EXPLORATION OF THE PERCEIVED CLINICAL COMPETENCIES OF NEWLY QUALIFIED MIDWIVES WORKING IN HOSPITALS AT ETHEKWINI MUNICIPALITY

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MASTER'S IN NURSING (EDUCATION)

BY

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DECLARATION

I, Zanele Patience Zwane, declare that the research study entitled "EXPLORATION OF THE PERCEIVED CLINICAL COMPETENCIES OF NEWLY-QUALIFED MIDWIVES IN HOSPITALS AT eTHEKWINI Municipality" is my original work. I hereby declare that I have given full acknowledgement of the resources cited in this dissertation.

I also declare that this work has never been submitted before, for any degree and to any university or education institution.

....

SIGNATURE (Z.P. ZWANE) DATE

..... 11/04/2011

RESEARCH SUPERVISOR DATE

(Professor NG Mtshali)

DEDICATION

THIS DISSERTATION IS DEDICATED TO:

My late parents **Rose** and **Dumile** for their contribution to what I am today,

my daughter **Lusanda** and

to all **Amajama Kasjadu** clan, for supporting me but mostly for loving me.

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ABSTRACT

Background: The reduction of the maternal mortality rate is part of the priority agenda of governments in Africa, including South Africa. Research shows that a large portion of maternal deaths are preventable because they are largely due to lack of inappropriately-prepared staff. In South Africa, outcome studies on the quality of comprehensive-prepared nursing graduates reflect some concerns regarding their levels of competence. These studies, however, are general; they did not directly target the competence of these graduates in their midwifery practice, therefore, the purpose of this study was to explore and describe the perceived level of competence of newly qualified-midwives functioning in midwifery units.

Research Methodology: Based on the positivist paradigm, an exploratory descriptive design, using a quantitative approach, was adopted in this study. Two structured questionnaires were used to collect data: one for the newly-qualified midwives and one for the supervisors. A total of 48 newly-qualified midwives and 26 supervisors from five hospitals at eThekwini District participated in this study. Ethics principles and other considerations were observed throughout the study. Data were analyzed statistically using a computer Software Package (SPSS, version 15.0) and a variety of statistical tests were carried out..

Results: From the findings there was a positive congruence between graduates and their supervisors' ratings of the newly-qualified midwives clinical competencies. There were, however, significant differences in a few skills with graduates tending to rate themselves higher than did their supervisors. On the whole though one can conclude that although

the findings in this study are not conclusive, compared to the previous studies in this area, there is an improvement in the level of competence of newly-qualified midwives. The improvement was noted in their level of competence in midwifery clinical practice, clinical teaching, management and research. The findings, however, revealed some areas that need special attention in the theory and clinical preparation of midwives.

Recommendations: Recommendations included reviewing the curriculum and strengthening the research component. In midwifery clinical practice there needs to be more attention paid to neonatal care skills, problem solving and record keeping. Further research is also recommended.

LIST OF ABBREVIATIONS

CINAHL: Cumulative index for Nursing and Allied Health

MDGs: Millennium Developmental Goals

MMR: Maternal Mortality Ratio

NQMS: Newly Qualified Midwives

SANC: South African Nursing Council

UKZN: University of KwaZulu Natal

UN: United Nations

WHO: World Health Organization

KEY WORDS

Competence

Clinical competence

Competencies of midwives

Clinical teaching in midwifery

Midwifery programmes

Midwifery curriculum

Midwifery education

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CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Background to the study

The reduction of the maternal mortality ratio (MMR) is one of the major goals included in the Millennium Development Goals (MDGs). The target for Goal 5 of the Millennium Development is that 90% of births should be attended by skilled attendants by 2015 in the regions where they are not routinely available (WHO, 2006). There is slow progress towards achievement of this goal due to shortages of professional midwives in many countries in Africa. One of the essential elements of high-quality delivery care is a skilled attendant at delivery; this would reduce maternal mortality by 75 % (UN, 2005). The Millennium Goal emanated from the concern regarding high maternal mortality. It is estimated that 585,000 women die each year as a result of pregnancy and childbirth. Almost all of these deaths (99 %) occur in developing countries, particularly Africa (WHO, 2006). The regions with the lowest proportions of skilled attendants, South Asia and Sub-Saharan Africa; have the highest numbers of maternal deaths (Wiebenga, 2007:11). In the developed world the maternal mortality ratio averages around 21 maternal deaths per 100.000 live births. By contrast, in developing countries, the ratio is 20 times higher-at 440 per 100,000. In some regions, such as Eastern and Western Africa, the ratio may be as high as 1,000 deaths per 100,000 live births (WHO, 2006). Ireland (2007:50) concurs stating that of the 582,000, the highest number comes from Africa.

The total number of maternal deaths for South Africa in 2001 was 937 (0.2 %) (Taylor, 2008:2). Facts and statistics of the Department of Health revealed that between 1999 and 2001, KwaZulu-Natal had recorded the most obstetric deaths of any province (Taylor, 2008:2). In 2001, KwaZulu- Natal had 243 maternal deaths. Western Cape and Northern Cape were the two provinces with the lowest number of maternal deaths that is 27 and 42 respectively in the same year (Taylor, 2008:2). The Free State had 119, Gauteng 184, Eastern Cape 103, Limpompo 71, Mpumalanga 97, and North West 106 maternal deaths in 2001 (Taylor, 2008:2). According to National Committee on Confidential Enquiries into Maternal Deaths (NCCEMD) (2002-2004:3) each year in South Africa at least 1,600 mothers die due to complications of pregnancy and childbirth and 20.000 babies are stillborn. Furthermore the above report attributed lack of appropriately staff as one of the major administrative problems contributing to increase in maternal mortality ratio. WHO (2003) states that every year over 4 million babies, less than one month of age, die, most of them during the critical first week of life. Research has indicated that a large proportion of these deaths are preventable because they are largely due to lack of appropriately-trained staff.

Fawcus, Mbambo and Mangate (2006:71) assert that 27,8 % are due to substandard management, inability with recognition of diagnosis, resuscitation problems and, initial assessment of the patient, and delay in referring the patient. According to these authors this raises concerns about the technical skills in midwifery. One of the ways of addressing this problem is proper training of midwives. Midwifery training differs in different parts of the world. In other countries they have addressed this problem by

increasing the length of midwifery training. The maternal mortality rate is lower in countries such as the United Kingdom, New Zealand, Canada, parts of the United State of America and most European countries where the majority of midwives undertake a three or four-year programme in midwifery (Owen, 2000:22). Midwives emerge from their training as competent, safe practitioners, capable of working with women throughout their experience of pregnancy, childbirth, and the postnatal period in a range of settings. These new midwifery graduates, having focused for so long on childbearing, are confident about their knowledge and skills (Owen, 2000:22). The same cannot be said of South Africa's new midwifery graduates whose midwifery training consists of six months of a four year comprehensive course.

Those charged with declaring that midwifery students are eligible for registration as midwives upon completion of a programme of midwifery education have reason to be concerned about whether or not students have obtained those most critical elements of competence required at the point of registration (Butler, Fraser, Rojer and Murphy, 2008:261). Glover (1999:23) concurs by saying that the mandate when educating a midwife is to have a safe practitioner who is legally registered to practice midwifery. Butler et al (2008:261) state that one of the hallmarks of a profession is self regulation. Through self regulation, the profession aims to protect the public from incompetent practitioners and imposters. They assert that internationally, the International Confederation of Midwives (ICM) set out a range of competence requirements of a midwife. Regulations governing midwifery practice in South Africa, the South African Nursing Council (SANC) 1886 of October, 1934, as amended by R2488 of October1990,

prescribe conditions under which midwives shall carry out certain clinical skills and/or procedures. Such persons are registered in terms of section 61 (1) of the Nursing Act, 2005, declaring that their practice has been tested for competency and were found competent. As a result all qualified midwives are expected to provide competent midwifery care.

According to Chetty and Gwele (2001:77) at ward level there have been many complaints and criticism levelled at the graduates of R425. Against this background one wonders if the current midwifery programme in South Africa does achieve its goal of equipping midwives with essential competencies. Tickner (1993) suggests that the midwifery programme should prepare a midwife to be an accountable, reflective practitioner able to practice in any environment in which the knowledge and skill of midwifery are required. According to NCCEMD (2005-2007:3) the maternal mortality rate increased by 20.1% compared with the previous triennium. Taylor (2008:2) further asserts that some countries that had similar mortality rates and similar gross national incomes to South Africa in 1990, such as Brazil, Mexico, Egypt, are on track to meet MDG 4 and have halved their under- five mortality rate since then. According to (WHO 2009:2) they have done so by providing professional midwifery care at childbirth. Leap, Barclay, and Sheehan's (2003:9) results of a study to describe the current position of midwifery education across Australia revealed that one year was seen as a limited time in which to prepare midwives for practice.

1.2 Problem statement

Reduction of maternal mortality ratio is one of the priorities of the Millennium Development Goals and it is one of the major concerns in Africa, including South Africa. NCCEMD (2005-2007:4) assert that maternal deaths went up from 3406 in 2002-2004, to 4077 in 2005-2007 triennium. Notably the above report revealed a significant increase in cases of maternal deaths due to substandard management by healthcare workers. The province of KwaZulu-Natal was reported as having the highest number of maternal deaths in South Africa (NCCEMD, 2005-2007:5). Appropriate preparation and skilling of health workers, including midwives, is viewed by (WHO, 2006) as one of the solutions. NCCEMD (2005-2007:27) state that further emphasis on the major causes of maternal deaths must take place in all nursing colleges. Furthermore clinical guidelines should be included in undergraduate and postgraduate curricula for doctors and nurses. In South Africa midwives are trained through two programmes: a one year midwifery programme (regulated by SANC R254) and the rest are trained through a comprehensive four-year nursing programme (regulated by SANC R425).

A number of studies have analyzed competencies of graduates from the R425 comprehensive nursing programme (Lekhuleni, 2008; Morolong & Chabeli, 2005; Moeti, van Niekerk & van Velden, 2004; Mpantsha, 2003; Chetty & Gwele, 2001; Gwele & Uys 1995; Khoza 1996 and Ntombela, et al 1996). These studies, however, have revealed that graduates from this comprehensive nursing education programme have limited skills in certain areas of nursing practice. Of note, however, is that most of these studies have focused on the competencies of graduates from the comprehensive nursing programme in

general, with no specific reference to midwifery competencies. Only Chetty and Gwele (2001:81) explored the competencies of newly-qualified nurses in midwifery practice. Because of the limited number of participants (n=29) in the study by Chetty and Gwele (1996:81), they recommended a study that would include more settings and also include those supervising the new graduates so as to get a comprehensive picture of the level of competence of these new graduates. Participants in the study by Mpantsha (2003) raised concerns about their midwifery training which is organized over a period of 6 months. The argument by curriculum developers, however, is that for six months, focus is on core midwifery aspects while the other aspects of midwifery are covered in other areas in the general curriculum, unlike the one-year midwifery (R254) course where all the midwifery content is packed in to a period of one year.

The concern over the high maternal mortality ratio, previous studies reflecting limitations in the competencies of graduates from the comprehensive nursing programme, the paucity of studies focusing on the midwifery aspect, and the core midwifery content that is offered over a period of six months in a comprehensive nursing programme has prompted the need for this study. The researcher in this study was therefore interested in establishing how competent are the newly-qualified midwives from the comprehensive nursing programme really are, from the perspective of both the newly-qualified midwives and their immediate supervisors.

1.3 Purpose of the study

The purpose of the study was to explore and describe clinical competencies of NQMs in

selected hospitals which fall within the eThekwini Municipalicity.

1.4 Objectives of the study

This study's objectives were to:

- Identify clinical competencies of NQMs as perceived by NQMs.
- Describe clinical competencies of NQMs as perceived by their supervisors.
- Explore the views of NQMs and their supervisors regarding the competencies of NQMs.

1.5 Research questions

- Which midwifery clinical competencies do NQMs possess according to NQMs themselves?
- Which midwifery clinical competencies do NQMs possess according to their supervisors?
- What are the views of NQMs and supervisors regarding the competencies of NQMs?

1.6. Significance of the study

A number of studies including (Chamberlain, 1997; Bluff and Holloway, 2008 and Mpantsha, 2003) clearly indicate a lack of confidence in newly-qualified midwives which result from their educational preparation. It is therefore hoped that the findings from this study will identify gaps in the educational preparation of midwives and areas to be addressed in the midwifery curriculum, including critical clinical experiences. The

midwifery practice may also benefit from this study in that the findings may further inform nurse educators of whether or not the teaching-learning process does succeed in producing nurses who can render high-quality care. Recommendations may also inform supervisors on how to mentor student midwives in the clinical areas and the areas where there are major gaps currently. The study findings may, in the long run, contribute indirectly to the improvement of maternal and neonatal quality of life in the community and consequently reduction in the MMR in South Africa. Nikodem (1998:2) pointed out a need to strengthen research in midwifery as research is still developing in midwifery practice. The findings from this study and recommendations may therefore provide a platform for further studies relating to midwifery education and training.

1.7 Operational definitions

1.7.1 Competence: In this study context the definition by Benner (1984:25) was adopted and modified. Competence is characterized by conscious, deliberate planning, based upon analysis and careful deliberation of a situation, the ability to identify priorities and manage own work. Competent midwives can troubleshoot problems. The midwife that is regarded as competent only lacks the speed and flexibility of the proficient nurse but does have a feeling of mastery and the ability to cope with and manage the many contingencies of clinical nursing, as stated in (Benner, 1984:27).

1.7.2 Midwife: A midwife is a person who, having been regularly admitted to a midwifery education programme, fully recognized in the country in which it is located, has successfully completed the prescribed course of studies in midwifery and has

acquired the requisite qualification to be registered and /or legally licensed to practice midwifery, as stated in (Fullerton, Severino, Brojen and Thompson, 2003:173).

1.7.3 Newly-Qualified Midwife (NQM): For the purpose of this study a NQM is a professional nurse who has trained under SANC Regulation number 425 of 22 February 1985, and qualified as a nurse (general, community, psychiatric) and midwife. This professional has up to one year's working experience as a midwife.

1.7.4 R425 Course: The R425 course refers to the education and training programme followed by NQMs defined in this study; it leads to the qualification of nurse (general, psychiatric and community) and midwife. This regulation [R425] and its directives were published by the SANC in 1985.

1.7.5 Immediate Supervisor: DiVincenti (1977) defines supervisor as a person who is appointed to lead a group towards realization of a goal. In this study an immediate supervisor would be any senior professional midwife or chief professional midwife to whom the graduate of a basic comprehensive course is accountable in the clinical situation.

1.8 Conceptual framework

A framework according to Polit and Beck (2004:118) is the overall conceptual underpinnings of a study. Researchers undertaking a study should make clear the conceptual definition of their key variables thereby providing information about the

study's framework (Polit and Beck, 2004:118). The theoretical framework that guides this study is derived from Benner's (1984) work on skill acquisition. Guided by Dreyfus and Dreyfus' model, Benner identifies five stages undergone by a newly-qualified practitioner from being a new recruit in the profession to reaching expertise as a practitioner. These stages include the novice, the advanced beginner, the competent practitioner, the proficient practitioner and the expert practitioner (See Figure 1).

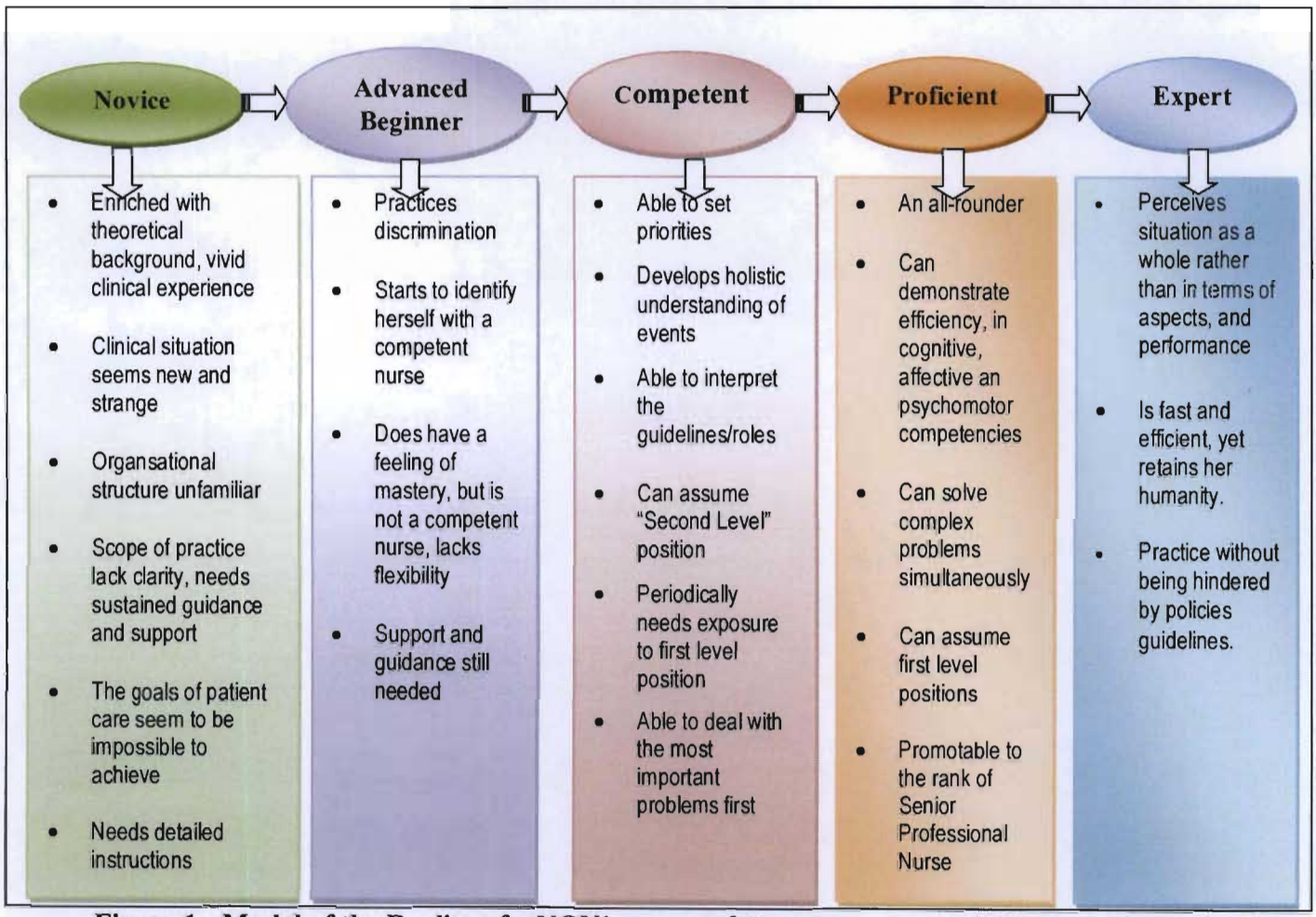

Figure 1: Model of the Reality of a NQN's stages of Competency Acquisition

Derived from Dreyfus's Model of Skill Acquisition (Benner, 1984: 38)

Level 1: Novice practitioner

Benner describes the novice as a nurse who is new to a situation, has no experience of the situation and is therefore unable to draw on past experience in order to make decisions, as stated in (Benner, 1984:20). Because of lack of experience, the novice is usually insecure. The main goal of the novice is to accomplish immediate tasks. Novices need clear rules and unambiguous instruction. They cannot work out priorities. They are slow in what they do as they need to think about what they do at all times. They can identify abnormal findings because their theoretical parameters are more advanced than their practiced ones, but they may have to seek consultation for solutions. According to Quinn (1997:181) adherence to principles and rules, however, does not help the nurse to decide what is relevant in a specific nursing situation, and may thus lead to unsuccessful performance.

