	%	NO	%	NOT SURE	%
CNS 100	20	5	25	13	65	2	10
GNS 100	20	15	75	2	10	3	15
GNS 200	20	17	85	2	10	1	5
MNS 100	20	2	10	17	85	1	5
PNS 100	20	0	0	19	95	1	5

The investigator's results revealed that CNS 100, MNS 100 and PNS 100 had lower percentage of assessment tools having the assessor's instructions. This results were affirmed by the lecturers checklist which indicated that CNS 100 had 5%, MNS 100 2% and PNS 100 0%. The chi-squared test,  $X^2(8, N = 100) = 39.07, p < 0.01$ . Indicates that the percentage agreement in terms of inclusion of assessment instruction of two assessment tools for GNS 100 and GNS 200 is significantly higher than the percentage of CNS 100, MNS 100 and PNS 100. More than 70 per cent (70%) of the two assessment tools indicate the instruction of the assessor, while less than 25 per cent (25%) of assessment tools in general had the instruction for assessors indicated in the CNS 100, MNS 100 and PNS 100.

The twenty five per cent (25%) in CNS was relatively small, MNS 100 and PNS was worse. This indicates that most of the assessment tools for CNS 100, MNS 100 and PNS 100 were not providing assessor's instructions. Three (15%) assessment tools in GNS 100 were evaluated by lecturers who were unsure if the instructions for the assessor were indicated or not and one (5%) assessment tool in GNS 200 were assessed by lecturers who were unsure if the instructions to the assessor were indicated. The results indicate that the assessment tools were not well prepared, or that the assessment tools were not pre-tested and moderated before they were approved for use during the assessments.

The reason for the poor preparation of the assessment tools might be the lack of guidelines and the fact that lecturers might have a different understanding of the reviewing and updating of assessment tools, as asserted by Wu et al. (2015:3).



**Figure 4.6: The space for remarks**

All five assessment tools were assessed to find out if space for remarks had been provided or not. The investigator's results indicated that all the checklists affirmed the provision of the space for remarks. The lecturer's checklists revealed that more than 75 per cent (75%) of assessment tools provided the space for remarks. Nineteen (95%) assessment tools were for CNS100, GNS 100 and GNS 200, while 17 (85%) were assessment tools for MNS 100 and 17 (75%) were assessment tools for PNS 100.

Less than 25 per cent (25%) of assessment tools were evaluated by lecturers who were not sure whether the space had been provided or not. The results indicate that the assessment tools were prepared appropriately with regard to availability of space for remarks. An assessment tool contains both the instrument and instructions (guidelines) for gathering and interpreting evidence about a student's performance (DTWD, 2010:15). Phuma (2015:226) affirms that the assessment tool specifies the learning outcomes, proficiencies or essential skills clustered for the student.

**Table 4.5. Rating scale**

SUBJECT	NUMBER OF ASSESSMENT TOOLS	YES	%	NO	%	NOT SURE	%
CNS 100	20	20	100	0	0	0	0
GNS100	20	12	60	7	35	1	5
GNS200	20	20	100	0	0	0	0
MNS 100	20	11	55	8	40	1	5
PNS 100	20	10	50	10	50	0	0

The lecturer's checklist revealed that all 20 (100%) assessment tools for CNS and GNS 200 included a rating scale. Twelve (60%) assessment tools included a rating scale for the GNS 100 assessment tool, whereby seven (35%) assessment tools did not include a rating scale. The investigator's results indicated that fifty percent of the checklists confirmed the availability of the rating scale in the assessment tools. Only one assessment tool for GNS 100 was evaluated by a lecturer who was not sure whether the rating scale was provided or not. The results indicated that PNS 100 had ten (50%) assessment tools and MNS 100 had 11 (55%) assessment tools that provided a rating scale. Only one (5%) assessment tool for MNS 100 was evaluated by a lecturer who was not sure whether the rating scale was provided or not. The results indicate that not all the assessment tools provided a rating scale, which indicate that the assessment tools were not well prepared. The reasons for this might be a lack of guidelines, not understanding the purpose of the rating scale and lack of verification and moderation by moderators both internally and externally. Ulfvarson and Oxelmark (2012:705) affirmed the need to present the clinical assessment tool to a group of experts and nurses in clinical practice where suggestions for improvements will be proposed. Phuma (2015:227) asserts that for each competency standard in the assessment tool, a rating scale is presented to guide both clinical teachers and students for the assessment of specific performance standards.

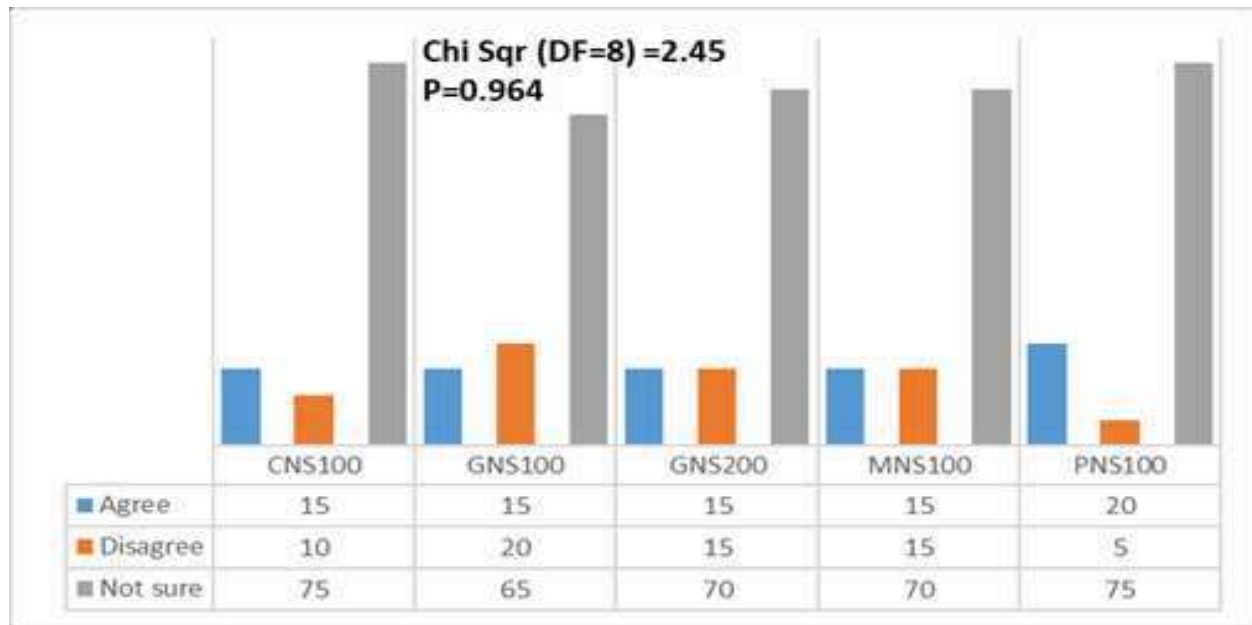
**Table 4.6: Space for internal moderator**

SUBJECT	NUMBER OF ASSESSMENT TOOLS	YES	%	NO	%	UNSURE	%
CNS 100	20	0	0	19	95	1	5
GNS 100	20	1	5	18	90	1	5
GNS 200	20	1	5	18	90	1	5
MNS 100	20	16	80	3	15	1	5
PNS 100	20	1	5	19	95	0	0

The investigator's results revealed that only MNS 100 provided a space for remarks by the internal moderator. The lecturers checklist revealed that 16 (80%) assessment tools provided the space for internal moderator comments in MNS 100, one (5%) assessment tool in CNS 100, GNS 100, GNS 200 and MNS 100 were evaluated by lecturers who were not sure whether the space to indicate the internal moderator's comments had been provided or not. No CNS 100 assessment tool provided the space for internal moderator comments, more than 90 per cent of assessment tools provided no space for the internal moderator's comments in CNS 100, GNS 100, GNS 200 and PNS 100.

The percentage of these four assessment tools is significantly different to the MNS 100 assessment tool with  $\chi^2 (8, N = 100) = 70.84, p < 0.01$ . If there is no space provided for the moderator's comments, the assessment will not be moderated according to the assessment procedures. A reason for this could be that during the evaluation of these assessment tools, the evaluator did not check if space for adding moderator comments is available on these tools. Yanhua and Watson (2011:835) suggested that assessment tools should be developed, tested and accepted by nurse educators globally.

## 4.4 SECTION B: THE CONTENTS OF CLINICAL ASSESSMENT TOOLS



**Figure 4.7: Assessment objectives clearly indicated**

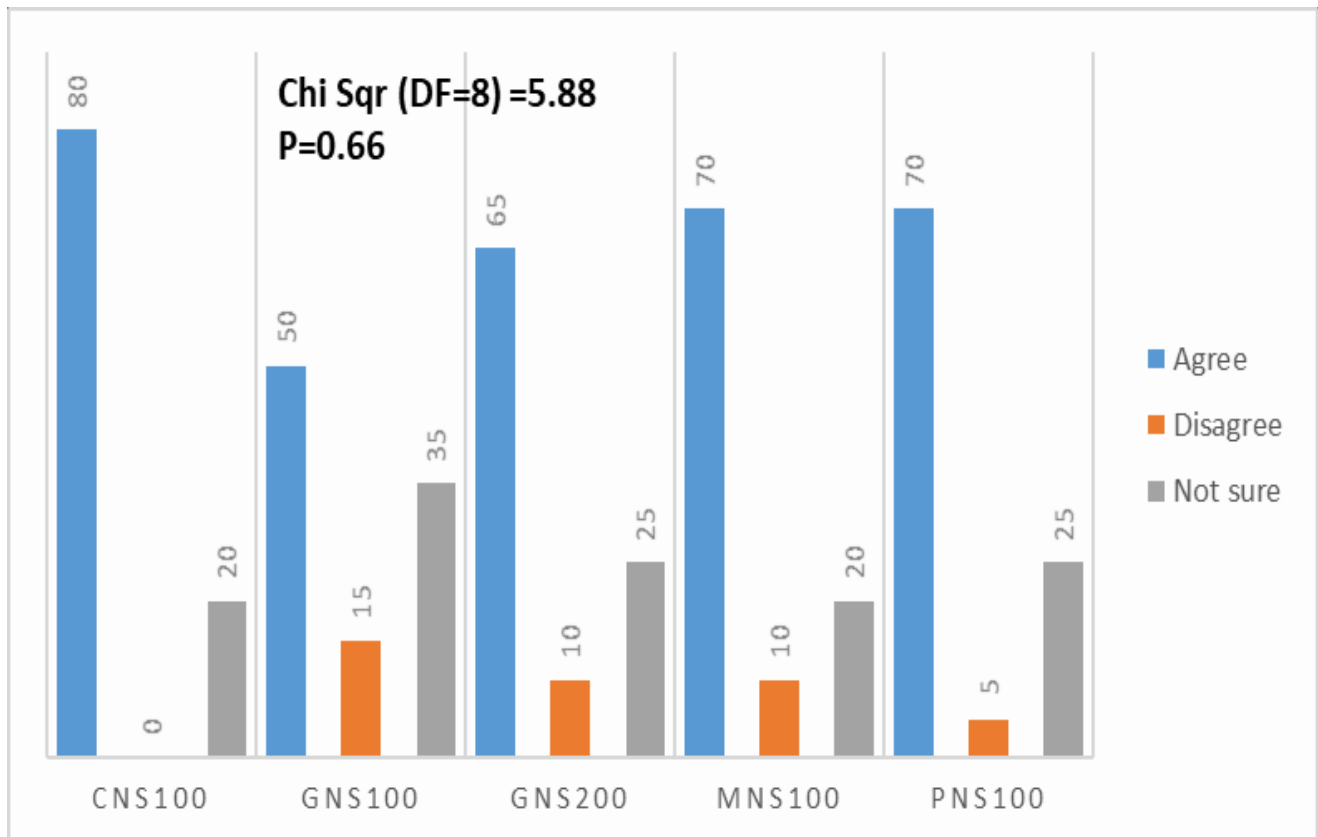
More than 60 per cent of the assessment tools were evaluated by lecturers who were not sure if the objective of the assessment were clearly described in all the assessment tools. The investigator's results indicated that only one assessment tool had the assessment objectives clearly indicated. There was no significant difference in the response of the lecturers in all the assessment tools with  $\chi^2(8, N = 100) = 2.45, p < 0.01$ . The percentage agreement for all the assessment tools was relatively low (<21%). The results clearly indicate that the assessment objectives were not clearly described, the remarks also indicate that in some of the assessment tools the objectives were not provided at all. Ulfvarson and Oxelmark (2012:705) asserted that before an assessment tool is constructed, learning outcomes should be assessed and identified. The authors further indicated that a valid assessment tool could be developed from the objectives stated in the clinical course.

**Table 4.7. Assessment tool adequately evaluate academic performance**

SUBJECT	NUMBER OF ASSESSMENT TOOLS	YES	%	NO	%	NOT SURE	%
CNS100		19	95	1	5	0	0
GNS100		16	80	3	15	1	5
GNS200		16	80	3	15	1	5
MNS100		18	90	2	10	0	0
PNS100		16	80	4	20	0	0

According to the lecturers results the percentage agreement for assessment tools was relatively high (more than 75%) in all the assessment tools. The results indicated that all assessment tools are designed to adequately evaluate academic performance relevant to the desired outcome. The results indicated that 19 (95%) assessment tools in CNS100 adequately evaluate academic performance relevant to the desired outcome. Only one (5%) assessment tool in GNS 100 and GNS 200 was evaluated by a lecturer who was not sure if the assessment tool evaluates academic performance relevant to the desired outcome.

Sixteen (80%) assessment tools indicated that the assessment tools adequately evaluate academic performance relevant to the desired outcomes for GNS 100, GNS 200 and PNS 100. The results show that the assessment tool adequately evaluates academic performance relevant to the desired outcomes. Ulfvarson and OxeImark (2012:703) affirmed that earlier studies have shown inadequacies in the assessment of nursing students. They further indicated that students were sometimes judged for their personality not for their knowledge hence it is important to ensure that the assessment tool evaluate academic performance relevant to the desired outcome.