Level 2: The advance beginners

These nurses still operate following rules, but they are able to apply them, not only on the exact situations for which they were intended, but also in similar contexts. The once-rigid rules become more like guidelines. They try out new things, but have difficulty troubleshooting problems. They are still focused on completing tasks. To improve, these advance beginners need to gain experience dealing with real situations, preferably in limited and controlled situations (Quinn, 1997:181).

Level 3: Competent practitioners

This stage is characterized by conscious, deliberate planning based upon analysis and careful deliberation of a situation. They are able to identify priorities and manage their

own work. They can troubleshoot problems. To improve, competent practitioners need exposure to a wide variety of typical, real-world 'whole' situations. Benner suggests that the competent nurse can benefit at this stage from learning activities that centre on decision-making, planning and co-coordinating patient care (Quinn, 1997:182). According to Benner (1984:27), the competent nurse lacks the speed and flexibility of the proficient nurse but does have a feeling of mastery and the ability to cope with and manage the many contingencies of clinical nursing

Level 4: Proficient practitioner

Characteristically, the proficient performer perceives situations as a whole rather than in terms of aspects, and performance, is guided by maxims (Benner, 1984:27). She is fast and efficient, yet retains her humanity. Proficient performance is normally found in nurses who have worked within a specific area of nursing for several years (Quinn, 1997:182). To advance to the fifth and last level, proficient practitioners need even more practice – lots of it. And as much as possible, they should practice without being hindered by policies guidelines.

Level 5: Expert practitioner

The practitioner at this level has an enormous background of experience. The hallmark of an expert is intuition; however, they are usually rather inarticulate in explaining how they arrived at a conclusion; they identify and solve problems intuitively. Although technically this is the last stage in the model, experts never cease to practice and evolve in subtle ways,incorporating rarer and exceptional cases in their knowledge pool (Benner,1984:32)

In summary, according to Khoza (1996:78), recognition of these phases could, to some extent, overcome the feelings of inadequacy which are often experienced in the early days after qualifying.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The purpose of the literature review for a research project is to find out what has been studied, the gaps in the studies, how dependable the studies are and to present the findings of what has been studied (Polit and Hungler, 1993:41). Cooper and Schindler (2003:101) further state that the literature review section examines recent review studies, data and reports that act as the basis for the proposed study. The purpose of this review was, firstly, to examine briefly the evolution of midwifery and, secondly, to provide a summary of the empirical literature review related to the following: (1) competencies of midwives (2) clinical teaching in midwifery (3) different midwifery programmes (4) midwifery curriculum (5) challenges to midwifery education.

Literature was accessed through the use of the internet: MEDLINE, ERIC, GOOGLE SCHOLAR ADVANCE, CINAHL and EBSCO HOST. The search was undertaken using the key words *midwifery* and *midwives* combined with *education, competencies, curriculum, programme* and *challenges*. The major midwifery journals were hand searched. The librarian at the main campus of UKZN assisted with local and inter-library literature searches.

2.2 Evolution of midwifery

2.2.1 Pre-Christian era

There is evidence suggesting that midwives of this era were highly-trained and respected birth attendants. In ancient Egypt midwives had to undergo training in anatomy and physiology, conduct of labour, care of the newborn as well as circumcision. Furthermore, midwifery practice was regulated and midwives were required by law to consult physicians or gods for obstetric problems (Wikipedia, 2008:2). As a result of this Egyptian influence, education of midwives extended to the Hebrews, according to (Sellers, 2004: xxxviii).

The Greek nation accorded midwives a godlike status. They were compensated for their services and their practice was regulated. As a result there was competition between midwives and physicians (Sellers, 2004: xxxix). According to Mellish (2004:49), it was through the writings of Soranus of Ephesus that the type of care given to women in childbirth in Greece, and later in Rome, improved. Sellers (2005:xxxix) further states that in Rome midwives had to undergo training, qualifying as either first grade (technically proficient), second grade, comprising of those who may have read some of the text on obstetrics and gynecology, and third grade, being those who were highly-trained.

2.2.2 **Medieval era** (Circa 300-1500 A.D.)

This period was marked by an increase in the focus on the need for education of midwives. Midwifery was practiced by a female who were also required by the church to

conduct baptism as well. The success of education in midwifery throughout the eleventh century was made possible through the treatise on gynecology and midwifery which served as a guide to practicing midwives written by a women doctor named Trotula (Sellers, 2004:xi). During late medieval times, according to Hebamme (1995:439), midwives greatly expanded their knowledge and skills to include conception, abortion, pregnancy, delivery gynecology and pediatrics. It is stated in Wikipedia (2008:4) that a bishop was a licensing authority of this period.

2.2.3 **Renaissance period** (1500-1700 A.D.)

During this period the printing press was invented and this led to increased availability of books; consequently there was acquisition and spread of knowledge. Trained midwives were the preserve of the wealthy and midwives worked as private practitioners, whereas the poor had to be attended to by the illiterate, traditional birth attendants. In England midwives who had proved themselves to be competent in midwifery, as well as administration of baptism to infants, were licensed by the church.

According to Mellish (2004:50) the midwife of the seventeenth century had a high social position, was well-educated and was also paid well. She further asserts that midwifery training in Britain was of an apprentice type and successful midwives were even accorded more or less the same status as doctors. Midwives were also required to abide by the church code. Those that failed to observe church rules were accused of witchcraft and were consequently burnt (Hebamme, 1995:440). Justine Siegermundin, a German midwife published a midwifery textbook in 1690 and she is also known for record-

keeping relating to midwifery practice

2.2.4 Pre-twentieth century

This period saw a decline in maternal and morbidity rates, largely due to many discoveries made then. Cause of puerperal sepsis, antibiotics, forceps, and pain relief in labour, x-ray pelvimatory are some of the discoveries of that period. These led to much-improved maternal care (Sellers, 2004: xlii). Fierce competition between surgeons and midwives, however, came to boiling point in the 18th century, as medical men began to assert that their modern scientific processes were better for mothers and infants than the folk-medical midwives (Wikipedia, 2005:4).

2.2.5 Professional midwifery in South Africa

According to Mellish (2004:52) there were official midwives placed at trading stations in the East during the early settlement days in South Africa (S.A.). Sellers (2004:xliv) asserts that the Dutch East India Company established a set of rules regulating midwifery practice. An apprenticeship system of education was practiced. Midwifery regulations required that midwives undergo examinations before being granted a certificate to practice (Sellers, 2004:xliv). They were required by law to call in medical assistance. On qualification they were employed by the Dutch East India Company who paid them monthly and they were held in high esteem. According to Mellish (2004:53), through the efforts of Dr Johann Frederich Carel Leopold Wehr, a midwifery school was established in 1810; the training period was one year. This was to be the first professional school of any kind in South Africa. The first midwives to complete a full-time course qualified

on 2 August 1813 (Sellers, 2004: xlviii)

2.2.6 The beginning of modern training

The pioneers in modern midwifery training were Sister Henrietta who became the head of a training centre for midwives in Kimberley and Mary Hirst Watkins who is known as the founder of modern midwifery in S.A. It was Sister Henrietta's hard work which saw South Africa becoming the first country in the world to register midwives. Through the effort and dedication of Mary Hirst Watkins, the Kimberly midwifery training school became famous both in South Africa and the United Kingdom (Sellers, 2004: xiv).

Earlier on there was no prescribed duration for midwifery training, to the extent that even 3-4 months of training was considered to be adequate. The medical council, however, did require midwives to at least have conducted a minimum of twelve deliveries and to have cared for twelve women in the puerperium before they could be licensed to practice. Recommendation was made in 1917 by the South African Trained Nurses Association that training should extend over a minimum of six months. It was not until 1932 that the Medical Council approved the duration of six months' training for registered nurses and twelve months for unregistered nurses. In 1949 under SANC as the controlling body, the training period was further increased to eighteen months for unregistered persons and nine months for registered nurses. By 1960 these had become twenty four months and twelve months respectively (Sellers, 2004: xlviii).

A three-and–halve-year course leading to registration in general nursing and midwifery

was introduced in 1969 following a decision by SANC that a midwife should also be a registered nurse (Sellers, 2004:x1viii).Later the post basic one-year diploma in midwifery was introduced (Mellish, 2004:54).

Modern developments necessitated a change in emphasis; for example, family planning, mother craft, care of the infant, promotive and preventive health care became part of the midwifery curriculum. Currently midwifery practice is so advanced that many interventions, which a South African midwife performs, would in other countries, be the exclusive domain of obstetricians (Mellish, 2004:55).

Major reforms in nursing education occurred in 1985 when a four-year comprehensive diploma, which provides for simultaneous qualifications in general, community health care nursing, psychiatry and midwifery were introduced. Mekwa, (2000) ; Ndlovu, (1999) and Khoza, (1996) concur; that change was necessary to meet the society's need for the caliber of nurse who was competent to provide comprehensive health care throughout all phases of human life. According to Ndlovu (1999:13) there was a need to bridge the gap in theory and practical skills of the South African nursing graduate through a cost- effective programme. Mekwa (2000:277) holds the opinions that change was necessitated by the profession's compelling ideal of a generalist who could function efficiently in all the four disciplines.

According to Khoza (1996:6), concerns began to emerge in 1992 that midwives are poorly prepared to do midwifery after the four–year course compared to those who had

done the one-year midwifery course. Ireland (2007:50) also asserts that possible solutions to the many problems midwives face include more intense and longer training. Such concerns indicate a need for research to ascertain whether midwives were competent practitioners upon completion of the R425 course. NQMs referred to in this study have completed this training programme to register as professional nurses. Currently a plethora of midwifery programmes in the higher education sector include three diplomates certificate programmes, one of which is advanced midwifery (Sellers, 2004: il).

The criterion for enrolment at a nursing college for the four-year diploma is a standard ten certificate (Nikodem, 1998:1). Currently legislation in South Africa is such that a student midwife should also be a registered nurse before applying for midwifery studies. As a result a bachelor's degree has nursing in the title and midwifery in brackets (Sellers, 2004:i1). According to Glover (1999:20), this supports the notion that midwifery is not considered a discipline in its own right, but rather a branch or sub specialty of nursing. Higher education institutions offer various basic bachelor's degrees, that is, baccalaureate curationis, baccalaureate social science and baccalaureate science with a slight variation in subject choice. Midwifery can be pursued up to doctoral level through university degrees in South Africa (Sellers, 2004: il). To obtain a bachelor's degree with the same specialties as the diploma, a matriculation exemption certificate is needed (Nikodem, 1998:1).

According to Fleming, Poat, Curzio, Douglas and Cheyne (2001:295), the duration of midwifery training in Scotland is three years for midwives with no previous nursing

background while it is eighteen months for registered nurses. Sogukpinar (2007:438) states that midwifery education in Turkey is available through either four years' vocational education or four years of university education. In Pakistan midwifery students do not have access to human and material resources to learn midwifery theory and practice skills in order to practice safely. As a result even though many nurses are licensed as midwives they don't have the skill or knowledge to practice as midwives (Rukanuddin, Ali and McManus, 2007:400). According to these authors the three entry points for midwifery education in Pakistan are: 1) direct entry of 15 months' duration, 2), a one-year training programme after completing a diploma in general nursing, and 3) a direct entry two–year programme to study to become a Lady Health Visitor. Hebamme (1995:442) asserts that midwifery training in Germany takes 3 years.

2.3 Competences of midwives

Butler, Fraser and Murphy (2008:263) and Fleming et al (2001:301) support the view that competence of newly-qualified midwives is limited. Butler et al (2008:263) conducted a study aimed at establishing essential competences required of a midwife at the point of registration. The participants in this study were pre-registration student midwives at third-level institutions across England. The researchers used qualitative, descriptive and extended case studies. Overall, this research identified that competence at the point of registration is both limited and conditional. That is to say that midwives at the point of registration will need to develop their competence further, and individuals will be more experienced and proficient in some areas and less in others. The elements of being safe practitioners that were highlighted were a certain degree of self sufficiency, the use of up-

to-date knowledge in practice and self and professional awareness. Having the right attitude was also identified as essential at the point of registration. Personal attributes, including being caring, kind, compassionate, empathetic and having the ability to relate to women, were also identified as essential attributes. The researchers recommended that models of midwifery should include dimensions of attitude and safe practice. The need to focus on personal attributes and communication skills in curriculum content, skills training and assessment was stressed.

Sharing similar findings was the study done by Fraser (2001:4) which revealed that women rated good communication skills as an important attribute in a midwife. Fraser (2001:4) did a longitudinal, qualitative study using forty-one pregnant women. The aim was to determine how competence in midwifery might be defined from the women's perspective and how the curriculum could be developed to address the expectations and needs of the local, multicultural child-bearing population. Results revealed that good communication skills in a midwife were of primary importance to women. Furthermore, the study revealed that up-to-date knowledge and competent practical skills were expected. The researcher recommended that the curriculum must balance academic abilities and personal qualities when selecting students. The curriculum should also incorporate problem-based learning approaches and include skills teaching sessions earlier.

In their study Fleming et al (2001:299) stated that some support was needed for newly-qualified midwives. They conducted a study with the aim of examining the issue of

confidence in the outcome of midwifery education programmes. Participants were newly-qualified midwives and their supervisors. Results revealed that consolidation in the initial stages (post registration) was felt to be essential by all those interviewed in this study. Both groups felt that all newly-qualified midwives, regardless of their educational preparation, were well able to provide care for women in normal pregnancy and childbirth, but needed a lot of assistance when complications arose.

Worth-Butler, Fraser, and Murphy (1996:185) conducted a study, with the purpose of exploring ways by which competence could be assessed relating to 54 Professional Midwifery Advisory Network midwives representing education, management, research, practice and supervision, plus six English National Board Education Officers (midwifery). Results revealed that items like personal and professional qualities, listening and counseling skills, management skills and the application of research to practice should not be expected at the point of registration as these skills developed over time and were quite difficult to learn. The participants therefore felt that such items should not be assessed summatively. According to this study items like critical analysis, critical evaluation, anatomy and physiology, ability to care holistically, and ability to read instructions and hygiene in bottle-feed preparation were identified as being more appropriate for assessments in the college/university setting. It was also suggested that confidence and decision-making abilities could only be assessed once a student had demonstrated safe standards of care and can practice with minimal supervision. Consensus was reached that the last six months of the course should give the student the opportunity to function as a midwife with only minimal supervision so that confidence

and decision making could be developed and assessed in all areas of practice.

Oshea (2004:25) did a study with the aim of producing a report on the continuing professional development of nurses and midwives. Staff nurses and midwives participated in this study. Results of the study showed that 72% of nurses and midwives considered in-service education to be entirely relevant. Ratings of competence by respondents showed 40% assessed themselves as "proficient", 14% as "expert" and 1% as "novice" professionals. One of the recommendations made by the report focused on the achievement of the development of a wide range of education activities for nurses and midwives.

Hlongwa, Ehlers & van der Merwe, (2005); Morolong & Chabeli, (2005); Moeti et al, (2004); Khoza & Ehlers, (2000) and Ntombela, Mzimela, Mhlongo & Mashaba, (1996) have all conducted studies on competencies of newly-qualified nurses trained in order to achieve basic comprehensive diploma and have found they were not fully competent. Chetty and Gwele (2001:79) recommend that newly-qualified registered nurses should undergo a six to twelve months internship.

The study conducted by Hundley et al (2007:10) recorded findings which indicated that confidence in midwives was not affected by working in rural locations but competency levels for each group depends on how often a particular skill was encountered in practice. They compared the views of midwives in rural and urban settings, regarding their competence and confidence with respect to essential competencies. Eighty-two midwives

in rural areas and 107 midwives in urban hospitals participated in this study. The results indicated that both groups were equally confident in handling emergencies despite the fact that more emergencies were seen in urban areas; however, in handling the breech rural midwives appeared to feel significantly more competent than their urban colleagues. This particular study found urban midwives less motivated to continue professional development; as a result maintaining competence remained a challenge among them. On the other hand, the urban group reported greater competence with skills more commonly associated with care of the high-risk women, such as intravenous fluid replacement and prescribing of drugs.

Lavender and Chapple (2003:229) conducted a study with the aim of exploring in-depth the views of midwives working in maternity services with regard to birth settings, models of care and philosophy of care. An appreciative inquiry approach was adopted utilizing focus group interviews. Participants in this study openly talked about the lack of confidence in caring.

In summary, literature shows that NQMs are initially not fully competent. They still require support as some skills develop over time. A period of internship to allow NQMs to gain confidence and improve competence is recommended.

2.4 Clinical teaching in midwifery

Bewley (1995:135), Begley (2001:26) and Liquorish and Seibold (2008:4) concurred with the view that newly-qualified midwives required a supportive environment for

professional growth. Bewley (1995:132) looked at clinical teaching in midwifery with the aim of determining the meaning of the term *clinical teaching* and to explore student midwives' experiences of clinical teaching. Using a qualitative approach and a phenomenological tradition, 4 student midwives and 4 midwives participated in this study. The findings revealed that becoming a qualified midwife, although exciting, was stressful. Informants who served as mentors felt a lack of support in their role, and considered themselves ill-prepared for the task of mentorship. This study showed that gaining experience in a supportive atmosphere was considered essential for the professional growth of the newly-qualified midwife. More importantly, this study revealed that NQMs were not ready to assume the responsibility of mentoring; participants felt that they should gain confidence and experience first before they could be mentors.

Begley (2001:26) did a study with the aim of investigating student midwives' experiences of the first three months of their midwifery training. The triangulation method in a longitudinal study was used for a sample of 125 student midwives. Major findings were that students inevitably had "good days" and "bad days". The perceived gap between qualified midwives and students was due to a number of factors. Student midwives articulated the view that their educational needs were often denied as they were given little clinical training or guidance. The need for adequate support and supervision of student midwives during their first three months was highlighted to ensure optimal learning occurred in a "non- threatening environment".

Licquirish and Seibold (2008:4) conducted a study on Bachelor of Midwifery students' experiences of achieving competencies with a focus on the role of the midwife preceptor. Using a grounded theory approach these researchers were interested in exploring and describing the role of the midwifery preceptor in learning and development of competency, from the students' perspective. The participants were completing their final clinical placement. The results showed that students appreciated working with caring and supportive preceptors who were motivated teachers, shared knowledge, answered questions fairly, provided feedback, facilitated debriefing or reflection on practice and were positive role models. The findings further revealed that the students learnt best by hands-on practice of skills, provided by helpful midwife preceptors. They appreciated midwife preceptors who gave them opportunities to direct the care of women; this enabled students to practice critical thinking and put theory into practice. Midwife preceptors described as unhelpful to student midwife learning were poor role models, did not allow the space for hands-on practice or took over and were generally unsupportive. According to Licquirish and Seibold's (2008:4) study, students preferred to have continuity of practice with midwife preceptors. Continuity of midwife preceptors was seen to enhance relationship development and create awareness of student learning. It is hoped that further data collection, including participant observation and interviews with midwives working in preceptorship roles, will strengthen the findings.