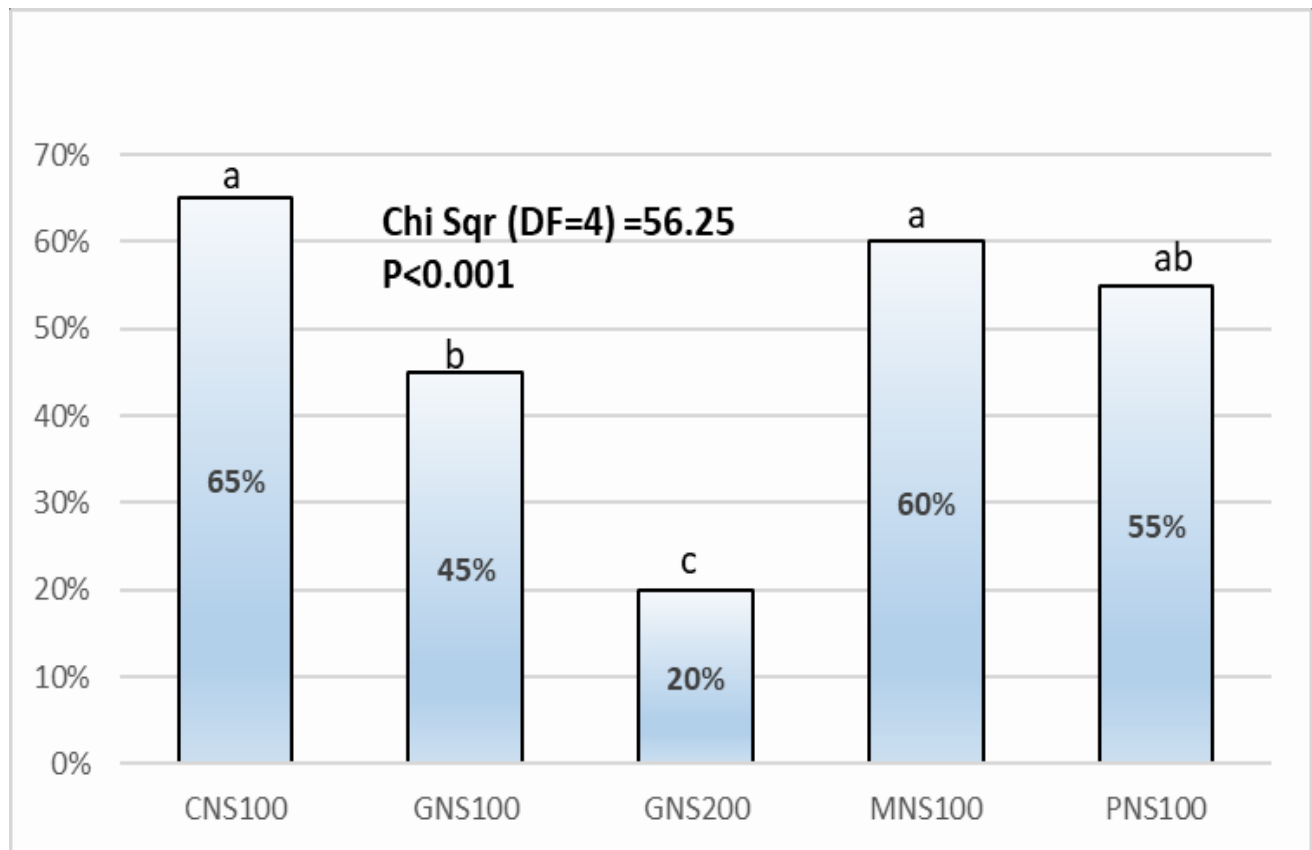


**Figure 4.8: Assessment tool cover specific outcome**

The investigator's results indicated that all the assessment tools cover specific outcomes confirmed by the lecturer's checklist which revealed that sixteen (80%) assessment tools revealed that the CNS 100 assessment tool covers the specific outcome. Only four (20%) CNS 100 assessment tools were evaluated by lecturers who were not sure whether the assessment tool covers the specific outcome or not. The GNS 100 assessment tools had 10 (50%) assessment tools that revealed that the assessment tool covers the specific outcome. Three (15%) assessment tools in GNS 100 and seven (35%) assessment tools were evaluated by lecturers who were not sure whether the assessment tool covers the specific outcome or not.

Thirteen (65%) assessment tools for GNS 200 indicated that the assessment tool covers the specific outcome, two (10%) assessment tools showed that the assessment tools do not cover specific outcome and five assessment tools (25%) were evaluated by lecturers who were not sure whether the assessment tool covers the specific outcome or not. Fourteen (70%) assessment tools in MNS 100 and PNS 100 revealed that the assessment tool covers the specific outcome. Two (10%)

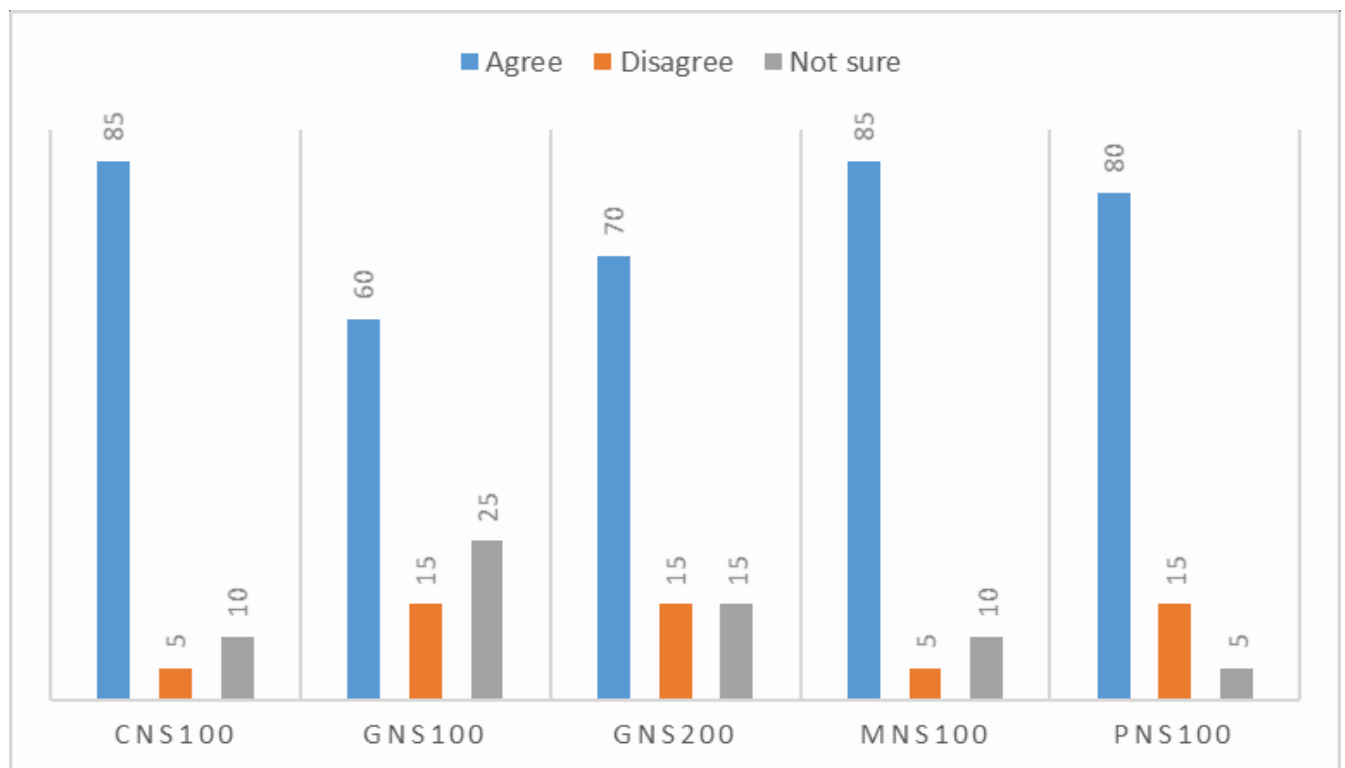
assessment tools for MNS100 and one (5%) assessment tool for PNS 100 indicated that the assessment tool does not cover specific outcomes. Ulfvarson and Oxelmark (2012:704) indicated that an appropriate and valid assessment tool could be developed very well from the objectives stated in the clinical course and specific assessment material to be produced for each specific course, since the intended learning outcomes differ.



**Figure 4.9: Critical points indicated in the assessment tool**

There is significance difference in the percentage agreement of all assessment tools with X<sup>2</sup> (8, N = 100) = 56.25,  $p < 0.01$ . The percentage agreement of assessment tools for GNS 200 was relatively low (20%) as compared to other assessment tools. More than 50 per cent of the assessment tools indicated that the critical points are indicated in the CNS100, MNS100 and PNS100. Only one (5%) assessment tool showed that the critical points are indicated for the MNS 100 assessment tool. Twenty assessment tools (100%) revealed that the PNS 100 assessment tools have critical points. Niu and Behar- Horenstein (2011:25) asserted that using critical thinking helps students to evaluate the argument of others and their own, resolve conflicts and come to well-

reasoned resolution to complex problems. Daud and Husin (2004:478) indicated that most institutions focus more on what to think than how to think. They further indicated that changing instructional approaches from what to think to how to think would require a major shift in thinking about instructional paradigms. Registered nurses are expected to function completely within their the scope of practice through the consistence application of sound clinical and critical thinking skills in accordance with the facility policies and procedures (American Nurses Association, 2015).



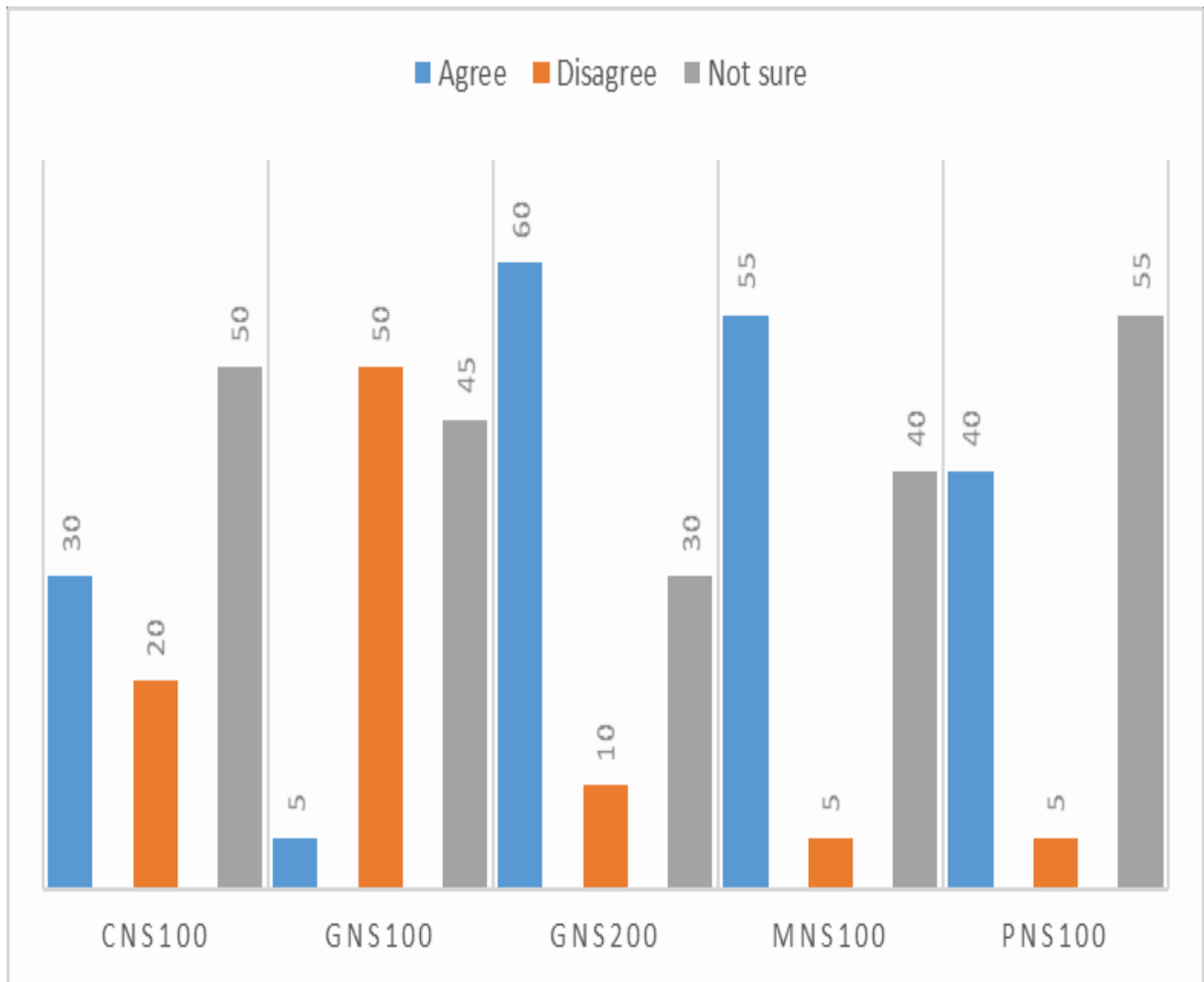
**Figure 4.10: Assessment tool communicate to the practical guide**

The five assessment tools for CNS 100, GNS 100, GNS 200, MNS 100 and PNS 100 were assessed to check if they communicate to the practical guide. The investigator's results revealed that all the assessment tools communicate to the practical guide. The lectures checklist confirmed that more than 60 per cent (60%) of the assessment tools revealed that all five clinical assessment tools communicate to the practical guide. Seventeen (85%) assessment tools for CNS and MNS revealed that the assessment tools communicate to the practical guide, 12 (60%) assessment tools for GNS 100, 14 (70%) assessment tools for GNS 200, and 16 (80%) assessment tools for PNS 100 assessment tools.

The results indicate that majority of lectures knew the contents of the procedure manual. Only one (5%) assessment tool for CNS 100 revealed that the assessment tool does not communicate to the practical guide and two (10%) assessment tools were evaluated by lecturers who were not sure if the assessment tool communicates to the practical guide or not.

Three (15%) assessment tools for GNS 100 were evaluated by lecturers who were not sure whether the assessment tool communicate with the practical guide or not. The lecturers who were not sure or who did not agree that the assessment tool communicate with the practical guide, were lower than 30 per cent. This indicates that only a few lecturers were not well versed about the contents of the practical guide. The differences in response may be because lecturers were not given the practical guide for different assessment tools, they were only given the learning outcomes.

Ulfvarson and Oxelmark (2012:704) indicated that an appropriate and valid assessment tool could be developed very well from the objectives stated in the clinical course and specific assessment material to be produced for each specific course, since the intended learning outcomes differ. McCarthy and Murphy (2008:306) affirmed that part of curriculum design of any nursing education program is to ensure that the method of assessment reflect the content, structure and learning outcomes stipulated in the practical guide. The authors further indicated that assessing student's clinical competence must include both theory and practice.



**Figure 4.11: Final evaluation built upon multiple sources of data**

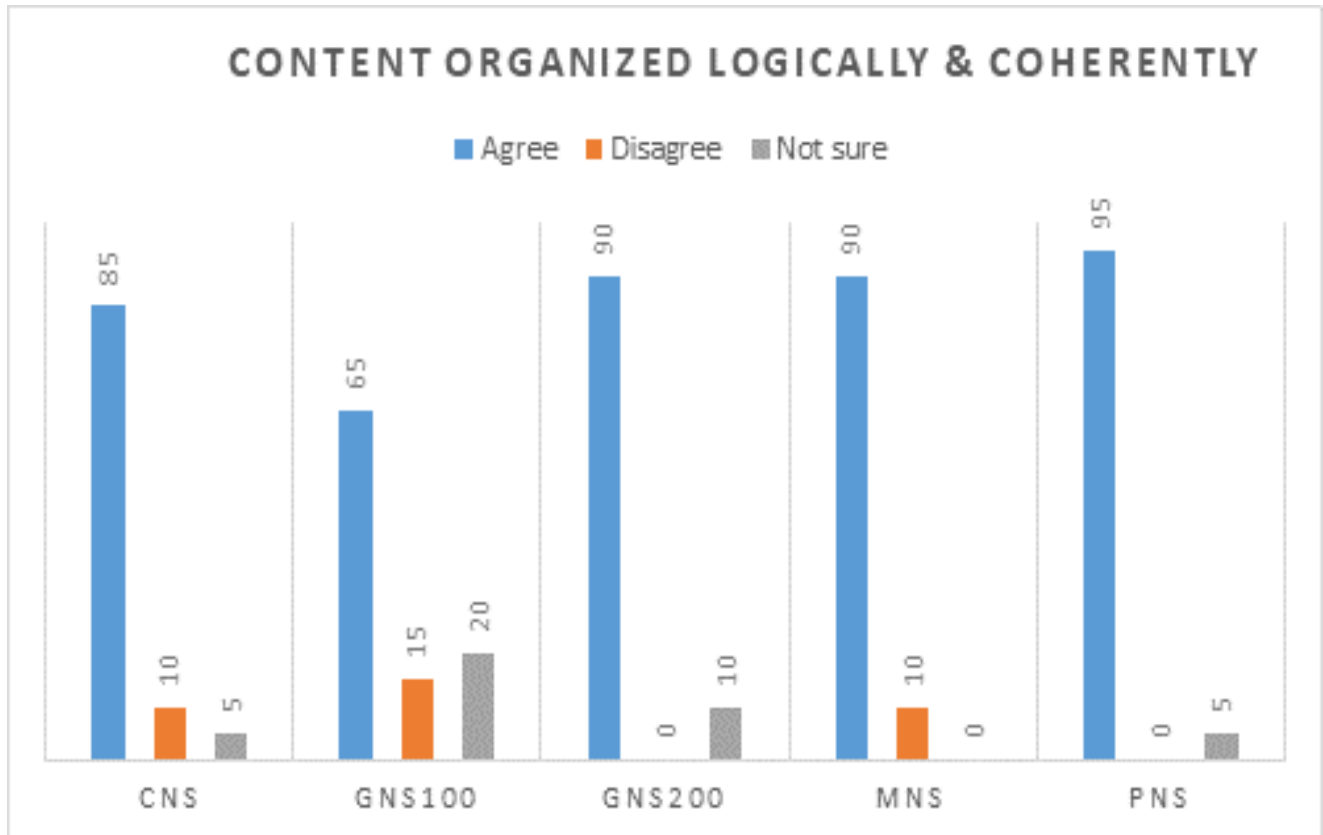
The investigator's results revealed that the assessment tools for CNS 100, GNS 100 and PNS 100 final evaluation was not built upon multiple sources of data. This has been confirmed by the lecturer's checklists which indicated that six (30%) assessment tools agreed that the final evaluation tool for CNS 100 was built upon multiple sources of data. Four (20%) assessment tools and 10 (50%) assessment tools were evaluated by lecturers who were not sure if the final evaluation tool for CNS 100 was built upon multiple sources of data.