Studies by Chamberlain (1997:91) and Bluff and Holloway (2008:303) clearly indicated that lack of confidence and competence of student midwives continues beyond the student phase depending on how they learn in clinical practice. Chamberlain (1997:91)

conducted a study on the challenges of clinical learning for student midwives. In this study students felt ill-prepared for the clinical areas in which they worked. The results showed that many midwives failed to assess the students' competences or provide appropriate instructions prior to assigning them to care for women. Students experienced feelings of loss which brought about feelings of decreased competence and confidence, and increased anxiety, vulnerability and stress. According to this study, such feelings were likely to continue beyond the student phase of education and to colour the midwives' approach to midwifery care. The recommendations included that to reduce the number of students experiencing these emotions more midwifery support was needed in the form of reflective practicum. They found that the way in which they learned skills with one midwife was not always acceptable to a second midwife. To counteract such problems students need the continuity and support of a midwife with whom they can work for a prolonged period of time. As clinical teachers midwives need to be taught how to help students accomplish these objectives.

Bluff and Holloway (2008:303) conducted grounded theory research to explore the influence of midwifery role models on the role that student midwives learn. Twenty student midwives and 17 midwives practicing in a variety of settings participated in this study. Findings revealed that there were two kinds of midwives: prescriptive midwives and flexible midwives. Prescriptive midwives rigidly follow the rules. They were perceived by students to lack autonomy. In response to learning the rules of practice in this way, students imitated their role models and learnt how to perform the practical skills essential for giving care to women. Flexible midwives, on the other hand, were seen to

adapt the rules to provide individualized care for women. They made their own decisions about what care was appropriate for women and were therefore considered by students to be autonomous. Students experienced confusion when working with flexible midwives because they practiced in a way that did not correspond to what they verbalized to students. These role models demonstrated the grey areas of practice and hence the alternative approaches to giving midwifery care.

Morgan and Collins (2002) conducted a study on what clinical skills student midwives learnt and from whom they learnt during their first clinical placement. The findings reflected that the students emulated a role according to which midwife they worked with. This suggests that prescriptive and flexible midwives were both effective role models. The way in which they achieved this result did, however, differ, and had implications for the role that students would fulfill when their names were entered on to the professional register. Students preferred to emulate flexible midwives because of the example that they set and, in doing so, they learnt how to become autonomous practitioners. The findings showed that the effect role models have on students is likely to influence the professional practitioner they become and on the midwifery care which women receive. It was recommended therefore that attention needed to be paid to role modelling if learning inappropriate behaviors was to be avoided.

The results of the study that was done by McCrea, Thompson, Carswell and Whittington (1994) also indicated that there was a relationship between role models and future behavior of a student as a professional. They conducted a study with the purpose of

investigating the learning experiences of 42 student midwives. Findings indicated that the quality of teaching and the way registered staff performed their job influenced the students' decision to continue to practice midwifery. According to McCrea et al (1994) midwives need to reassert themselves as independent practitioners who manage the care of normal pregnancies.

Currie (1999:286) conducted a study to explore how the student midwife was prepared for autonomous practice and the factors which influenced this including the relationship between the student midwife and the supervising midwife. The findings revealed that good communication skills were considered by both to be essential within their relationship and with the women in their care. Students in this study considered a good role model as a midwife who was honest, had empathy, and did not panic. According to this researcher student midwives are sufficiently educated to use their initiative, be flexible and questioning; these are essential qualities for autonomous practice; the results, however revealed that in reality, within the hierarchical structure of a busy ward, students were expected to obey orders. Results further showed that seeing a midwife fulfilling her role in a confident and competent manner had a positive influence on a student's learning, however, according to the results, less than half the supervisors had been prepared for this role.

One of the recommendations was that consideration should be given to allowing the students the opportunity to be a midwife prior to completion of their course to facilitate transition to registered practice and maintain confidence. Also, midwives should reflect

on what inhibits their autonomy to ensure that students are socialized into a profession which truly is with women and autonomous practice reality.

The findings of Currie (1999:286) seem to tally with the findings of the study done by Fisher and Webb (2008:17) on the importance of preparation of supervisors/mentors for their role. They conducted a study to identify and prioritize the needs of 82 midwifery mentors, and investigate any relationships between perceived needs and duration of experience and/or level of qualification. The findings revealed that among the needs, tutor feedback was helpful, as well as update/preparation sessions which gave opportunities for sharing of experiences. Having a break from mentorship as opposed to having students regularly was valued. Some mentors expressed a wish to have a choice in allocation of students. Of the challenges which the mentors faced, the challenge of time seemed to be intensified for mentors who worked in the community. Mentors' own previous experience was viewed positively by all participants, but some felt that undertaking further studies had enhanced their ability to fulfill the role.

Coiffi, Purcal, and Arundel (2005:133) conducted a study which focused on effectiveness of a simulation strategy on the process of clinical decision making among midwifery students. Twenty-six students doing a three–semester midwifery graduate diploma course participated in the study. Findings showed that midwifery students who participated in simulations during their learning process reached clinical decisions more rapidly and reported higher confidence levels during the decision-making process. The results suggest that students benefited from the simulation technique.

The literature attests to the fact that a supportive environment facilitates attainment of skills by students and those newly-qualified midwives require clinical guidance. Midwifery supervisors as well as mentors need to undergo teaching and assessing courses.

2.5 Different midwifery programmes

Rowan, McCourt and Beake (2008:98) conducted a study aimed at ascertaining the views of students' midwives at the beginning and at the end of their programme and three months after graduation about the use of a problem-based learning (PBL) programme in midwifery. The findings indicated that although theory and practical aspects of the programme are related the students did not always feel well-prepared for practice. Results further showed that students tended to be anxious, particularly at the beginning of the programme and expressed concern when they identified gaps in their knowledge. Positive aspects of the curriculum identified by the students were that the PBL approach enhanced understanding, memory and skills in information retrieval and critiquing research. The researchers recommended that clinical staff needed adequate preparation and the approach needed to be followed up in practice.

Leap (2002:16) did a study with the aim of describing the current position of midwifery education across Australia, as identified by the midwifery course co-ordinators. The survey confirmed concerns expressed by others regarding lack of consistency in the duration or design of midwifery education programmes, both nationally and within each separate state. The short length of the course when compared with other countries and the

identified need for graduate midwifery programmes suggested that many Australian midwives were not adequately prepared to work autonomously, without further midwifery practice experience. Findings further revealed inconsistencies in the minimum practice requirements of Australian midwifery education programmes. Results also showed that all current assessment regulations for midwifery fell well short of those required by the regulating bodies of other industrialized countries. Hunt, cited in Leap (2002:16) states that across the Western world, the increasing use of technology in childbirth and escalating caesarean section rates limit the opportunity for students to learn about normal childbirth. Midwifery course co-ordinators lamented the lack of opportunities for students to participate in midwifery models, including birth centre care in hospitals.

These results were consistent with those of Brodie's (2002:9) study which revealed that midwifery training programmes that lasted a year or less produced inadequately-prepared graduates due to lack of full exposure to midwifery practical skills. They mainly provided medicalised midwifery care.

Johnson and Fullerton (1998:356) conducted a study to explore approaches to the education of midwives in both traditional and distance education programmes. A quantitative survey was used taking a sample of nurse-midwifery education programmes that were accredited or pre-accredited by the American College of Nurse–Midwives. A striking finding that emerged was that educators were not building their programmes using a model of synchrony model, distance or a particular means of curriculum

presentation. Most were using a blend of approaches that harnessed available resources in an attempt to best meet the individual needs of their students' populations. Findings further showed that many of the programmes, although identifying themselves as synchronous on-campus programmes, also used modular learning, which is an inherently asynchronous educational approach. Other programmes, however, recognized the varied needs of its potential students and offered multiple options for completion of their programmes. Recommendations made were that a programme director and faculty must consider the goals, the values, and resources of its affiliated institution as well as the needs of its present and potential students.

Kadango (2007:63) did a study with the aim of establishing whether state-registered midwives possessed the necessary competencies to deliver quality midwifery care. Using a quantitative exploratory descriptive survey, the entire population of state-registered nurse midwives from Malawi College of Health Sciences that completed the upgrading programme since its inception participated in the study. The results showed that after the upgrading programme the respondents were able to provide comprehensive midwifery care as they were able to apply knowledge during their practice. Furthermore, results showed that participants demonstrated good leadership and managerial skills, as well as the ability to practice professionalism. Results, however, revealed a shortfall regarding registered midwives ability to conduct research and use the internet when providing midwifery care. The recommendations were that the curriculum needed to add other course subjects to assist them to be abreast with the latest technology as well as focus on a research component.

Fullerton, Shah, Holmes, Roe and Campau (1998:5) conducted a study with the purpose of assessing the knowledge and skill equivalency of nursing students at entry into the programme, with the non-nurse students, after completion of the basic health skills course. Five direct entry (DE) students and 5 registered nurses (RN) students participated in the study. Results of the basic skills assessment indicated that the faculty should not assume the retention of basic nursing competencies by nurse-midwifery students, and that both DE and RN-prepared students could benefit by a review of these techniques. Furthermore, DE students were provided with additional courses to supplement the midwifery curriculum. All students (nurse and non-nurse) were given a pre-test at the beginning of each course and a post-test when all DE students had completed both of the courses. Every DE students demonstrated an increase in knowledge over baseline, and there were no significant differences between the DE and RN groups in post-test performance indices. Results of this assessment confirmed for the faculty that DE students could acquire and demonstrate the basic health skills at a level equivalent to their RN classmates and it affirmed the value of continued competency assessment across the professional lifespan.

The results of Fullerton, Shah, Schechter and Muller (2000:51) differed from the findings of Fullerton et al (1998:51) because they discovered that nurse midwife students did not retain basic nursing competencies. This explains the reason why both these studies came to the conclusion that direct entry can achieve the same standards of academic excellence as nurse midwives. Fullerton et al (2000:51) conducted a study with the purpose of establishing the perception of eight direct-entry graduates. Findings showed that some

graduates felt more deficient than Certified Nurse Midwives who were peers, in some areas of practice, when they started working because they were unfamiliar with hospital nursing and relatively inexperienced in some labour & delivery skills. Generally, however, the results revealed that the barriers to entry into practice that were encountered by some Certified Midwives were not greatly different from barriers initially encountered by Certified Nurse Midwives who forged the path of the profession. The conclusion was that direct entry students who entered with minimal or no nursing experience could achieve standards of academic excellence and clinical competency that were at least equivalent to those demonstrated by their registered nurse peers.

Jones et al (2007:15) conducted a study to explore the best way of delivering obstetric emergency drill training. The research subjects were thirty-six staff, comprising of junior and senior medical and midwifery staff. Each of the staff members were put into one of six multi-professional teams. Lecture-based teaching (LBT), simulation-based teaching (SBT) or a combination of these two (LAS) were utilized to train staff in the management of post partum haemorrhage over one day. Findings revealed that all teams demonstrated an improvement in performance at the end of the day's training.

The teams receiving a combination of lecture and simulation training (LAS) made the greatest improvement with their mean post–training score. On long term improvement the SBT group had continued to improve their score, increasing by a further 25 point, compared to a decline of 3 points in the LBT group and 4 points in the LAS group. In knowledge and confidence to deal with the emergency by the end of the training day,

again, the LAS group appeared to improve the most The SBT groups, however, were the only ones to maintain this improvement at the three–month re-test where both LBT and LAS groups showed a decrease in confidence and knowledge scores. On qualitative results SBT groups reported lower levels of anxiety and felt that they had developed transferable skills and would be more confident in dealing with any emergency. Both SBT and LAS team members reported improved communication and teamwork in their day-to-day working activities.

It is apparent that clinical staff should also be prepared for programmes used academically as programmes like PBL need to be followed up in practice. The literature showed a lack of consistency in the duration or design of midwifery educational programmes. Furthermore, literature revealed that short-course length does not prepare midwives adequately for autonomous practice. In addition, midwives were poorly prepared for research.

2.6 Midwifery curriculum

The researcher decided to include the studies on curriculum because, according to Laude et al (2008:1860), one of the major goals of undergraduate curricula is to equip students with a sense of confidence.

McCourt and Thomas (2001:327) conducted a study to identify and explore the possible effect of the change in curriculum. A comparison was made between students following the new curriculum and a baseline of students qualifying under the previous degree

curriculum in terms of experiences and outcomes. Clinical mentors, lecturers, as well as formal assessments were also part of the sample.

Clinical mentors' results revealed a theory practice gap for both approaches. Students of the new curriculum, on the other hand, expressed anxieties about levels of guidance and direction and the coverage and depth of their knowledge, though they appreciated its principles. Concerns of former students were about the quality and coherence of their clinical placement experience. Although aware of their limits, they were confident that they would continue to learn.

Regarding routine student evaluation, results revealed that students in the first PBL cohort suggested that there should be better preparation for the approach right at the beginning, more structured teaching early in the course, and clearer guidance and feedback on clinical and theory assessments. On formal outcome assessment there were no clear changes, but findings indicated the possibility that the pattern of allocation of grades may be widening under the new approach and there is a need to keep this under review. There was no clear evidence of enhanced formal outcomes or improvements in students' ability to link theory to practice. Based on a noted trend towards greater divergence of students' final grades, the researchers concluded that the PBL curriculum was better able to distinguish between students who were not well suited to a career in midwifery and facilitated those who were well-prepared and motivated to achieve.

Bewley (1995:133) suggests that while the curriculum must reflect the philosophy of the

educational establishment and its educational strategies, its application to clinical practice must be demonstrated. Fullerton et al (2003:186) conducted a study with the purpose of specification of the domains of knowledge and skills that should be included within the midwifery course of study. Participants were member organizations of the International Confederation of Midwives (ICM) and regulatory representatives from the same countries. The researchers adopted a Delphi survey approach. A list of basic and additional competencies for midwives who had been educated in keeping with the ICM / World Health Organization / International Federation of Gynecology and Obstetrics international definition of the midwife was developed. Furthermore, consensus was reached stating that, with a few exceptions, the knowledge skills and professional behaviours that were identified as basic competencies should in fact be included in the curriculum of studies. The final list included 214 individual task statements within six domains of midwifery practice.

Bellack, Graber, O'Neil and Musham (1998:348) examined curriculum trends with the aim of determining the extent to which nurse-midwifery curricula currently included content and learning experiences related to broad, essential competencies, or the extent to which programme directors ideally would like to include them. Nurse-midwifery educational programme directors participated in this study. Their most important finding that is of relevance to this study was that respondents indicated that they desired an increase in emphasis on every topic, except one, that being "Tertiary care. Topics that received high ratings were: Health promotion/disease prevention, Patient teaching/education, Patient as partners in health care, Psychosocial care, Cultural

differences, Community social and problems.'' According to Bellack et al (1998:348), historically, the nurse midwives have embraced childbearing as a normal process emphasizing the importance of health education, primary health care and supportive intervention while providing accessible, client-responsive care in the community.

Lauder et al (2008:1859) conducted a study with the aim of exploring differences between access routes, cohorts and Higher Education Institutes (HEI) in levels of self-efficacy, student support and self-reported competence. Using a cross-sectional survey, student nurses and midwives participated in this study. The findings revealed that students reported high levels of self-reported competency which means that curricula were meeting their objectives. The findings further showed that students rated support from family and friends highest and support from HEI lowest. There were no significant differences between two cohorts or between students with different access routes. Furthermore, Lauder et al (2008:1859) stated that support from mentors and from educational institutes needed to be improved.

The study done by Fraser (2000:219) also indicated that a longer period of training was the most effective means of ensuring midwifery competence. Using action research this researcher was interested in improving the pre-registration midwifery curriculum locally with a view to influencing national policy and guidelines for these programmes. Participants included 39 case study students, their teachers, practice-based mentors/assessors, preceptors and supervisors of midwives, 50 students from the local university's midwifery programmer, their teachers and practice-based mentors/assessors

from six sites, 41 women who gave birth to their babies in a large teaching hospital and experienced midwives.

Findings demonstrated the need for further clarification in relation to defining and assessing competence. Overall, the three-year, pre-registration route into midwifery was found to be effective preparation for contemporary midwifery practice as judged against a model of a competent midwife at the point of registration. There was, however, evidence to suggest that not all students were equipped to practice competently and confidently in contexts of uncertainty and change. Factors which emerged as influencing curriculum effectiveness related to: recruitment and selection, curriculum structure, appropriateness, and robustness of assessment schemes, the preparation of and support for assessors, and the role of the midwife teacher in assessment in practice settings. Recommendations focused on the need for on-going dialogue, critical reflection and research to facilitate and assess learning more effectively in the caring profession so as to ensure that only competent practitioners acquired a license to practice.

The findings of Begley (2001:28) appear to support Fraser (2000:219) in that competency in midwifery is only achieved after more than twelve months' experience. She conducted a study to endeavor to interpret and understand the working and learning world of the student midwives with a view to assisting future students to improve their educational experiences. All students in the first intake of 1995 in every midwifery school in Ireland participated in the study Findings showed that excessive workload in hospitals meant that students were working as hard as they could throughout the whole

shift which left little or no time to teach or learn. They spoke of the work as being monotonous and governed by routine which impeded their learning and progress. The majority of students did not appear to receive much initial teaching of psycho-motor skills and certainly did not have much supervision or feedback.

Results further revealed that it was only after 19 or 20 months' experience in midwifery that some of the students felt fully confident in their abilities in certain areas and enjoyed taking responsibility. The researcher recommended that education of students needed to focus on the development of autonomous practice through the facilitation of knowledge development, understanding and the gaining of clinical decision-making skills.

Part 2 of action research conducted by Fraser (2000a:279) was aimed at identification of factors which facilitated and inhibited the effectiveness of current pre-registration action research midwifery programmes. Using the case study part of an action research project, student midwives, midwives, midwifery managers/supervisors of midwives, and midwife teachers participated in the study. In the findings it emerged that on registration the midwifery curriculum should have five key outcomes: students should feel competent and confident as midwives, students must have achieved the statutory requirements for registration, students should be committed to undertaking the whole role and responsibility of being a midwife, students must be equipped to take responsibility and accept accountability for their actions, students must recognize the need for career-long learning. Whilst, overall, these new programmes were considered to be effective in preparing students for their role as midwives, there was variability in the degree to which

the outcomes were achieved by the case study students.

Recommendations were that there must be an agreement on what constituted fitness for practice at the point of registration, assessment schemes, particularly those relating to practice capabilities, and the need to be valid, reliable and robust with the benefit of the doubt being given in favour of childbearing women when students were borderline.

Fraser (2000b:289) conducted Part 3 of Action research aimed at designing and implementing a robust assessment scheme to more effectively identifying student midwives' fitness for midwifery practice. Participants were student midwives, practicing midwives and midwives' teachers, childbearing women, a course planning team and project team collaborators. Findings indicated that while the majority of students were fit for midwifery practice at the end of the course, assessment schemes were found to be unreliable. Assessors were inadequately prepared for their responsibilities, assessment documentation was not user-friendly, evidence of incompetence was inefficiently recorded or there was a lack of systematic monitoring by university teachers and examiners of the assessment in practice schemes. Recommendations were that the difficulties for midwife assessors needed to be identified and solutions incorporated into workable but robust strategies.

An extensive literature search led to the conclusion that concerns surround coverage and depth of knowledge to be included in midwifery curriculum. More emphasis on specification of domains of knowledge skills were to be included in midwifery education.

Particular attention was also placed on assessment schemes as well as competency of assessors. Longer periods of training were identified as facilitating confidence and competency.

2.7 Challenges to midwifery education

Studies by Brodie (2002:7) and Leap et al (2003:7) lamented the lack of midwifery role models to guide the practice of newly-qualified midwives. Brodie (2002:7) conducted a study to identify the barriers to midwifery within mainstream maternity service provision. The sample consisted of midwives participating in 28 separate professional conferences and seminars. Findings revealed that there was an urgent need for role models or more skilled midwifery leaders. Many reported a narrowing scope of practice associated with lack of opportunities to provide basic midwifery care. Findings further revealed that concerns were raised about poor preparation, that is, newly-qualified midwives with minimal practical skills. The major education issue identified by participants centered on the quality of clinical placements, level of supervision of midwifery students and the lack of exposure to a full range of midwifery practice skills. The results of Leap et al (2003:7) supported the findings of the study done by Brodie (2000:7) to describe the current position of midwifery education across Australia, as identified by the midwifery course coordinators. The findings showed that difficulty in securing placement was a major barrier to quality midwifery education. Furthermore, results revealed a lack of midwifery role models to enable students to obtain sufficient experience to become competent, confident practitioners and to realize their full potential as midwives. In short, this study revealed that one year was a limited time in which to prepare midwives for practice.

Kadango's (2007:10) study also revealed, as major challenges in the training programme, limited resources such as books, computers, access to internet and tutors (shortage of staff) to act as role models in the clinical area. Similar findings were shared by Sekara and McCutchean in Kadango (2007:10). These authors highlighted a gross shortage of nurses and midwives and university infrastructure that was not adequate to facilitate adequate learning for students.

Meah, Luker and Cullum (1996:76) conducted a study with the purpose of exploring midwive's opinions and feelings about research. Participants in this study were eight midwives from four randomly-selected midwifery units. Findings revealed that although there was consensus that research was highly relevant to midwifery practice, midwives felt inadequately prepared for their role as consumers and users of research. According to this study, findings showed that only the recently-qualified midwives, or those that had undertaken higher education, had the necessary research skills. Results further revealed that midwives lack of self confidence prevented them from attending educational courses designed to develop skills in critical appraisal. On influences over midwifery practice, midwifery education was identified as a major influence. Midwives lamented the loss of the schools of midwifery to colleges/universities. The need for research overviews in midwifery, which can accurately depict current knowledge and may even be used to provide rationales for midwifery care, was highlighted.

Harvey et al (2007:3) conducted a study with the purpose of evaluating the professionals responsible for most deliveries. The participants for phase 1 of the study were 166 health

providers in Benin, Ecuador, Jamaica and Rwanda. For phase II, study participants were 1358 Nicaraguan providers. Findings showed generally low scores. Many participants scored poorly on basic questions related to infection prevention. Many providers could not identify components of active management of third stage of labour and did not know that it should be practiced universally. Many providers did not even recognize the diastolic blood pressure level indicative of severe pre-eclampsia. Ability to correctly use and interpret the partogram was low. Skills scores were generally lower than knowledge scores. This suggests that knowledge of a procedure is no guarantee that it can be performed correctly. According to these researchers, in the light of the above results, participating countries are now taking steps to close the competency gaps. Training programmes focused on improving complications management have been started.

The results of the study that was done by Mpantsha (2003) also indicated that newly-qualified midwives lacked basic midwifery skills. Mpantsha (2003) did a study with the purpose of exploring the perceptions of the practicing midwives regarding the challenges they faced in their practice. Ninety midwives practicing at two hospitals and five comprehensive health care clinics participated in the study. Findings showed that a number of inexperienced midwives allocated to labour wards did not understand partogram. More importantly, this study revealed that newly-qualified midwives felt that six months, midwifery module done in the third year was too short for mastering obstetric skills to deal with the lives of the mother and the baby. Furthermore, results showed that the first six months after qualification exposed newly qualified-midwives to emotional trauma and confusion due to skills that were lacking. Participants indicated that at the end

of six months all that a newly-qualified midwife had was theory and deficient practical skills. Experienced midwives on the other hand cited shortage of staff as a challenge to working with a pool of newly qualified-midwives who they said still needed supervision. The recommendation was that the current midwifery curriculum be revamped in order to address the health needs of the mother and child in the 21st century..

2.8 Summary of literature review

The survey and review of literature of the study was aimed at identifying documented literature which evaluated the midwifery graduates competence. Competency is of major concern in nursing education since its main objective is the production of graduates that are able to carry out their professional roles.

Although a substantive number of studies have been conducted on evaluation of basic comprehensive diploma graduates' performance, most of them focused mainly on general nursing. Only a few researchers have paid attention to evaluating midwifery graduates' performance. The literature reviewed indicates that midwives who have undergone shorter training programmes are inadequately prepared. As a result the researcher looked at (i) the evolution of midwifery (ii) competencies of midwives (iii) clinical teaching in midwifery (iv) different midwifery programmes (v) curriculum and (vi) challenges to midwifery education.

CHAPTER 3

RESEARCH DESIGN AND METHODS

3.1 Introduction

In this chapter, the research approach, research design, population, sampling instruments, data collection and analysis procedures used in this study will be described.

3.2 Research approach

A quantitative approach was used for this study as the study intended to evaluate competencies only, not the process of the programme which is better evaluated qualitatively. Quantitative researchers use deductive reasoning to generate hunches that are tested in the real world (Polit and Beck, 2004:15). According to Burns and Grove (1999:23), quantitative research is conducted to describe new situations, events, or concepts in the world.

3.3 Research design

The descriptive exploratory survey design was the most appropriate for the following reasons: The purpose of descriptive studies is to describe and document aspects of a situation as it naturally occurs, according to (Polit and Beck, 2004:192). It is designed to get more information about characteristics within a particular field of study (Burns and Groove, 1999:250). According to Babbie and Mouton (2001:105), description is a precise measurement and the reporting of the characteristics of the population. Its methods therefore allowed for the perceptions of the skills of midwives which were to be

determined. Rather than simply observing and describing, exploratory research investigates the full nature of the phenomenon, the manner in which it is manifested, and the other factors to which it is related (Polit and Beck, 2004:20); this was the intention of the researcher in this study. This study specifically sought to find out if NQMs and supervisors shared a similar view regarding graduates' level of clinical performance. In order to generate mainly factual data from NQMs and their supervisors on the perceived competencies of NQMs, a descriptive survey design was selected. Polit and Hungler (1993:148) suggest the survey as the appropriate design for such a purpose as they assert that a survey is designed to obtain information regarding prevalence, distribution and interrelationships of variables within the population.

According to Burns and Groove (1999:256), a survey describes the phenomenon by using questionnaires or personal interviews to collect data. As it was planned to sample both NQMs and supervisors practicing in different hospitals that fall within the eThekwini municipality, the questionnaire for data collection was considered appropriate.

3.4 Research setting

The study was conducted in maternity units of 5 hospitals in the eThekwini Municiplity area. The hospitals chosen were classified as state and semi-private. The state hospitals were further classified; one was rural and the others were urban. The researcher intended to include respondents from a private hospital, however, there were no NQMs meeting the criteria of one year and less in experience. Also the criterion for inclusion of the setting was determined by the presence of NQMs employed in these hospitals as they

would provide relevant data in this study. The choice was also made based on convenience as a wide range of midwifery competencies can be assessed since midwives in all these hospitals provide care during the antenatal, intrapartum, and postpartum periods as well as for newborn babies.

3.5 Study population

The term *population* refers to the aggregate or totality of those conforming to a set of specifications (Polit and Beck, 2004:50). The research population for this study included all NQMs and their supervisors. The inclusion criteria for supervisors was that they should have been (i) practicing midwifery for more than seven years (ii) working in a particular unit for one year and above and (iii) a chief professional nurse. Inclusion criteria for NQMs were that (a) they should have undergone a basic comprehensive training programme and (b) should have been practicing midwifery for one year and less. Graduates of this programme who were not currently practicing midwifery were excluded from participating in this study as the researcher was only interested in midwifery competencies. The total number of NQMs in hospital A was 18, hospital B 15, hospital C was 5, hospital D 16 and hospital E was 15. The total number of the population was 69. The researcher used the total population to cater for attrition and spoiled responses, and those who would not be able to participate. The total number of supervisors from the six settings was 26.

3.6 Sample and sampling

Convenience non-probability sampling was used to recruit participants. According to

Polit and Beck (2004:292), convenience sampling entails using the most conveniently available people as study participants. The sample therefore cannot claim to be representative of the population, limiting the generalisability of the research results. The researcher minimized the biases of non-probability sampling by ensuring that all respondents were consistent with the characteristics of the target population thereby maximizing representation.

The targeted sample size was 69 NQMs and 26 supervisors. Between the five hospitals, 21 NQMs did not complete the questionnaire; only 48 NQMs returned completed questionnaires. All 26 supervisors completed the questionnaires. According to Froker in Strydom (2005) for the total population of 51- 100 % a sample of 45% is required, and a suggested sample size for a population of 100-200 to be approximately 55%.

3.7 Data collection and instruments

The study used a self-developed structured questionnaire that is based on the midwives' competencies as outlined in the South African Nursing Council Regulation 425 and Regulation 254. According to Polit and Beck (2004:349), a questionnaire is when respondents complete the instrument themselves, usually in a paper and pencil format but occasionally directly on to a computer. The items for the questionnaire were also selected based on extensive literature research with regard to clinical competencies of midwives. Other authors' studies were consulted as well to develop the questionnaire. The format which was more or less followed and adapted for this study was that of Khoza (1996:93) and Khumalo (1997:44). They both based questions on the scope of practice of a

registered nurse. Midwives were asked to rate their skills on a five-point Likert scale. Supervisors were also requested to rate the performance of NQMs. This method was chosen to ensure that all respondents would be exposed to uniform stimuli of its impersonal and standardized nature.

The instrument consisted of two sections. *Section A* requested the NQMs and their supervisors to provide demographic data, which included their profiles in the work setting. It consisted of 5 items for NQMs and 4 items for supervisors. *Section B* attempted to elicit the nature of skills which the midwifery graduates possessed in conducting various activities in the following aspects: (i) antenatal care (ii) intrapartum care (iii) neonatal care (iv) postnatal care (v) record keeping and legislation (vi) medication used in obstetrics. It consisted of 120 items.

A five-point Likert scale, self-administered questionnaire was used by NQMs to appraise their own performance and be appraised by their supervisors. A Likert scale consists of several declarative items on which respondents are asked to indicate the degree to which they agree or disagree with the opinion expressed by the statement (Polit and Beck 2004:356). Responses on this scale (1= no knowledge/experience, 2= some knowledge/experience, 3= competent and can perform most of the activities without support, 4= competent, experienced and able to function independently, 5= competent, experienced and able to teach others) indicate the level of competence in which the NQMs perform various activities in midwifery

3.8 Validity and reliability of the instruments

The validity of an instrument is the determination of the extent to which the instrument actually reflects the abstract concepts being examined (Burns and Grove, 1999:294). The different assessment approaches to validity are: face validity, content validity, and criterion-related validity and construct validity. To confirm content validity the instrument was subjected to the scrutiny of four midwifery lectures and two experienced midwives who checked the tool to ensure that the basic midwifery skills were covered and, secondly, that all the skills listed were in fact pertinent to midwifery practice. Corrections and adjustments were done. Construct validity was ensured by using the SANC's directives in R425 as a basis for the evaluation of midwifery competencies.

Reliability refers to the accuracy and consistency of information obtained in a study (Polit and Hungler, 2004:35). Reliability was obtained by constructing questions simply to prevent misinterpretation and to construct different sections of the questionnaire in the same manner. In test-retest reliability testing, the same questionnaire is given to the same people after a period of time (Gerrish and Lacey, 2006). The test-retest reliability of the instrument was tested by administering the questionnaire to 5 NQMs and 5 supervisors of the target population. Two weeks later the researcher administered the same questionnaires to the same subjects. The questionnaires, for these five respondents, from these two rounds, were then compared to check the consensus between the results. Results from these two rounds, revealed reliability coeffients of .98. The results therefore indicated the reliability of the questionnaire to elicit the necessary information. Polit and Beck (2004:418) maintain that in practice, reliability coefficients normally range from a

low of .00 to a high of 1.00.

3.9 Data collection process

To gain access to the study participants, lists of NQMs who had been practicing as midwives for a year or less were obtained from the nurse manager of each hospital. An appointment was then made with the operational manager of each maternity department. On the day of data collection the researcher met the person in-charge (per appointment) and explained the purpose of the study and its significance. The researcher then met the participants and explained the purpose of the study and their rights to participate or to refuse to give information. The questionnaires were distributed by the researcher during tea and lunch breaks by hand. She then waited for participants to complete questionnaires and collected them immediately to enhance the response rate. A special box was placed in the duty room for the convenience of those who were not able to complete the questionnaire initially. Participants were requested to put completed questionnaires in the box for the researcher to collect after two days. A letter clarifying the purpose and the importance of the study was attached to each instrument. The data collection process took a minimum of two weeks; the first week was to invite participants and the second week was for administration of questionnaires.

3.10 Data analysis

Each item of the questionnaire was coded. All data was analyzed using a computer statistical software package (SPSS version 15 for windows). Frequencies were computed to determine the percentages for each item contained in the questionnaire. Cross

tabulations for Chi-Square analysis was performed to test for differences in the ratings of the graduates' competencies by themselves and their immediate supervisors. The level of significance for all analysis was set at .05. Descriptive statistics such as averages, means, and standard deviation were calculated and compared using the Pearson Chi-square and correlation.

3.11 Ethical consideration

When humans are used as study participants, care must be exercised in ensuring that the rights of those people are protected (Polit and Hungler, 2004:141). Ethical approval was sought from the University of KwaZulu-Natal's Ethics Committee. Permission to conduct the survey was requested from the Secretary for Health, KwaZulu Natal. Permission to conduct the research and to request persons to complete the questionnaires was obtained from the hospitals where the sample was drawn. A letter and informed consent explaining the purpose and nature of the study was supplied to each participant. They were informed that they may withdraw from the study at any time. Furthermore, all participants were assured that no information given by them would be shared with another person without their authorization. They were not to receive monetary benefits for completing questionnaires.

3.12 Data management

Data from this study was only used for the purpose of completing this study. During the process of data analysis crude data was guarded in a locked place to ensure confidentiality. After the report was written data was burnt. Analyzed data was saved in

computer protected by a password known only to the researcher.

CHAPTER 4

DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter discusses the analysis of data and presentation of findings. According to Polit and Hungler (2004:733) statistical analysis is the organization and analysis of quantitative data using statistical procedures including both descriptive and inferential statistics. The purpose of the study was to explore and describe competencies of NQMs in selected hospitals in the eThekwini Municipality. Questions comprising of two sections were administered to respondents. Out of 69 questionnaires distributed to the NQMs a total of forty-eight were completed and returned. Twenty six questionnaires were distributed to midwives supervisors and were all returned (100%). The total number of respondents was 74 (48 NQMs and 26 immediate supervisors). However not all respondents responded to each and every item in the questionnaire hence some of the data may appear to be incomplete.

Data from both sections of the questionnaire were subjected to computer analysis using the SSPS programme version 15. Findings are therefore presented according to the sections of the questionnaire. The descriptions of findings employed measures such as percentages, tables and frequency counts.

4.2 Demographic data

The biographical data in this study for both groups included: (1) rank in maternity, (2)

age, (3) educational programme, (4) period of experience in maternity and (5) teaching approach used during training (for NQMs only).

4.2.1 Age

4.2.1.1 Age distribution of NQMs

The findings showed that the largest number of NQMs fell within the age group of twenty–one and twenty-five years (n= 32, 67%), followed by twenty–six and thirty years of age (n=11, 23%). Few midwives were above 30 years of (n=5, 10. 4%). (See Table 4.1).

Age distribution of NQMs	Frequency	Percent
21 -25	32	67%
26 -30	11	23%
31 -35	5	10%
Total	**48**	**100%**

Table 4.1: Age distribution of NQMs

4.2.1.2 Age distribution of supervisors

The findings showed that the majority of supervisors were between the ages forty-eight and fifty-seven (n =11, 42%), 31% (n=8) were between thirty-eight and forty-seven years of age, and those aged between twenty-eight-and thirty-seven years of age made up 19% (n=5). The oldest supervisor was fifty-nine years. (See Table 4. 2).

Age distribution	Frequency	Percent
28 -37	5	19%
38 – 47	8	31%
48 -57	11	42%
Above 58	2	8%
Total	**26**	**100%**

Table 4.2: Age distribution of supervisors

4.2.2 Educational programme

The findings in this study revealed that the majority, that is 50% (n=13) of the supervisors had completed a one-year midwifery diploma, 35% (n=9) had completed a four-year comprehensive diploma course and 15% (n=4) had completed a four-year comprehensive degree. The mean was 1.64, median 1.00 and the standard deviation was .7.57. (See Table 4.3).

Educational Programme	Frequency	Percent
One–year diploma course	13	50%
Four–year comprehensive diploma course	9	35%
Four–year comprehensive degree course	4	15%
Total	**26**	**100%**

Table 4.3: Educational programme completed by supervisors

Results further showed that all (n=48; 100%) of the NQMs (respondents) completed a four-year comprehensive course as it was an inclusion criteria for them.

4.2.3 Teaching approach used during training for NQMs

Responding to the item regarding teaching approaches used, the majority of the participants, comprising 32.5% (n=13) indicated that the lecture method was the most commonly-used method during training. This was followed by the lecture method combined with a case-based approach at 20% (n=8). For some, that is, 17.5% (n=7) NQMs a combination of the lecture method, problem-based and community-based approach was used. The 12, 5% (n=5) reported that the lecture method and a problem-based approach were used to teach. Only 10% (n=4) indicated that case based was the teaching approach used. The least- used teaching approaches, that is, 5.0% (n=2) were a

community-based approach and a problem- based approach, at 2.5% (n=1). A few NQMs, that is, 16.7 (n=8) did not respond to this item. The mean was 3.83, median 4, 50, mode 1 and the standard deviation was 3.82. (See Table 4.4).

Teaching Approaches	Frequency	Percent
Lecture method	13	32.5%
Case-based approach	4	10.0%
Problem-based approach	1	2.5%
Community-based approach	2	5.0
Lecture method, problem-based approach and a community- based approach	7	17.5%
Lecture method and problem-based approach	5	12.5%
Lecture method and a case-based approach	8	20.0%
Total	**40**	**100%**

Table 4.4: Teaching Approaches used

4.2.4 Rank in maternity

The findings showed that 35.1% (n= 26) of the respondents in this study occupied a midwife supervisor's role while the rest, at 64.9% (n= 48), were NQMs. (See Table 4.5).

Rank	Frequency	Percent
Supervisor	26	35.1%
NQMs	48	64.9%
Total	**74**	**100%**

Table 4.5: Rank in maternity

4.2.5. Period of experience in maternity

Fifty-four percent of NQMs (n=26, 54%) who participated in this study had between five and eight months of maternity experience. The findings showed that NQMs who had between one and four months' experience comprised 27% (n=13), and the most experienced, having between 9 and 12 months, comprised 19.% (n=9). (See Table 4.6).