Only one (5%) assessment tool for GNS100 showed that the final evaluation tool was built upon multiple sources of data. Ten (50%) assessment tools revealed that the final evaluation was not

built upon multiple sources of data. Nine (45%) assessment tools for GNS 100 were evaluated by lecturers who were not sure if the final evaluation tool was built upon multiple sources of data.

Twelve (60%) assessment tools for GNS 200 agreed that the final evaluation tool was built upon multiple sources of data. Two (10%) assessment tools for GNS 200 indicated that the final evaluation was not built upon multiple sources of data. Six assessment tools were evaluated by lecturers who were not sure if the final evaluation tool for GNS 200 was built upon multiple sources of data or not. The MNS 100 assessment tool revealed that eleven (55%) revealed that the final evaluation tool was built upon multiple sources of data, one (5%) assessment tool indicated that the final evaluation tool for MNS 100 was not built upon multiple sources of data and eight (40%) assessment tools were not sure if final evaluation tool for MNS 100 was built upon multiple sources of data or not. Eight (40%) assessment tools showed that the final evaluation tool for PNS 100 was built upon multiple sources of data, one (5%) assessment tool indicated that the final evaluation was not built upon multiple sources of data.

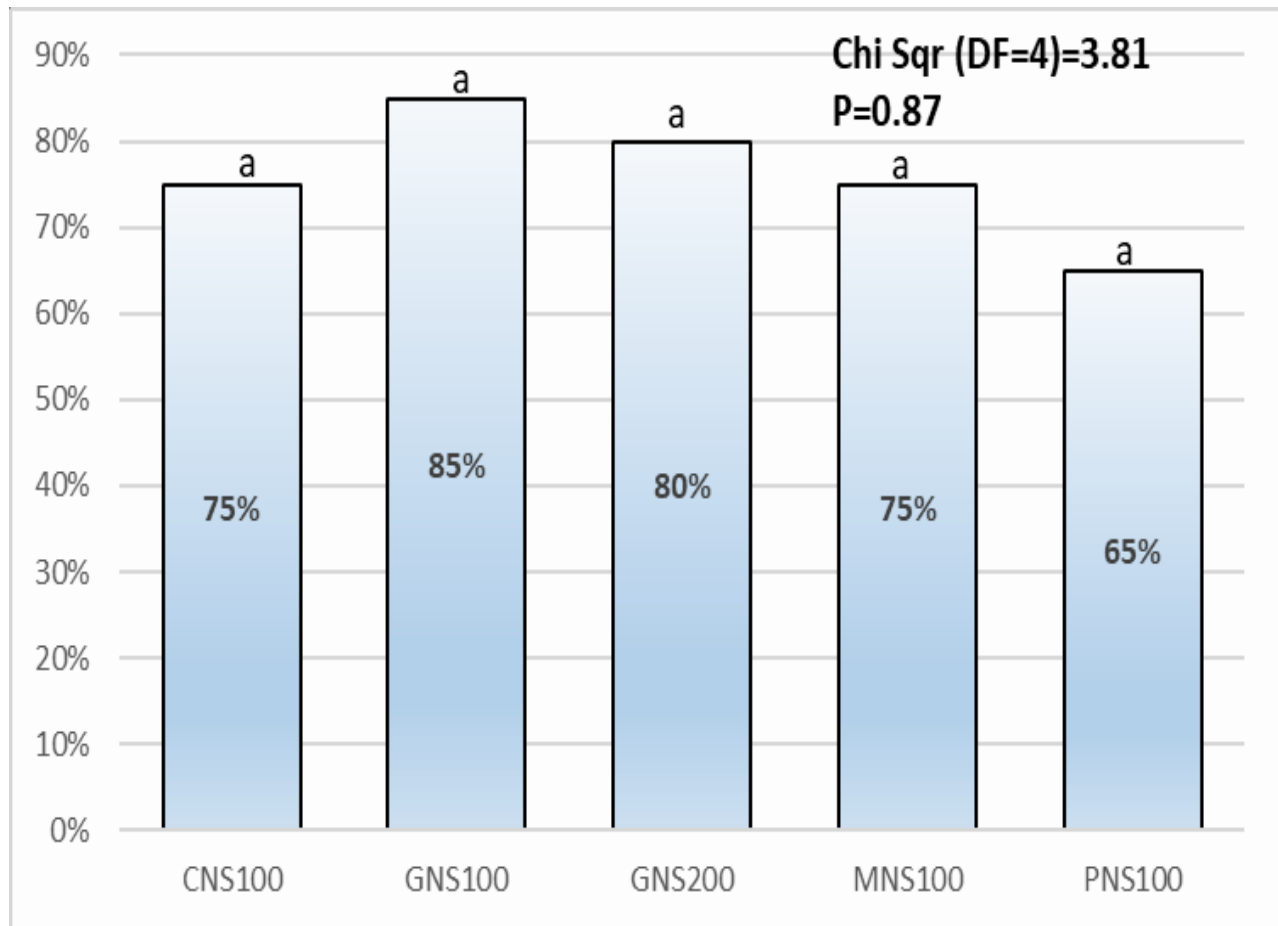
The percentage agreement for CNS100, PNS100 and GNS100 were lower than 50 per cent with GNS100 being lower than 10 per cent, which indicates that some of the final assessment tools were not built upon multiple sources of data. Ulfvarson and Oxelmark (2012:707) affirmed that before the assessment tool is constructed, a set of criteria should be identified to determine what has been done and the learning outcomes to be met. They further indicated that the criteria should be derived from different sources, the most being the recognition of the professional qualification. Ness, Piirsalu, Anderberg and Olsson (2007:506) assert that future assessment tools should provide diverse range of assessment situations.



**Figure 4.12: Contents organized logically and coherently**

There is a significance difference between the assessment tools showing that content was organized logically and coherently in CNS100, GNS100, MNS100 and PNS100, with assessment tools indicating that GNS 200,  $\chi^2 (8, n = 100) = 67.25, p < 0.01$ . The lecturers' results revealed that 13 (65%) assessment tools for GNS 100 indicated that the content of the clinical assessment tool has been arranged logically and coherently, with 17 (85%) assessment tools were for CNS 100, 19 (95%) assessment tools for PNS 100, 18 (90%) assessment tools for GNS 200 and MNS 100.