Period of experience in months	Frequency	Percent
1- 4	13	27%
5 - 8	26	54%
9-12	9	19%
Total	**48**	**100%**

Table 4.6: Experience of NQMs

The largest number of supervisors (n=9, 35%) had 21 years and more of experience in maternity nursing. The findings revealed that supervisors with between 11 and 15 years' experience comprised 11% (n=3). The least-experienced supervisors with 10 years and less, comprised 27% (n=7). The number of years of experience of the sample ranged from 10 to 24 years. (See Table 4.7).

Years of experience	Frequency	Percent
10 and below	7	27%
11 -15	3	11%
16 -20	7	27%
21 and more	9	35%
Total	26	100%

Table 4 .7: Period of experience in maternity for supervisors

4.3. Results of competence ratings

The results from both groups (NQMs and supervisors) are presented simultaneously. To reiterate, the following key was used to guide respondents: 1 meant no knowledge/experience; 2 some knowledge/experience; 3 competent and can perform most of the activities without support; 4 competent, experienced and able to function independently, and 5 competent experienced and can teach others.

4.3.1 Cognitive competencies

Cognitive competencies included competencies related to problem solving, research skills clinical judgment, teaching and administration and management.

4.3.1.1 Problem-solving skills

The researcher aimed at establishing problem-solving skills of NQMs under the following sub-headings: obtain adequate information from client, assess a client's needs, define a client's problem, formulate a nursing care plan, discriminate and synthesize information obtained from assessment. (See Table 4.8).

Problem solving	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Obtain adequate information from a client	32.5 (13)	22.5 (9)	15 (6)	10 (4)	20 (8)	0 (0)	0 (0)	40 (10)	36 (9)	24 (6)
2. Assess client's needs		4.2 (2)	31.3 (15)	47.8 (23)	16.7 (8)		4 (1)	20 (5)	56 (14)	20 (5)
3. Define a client's problem		2.1 (1)	35.4 (17)	52.1 25	10.40 (5)		4 (1)	44 (11)	36 (9)	16 (4)
4. Formulate a nursing care plan		2.1 (1)	39.6 (19)	54.2 (26)	4.1 (2)		4 (1)	32 (8)	44 (11)	20 (5)
5. Discriminate and synthesize information obtained from assessment		2.1 (1)	41.7 (20)	43.8 (21)	12.4 (6)		4 (1)	52 (13)	24 (6)	20 (5)

Table 4.8: Problem-solving skills

Results revealed that only 15% (n=6) of NQMs perceived themselves to be competent and can obtain adequate information without support. Only 24 % (n=6) of supervisors perceived NQMs as being competent, experienced and able to teach others to obtain adequate information. NQMs rated themselves more negatively than their supervisors. A significant difference was that 32.5% (n=13) NQMs perceived themselves to have no knowledge/experience (level 1) of performing

this activity as opposed to 40% (n=10) of supervisors who perceived them as competent and can obtain adequate information without support (level 3). A few NQMs, that is, 16.7% (n=8) and 9% (n=1) supervisor did not respond to this item . The mean score was 3. 09; the standard deviation was 1.422. This yielded a chi-square of .000.

Results showed that as many as 31.3% (n=15) NQMs perceived themselves as competent and can assess a client's needs without support and 20% (n= 5) of supervisors shared this opinion. Most of the NQMs at 47.8% (n=23) rated themselves as competent, experienced and able to assess client's needs independently while the majority, comprising 56% (n=14) of supervisors, agreed that assessing clients needs was performed competently and independently. The mean score was 3.09. The standard deviation was 1.422.

Findings revealed that very few NQMs, that is, 2. 1% (n=1) perceived themselves as having some knowledge/experience of defining a client's problem. As many as 44% (n=11) of supervisors indicated that NQMs were competent enough to define a client's problem without support. NQMs were more positive than the supervisors as there were more, that is, 52.1% (n=25) of NQMs who perceived themselves as competent, experienced and able to define a client's problem independently compared to only 36% (n=9) of supervisors. The mean score was 3.68. The standard deviation was .724.

The results showed that most NQMs, that is, 39.6% (n=19) perceived themselves to be competent and can formulate a nursing care plan without support, however, only 20.0% (n=5) supervisors perceived NQMs as competent, experienced and able to teach others to formulate a nursing care plan. There were more similarities than differences between the two groups. The majority, that is, 54.2% (n = 26) of NQMs perceived themselves competent, experienced and able to formulate

a nursing care plan independently and 44.0% (n=11) of the supervisors rated NQMs competent, experienced and able to formulate a nursing care plan independently. The mean score was 3.67. The standard deviation was .688.

Findings showed that 41.7% (n=20) of NQMs perceived themselves as competent and can discriminate and synthesize information obtained from assessment without support. Very few; that is, 20.0% (n=5) of supervisors perceived them as competent, experienced and able to teach others. NQMs were more positive than supervisors as 43.8% (n=21) rated themselves competent, experienced and able to function independently, as opposed to the majority of supervisors at 52% (n=13) who rated them as competent and can discriminate and synthesize information obtained from assessment without support. The mean score was 3.64 and the standard deviation was .770.

4.3.1.2 Research skills

The researcher in this section aimed at establishing NQMs' competencies to identify researchable midwifery problems, initiate research, read and critically analyze research, use research data to inform their practice and determine the applicability of the results in the community. (See Table 4.9).

Research	**NEWLY QUALIFIED MIDWIVES**					**SUPERVISORS**				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Identify researchable midwifery problem	2.1 (1)	10.4 (5)	47.9 (23)	31.3 (15)	(8.3) (4)	12 (3)	36 (9)	28 (7)	12 (3)	12 (3)
2. Initiate Research	12.5 (6)	25.0 (12)	33.3 (16)	22.9 (11)	6.3 (3)	23.1 (6)	34.1 (9)	30.8 (8)	12 (3)	0 (0)
3. Read and critically	27.1 (13)	33.3 (16)	25.0 (12)	14.6 (7)	0 (0)	28 (7)	30.8 (8)	23.1 (6)	14.3 (4)	3.8 (1)

analyze research										
4. Use research data to inform my practice	29.2 (14)	25.0 (12)	29.2 (14)	16.6 (8)	0 (.0)	16 (4)	36 (9)	28 (7)	12 (3)	8 (2)
5. Determine the applicability of the results in community	27.1 (13)	31.3 (15)	20.7 (10)	18.8 (9)	2.1 (1)	23.1 (6)	23.1 (6)	34.6 (9)	15.4 (4)	3.8 (1)

Table 4.9: Research skills

Results revealed that 31.3% (n=15) of NQMs perceived themselves as competent, experienced and able to identify researchable midwifery problems independently. Only 28.0% (n=7) of supervisors rated them as competent and can identify researchable midwifery problems without support. Supervisors were more critical than graduates as 36% (n=9) rated NQMs as having some knowledge /experience, while 47, 9% (n=23) of most NQMs perceived themselves as competent and can identify researchable midwifery problems without support. The mean score was 3.14. The standard deviation was 1.081. A statistical significance difference was noted: Chi-square p = .012.

Regarding initiating research, 25.0 % (n=12) of NQMs perceived themselves as only having some knowledge /experience while only 12% (n=3) of supervisors rated NQMs as competent, experienced and able to function independently, however, most NQMs rated themselves slightly higher than had their supervisors; 33.3% (n=16) perceived themselves competent, experienced and felt they could perform most of the activities without support (level 3), whereas 34.1% (n=9) of supervisors rated them as having some knowledge/experience (level 2). The mean score was 2.66 and the standard deviation was 1.089.

The results of the study showed that 27.1 % (n=13) of NQMs rated themselves as having no knowledge/experience of reading and critically analyzing research. Only 3.8% (n=1) of supervisors perceived NQMs as competent, experienced and able to teach this competency. There was congruence as both groups, that is, 30.8% (n=8) of, supervisors, as well as 33.3% (n=16) of NQMs rated NQMs as having some knowledge/experience in reading and critically analyzing research. The mean score was 2.31 and the standard deviation was 1.072.

According to the findings, a lot more, that is, 29.2% (n=14) of NQMs rated themselves as having no knowledge /experience of using research to inform practice. Only 16.0% (n=4) of supervisors perceived NQMs as having no knowledge /experience in order to use research data to inform practice. Supervisors were more critical: as while 29.2% (n=14) of NQMs perceived themselves as competent and can use research data without support, 36.0% (n=9) of supervisors rated NQMs as having some knowledge /experience regarding using research data to inform practice. The mean score was 2.42 and the standard deviation was 1.105.

NQMs, that is, 27.1 %(n=13) rated themselves as having no knowledge /experience of determining the applicability of the results in the community. Only 23.1% (n=6) of supervisors rated them as having no knowledge /experience with this regard. Most supervisors rated NQMs slightly higher than the NQMs rated themselves; 34.6% (n=9) of supervisors perceived NQMs to be competent and can determine the applicability of the results in the community without support (level 3), whereas 31.3% (n=15) of NQMs rated

themselves as having some knowledge/experience of determining the applicability of the results in the community (level 2). The mean score was 2.43 and the standard deviation was 1.136.

4.3.1.3 Clinical judgment skills

In this section, the respondents responded to items related to clinical judgment skills, namely, interpret verbal and non-verbal cues from clients, prioritize clients' problems/ needs, plan and organize one's work daily, specify midwifery intervention in order of priority and identify preventive actions to minimize patient risk. (See Table 4.10).

Clinical Judgment	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Interpret verbal and non-verbal cues from clients	25.5 (12)	25.5 (12)	31.9 (15)	15 (7)	2.1 (1)	3.8 (1)	3.8 (1)	46.3 (12)	42.3 (11)	3.8 (1)
2. Prioritize clients' problems/ needs		2.1 (1)	41.7 (20)	41.7 (20)	14.5 (7)		7.7 (2)	38.5 (10)	38.5 (10)	15.3 (4)
3. Plan and organize one's work daily		4.3 (2)	34 (16)	38.3 (18)	23.4 (11)		11.5 (3)	27 (7)	53.8 (14)	7.7 (2)
4. Specify midwifery intervention in order of priority		4.2 (2)	31.2 (15)	39.6 (19)	25 (12)		7.7 (2)	38.5 (10)	38.5 (10)	15.3 (4)
5. Identify preventive actions to minimize patient risk		2.1 (1)	33.3 (16)	47.9 (23)	16.7 (8)		3.8 (1)	27 (7)	53.8 (14)	15.4 (4)

Table 4.10: Clinical judgment skills

Findings revealed that 25.5 % (n=12) of NQMs perceived themselves to have no knowledge /experience of interpreting verbal and non-verbal cues from clients. Many supervisors, that is, 42.3% (n=11), rated NQMs competent, experienced and able to interpret verbal and non-verbal cues from clients independently, however, 46.3 (n=12) of supervisors perceived NQMs as competent and can interpret verbal and nonverbal cues from clients without support, compared to 31.9% (n=15) of NQMs who perceived themselves as such. The mean score was 2.77 and the standard deviation was 1.100. On cross tabulation the difference was statistically significant, that is, Chi-square p= .005.

The competency of NQMs to "prioritize clients' problems/needs" was rated by 38.5% (n=10) of supervisors as competent and can perform most of the activities without support and by 41.7% (n=20) of NQMs as such. The results of the study showed more similarities than differences. Competent, experienced and able to teach others to prioritize clients' problems/needs was rated by 15.3% (n=4) of supervisors and 14.5% (n=7) of NQMs. The mean score was 3.66. The standard deviation was 781. .

Results revealed that 34.0% (n=16) of NQMs rated themselves as competent and can plan and organize one's work daily without support. Only 27% (n=7) of supervisors rated them as competent and can plan and organize their work daily without support, however, a lot more supervisors, that is, 53.8 % (n=14) rated NQMs as competent, experienced and able to function independently, as opposed to 38.3% (n=18) of NQMs who rated themselves as such. The mean score was 3.73, the standard deviation was .838.

The findings showed that 31.2% (n=15) of NQMs perceived themselves to be competent,

and can specify midwifery intervention in order of priority without support. Only 15.3% (n=4) of supervisors rated NQMs competent, experienced and able to teach others in specifying midwifery intervention in order of priority. Supervisors were more critical than the NQMs, while 39.6% (n=19) of NQMs perceived themselves to be competent, experienced and able to specify midwifery intervention in order of priority independently; 38.5% (n=10) of supervisors perceived them to be competent, experienced and able to function without support. The mean score was 3.77 and the standard deviation was .853.

Results of this study indicate that 33.3% (n=16) of NQMs rated themselves competent and can identify preventive actions to minimize patient risk activities without support. Only 15.4 (n=4) of supervisors rated NQMs as competent, experienced and able to teach others to identify preventive actions to minimize patient risk. There were more similarities than differences as the majority of supervisors, that is, 53.8 % (n=14) rated NQMs as competent, experienced and able to identify preventive actions to minimize patient risk independently, and 47.9% (n=23) of NQMs concurred with this. The mean score was 3.80 and the standard deviation was .740.

4.3.1.4 Teaching skills

The results of the perceptions of both groups regarding teaching competencies of NQMs will be reported under the following sub-headings: identify learning needs of clients and student midwives, set objectives for teaching, use teaching strategies, use teaching aids in teaching clients, teach clients' family members about the client's needs and evaluate learning. (See Table 4.11).

Teaching	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Identify learning needs of clients and students midwives		4.2 (2)	37.5 (18)	37.5 (18)	20.8 (10)			52 (13)	36 (9)	12 (3)
2. Set objectives for teaching	2.1 (1)	6.3 (3)	29.2 (14)	45.8 (22)	16.6 (8)	3.9 (1)	11.5 (3)	34.6 (9)	34.6 (9)	15.4 (4)
3. Use teaching strategies	2.1 (1)	10.4 (5)	37.5 (18)	39.6 (19)	10.4 (5)		11.5 (3)	50 (13)	23.1 (6)	15.4 (4)
4. Use teaching aids in teaching clients		14.6 (7)	37.5 (18)	39.6 (19)	8.3 (4)		7.7 (2)	53.8 (14)	30.8 (8)	7.7 (2)
5. Teach clients' family members about the client's need	2.1 (1)	29.2 (14)	29.2 (14)	27.1 (13	12.4 (6)		7.7 (2)	42.3 (11)	38.5 (10)	11.5 (3)
6. Evaluate learning	4.2 (2)	10.4 (5)	41.7 (20)	33.3 (16)	10.4 (5)		11.5 (3)	34.7 (9)	42.3 (11)	11.5 (3)

Table 4.11: Teaching skills

Findings of this particular study showed that only 4.2 % (n=2) of NQMs perceived themselves as having some knowledge/experience of identifying learning needs of clients and student midwives. Also, only12.0% (n=3) of supervisors rated them as competent, experienced and able to teach others identification of learning needs of clients and student midwives. There was some degree of variation in appraisal of this competency with 37.5 % (n=18) of NQMs rating themselves higher, that is, as competent, experienced and able to identify learning needs of clients and students midwives

independently (level 4) as opposed to 52.0% (n =13) of supervisors who rated NQMs competent, experienced and can function without support (level 3). The mean score was 3.70 and the standard deviation was .794.

Results showed that only 29.2 (n=14) of NQMs rated themselves competent and can set objectives for teaching without support; 34.6% (n=9) supervisors perceived NQMs to be competent, and can set objectives without support. There was congruence with 34.6% (n =9) of supervisors perceiving NQMs as competent, experienced and able to set objectives independently; 45.8 (n=22) of NQMs rated themselves competent, experienced and able to set objectives for teaching independently. The mean score was 3.61 and the standard deviation was .948.

Findings revealed that a significant number, that is, 37.5% (n=18) NQMs rated themselves competent and can use teaching strategies without support, while 50% (n =13) of supervisors rated NQMs as competent and can use teaching strategies without support, however, more NQMs, that is, 39.6% (n=19) rated themselves as competent, experienced and able to use teaching strategies independently than the 23.1% (n=6) of supervisors who rated them as competent, experienced and able to use teaching strategies independently. The mean score was 3.45 and the standard deviation was .894.

Only 37.5 % (n =18) of NQMs perceived themselves as competent and can use teaching aids in teaching clients without support while, 30.8% (n=14) of supervisors rated NQMs as competent, experienced and able to use teaching aids in teaching clients independently. The majority, that is, 53.8% (n=14) of supervisors rated NQMs, slightly lower, as

competent and can use teaching aids in teaching clients without support (level 3), whereas most NQMs 39.6% (n=19), perceived themselves to be competent, experienced and able to use teaching aids in teaching clients independently (level 4). The mean score was 3.41. The standard deviation was .810.

Findings showed that only 29.2 % (n=14) of NQMs rated themselves competent and can teach client's family members about the client's needs without support; of the supervisors, 38.5 %(n=10) rated NQMs as competent, experienced and able to teach a client's family members about a client's needs independently. The NQMs rated themselves lower than the supervisors, with 29.2 % (n=14) of them perceiving themselves as having some knowledge /experience of teaching a client's family members about the client's needs (level 2) whereas 42.3% (n=11) of supervisors rated NQMs competent and can teach a client's family members about the client's needs without support (level 3). The mean score was 3.31 and the standard deviation was .992.

Findings revealed that only 33.3% (n=16) of NQMs perceived themselves as competent, experienced and able to evaluate learning independently; 34.7% (n=9) of supervisors rated them to be competent and can evaluate learning without support. NQMs rated themselves more negatively than their supervisors, as 41.7% (n=20) perceived themselves competent and can evaluate learning without support (level 3), whereas most of the supervisors, that is, 42.3 % (n=11) perceived NQMs as competent, experienced able to evaluate learning independently (level 4). The mean score was 3.42 and the standard deviation was .992.

4.3.1.5 Administration/management.

The respondents were requested to respond to items regarding their perceptions of the ability of NQMs in the administration and management of a unit. (See Table 4:12).

Administration/ management	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Produce clear and accurate reports	2.2 (1)	10.9 (5)	39.1 (18)	34.8 (16)	13.0 (6)	.0 (0)	11.6 (3)	34.6 (9)	34.6 (9)	19.2 (5)
2. Work with constrains, e.g. time limit, shortage of staff	2.1 (1)	104 (5)	33.3 (16)	29.2 (14)	25.10 (12)	.0 (0)	3.8 (1)	38.5 (10)	26.9 (7)	30.8 (8)
3. Delegate aspects of care to peers and subordinates	6.2 (3)	12.5 (6)	29.2 (14)	31.3 (15)	20.8 (10)	.0 (0)	19.2 (5)	26.9 (7)	38.5 (10)	15.4 (4)
4. Implement policies and procedures as needed	2 (1)	12.5 (6)	37.5 (18)	41.7 (20)	6.3 (3)	.0 (0)	.0 (0)	53.8 (14)	30.8 (8)	15.4 (4)
5. Maintain accountability from own care	2 (1)	16.7 (8)	41.7 (20)	35.4 (17)	4.2 (2)	.0 (0)	3.8 (1)	57.8 (15)	19.2 (5)	19.2 (5)
6. Evaluate own practice		10.4 (5)	39.6 (19)	33.3 (16)	16.7 (8)		.0 (0)	48 (12)	32 (8)	20 (5)
7. Manage conflict effectively		6.3 (3)	45.8 (22)	33.3 (16)	14.6 (7)		11.5 (3)	57.8 (15)	19.2 (5)	11.5 (3)
8. Commit oneself to unit objectives		14.6 (7)	43.8 (21)	33.3 (16)	8.3 (4)		3.8 (1)	46.2 (12)	42.3 (11)	7.7 (2)
9. Influence and lead others		8.3 (4)	41.7 (20)	37.5 (18)	12.5 (6)		11.5 (3)	50.1 (13)	26.9 (7)	11.5 (3)

Table 4.12: Administration/management skills

The highest rating of 39.1% (n=18) by NQMs of themselves was competent and can produce clear and accurate reports without support. Supervisors, that is, 34.69 % (n=9) also rated NQMs as competent and can produce clear and accurate reports without support. Both groups, that is, 34.8 % (n=16) of NQMs and 34.6 % (n=9) supervisors scored high on the competency, experience and ability of NQMs to produce clear and accurate reports independently. The mean score was 3.51. The standard deviation was .934.

Some NQMs, that is, 29.2 % (n=14) rated themselves competent, experienced and able to work with constraints independently, while 30.8 % (n=8) supervisors rated NQMs competent, experienced and able to teach others to work within constraints. Furthermore, the results showed that although 38.5% (n=10) of supervisors rated NQMs to be competent and can work with constraints without support, only 33.3% (n=16) NQMs perceived themselves to be competent and can work with constraints without support. The mean score was 3.72 and the standard deviation was 1.000.

Only 20.8% (n =10) of NQMs rated themselves to be competent, experienced and able to teach others delegation aspects of care to peers and subordinates while 26.9% (n=7) of supervisors rated NQMs to be competent and can delegate aspects of care to peers and subordinates without support. Furthermore, results revealed congruency as most, that is, 38.5% (n=10) of the supervisors rated NQMs competent, experienced and able to delegate aspects of care to peers and subordinates independently and also most, that is 31.3% (n=15) NQMs perceived themselves to be competent, experienced and able to

delegate aspects of care to peers and subordinates independently. The mean score was 3.49 and the standard deviation was 1.088.

A significant number, that is, 41.7 % (n=20) of NQMs rated themselves as competent, experienced and able to implement policies and procedures as needed independently. Only 15.4% (n=4) of supervisors rated them as competent, experienced and able to teach others. The findings also revealed that only 37.5% (n=18) of NQMs perceived themselves competent and can implement policies and procedures as needed without support compared with the majority of supervisors 53.8% (n=14) who rated NQMs as competent and can implement policies and procedures as needed without support. The mean score was 3.46 and the standard deviation was .831.

Only 4.2 % (n=2) of NQMs perceived themselves competent, experienced and able to teach others to maintain accountability from own care. A low rating 19.2% (n=5) was also obtained from supervisors who perceived NQMs as competent, experienced and able to teach others to maintain accountability from own care. There were differences in that the majority of supervisors, that is 57.8% (n=15) in this study perceived NQMs as competent and can maintain accountability from own care without support, whereas only 41.7% (n=20) of NQMs rated themselves similarly. The mean score was 3.34. The standard deviation was .864.

About 33.3% (n=16) of NQMs rated themselves competent, experienced and able to evaluate own practice independently. Only 20.0% (n=5) of supervisors perceived NQMs to be competent, experienced and able to teach others evaluation of own practice. There

was congruency as the highest number of supervisors, that is, 48.0% (n=12) concurred with the highest rating by 39.6% (n=19) NQMs who believed that NQMs were competent and can evaluate own practice without support. The mean score was 3.62 and the standard deviation was .860.

Of NQMs, 33.3% (n=16) perceived themselves as competent, experienced and able to manage conflict effectively and independently, however, only 11.5% (n=3) of supervisors rated NQMs as competent, experienced and able to teach others effective management of conflict. There was congruency as the majority of supervisors, that is, 57.8 % (n=15) concurred, with 45.8% (n=22) of the NQMs when stating that NQMs were competent and able to manage conflict effectively without support. The mean score was 3.47. The standard deviation was 831.

A few NQMs, that is, 14.6% (n=7) rated themselves as only having some knowledge/ experience of committing themselves to unit objectives. Most, that is, 42.3% (n=11) of the supervisors perceived NQMs to be competent, experienced and able to commit themselves to unit objectives independently. There were more similarities than differences as the highest rating of 43.8% (n=21) by NQMs, which indicated they were competent and can commit themselves to unit objectives without support, also applied to supervisors; their highest rating of 46.2 (n =12) indicated the NQMs were competent and can commit themselves to unit objectives without support. The mean score was 3.42. The standard deviation was .794.

About 41.7% (n=20) of NQMs rated themselves competent, experienced and able to

influence and lead others independently. Very few supervisors, that is, 11.5% (n=3) of supervisors, rated NQMs as competent, experienced and able to teach others to influence and lead others. The results therefore showed congruency as half, that 50.1% (n=13) of supervisors perceived NQMs to be competent and can influence and lead others without support; 41.7% (n=20) of NQMs rated themselves similarly. The mean score was 3.49. The standard deviation was .832.

4.3.2. Affective skills

Respondents were asked to indicate their affective skills with respect to adaptive/adjustive skills and interpersonal communication.

4.3.2.1. Adaptive/adjustive skills

This section intended to solicit NQMs and their supervisors' perceptions concerning adaptive/adjustive skills, namely: sensitive to people's feelings, accepts criticism from colleagues, confident in own midwifery ability, works under pressure and adjusts to work environment. (See Table 4.1.3).

Adaptive/Adjustive skills	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Sensitive to people's feelings		12.8 (6)	29.8 (14)	42.5 (20)	14.9 (7)		15.4 (4)	19.2 (5)	38.5 (10)	26.9 (7)
2. Accepts criticism from colleagues		2.1 (1)	14.6 (7)	45.8 (22)	37.5 (18)		3.8 (1)	30.8 (8)	46.2 (12)	19.2 (5)

3. Confident in my midwifery ability		8.6 (4)	25.5 (12)	40.4 (19)	25.5 (12)		7.7 (2)	46.2 (12)	26.9 (7)	19.2 (5)
4. Work under pressure		6.3 (3)	29.2 (14)	45.8 (22)	18.7 (9)		11.5 (3)	34.6 (9)	30.8 (8)	23.1 (6)
5. Adjusts to work environment		2.1 (1)	31.3 (15)	47.8 (23)	18.8 (9)		3.8 (1)	38.5 (10)	30.8 (8)	26.9 (7)

Table 4.13: Adaptive/adjustive skills.

The competency of NQMs to be "sensitive to people's feelings" was rated by most, that is 29.8%, (n=14) of NQMs, as competent and can perform most activities without support, and by only 15.4% (n=4) of supervisors as having some knowledge/experience. NQMs, however, rated themselves slightly lower than the supervisors did, while the majority, that is, 42.5% (n=20) of them rated themselves competent, experienced and able to function independently (level 4). Furthermore, 26, 9 % (n=7) of supervisors perceived NQMs as competent, experienced and able to teach others (level 5). The mean score was 3.66. The standard deviation was .946.

The results revealed that some 37.5 (n=18) of NQMs perceived themselves as competent, experienced and able to teach others to accept criticism from colleagues. Some 30.8% (n =8) of supervisors perceived NQMs to be competent and can accept criticism from colleagues without support; 46.2% (n=12) of the supervisors perceived NQMs to be competent, experienced and able to accept criticism from colleagues independently whereas 45.8% (n =22) of NQMs were in agreement with this rating. The mean score was 4.05 and the standard deviation was .792.

Regarding confidence in midwifery ability, the findings in this study revealed that some NQMs, that is, 25.5% (n=12) perceived themselves as competent, experienced and able to teach others. Only19.2% (n=5) of supervisors perceived NQMs as competent, experienced and able to teach others. Supervisors rated NQMs lower, as most of them, that is, 46.25% (n=12) rated NQMs as competent and can perform most activities without support; the highest rating by NQMs, that is, 40.4% (n=19), showed that they were competent, experienced and able to function independently. The mean score was 3.74 and the standard deviation was .913.

Findings showed that most, that is, 34.6% (n=9) of the supervisors perceived NQMs to be competent and can work under pressure without support. A small number, that is, 18.7 % (n=9) of NQMs rated themselves competent, experienced and able to teach others to work under pressure. NQMs rated themselves slightly higher than did the supervisors. Results showed that most NQMs, that is, 45.8% (n=22) perceived themselves to be competent, experienced and able to work under pressure independently whereas only 30.8 % (n=8) of supervisors perceived NQMs as competent, experienced and able to work under pressure independently. The mean score was 3.73. The standard deviation was .880.

Only 31.3% (n=15) of NQMs rated themselves as competent and can adjust to their work environment without support. Some of the supervisors, that is, 26.9 (n=7) perceived NQMs to be competent, experienced and able to teach others to adjust to the work environment. Furthermore the results showed that less supervisors, that is, 30.8 (n=8), rated NQMs to be competent, experienced and able to adjust to their work environment

independently while 47.8% (n=23) of NQMs perceived themselves competent, experienced and able to adjust to their work environment independently. The mean score was 3.82. The standard deviation was .800.

4.3.2.2 Interpersonal communication

In this section both NQMs and supervisors responded to questions on interpersonal communication. (See Table 4.1.4).

Interpersonal communication	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1.Communicates a feeling of acceptance of each client		2.1 (1)	27.7 (13)	44.7 (21)	25.5 (12)		3.8 (1)	38.5 (10)	38.5 (10)	19.2 (5)
2.Promotes the client's right to privacy		6.5 (3)	21.7 (10)	56.5 (26)	15.3 (7)		.0 (0)	34.6 (9)	38.5 (10)	26.9 (7)
3.Explains procedures to a client before performing them		12.5 (6)	8.3 (4)	52.1 (25)	27.1 (13)		.0 (0)	26.9 (7)	50 (13)	23.1 (6)
4.Communicates information to other health team members		2.1 (1)	10.4 (5)	41.7 (20)	45.8 (22)		.0 (0)	34.6 (9)	42.3 (11)	23.1 (6)
5.Applies a meaningful touch		.0 (0)	18.8 (9)	45.8 (22)	35.4 (17)		3.8 (1)	42.3 (11)	30.8 (8)	23.1 (6)
6.Seeks assistance when necessary		8.3 (4)	12.5 (6)	50 (24)	29.2 (14)		.0 (0)	28 (7)	32 (8)	40 (10)
7.Creates a safe environment for clients		2.1 (1)	10.4 (5)	39.6 (19)	47.9 (23)		.0 (0)	38.4 (10)	30.8 (8)	30.8 (8)
8.Listens to clients and their		4.2 (2)	10.4 (5)	45.8 (22)	39.6 (19)		.0 (0)	50 (13)	23.1 (6)	26.9 (7)

families										
9.Supports human dignity while engaging in professional practice		8.3 (4)	10.4 (5)	43.8 (21)	37.5 (18)		.0 (0)	34.6 (9)	34.6 (9)	30.8 (8)
10. Respects client's freedom of choice and right to make decisions.		4.2 (2)	12.5 (6)	43.8 (21)	39.6 (19)		3.8 (1)	42.4 (11)	26.9 (7)	26.9 (7)
11.Inform and discusses with clients their conditions		2.1 (1)	22.9 (11)	39.6 (19)	35.4 (17)		3.8 (1)	34.6 (9)	50.1 (13)	11.5 (3)
12. Practices within the scope of a registered midwife.	2.1 (1)	4.2 (2)	16.7 (8)	50 (24)	27 (13)		3.8 (1)	30.8 (8)	42.3 (11)	23.1 (6)
13.Demonstrates knowledge of the ethics of midwifery		4.2 (2)	22.9 (11)	43.8 (21)	29.2 (14)		.0 (0)	34.6 (9)	38.5 (10)	26.9 (7)

Table 4.14: Interpersonal communication skills

Findings of this particular study showed that 25.5% (n=12) of NQMs perceived themselves competent, experienced and able to teach others to communicate feelings of acceptance of each client. Only 19.2% (n=5) of supervisors perceived NQMs to be competent, experienced and able to teach others to communicate feelings of acceptance of each client. NQMs rated themselves more positively than the supervisors did because while most of them, that is, 44.7% (n=21), rated themselves as competent, experienced and able to communicate feeling of acceptance of each client independently, only 38.5% (n=10) of supervisors rated them as such. The mean score was 3.86. The standard deviation was .805.

Results show that some, that is, 21.7% (n=10) of NQMs perceived themselves as

competent and can promote the client s' right to privacy without support; 38.5% (n =10) of supervisors perceived NQMs to be competent, experienced and able to promote the client's right to privacy independently. NQMs rated themselves slightly lower than the supervisors, because while the majority, that is, 56.5% (n =26) of them rated themselves as competent, experienced and able to function independently, 26.9% (n=7) of supervisors perceived NQMs as competent, experienced and able to teach others to promote the client's right to privacy. The mean score was 3.85. The standard deviation was .781.

According to the findings, 27.1% (n=13) of NQMs rated themselves competent, experienced and able to teach others explaining procedures to clients before performing them. Only 23.1% (n=6) of supervisors perceived NQMs to be competent, experienced and able to teach others to explain procedures to a client before performing them. There were more similarities than differences as the highest rating, that is, 52.1.0% (n=25) by NQMs perceived themselves as competent, experienced and able to explain procedures to a client before performing them independently, and the same applied to supervisors in that their highest rating of 50.0% (n=13) was also that they view NQMs as of competent, experienced and able to explain procedures to a client independently before performing them. The mean score was 4.15. The standard deviation was .715.

Findings of this study showed that only 10.4 % (n=5) of NQMs perceived themselves as competent and can communicate information to other health team members without support. Only 23.1% (n =6) of supervisors rated them as competent, experienced and able to teach others how to communicate information to other health team members. Results

further revealed that NQMs rated themselves slightly higher than did their supervisors. The majority of NQMs, that is, 45.8% (n=22) perceived themselves as competent, experienced and able to teach others how to communicate information to other health team members, whereas most supervisors 42.3 % (n=11) rated them as competent, experienced and able to communicate information to other health team members independently. The mean score was 3.86. The standard deviation was .805. The results were statistically significant because the Chi-square was .045.

Findings revealed that 18.8% (n=9) of NQMs rated themselves competent and can apply a meaningful touch without support. Some supervisors, that is, 30.8% (n=8) perceived NQMs to be competent, experienced and able to apply meaningful touch independently. The NQMs rated themselves higher than their supervisors did, because according to the findings a large number, that is, 42.3% (n=11) of supervisors rated NQMs as competent and can apply a meaningful touch without support whereas most, that is, 45.8% (n=22) of NQMs perceived themselves competent, experienced and able to apply meaningful touch independently. The mean score was 4.01. The standard deviation was .802.

Results showed that half, that is, 50% (n=24) of NQMs perceived themselves competent, experienced and able to seek assistance when necessary and independently. Some supervisors, that is, 28% (n=7) rated NQMs as competent and can seek assistance when necessary without support; however, NQMs rated themselves slightly lower than the supervisors because, while the majority, that is, 40% (n=10) of supervisors rated them as competent, experienced, and able to teach others to seek assistance when necessary, few

NQMs, that is, 29.2% (n=14) perceived themselves as such. The mean score was 4.04. The standard deviation was .857.

The findings revealed that 10.4% (n=5) of NQMs perceived themselves as competent and can create a safe environment for clients without support; 30.8% (n=8) of supervisors rated NQMs as competent, experienced and able to teach others to create a safe environment for clients. There was some degree of variation in appraisal of creation of a safe environment. While most of the supervisors, that is, 38.4% (n=10) rated NQMs as competent and can create a safe environment for clients without support, 47.9% (n=23) of NQMs perceived themselves as competent, experienced, and able to teach others about the creation of a safe environment. The mean score was 4.05. The standard deviation was .842. Chi-Square .035.

The results of this particular study showed that the competency of NQMs to listen to clients and their families was rated by 39.6% (n=19) of NQMs to be competent, experienced, and able to teach others. A few, that is, 23.1 %(n=6) of supervisors rated NQMs as competent, experienced and able to function independently. Supervisors were more critical than the NQMs, while 45.0% of (n=22) of NQMs perceived themselves competent, experienced and able to function independently. Half of the supervisors, that is, 50% (n=13) rated NQMs as competent and can listen to clients and their families without support. The mean score was 4.05. The standard deviation was .842. Chi-square was .002.

According to the findings of this study 43.8% (n=21) of NQMs perceived themselves as

competent, experienced, and able to support human dignity while engaging in professional practice independently. Some of the supervisors, that is, 30.8% (n=8) perceived NQMs to be competent, experienced and able to teach others how to support human dignity while engaging in professional practice. Most of the NQMs, that is, 37.5% (n=18) rated themselves higher than the supervisors did as competent, experienced and able to teach others while 34% (n=9) of supervisors rated NQMs as competent and can support human dignity while engaging in professional practice without support. The mean score was 4.05. The standard deviation was .874. A statistical significance was noted, in that Chi –Square was .047.

Regarding respecting a client's freedom of choice and right to make decisions, findings revealed that most of the NQMs, that is, 43.8% (n=21) perceived themselves as competent, experienced and able to function independently. There was incongruence as most, that is, 39.6% (n=19) of NQMs perceived themselves as competent, experienced and able to teach others, whereas 42.4% (n=11) of supervisors rated them as competent and can perform most of the activities without support. The mean score was 4.04. standard deviation was .867. Responses showed statistical significant as Chi-Square was .036.

The results of this study showed that 39.6% (n=19) of NQMs rated themselves as competent, experienced and able to inform and discuss with clients their conditions independently. 34.6% (n=9) supervisors perceived NQMs to be competent and can inform clients and discuss with clients their conditions without support. Supervisors were more critical of NQMs as results further revealed that 50.1% (n=13) of them rated

NQMs as competent, experienced and able to inform and discuss with clients their conditions independently while 35.4% (n=17) of NQMs perceived themselves as competent, experienced and able to teach others to inform and discuss with clients their conditions. The mean score was 3.95. The standard deviation was .809.

The findings revealed that only 27% (n=13) of NQMs perceived themselves as competent, experienced and able to teach others to practice within the scope of being a registered midwife. Very few, that is, 3.8% (n=1) of supervisors perceived NQMs to have some knowledge/experience, of practicing within the scope of being a registered midwife. However, there were more similarities than differences between NQMs and supervisors as half of NQMs, that is, 50% (n=24) and 42.3% (n=110) of supervisors in this study perceived NQMs as competent, experienced and able to practice, within the scope of being a registered midwife independently. The mean score was 3.92. The standard deviation was .872.

The results of this study showed that NQMs, that is, 29.2% (n=14) rated themselves as competent, experienced and able to teach others demonstration of knowledge of the ethics of midwifery and only a few supervisors, that is, 26.9% (n=7) rated them as such. Findings further revealed that most NQMs, that is, 43.8% (n=21) rated themselves higher than the supervisors as competent, experienced and able to demonstrate knowledge of the ethics of midwifery independently whereas 34,6 % (n =9) of supervisors perceived them as competent and can demonstrate knowledge of the ethics of midwifery without support. The mean score was 3.96. The standard deviation was .818.

4.3.3 Psychomotor skills

In this section respondents were required to rate the competence of NQM's psychomotor skills as required in a midwifery-related clinical setting, namely, antenatal care, intrapartum care, pueperium, neonatal care, record keeping and legislation and medication used in obstetrics.

4.3.3.1 **Antenatal care** skills

The respondents were requested to respond to items regarding their perception of the ability of NQMs to render ante-natal care. (See Table 4.15).