Three (15%) assessment tools for GNS 100 assessment tools, two (10%) assessment tools for CNS 100 and MNS 100 disagreed that the assessment tools were arranged logically and coherently. The majority of the lecturers agreed that the assessment tools were arranged logically and coherently. The results are supported by Hasegaw (2014:2) who affirm that the contents of the assessment tool should be organized into a coherent and meaningful plan.



**Figure 4.13: Contents contains factual errors, typos, or grammatical errors**

The investigator's results indicated that all the assessment tools does not contain factual errors. The lecturer's checklists confirmed that more than 60 % of the assessment tools had no factual errors. Less than 40 per cent of the assessment tools indicated that the assessment tools had factual errors. There was no significant difference between factual errors of the assessment tools,  $\chi^2(4, N = 100) = 3.81, p > 0.05$ . Fifteen per cent of assessment tools revealed factual errors on CNS 100, GNS 100, GNS 200 and MNS 100 assessment tools. The results show that most of the assessment tools had no factual, typing or grammatical errors.

These results are supported by Haapio and Viitaniemi (2008:478), who indicated that there is a possibility that the assessment tool might include errors in their definition and calculations, which can affect the results.

## 4.5 CONCLUSION

The results revealed differences on how clinical assessment tools are reviewed and updated. The study indicated that some of the assessment tools included no logo of the institution; some did not provide instructions to the assessor's and the students. Lack of rating scales and no signature of internal and external moderators were also revealed in some of the assessment tools. These are a few of many more discrepancies identified. All the above-mentioned gaps have been identified and supported with literature. Chapter 5 focus on the importance and benefits of the study, recommendations and limitations of the study.

# CHAPTER 5

## CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS AND LIMITATIONS

### 5.1 INTRODUCTION

The previous chapter discussed the results and their interpretations. This chapter presents the conclusion, implications, recommendations and conclusions based on the analyzed research data. The aim of this study was to evaluate the quality and the contents of existing clinical assessment tools used to assess four-year diploma nursing students at the selected nursing college in Tshwane.

### 5.2 THE RESEARCH FIELD

The study used the quantitative research approach to collect data. A checklist was used to collect data. The checklist consisted of the following sections, namely: the quality of the clinical assessment tools and the contents of the clinical assessment tools.

### 5.3 REVIEW OF THE STUDY RESULTS

The following subsections present a review of the study results. These subsections follow the checklist used to guide the research.

#### 5.3.1 QUALITY OF CLINICAL ASSESSMENT TOOLS

- **The name of institution**

The study results showed that more than 50 per cent of assessment tools out of 100 per cent had the name of institution written. This indicates that a high number of clinical lecturers understand the need for writing the name of the institution in the assessment tool. It is encouraging to see

that the name of the institution is indicated, however the remaining percentage that does not provide for the name of the institution, should be improved.

- **The type of the assessment to be done**

The study indicated that most of the assessment tools indicated the type of assessment to be done. More than 60 per cent of the assessment tools indicated the type of the assessment to be done.

- **The assessment procedure name**

The results indicated that 90 per cent in three of the five assessments tools indicated the name of the assessment procedure. This indicates that the name of the assessment procedure was not provided for in the remaining 30 per cent of the assessment tools, meaning that the assessment tools are compiled differently in each discipline. Guidelines on development of assessment tools need to be available in all the disciplines and all the assessment tools should be standardized.

- **The level of the student to be assess**

The results show that more than 70 per cent of the assessment tools indicated the level of student. The institution should continue to emphasize the need for 100 per cent compliance in indicating the level of student that is to be assessed.

- **The assessment tools communicate to the practical guide**

The study results indicated that more than sixty 60 per cent of all five clinical assessment tools communicate to the practical guide. 100 per cent compliance should be emphasized in all the five disciplines, because it is the curriculum and it must be followed.

- **Final evaluation built upon multiple sources of data**

Less than 50 per cent of the assessment tools were built upon multiple sources of data. On 50 per cent of the assessment tools, was not clearly indicated whether the final evaluation was built upon multiple sources of data or not. The results indicate that there is a need for standardization of clinical assessment tools, whereby each discipline should ensure that the assessment tools are standardized before they can be utilized.

- **The assessment tools include the student's instructions**

The results indicated that 90 per cent of the assessment tools include instructions to student in GNS 200, MNS 100 and PNS 100. In contrast, CNS 100 and GNS 100 assessment tools did not indicate instructions to students, only ten per cent of the assessment tools indicated instructions to student. This indicates the need for guidelines, standardization and moderation of clinical assessment tools by internal and external moderators.

- **Assessment tools include the assessor's instructions**

More than 70 per cent of the assessment tools had the assessor's instructions included in GNS 100 and GNS 200. In CNS, 100 provided for 20 per cent, MNS 100 provided for ten per cent and PNS 100 provided for 0 per cent of assessment tools that had the assessor's instructions included. The need for guidelines, standardization and moderation of all the clinical assessment tools should be implemented in the institution.

- **Space for remarks**

The results show that more than 75 per cent of the assessment tools allowed space for remarks. However, it is recommended that the remaining 20 should follow the correct route. Therefore, there should be standardization of all tools to include space for remarks.

- **Availability of the rating scale**

The results show that less than 50 per cent of the assessment tools provided for a rating scale. More than 50 per cent of the assessment tools did not include a rating scale at all. This clearly indicates that there are no guidelines available to be used by people responsible for updating clinical assessment tools and the assessment tools were not standardized or moderated. The need for guidelines, standardization and moderation of clinical assessment tools should be emphasized.

- **Provision of space for external moderator**

The results indicated that more than 75 per cent of CNC 100, GNS 100, MNS 100 and PNS 100 assessment tools allowed space for the signature of the internal and external moderator. Five per cent (5%) of GNS 200 assessment tools provided the space for internal and external moderator signatures. Each discipline should verify the completion of their assessment tools also, the institution has to prioritize the development of guidelines, standardization and moderation of clinical assessment tools.

- **The assessment tools enable students with different learning styles or abilities to show what they have learned and what they can do**

The results show that less than 50 per cent of the assessment tools enable students with different learning styles or abilities to show what they have learned and what they can do. The reason for examinations/assessments, whether theoretical or clinical, or to be moderated internally and externally, is to ensure that all the necessary requirements are taken into consideration before the assessment or the examination can be done. The need for verification by the internal and external moderator, standardization and moderation is highly recommended.

- **Standardization of assessment tools**

The results indicated that in four of the assessment tools, more than 50 per cent of the assessment tools were standardized. Only PNS 100 indicated 30 per cent standardization assessment tools. The institution must ensure that all the disciplines comply 100 per cent to standardization of assessment tools, this can improve the quality of the clinical assessment tools.

### 5.3.2 THE CONTENTS OF CLINICAL ASSESSMENT TOOLS

- **Assessment objectives**

The results showed that only 20 per cent of the assessment tools had assessment objectives clearly described. This implies that 80 per cent of the assessment tools had no objectives. Guidelines, workshops for people responsible for development of assessment tools, standardization and moderation are recommend.

- **Assessment tool adequately evaluate academic performance relevant to the desired outcome**

The results of the study indicated that more than 80 per cent of the assessment tools for CNS 100, GNS 100, GNS 200, MNS 100 and PNS 100 adequately evaluate academic performance relevant to the desired outcome. Good work to be kept up. However, the remaining 20 per cent indicate that there is a need for standardization and moderation of all the tools used to evaluate academic performance relevant to the desired outcome.

- **Assessment tool covers the specific outcome**

The results showed that more than 50 per cent of the clinical assessment tools cover the specific outcomes. Availability of guidelines and implementation of standardization should be emphasized in order to achieve 100 per cent compliance.