Antenatal care	**NQMs**					**SUPERVISORS**				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Take history during ante-natal care		4.2 (2)	3.5.4 (17)	33.3 (16)	27.1 (13)		.0 (0)	38.4 (10)	30.8 (8)	30.8 (8)
2. Conduct a thorough physical examination of a pregnant women		2.1 (1)	10.4 (5)	47.9 (23)	39.6 (19)		3.8 (1)	34.6 (9)	30.8 (8)	30.8 (8)
3. Conduct abdominal palpation		4.2 (2)	27.1 (13)	31.2 (15)	37.5 (18)		.0 (0)	30.8 (8)	42.3 (11)	26.9 (7)
4. Calculate E.D.D using the L.M.P		4.1 (2)	16.7 (8)	41.7 (20)	37.4 (18)		.0 (0)	23.1 (6)	26.9 (7)	50 (13)
5. Calculate E.D.D using the wheel			12.5 (6)	29.2 (14)	58.3 (28)			23,1 (6)	30.7 (8)	46.2 (12)
6. Undertake and interpret		.0 (0)	16.7 (8)	16.7 (8)	66.6 (32)		7.7 (2)	23.1 (6)	34.6 (9)	34.6 (9)

e.g. RPR FBC										
7. Recognize the minor and common disorders in pregnancy		6.3 (3)	25 (12)	20.8 (10)	47.9 (23)		.0 (0)	38.4 (10)	30.8 (8)	30.8 (8)
8. Give advice relating to the minor and common disorders in pregnancy			23.4 (11)	34.0 (16)	42.6 (20)			30.8 (8)	42.3 (11)	26.9 (7)
9. Teach ante-natal exercise		.0 (0)	22.9 (11)	37.5 (18)	39.6 (19)		3.8 (1)	42.3 (11)	26.9 (7)	26.9 (7)
10. Draw up a suitable diet to meet the needs of pregnant women and unborn baby	2.1 (1)	12.5 (6)	31.3 (15)	33.3 (16)	20.8 (10)	4.0 (1)	8.0 (2)	40 (10)	36. (9)	12 (3)
11. Teach pregnant women to perform kick count chart		2.1 (1)	29.2 (14)	47.9 (23)	20.8 (19)		0 (0)	26.9 (7)	42.3 (11)	30.8 (8)
12. Identify abnormal physiological changes		2.1 (1)	17 (8)	25.6 (12)	55.3 (26)		7.7 (2)	26.9 (7)	34.6 (9)	30.8 (8)
13. Identify the signs and symptoms of pregnancy		4.3 (2)	12.7 (6)	53.2 (25)	29.8 (14)		.0 (0)	44 (11)	20 (5)	36 (9)
14. Give appropriate health education		2.1 (1)	14.9 (7)	40.4 (19)	42.6 (20)		3.8 (1)	23.1 (6)	38.5 (10)	34.6 (9)
15. Screen high-risk pregnancies			17 (8)	29.8 (14)	53.2 (25)			38.5 (10)	42.3 (11)	19.2 (5)
16. Refer high-risk pregnancies		2.1 (1)	25.5 (12)	36.2 (17)	36.2 (17)		.0 (0)	38.5 (10)	42.3 (11)	19.2 (5)
17. Formulate nursing care plan for identified needs	2.1 (1)	4.3 (2)	21.3 (10)	38.3 (18)	34 (16)	.0 (0)	.0 (0)	42.3 (11)	42.3 (11)	15.4 (4)

18. Perform pelvic assessment to detect abnormalities	4.3 (2)	4.3 (2)	23.4 (11)	40.4 (19)	27.6 (13)	19.2 (5)	23.1 (6)	26.9 (7)	23.1 (6)	7.7 (2)

Table 4.15 Antenatal care skills

The findings in this study showed that 33.3% (n=16) of NQMs rated themselves as competent, experienced and able to take history during antenatal care independently. 30.80% (n=8) of supervisors perceived NQMs to be competent, experienced and able to teach others history-taking during antenatal care. Results further revealed that there were more similarities than differences; the highest ratings for both groups were, 38.40% (n =10,) of supervisors and 35.4% (n=17) of NQMs rated NQMs competent and can take history during antenatal care without support. The mean score was 3.86 and the standard deviation was .865.

Results revealed that a significant number, that is, 47.9% (n=23) of NQMs rated themselves as competent, experienced and able to conduct a thorough physical examination of a pregnant woman independently. Only 3.8% (n=1) of supervisors perceived NQMs as having some knowledge/experience of conducting a thorough physical examination of a pregnant woman. Findings showed that 34.6% (n=9) of supervisors were more critical of NQMs, rating them as competent, and can conduct a thorough physical examination of a pregnant woman without support (level 3), whereas 39.6% (n=19) of NQMs rated themselves as competent, experienced and able to teach others (level 5). The mean score was 4.12. The standard deviation was .810.The results further showed that only 27.1 % (n=13) of NQMs perceived themselves as competent and

can conduct abdominal palpation without support while 26.9% (n =7) of supervisors perceived NQMs to be competent, experienced, and able to teach others to conduct abdominal palpation. Results further showed higher ratings by both groups as 37.5% (n =18) of NQMs rated themselves competent, experienced, and able to teach others to conduct abdominal palpation and 42.3% (n =11) of supervisors rated NQMs as competent, experienced and able to function independently. The mean score was 4.00 and the standard deviation was .860.

Results of this particular study showed that most, that is, 41.7% (n=20) of the NQMs rated themselves as competent, experienced and able to calculate E.D.D using L.M.P. independently. Some of the supervisors, that is, 26.9 %(n=7) rated NQMs as competent, experienced and able to calculate E.D.D using L.M.P. independently; however, supervisors were more positive than the NQMs as 50% (n=13) of them perceived NQMs to be competent, experienced, and able to teach others to calculate E.D.D using L.M.P compared to only 37.4% (n=18) of NQMs who perceived themselves as such. The mean score was 4.18. The standard deviation was .834.

A few supervisors, that is, 23.1% (n=6) rated NQMs as competent, and can calculate E.D.D. using the wheel without support. The same number of supervisors, that is, 23.1% (n =6) concurred, saying that NQMs were competent, and can calculate E.D.D. using the wheel without support. There were more similarities than differences as the highest rating of 58.3% (n=28) by NQMs perceived themselves as competent, experienced and able to teach others to calculate E.D.D. using the wheel; the same applied to supervisors in that their highest rating of 46.2% (n=12) was that NQMs were competent, experienced and

able to teach others this competency. The mean score was 4.38. The standard deviation was .753.

Findings of the study revealed that some supervisors, that is, 23.1% (n=6) rated NQMs as competent and can undertake and interpret common investigations without support. There was some degree of variation in appraisal of this competency with 66.6% (n=32) of NQMs rating themselves higher regarding being competent, experienced, and able to teach others to undertake and interpret common investigations as opposed to only 34.6% (n=9) of supervisors who perceived NQMs as such. The mean score was 4.31. The standard deviation was .875 and Chi-square .023.

According to the results of this particular study, only 6.3% (n=3) of NQMs rated themselves as having some knowledge/experience in order to recognize the minor and common disorders of pregnancy; 30.8. % (n=8) of supervisors rated them as competent, experienced and able to teach others to recognize the minor and common disorders of pregnancy. Results showed in congruency between 38.4% (n=10) of supervisors who perceived NQMs to be competent and can recognize the minor and common disorders of pregnancy without support whereas most of the NQMs, that is, 47.9% (n=23) perceived themselves as competent, experienced and able to teach others. The mean score was 4.04 and the standard deviation was.943.

The findings showed that 23.4 % (n=11) of NQMs perceived themselves as functioning at a level of being competent, and can give advice relating to the minor and common disorders in pregnancy without support; however, 42.3 %(n=11) of supervisors rated

NQMs as competent, experienced and able to give advice relating to the minor and common disorders in pregnancy independently. Most, that is, 42.6% (n=20) of NQMs perceived themselves more positively than the supervisors with a rating of competent, experienced and able to teach others regarding giving advice relating to minor and common disorders in pregnancy whereas only 26.9% (n=3) of supervisors rated them as such. The mean score was 4.11. The standard deviation was .792.

According to the findings of this study a significant number, that is, 37.5% (n=18) of NQMs rated themselves as competent, experienced and able to teach ante-natal exercises independently; 26.9% (n=7) of supervisors rated NQMs as competent, experienced and able to teach others this skill. Findings showed that 42.3% (n=11) of supervisors were more critical of NQMs when rating them as competent and can teach ante-natal exercises without support (level 3) whereas 39.6% (n=19) of NQMs rated themselves as competent, experienced and able to teach others how to teach ante-natal exercise (level 5). The mean score was 4.03. The standard deviation was .844.

Findings in this particular study revealed that most, that is, 33.3% (n=9) of NQMs perceived themselves as competent, experienced and able to draw up a suitable diet to meet the needs of a pregnant mother and her unborn baby independently; however, only 12 % (n=3) of supervisors rated NQMs to be competent, experienced and able to teach others draw up a suitable diet to meet the needs of a pregnant mother and her unborn baby. There was incongruence between the findings of the supervisors and the NQMs as 20.8% (n=10) of NQMs rated themselves competent, experienced and able to teach others, whereas, most, that is, 40. % (n=10) of supervisors perceived NQMs to be

competent and can draw up a suitable diet to meet the needs of a pregnant mother and her unborn baby without support. The mean score was 3.53. The standard deviation was 1.001.

Results showed that 30.8% (n=8) of supervisors and 20.8% (n=19) of NQMs rated NQMs as competent, experienced and able to teach pregnant women to perform a kick count chart. There were more similarities than differences as most of the NQMs, that is, 47.9% (n=23) rated themselves as competent, experienced and able to teach pregnant women to perform a kick count chart independently; the majority, that is, 42.3% (n=11) of supervisors also rated them as such. The mean score was 3.93. The standard deviation was .764.

Findings of this study revealed that 26.9% (n=7) of supervisors perceived NQMs as competent and can identify abnormal physiological changes without support. Only 7.7% (n=2) of supervisors perceived NQMs as having some experience/knowledge regarding identification of abnormal physiological changes. NQMs rated themselves slightly higher than the supervisors; the majority, that is, 55.3% (n=26) of NQMs perceived themselves as competent, experienced and able to teach others to identify abnormal physiological changes, whereas most supervisors, that is, 34.6% (n=9) perceived NQMs to be competent, experienced and able to identify abnormal physiological changes independently. The mean score was 4.18. The standard deviation was .903.

Findings revealed that some 29.8% (n=14) of NQMs perceived themselves as competent, experienced and able to teach others to identify the signs and symptoms of pregnancy

while 36.0 %(n=9) of supervisors rated NQMs as competent, experienced and able to teach others to identify the signs and symptoms of pregnancy. Results further showed incongruence as 44.0% (n=11) of supervisors perceived NQMs to be competent and can identify the signs and symptoms of pregnancy without support. This was in sharp contrast to the majority of NQMs, that is, 53.2% (n=25) who rated themselves competent, experienced and able to identify the signs and symptoms of pregnancy independently. The mean score was 4.03, and the standard deviation was .822. The Chi-square was below 0.05.

Results revealed that a significant number, that is, 40.4% (n=19) of NQMs perceived themselves as competent, experienced and able to give appropriate health education independently. Other supervisors, that is, 34.6% (n=9) perceived NQMs to be competent, experienced and able to teach each other to give appropriate health education. There was incongruence between the findings of the two groups, as the highest ratings for both were, 38.5% (n=10); supervisors rated NQMs as competent, experienced and able to give appropriate health education independently and 42.6% (n=20) of NQMs rated themselves as competent, experienced and able to teach others to give appropriate health education. The mean score was 4.16. The standard deviation was .817.

Results showed that 29.8% (n=14) of NQMs perceived themselves to be competent, experienced and able to screen high-risk pregnancies independently. A higher percentage that is, 38.5% (n=10) of supervisors rated NQMs as competent and can screen high-risk pregnancies without support. The majority of the NQMs, that is, 53.2% (n=25) rated themselves highly as they perceived themselves as competent, experienced and able to

teach each others to screen high-risk pregnancies whereas most supervisors, that is, 42.3% (n=11) perceived NQMs to be competent, experienced and able to screen high-risk pregnancies independently. The mean score was 4.16. The standard deviation was .800. Chi-square was .014.

Findings of this study revealed that 25.5% (n=12) of NQMs perceived themselves to be competent and can refer high-risk pregnancies without support. There was also a significant number, that is, 38.5% (n=10) of supervisors who rated NQMs as competent, and can refer high-risk pregnancies without support. There were more differences than similarities between the two groups; 36, 2% (n=17) of NQMs perceived themselves as competent, experienced and able to teach each others to refer high-risk pregnancies, whereas most, that is, 42.3 % (n=11) of supervisors rated NQMs as competent, experienced and able to refer high-risk pregnancies independently. The mean score was 3.97. The standard deviation was .816.

Results of this study showed that regarding formulation of a nursing care plan for identified needs, was rated by 38.3 % (n=18) of NQMs as competent, experienced, and able to function independently. Most, that is, 42.3% (n=11) of the supervisors perceived NQMs as competent, experienced, and able to formulate a nursing care plan for identified needs independently. Furthermore, 34.0% (n=16) of NQMs rated themselves as competent, experienced and able to teach others regarding the formulation of a nursing care plan for identified needs; this was in sharp contrast to only 15.4% (n=4) of supervisors, who rated NQMs as such. The mean score was 3.89 and the standard deviation was .891.

The findings of this study revealed that only 27.6% (n=13) of NQMs perceived themselves as competent, experienced and able to teach others to perform pelvic assessment to detect abnormalities. A small number, that is, 19.2% (n=5) of supervisors rated NQMs as having no knowledge/experience of performing pelvic assessment to detect abnormalities. NQMs, however, were more positive in their ratings than the supervisors; most of them, that is, 40.4 % (n=19) perceived themselves as competent, experienced and able to perform pelvic assessment to detect abnormalities independently, whereas 26.9 % (n=7) of supervisors rated NQMs as competent and can perform pelvic assessment to detect abnormalities without support. The mean was 3.45. The standard deviation was 1.214.

4.3.3.2 Intrapartum care skills

The respondents were requested to respond to items regarding their perception of the ability of NQMs to render intrapartum care. (See Table 4.16).

INTRAPARTUM	NEWLY QUALIFIED MIDWIVES					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1 Obtain a detailed history to confirm labour	29.8 (14)	25.5 (12)	29.8 (14)	4.3 (2)	10.6 (5)	3.8 (1)	3.8 (1)	46.2 (12)	34.6 (9)	11.5 (3)
2 Perform vaginal examination		6.3 (3)	18.8 (9)	52.1 (25)	22.8 (11)		3.8 (1)	50 (13)	30.8 (8)	15.4 (4)
3 Interpret data accurately using the partograph		2.1 (1)	25 (12)	47.9 (23)	25 (12)		3.8 (1)	50 (13)	30.8 (8)	15.4 (4)
4 Record data accurately using the partograph		4.2 (2)	25 (12)	33.3 (16)	37.5 (18)		5.5 (1)	50 (9)	27.8 (5)	16.7 (3)
5 Manually determine intensity, duration and frequency of contractions		2.1 (1)	20.8 (10)	60.4 (29)	16.7 (8)		.0 (0)	45.5 (10)	36.4 (8)	18.1 (4)
6 Apply and interpret maternal fetal		4.2	25	33.3	37.5		3.8	53.8	23.2	19.2

monitor		(2)	(12)	(16)	(18)		(1)	(14)	(6)	(5)
7 Monitor a woman on pitocin drip	2.0 (1)	6.3 (3)	35.4 (17)	37.5 (18)	18.8 (9)	3.8 (1)	3.8 (1)	46.2 (12)	26.9 (7)	19.3 (5)
8 Recognize and manage obstetrical emergencies in the absence of medical officer	.0 (0)	6.3 (3)	33.3 (16)	41.6 (20)	18.8 (9)	4.0 (1)	12 (3)	40 (10)	28 (7)	16 (4)
9 Rupture membrane artificially		12.5 (6)	31.3 (15)	29.2 (14)	27.0 (13)		16 (4)	40 (10)	20 (5)	24 (6)
10 Perform episiotomy if necessary		16.7 (8)	31.2 (15)	35.4 (17)	16.7 (8)		3.8 (1)	46.2 (12)	30.8 (8)	19.2 (5)
11 Deliver the baby safely following the mechanism of labour		2.1 (1)	19.1 (9)	42.6 (20)	36.2 (17)		.0 (0)	42.3 (11)	30.8 (8)	26.9 (7)
12 Perform passive and active management of the 3rd stage of labour		4.2 (2)	18.8 (9)	33.3 (16)	43.7 (21)		3.8 (1)	42.4 (11)	26.9 (7)	26.9 (7)
13 Administer oxytocin with or immediately after the delivery of the baby		2.1 (1)	20.8 (10)	33.3 (16)	43.8 (21)		7.7 (2)	30.8 (8)	26.9 (7)	34.6 (9)
14 Examine the perineum and vulva for lacerations			21.3 (10)	34 (16)	44.7 (21)			42.3 (11)	34.6 (9)	23.1 (6)
15 Manage the 4th stage of labour			19.1 (9)	34 (16)	46.7 (22)			42.3 (11)	19.2 (5)	38.5 (10)
16 Check the uterus post delivery		2.1 (1)	18.7 (9)	35.4 (17)	43.8 (21)		3.8 (1)	38.5 (10)	30.8 (8)	26.9 (7)
17 Examine the placenta and membrane		4.2 (2)	22.9 (11)	25 (12)	47.9 (23)		3.8 (1)	30.8 (8)	26.9 (7)	38.5 (10)
18 Assess the blood loss		.0 (0)	16.7 (8)	37.5 (18)	45.8 (22)		7.7 (2)	38.5 (10)	15.4 (4)	38.4 (10)
19 Suture episiotomy		2.1 (1)	10.4 (5)	33.3 (16)	54.2 (26)		11.5 (3)	34.6 (9)	30.8 (8)	23.1 (6)
20 Detect and manage potential and actual problems of labour and refer appropriately		6.4 (3)	21.2 (10)	44.7 (21)	27.7 (13)		11.5 (3)	42.3 (11)	30.8 (8)	15.4 (4)

Table 4.16: Intrapartum care skills

Results showed that a significant number, that is, 25.5% (n=12) of NQMs rated themselves as having some knowledge/experience of obtaining a detailed history to confirm labour, however, most, that is, 46.2 % (n=12) of supervisors perceived NQMs to be competent and can obtain a detailed history to confirm labour without support. There were more differences than similarities between the two groups; many, that is, 29.8% (n=14) of NQMs and 3.8% (n=1) of supervisors perceived NQMs as having no knowledge/experience of obtaining a detailed history to confirm labour. The mean score

was 2.78 and the standard deviation was 1.250. The responses showed statistical significance because the Chi-square was .000.

Only 22.8% (n=11) of NQMs rated themselves as competent, experienced and able to teach others to perform a vaginal examination; similarly only 15.4% (n=4) of supervisors perceived them as such. 52.1% (n=25) of NQMs rated themselves slightly higher as competent, experienced and able to perform a vaginal examination independently, whereas half of the supervisors, that is, 50.0% (n=13) rated NQMs as competent and can perform vaginal examination without support. The mean score was 3.80. The standard deviation was .827. Chi-square was .048.

Findings revealed that only 2.1% (n=1) of NQMs perceived themselves as having some knowledge /experience of interpreting data accurately using the partograph. Some 15.4% (n=4) of supervisors perceived NQMs to be competent, experienced, and able to teach others to interpret data accurately using the partograph. There was incongruence between the findings of the two groups as the highest ratings for both were 47.9 % (n=23) when NQMs rated themselves as competent, experienced and able to interpret data using the partograph independently (level 4), and 50.0% (n=13) of supervisors rated NQMs as competent and can interpret data using the partograph without support (level 3). The mean score was 3.82. The standard deviation was .800.