- **Availability of critical points in the assessment tool**

The study results indicated that 80 per cent of CNS 100 clinical assessment tools had critical points indicated and 100 per cent was for GNS 100. PNS 100, MNS 100 and GNS 200 assessment tools had less than 15 per cent of critical points included. This indicates the need for verification, workshops for new staff members, standardization and moderation of clinical assessment tools.

- **The assessment tool align to the practical guide**

The results of the study showed that more than 60 per cent of all five clinical assessment tools communicate to the practical guide. This indicates good work done by the institution. However, it is recommended that all assessment tools should communicate to the practical guide and standardization can assist to achieve this goal.

- **Content organized logically and coherently**

The results showed that more than 65 per cent of the assessment tools for CNS 100, GNS 100, GNS 200, MNS 100 and PNS 100 have been arranged logically and coherently. It is encouraging and motivating to notice that this has been taken care of.

- **Factual errors, typos, or grammatical errors**

The results indicate less than 30 per cent of the assessment tools contain factual, typing or grammatical errors. This shows that if the typing of the assessment tools can be done by people trained For the job, the errors can be prevented.

#### **5.4 LIMITATIONS OF THE STUDY**

The study was conducted only at the selected nursing college in Tshwane and therefore the study results cannot be generalized. If the study could have been conducted in all the nursing colleges in Gauteng, it would have yielded different results.

## **5.5 IMPLICATIONS**

### **5.5.1 Importance and benefits of the study**

#### **5.5.1.1 NURSING EDUCATION**

The study will benefit the lecturers responsible for reviewing and assessing clinical competencies of students in that their knowledge and understanding with regard to the quality and contents of the assessment tools will be improved through dissemination of the results and recommendations of the study. This will add on the body of knowledge related to reviewing and updating of clinical assessment tools. The face validity and content validity of the assessment tools will be improved. The assessment tools will then have the logo of the institution, objectives, rating scale, space for internal and external moderators signatures etc.

#### **5.5.1.2 Patients**

Patients will also benefit from the study results, as the quality of care that will be rendered by nursing students who would be assessed by the reviewed clinical assessment tools might improve. The patient's outcomes will also be improved since the student's level of accountability and responsibility would be increased.

#### **5.5.1.3 NURSING STUDENTS**

Nursing students will have reviewed clinical assessment tools that will guide their daily nursing practice in terms of their professional accountability and responsibility. The competency of newly qualified professional nurses will also improve since the clinical assessment tool will ensure that only those with adequate clinical skills are promoted to the next level of training.

## **5.6 RECOMMENDATIONS**

The purpose of the chapter was to present the research recommendations based on the results of the analyzed research data. The results of the study will be communicated to the principal of the institution, the HOD of clinical department and the lecturers. The implementation of these recommendations will improve the quality of clinical assessment tools, which will automatically

improve the quality of nurses who will be assessed using the improved clinical assessment tools. This will also improve the knowledge of people responsible for development of clinical assessment tools and the care given to the patients.

The following measures are recommended to improve the quality of clinical assessment tools:

- Guidelines should be available to be used by the people responsible for development of clinical assessment tools.
- All clinical assessment tools should be checked and signed by internal and external moderators.
- Workshops on development of clinical assessment tools to be done.
- Training of newly appointed lecturers on reviewing and development of clinical assessment tools.
- Have a group or a team of lecturers in each level responsible for verification and standardization of developed clinical assessment tools before they can be sent to the moderators prior to examination.
  
- **Future research**
  - The study recommends that there should be further research conducted on the standardization and guidelines for development of clinical assessment tools for all levels.
  - It is further recommended that the same study be conducted at different nursing education institutions in Gauteng and other Provinces so as to improve the quality of the clinical assessment tools.

## 5.7 CONCLUSION

The study concentrated on the evaluation of clinical assessment tools used to assess four-year diploma nursing students at a selected nursing college in Tshwane. The results indicated areas of concern regarding the quality of quality of clinical assessment tools. Positive results were also indicated.

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**ANNEXURE A**

**REQUEST TO CONDUCT A STUDY**



S G Lourens Nursing College

Ext: 5660

05 April 2016

The Principal

SG Lourens Nursing College Pretoria

0001

**RE: PERMISSION TO DO RESEARCH AT THE ABOVE NURSING COLLEGE**

I Mikateko Esther Mageza am a research student at the University of Pretoria.

**TITLE OF THE STUDY: EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO ASSESS STUDENTS AT THE SELECTED NURSING COLLEGE IN TSHWANE.**

My supervisor is Dr Moloko Phiri. I am presently working at SG Lourens Nursing as a lecturer. I am requesting permission to conduct a study at SG Lourens Nursing College which involves access to clinical assessment tools. The purpose of the study is to evaluate the quality and the contents of the clinical assessment tools used for the four- year diploma nursing students. Confidentiality of the assessment tools will be ensured during the study.

I request access to 7 clinical assessment tools. One (1) general nursing science level 100, one (1) general nursing science level 200, one (1) Midwifery level 100, one (1) Community level 100 and one (1) Psychiatry level 100 used to assess diploma nursing students in 2015. The additional 2 will be selected from level 1 and 2 using purposive sampling for pilot study. The researcher will not proceed with the study until she gets approval from the Faculty of Health Science Research Ethics Committee, University of Pretoria.

Kind regards

Mrs ME Mageza

**ANNEXURE B**

**CHECKLIST**



## Checklist

<b>1. QUALITY OF THE ASSESSMENT TOOL</b>	<b>Agree</b>	<b>Disagree</b>	<b>Not sure</b>
1. Is the name of the institution and the logo indicated?			
2. Is the type of assessment to be done indicated?			
3. Is the name of the procedure written on the outer cover?			
4. Is the level indicated?			
5. Is the space for writing the student name, student number and signature provided?			
6. Is the space for assessor's signature provided?			
7. Does it Includes instructions for the student?			
8. Does it include instructions for the assessor?			
9. Is the rating scale provided?			
10. Is the space for remarks provided?			
11. Is the space for signature by internal moderator and external provided?			
12. Does the assessment tool enable students with different 13. Learning styles or abilities to show you what they have learned and what they can do?			
14. Can multiple people use the scoring mechanism and come up with the same score?			
15. Has the assessment tool been standardized?			
<b>2. CONTENTS OF ASSESSMENT TOOL</b>	<b>Agree</b>	<b>Disagree</b>	<b>Not sure</b>
16. Is the objective of the assessment clearly indicated?			
17. Does the assessment tool adequately evaluate academic performance relevant to the desired outcome? performance			
18. Does the assessment tool communicate to the practical guide?			

	<b>Agree</b>	<b>Disagree</b>	<b>Not sure</b>
19. Is the tool covering the specific outcomes of the level to be assessed?			
20. Are there critical points indicated in the assessment tool, if there how many?			
21. Is the assessment summative or formative if summative is the final evaluation built upon multiple sources of data?			
22. Will the information derived from the assessment help to improve teaching and learning?			
23. Is the contents organized logically and coherently?			
24. Does the content contain factual or grammatical errors?			

**ANNEXURE C**

**CHECKLIST**



**Permission to access information from the clinical assessment tools at SG Lourens Nursing College**

TO: The Principal  
SG Lourens Nursing College

From: Mikateko Esther Mageza  
SG Lourens Nursing College

**Re: Permission to do research at SG Lourens Nursing College**

**Title of study: evaluation of the clinical assessment tools used to assess four-year diploma nursing students.**

The researcher request access to the following records:

Clinical assessment forms for: General Nursing Science 100 and 200, Community Nursing science 100,

Psychiatric Nursing Science 100 and Midwifery Nursing Science 100.

This request is lodged with you in terms of the requirements of the Promotion of Access to Information Act. No. 2 of 2000.

I am a student at the Department of Nursing Science at the University of Pretoria.

I am working with Dr Moloko Phiri as my Supervisor. I herewith request permission to conduct a study on the above topic on the college grounds.

I intend to publish the findings of the study in a professional journal and/ or to present them at professional meetings like Symposia, congresses, or other meetings of such a nature.


We undertake not to proceed with the study until we have received approval from the Faculty of Health Sciences Research Ethics Committee, University of Pretoria.

Yours sincerely  
ME Mageza



Signature of the Principal Investigator

**Permission to do the research study at SG Lourens Nursing College and to access information as requested is hereby approved.**

Title and name of the Principal: DIATSHEDISO P. TIALE  
Name of the college: SG LOURENS NURSING COLLEGE  
Signature:  Date: 25/4/2016



**ANNEXURE D**

**LETTER OF CLEARANCE FROM  
THE BIostatISTICIAN**



Date: 29 / 02 /2016

**LETTER OF CLEARANCE FROM THE BIostatistician**

This letter is to confirm that the student(s), with the Name(s) Mikateko Esther Mageza

Studying at the University of Pretoria

Discussed the Project with the title Clinical assessment tools for four year diploma nursing students with me.

I hereby confirm that I am aware of the project and also undertake to assist with the statistical analysis of the data generated from the project.

The analytical tool that will be used will be Chi-Square test for equal proportion to achieve the objective(s) of the study.

Name Cynthia Boitumelo Ngwane Date 29 February 2016

Signature  Tel: 012 427 9811

Department or Unit Agricultural Research Council – Biometry

Official Stamp of  
Biostatistician

**ANNEXURE E**

**APPROVAL LETTER &  
EXTENSIONS: UNIVERSITY OF  
PRETORIA**



The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and the US Federal Code Assurances:

- FDA 00322537, Approved dt 27 May 2002 and Expires 29 Oct 2016
- DR 0035 2376 DRG0001707 Approved dd 22/04/2014 and Expires 22/04/2017.



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences Research Ethics Committee

Approval Certificate  
New Application

25/05/2016

Ethics Reference No.: 175/2016

Title: EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO ASSESS FOUR-YEAR DIPLOMA NURSING STUDENTS AT A SELECTED NURSING COLLEGE IN TSHWANE.

Dear Mikateko Mageza

The New Application as supported by documents specified in your cover letter dated 26/04/2016 for your issues of received on the 04/05/2016, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 26/05/2016.

Please note the following about your ethics approval:

- Ethics Approval is valid for 1 year
- Please remember to use your protocol number (175/2016) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, or monitor the conduct of your research.

Ethics approval is subject to the following:

- The ethics approval is conditional on the receipt of 6 monthly written Progress Reports, and
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

Dr R Sanyal, MScChB, MEd (Int), MPharm, PhD  
Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 on R guidelines to human research and the United States Code of Federal Regulations Title 45 and 41. This committee abides by the ethical norms and principles for research, established by the Department of Health, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research Principles Studies and Practices 2004 (Department of Health)

☎ 012 329 3085      e) [theethics@up.ac.za](mailto:theethics@up.ac.za)      ↗ <http://www.up.ac.za/healthsci.us>  
 📍 Private Bag X223, Arcadia 0007 - Tswelopele Building, Levels 4-59, Gezina, Pretoria

📄 Kindly collect your original signed approval certificate from our offices, Faculty of Health Sciences, Research Ethics Committee, Tswelopele Building, Level 4-59



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

Faculty of Health Sciences Research Ethics Committee

31/05/2018

**Mikateko Mageza**  
Department of Nursing Science  
University of Pretoria

Dear Mikateko Mageza

RE.: 175/2016 ~ Letter dated 18 April 2018

175/2016 Mageza	
Protocol Title	EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO ASSESS FOUR-YEAR DIPLOMA NURSING STUDENTS AT A SELECTED NURSING COLLEGE IN TSHWANE.
Principal Investigator	Mikateko Mageza Tel: 076 955 2401 Email: mikatekodm@gmail.com Dept: Nursing Science

We hereby acknowledge receipt of the following document:

- Extension until end of September 2018

which has been approved at 30 May 2018 meeting.

With regards

**Dr R Sommers**; MBChB; MMed (Int); MPharm; PhD  
Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

☎ 012 356 3085    🌐 [fnsethics.up.ac.za](http://fnsethics.up.ac.za)    🌐 <http://www.up.ac.za/healthethics>  
✉ Private Bag X323, Arcadia, 0007 - Tswelopele Building, Level 4-59, Gezina, Pretoria



Faculty of Health Sciences

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with IC-IRB guidelines and has US Federal wide Assurance.

- FWA 00002587, Approved 22 May 2002 and Expires 03/02/2022.
- IRB 0000 2235 ICRG0001762 Approved 22/04/2014 and Expires 03/14/2020

14 February 2019

**Approval Certificate  
Annual Renewal**

**Ethics Reference No.: 175/2016**

**Title: EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO ASSESS FOUR-YEAR DIPLOMA NURSING STUDENTS AT A SELECTED NURSING COLLEGE IN TSHWANE.**

Dear Mrs ME Mageza

The **Annual Renewal** as supported by documents received between 2019-01-28 and 2019-02-13 for your research, was approved by the Faculty of Health Sciences Research Ethics Committee on its quorate meeting of 2019-02-13.

Please note the following about your ethics approval:

- Renewal of ethics approval is valid for 1 year, subsequent annual renewal will become due on 2020-02-14.
- Please remember to use your protocol number (175/2016 ) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, monitor the conduct of your research, or suspend or withdraw ethics approval.

**Ethics approval is subject to the following:**

- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

**Dr R Sommers**

MBChB MMed (Int) MPharmMed PhD

Deputy Chairperson of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

*The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes, Second Edition 2015 (Department of Health)*

Research Ethics Committee  
Room 4.00, Level 4, Tswelopele Building  
University of Pretoria, Private Bag X209  
Arcadia 0001, South Africa  
Tel: +27 (0)12 356 3004  
Email: [deesepika.bellan@up.ac.za](mailto:deesepika.bellan@up.ac.za)  
[www.up.ac.za](http://www.up.ac.za)

Fakulteit Gesondheidswetenskappe  
Lefapha la Disaense tsa Maphelo

**ANNEXURE F**

**PROVINCIAL PROTOCOL REVIEW  
COMMITTEE COMMITTEE**





**GAUTENG PROVINCE**  
HEALTH  
REPUBLIC OF SOUTH AFRICA

**OUTCOME OF PROVINCIAL PROTOCOL REVIEW COMMITTEE (PPRC)**

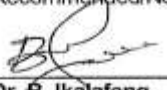
Researcher's Name (PI)	Mrs Mikateko Mageza
Organization / Institution	UP
Research Title	Evaluation of the Clinical Assessment Tools used to assess Four-Year Diploma Nursing Students at a selected Nursing College in Tshwane.
Contact number	Address: N/A Contact no: 012 319-5660 Cell: 0769552401 Email: mikatekodm@gmail.com
Protocol number	GP_2016RP10_781
Date submitted	31/05/2016
Date reviewed	26/07/2016
Outcome	Approved

It is a pleasure to inform you that the Gauteng Health Department has approved your research on Evaluation of the Clinical Assessment Tools used to assess Four-Year Diploma Nursing Students at a selected Nursing College in Tshwane.

Study sites: GDoH Nursing Colleges


The Provincial Protocol Review Committee kindly requests that you to submit a report after completion of your study and present your findings to the Gauteng Health Department.

Recommended/Not Recommended

  
Dr. B. Ikajafeng  
(on behalf of the PPRC)

Date: 28/07/2016

Approved/Not approved

  
Dr. LRR Lebothe  
DDD: Clinical Service

Date: 29 07 2016

**ANNEXURE G**

**EDITING CERTIFICATE**



---

**EDITING CERTIFICATE**

Date: 17 December 2018

I, Berdine Smit, ID 7712190011083, hereby certify that the M Ed (Philosophy of Education) by **MIKATEKO ESTHER MAGEZA:**

**EVALUATION OF THE CLINICAL ASSESSMENT TOOLS USED TO ASSESS STUDENTS AT A  
SELECTED NURSING COLLEGE IN TSHWANE**

has been edited by me according to the Havard Author-date System APA application).



BERDINE SMIT

BA. Publishing (UPE)



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