Findings of this particular study revealed that 33.3% (n=16) of NQMs perceived themselves as competent, experienced and able to record data accurately using the partograph independently. Only a few supervisors, that is, 16.7 % (n=3) rated NQMs

competent, experienced, and able to teach others to record data accurately using the partogram. There was, however, in congruency between the two groups as most of the NQMs, that is, 37.5 % (n=18) perceived themselves as competent, experienced, and able to teach others to record data accurately using the partogram (level 4) and the majority 50.9% (n=) of supervisors perceived NQMs to be competent, and can record data accurately using the partograph without support (level 3). The mean score was 4.18. The standard deviation was .902.

The results of this study showed that 20.8 % (n=10) of NQMs perceived themselves to be competent and can manually determine intensity, duration and frequency of contractions without support. Only 18.1% (n=4) of supervisors rated them as competent, experienced and able to teach others to determine intensity, duration and frequency of contractions. NQMs rated themselves slightly higher than the supervisors, that is, 60.4% (n=29) of them perceived themselves as competent, experienced and able to determine intensity, duration and frequency of contractions independently (level 4) whereas most, that is, 45.5 % (n=10) of supervisors perceived NQMs to be competent and can manually determine intensity, duration and frequency of contractions without support (level 3. The mean score was 3.92. The standard deviation was dev .888. The results were statistically significant because Chi-Square was .024.

The findings in this study showed that a significant number, that is, 33.3 % (n=16) of NQMs perceived themselves to be competent, experienced and able to apply and interpret maternal fetal monitor independently while 53.8. % (n=14) of supervisors rated NQMs to be competent and can apply and interpret a maternal fetal monitor without support.

Furthermore, 37.5% (n=18) of NQMs perceived themselves to be competent, experienced and able to teach others to apply and interpret maternal fetal monitor, whereas very few, that is, 19.2% (n=5) of supervisors perceived NQMs as such. The mean score was 4.18 and the standard deviation was.903.

Results revealed that most of the NQMs, that is, 37.5% (n =18) perceived themselves as competent, experienced and able to monitor woman on a pitocin drip independently, however, the majority of the supervisors, that is, 46.2% (n=12) perceived NQMs to be competent and can monitor a woman on a pitocin drip without support. Few respondents from both groups, that is, 19.3% (n=5) of supervisors and 18.8% (n=9) of NQMs perceived NQMs to be competent, experienced and able to teach others to monitor a women on a pitocin drip. The mean score was 3.64. The standard deviation was .903.

The results showed that 41.6 % (n=20) of NQMs rated themselves as competent, experienced and able to recognize and manage obstetrical emergencies in the absence of a medical officer independently. Most of the supervisors, that is, (40 %; n =10) perceived NQMs to be competent and can recognize and manage obstetrical emergencies in the absence of a medical officer without support. In addition 18.8% (n=9) of NQMs and 16% (n= 4) of supervisors perceived NQMs to be competent, experienced and able to teach others to recognize and manage obstetrical emergencies in the absence of a medical officer. The mean score was 3.62. The standard deviation was .922.

Findings of the study revealed that 12.5% (n=6) of NQMs perceived themselves as having some knowledge/experience of rupturing membranes artificially, however, many

supervisors, that is, 40.0% (n=10) rated NQMs as competent and can rapture membranes artificially without support. Only 27.0% (n=13) of NQMs rated themselves as competent, experienced, and able to teach others to rupture membranes artificially. Similar low ratings by 24.0% (n=6) of supervisors who rated NQMs competent, experienced, and able to teach others to rupture membranes artificially were recorded. The mean score was 3.64. The standard deviation was 1.019.

The results of the study showed that more, that is, 16.7% (n=8) of NQMs perceived themselves as having some knowledge/experience of performing an episiotomy if necessary. Most of the supervisors, that is, 46.2 % (n=12) rated NQMs as competent and can perform an episiotomy if necessary without support. Less supervisors, that is, 19.2 % (n =5) and NQMs, that is, 16.7% (n=8) gave a rating of competent, experienced and able to teach others to perform episiotomy. The mean score was 3.57. The standard deviation was .923.

A significant number, that is, 36.2% (n=17) of NQMs rated themselves as competent, experienced and able to teach others to deliver a baby safely following the mechanism of labour whereas 30.8% (n= 8) of supervisors perceived NQMs competent, experienced and able to deliver a baby safely following the mechanism of labour independently. Furthermore, the results showed that supervisors rated NQMs slightly lower than they rated themselves, in that, 42.3% (n=11) of supervisors perceived NQMs to be competent and can deliver the baby safely following the mechanism of labour without support (level 3); 42.6 % (n=20) of NQMs rated themselves competent, experienced, and able to function independently (level 4). The mean score was 4.03. The standard deviation was .816.

The results showed that 18.8% (n=9) of NQMs, perceived themselves to be competent, and can perform passive and active management of the 3rd stage of labour without support. Only 26.9% (n=7) of supervisors rated them as competent, experienced and able to teach others to perform passive and active management of the 3rd stage of labour. There were more differences than similarities between the two groups in that the majority, that is, 43.7% (n=21) of NQMs rated themselves as competent, experienced and able to teach others whereas most of the supervisors, that is, 42.4% (n=11) perceived NQMs to be competent and can perform passive and active management of the 3rd stage of labour without support. The mean score was 4.03. The standard deviation was .906.

According to the results of this study a significant number, that is, 33.3% (n=16) of NQMs perceived themselves to be competent, experienced and able to administer oxytocin with or immediately after the delivery of the baby independently; 30.8% (n=8) supervisors rated NQMs as competent and can administer oxytocin with or immediately after the delivery of the baby without support. There were more similarities than differences between the two groups when, most, that is, 43.85% (n=21) of NQMs and most of supervisors, comprising 34.6 %.(n=9) perceived NQMs as competent, experienced and able to teach others regarding the administration of oxytocin with or immediately after the delivery of the baby. The mean score was 4.08. The standard deviation was .903.

Findings in this study revealed that only 21.3% (n=10) of NQMs perceived themselves as competent and can examine the perineum and vulva for lacerations without support. Most, that is, 42.3% (n=11) of the supervisors rated NQMs to be competent, and can

examine the perineum and vulva for lacerations without support. NQMs were more positive in their ratings than the supervisors; most of them, that is, 44.7% (n=21) perceived themselves to be competent, experienced and able to teach others regarding examination of the perineum and vulva for lacerations as opposed to only 23.1% (n=6) of supervisors who perceived them as such. The mean score was 4.08. The standard deviation was .812.

The results in this study revealed that a significant number, that is, 34% (n=16) of NQMs perceived themselves as competent, experienced and able to perform management of the 4th stage of labour independently. Only 19.2% (n=5) of supervisors perceived NQMs to be competent, experienced and able to perform management of the 4th stage of labour independently. Supervisors were more critical of the NQMs, in that, 42.3% (n=11) of supervisors rated them as competent and can perform management of the 4th stage of labour without support, whereas 46.6% (n=22) of NQMs rated themselves as competent, experienced and able to teach others to perform management of the 4th stage of labour. The mean score was 4.16. The standard deviation was .834.

Results of this study showed that 18.7% (n=9) of NQMs perceived themselves as competent and can check the uterus post delivery without support, however, 30.8% (n=8) of supervisors rated NQMs as competent, experienced and able to check the uterus post delivery independently. NQMs were more positive in their ratings than the supervisors as most of them, that is, 43.8% (n=21) perceived themselves as competent, experienced and able to teach others to check the uterus post delivery, whereas a significant number of supervisors, that is, 38.5% (n=10) perceived NQMs as competent and can check the

uterus post delivery without support. The mean score was 4.07. The standard deviation was .865.

Findings in this study revealed that some 25 % (n=12) of NQMs rated themselves as competent, experienced and able to examine the placenta and membranes independently, while 30.8% (n=8) of supervisors perceived NQMs as competent and can examine the placenta and membranes without support. There were, however, more similarities than differences as significant numbers of both groups, that is, 47.9% (n=23) of NQMs and 38.5% (n=10) of supervisors, rated NQMs as competent, experienced and able to teach others about the examination of the placenta and membranes .The mean score was 4.11. The standard deviation was. 930.

Results showed that 37.5% (n=18) of NQMs perceived themselves as competent, experienced and able to assess blood loss independently. Most, that is, 38.5% (n=10) of the supervisors perceived NQMs to be competent, and can assess blood loss without support. There was congruency between 38.4% (n=10) of supervisors and 45.8. % (n=22) of NQMs who both perceived NQMs to be competent, experienced and able to teach others regarding the assessment of blood loss. The mean score was 4.14. The standard deviation was .881.

Findings of this particular study revealed that 333.3 %(n=16) of NQMs rated themselves as competent, experienced and able to suture episiotomy independently; however, 11.5% (n=3) of supervisors rated NQMs as having some knowledge/experience of suturing episiotomy. Supervisors were more critical of NQMs as most of them, that is, 34.6%

(n=9) rated NQMs as competent and able to suture episiotomy without support (level 3), whereas the majority of the NQMs, that is, 54.2%9(n=26) perceived themselves as competent, experienced and able to teach others to suture episiotomy (level 5). Only 23.1% (n=6) of supervisors rated them as competent, experienced and able to teach others to suture episiotomy. The mean score was 4.14.The standard deviation was .911.

The results showed that very few, that is, 15.4% (n=4) of supervisors perceived NQMs as competent, experienced and able to teach others about detection and management of potential and actual problems of labour and appropriate referral. There were more differences than similarities between the two groups; most of the NQMs, that is, 44.7% (n=21) rated themselves competent, experienced, and able to detect and manage potential and actual problems of labour and refer appropriately and independently, whereas a significant number of supervisors 42.3% (n=11) perceived NQMs as competent, and can detect and manage potential and actual problems of labour and refer appropriately without support. The mean score was .3.78. The standard deviation was .901.

4.3.3.3 Pueperium care skills

The researcher in this section aimed at establishing competencies of NQMs during pueperium. (See Table 4.17).

Pueperium	NEWLY QUALIFIED MIDWIVES					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1 Recognize the physiological changes in the reproductive system		4.2 (2)	27.1 (13)	29.1 (14)	39.6 (19)		3.8 (1)	42.4 (11)	26.9 (7)	26.9 (7)
2 Inspect and record vaginal discharge	2.1 (1)	12.5 (6)	27.1 (13)	35.4 (17)	22.9 (11)	.0 (0)	3.8 (1)	42.4 (11)	26.9 (7)	26.9 (7)
3 Perform a vulva swabbing		4.2 (2)	33.3 (16)	37.5 (18)	25 (12)		3.8 (1)	30.8 (8)	34.6 (9)	30.8 (8)
4 Conduct a thorough physical and psychological assessment of the pueperium women		4.3 (2)	23.3 (11)	44.7 (21)	27.7 (13)		3.8 (1)	38.5 (10)	38.5 (10)	19.2 (5)
5 Educate mother on lactation Rank in maternity			8.5 (4)	40.4 (19)	51.1 (24)			38.4 (10)	30.8 (8)	30.8 (8)
6 Teach the mother the technique of breast feeding		.0 (0)	21.3 (10)	55.3 (26)	23.4 (11)		7.7 (2)	30.8 (8)	34.6 (9)	26.9 (7)
7 Identify problems and potential problems in the care of the mother and baby in the pueperium		.0 (0)	19.1 (9)	44.7 (21)	36.2 (17)		3.8 (1)	50 (13)	30.8 (8)	15.4 (4)
8 Demonstrate post-natal exercise to the women in the pueperium		.0 (0)	25 (12)	33.3 (16)	41.7 (20)		11.5 (3)	38.5 (10)	34.6 (9)	15.4 (4)
9 Give relevant health education		0 (0)	21.3 (10)	42.5 (20)	36.2 (17)		7.7 (2)	38.5 (10)	34.6 (9)	19.2 (5)

Table 4.17: Pueperium care skills

Results of this study showed that only 4.2% (n=2) of NQMs perceived themselves as having some knowledge /experience of recognizing the physiological changes in the

reproductive system while, 26.9% (n=7) of supervisors rated them as competent, experienced and able to do so independently. Furthermore, results revealed incongruence as the majority, that is, 42.4% (n=11) of supervisors perceived NQMs as competent and able to recognize the physiological changes in the reproductive system without support, while 39.6% (n=19) of NQMs perceived themselves competent, experienced and able to teach others to recognize the physiological changes in the reproductive system. The mean score was 3.95. The standard deviation was .920.

Results showed that only a small number, that is, 22.9% (n=11) of NQMs rated themselves as competent, experienced and able to teach others regarding inspection and recording of vaginal discharge. Only a few, that is, 26.9% (n=7) of supervisors rated NQMs to be competent, experienced, and able to inspect and record vaginal discharge independently. NQMs were more positive in their ratings than the supervisors; most, that is, 35.4% (n=17) of them perceived themselves as competent, experienced, and able to inspect and record vaginal discharge independently, whereas 42.4% (n=11) of supervisors perceived NQMs as competent and can inspect and record vaginal discharge without support. The mean score was 3.69. The standard deviation was .992.

Findings of this study revealed that a significant number, that is, 33.3% (n=16) of NQMs perceived themselves as competent and can perform vulva swabbing without support; 30.8% (n=8) of supervisors rated NQMs as competent, experienced and able to teach others vulva swabbing. There were more similarities than differences as both groups, that is, 37.5% (n=18) of NQMs and 34.6 % (n=9) of supervisors perceived NQMs as competent, experienced and able to perform vulva swabbing independently. The mean

score was 2.85. The standard deviation was .963.

The results of this study showed that a few, that is, 27.7% (n=13) of NQMs perceived themselves as competent, experienced and able to teach others to conduct a thorough physical and psychological assessment of the pueperium woman. Some of the supervisors, that is, 38.5% (n=10) perceived NQMs to be competent, and can conduct a thorough physical and psychological assessment of the pueperium woman without support. Although both groups scored high ratings regarding this item, the majority, that is, 44.7% (n=21) of NQMs perceived themselves competent, experienced and able to conduct a thorough physical and psychological assessment of the pueperium woman independently compared to a few, that is, 38.5% (n=10) of supervisors who perceived NQMs as such. The mean score was .3.78. The standard deviation was .901.

Results showed that very few, that is, 8.5% (n=4) of NQMs rated themselves as competent, and can educate a mother on lactation without support; 30.8. % (n=8) of supervisors rated NQMs competent, experienced and able to educate mothers on lactation independently. Responses from both groups, that is, 51.1 % (n=24) of NQMs and 30.8. % (n=8) of supervisors indicated that NQMs were competent, experienced and able to teach others to educate a mother on lactation. The mean score was 4.25 and the standard deviation was .760.

Findings revealed that only 23.4% (n=11) of NQMs perceived themselves as competent, experienced and able to teach others how to teach the mother the technique of breast feeding. Only a few, 26.9% (n=7) of supervisors perceived NQMs to be competent,

experienced and able to teach others how to teach the mother the technique of breast feeding. NQMs rated themselves slightly higher than the supervisors; 55.3% (n=26) of the NQMs perceived themselves as competent, experienced and able to teach the mother the technique of breast feeding independently as against 30.8% (n= 8) of supervisors who perceived NQMs to be competent, and can educate mother on lactation without support. The mean score was 3.95. The standard deviation .848.

The results of this study showed that 44.7% (n=21) of NQMs rated themselves as competent, experienced and able to identify problems and potential problems when caring for the mother and baby in the pueperium independently. Very few, that is, 15.4% (n=4) of supervisors perceived NQMs as competent, experienced and able to teach others about the identification of problems and potential problems when caring for the mother and baby in the pueperium; 36.2% (n=17) NQMs rated themselves as such. Half of the supervisors, that is, 50% (n=13) rated NQMs to be competent and can perform most of the activities without support. The mean score was 3.95. The standard deviation was .848. Results showed that 41.7% (n=20) of NQMs perceived themselves as competent, experienced and able to teach others to demonstrate post natal exercises to the women in the pueperium. Most supervisors, that is, 38.5 % (n=10) perceived NQMs to be competent and can demonstrate post natal exercises without support; however, responses from both groups, that is, 33.3 %(n=24) NQMs and 34.6. % (n=8) of supervisors indicated that NQMs were competent, experienced and able to demonstrate post natal exercise independently. The mean score was 3.95. The standard deviation was .890.

Findings revealed that the majority, that is, 42.5 (n=20) of NQMs perceived themselves

to be competent, experienced and able to give relevant health education independently, 38.5 % (n=10) of supervisors rated NQMs to be competent and can give relevant health education without support. There was in congruency as very few, that is, 19.2% (n=5) of supervisors perceived NQMs as competent, experienced and able to teach others to give relevant health education compared to most NQMs, that is, 36.2% (n=17) who perceived themselves as competent, experienced and able to teach others to give health education. The mean score was 3.97. The standard deviation was .833.

4.3.3.4 Neonatal care skills

In this section both NQMs and supervisors responded to questions on neonatal care skills of NQMs. (See Table 4.18)

Neonatal care	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1. Perform a comprehensive assessment of the neonate		10.4 (5)	27.1 (13)	37.5 (18)	25.0 (12)		7.6 (2)	38.5 (10)	38.5 (10)	15.4 (4)
2. Plan, implement, evaluate care of the neonate		.0 (0)	22.9 (11)	37.5 (18)	39.6 (19)		3.8 (1)	42.3 (11)	42.3 (11)	11.5 (3)
3. Assess Apgar score		.0 (0)	35.4 (17)	29.2 (14)	35.4 (17)		3.8 (1)	42.3 (11)	30.8 (8)	23.1 (6)
4. Identify the newborn		8.3 (4)	31.3 (15)	35.4 (17)	25.0 (12)		.0 (0)	34.6 (9)	38.5 (10)	26.9 (7)
5. Administer vitamin K 1		2.1 (1)	20.8 (10)	33.3 (16)	43.8 (21)	3.8 (1)	.0 (0)	26.9 (7)	15.5 (4)	53.8 (14)
6. Perform	.0	2.1	8.3	33.3	56.3	4.0	.0	40	28	28

	eye care	(0)	(1)	(4)	(16)	(27)	(1)	(0)	(10)	(7)	(7)
7.	Perform cord care	.0 (0)	.0 (0)	10.6 (5)	27.7 (13)	61.7 (29)	4.0 (1)	4.0 (1)	32 (8)	24 (6)	36 (9)
8.	Perform first baby bath	.0 (0)	.0 (0)	12.5 (6)	33.3 (16)	54.2 (26)	3.8 (1)	3.8 (1)	38.5 (10)	30.8 (8)	23.1 (6)
9.	Complete birth notification		.0 (0)	17.0 (8)	29.8 (14)	53.2 (25)		11.5 (3)	38.5 (10)	26.9 (7)	23.1 (6)
10.	Administer B.C.G and polio drops	10.4 (5)	2.1 (1)	22.9 (11)	25.0 (12)	39.6 (19)	.0 (0)	3.8 (1)	34.6 (9)	23.1 (6)	38.5 (10)
11.	Implement the scientific care of the neonate with complications	4.2 (2)	8.3 (4)	18.8 (9)	33.3 (16)	35.4 (17)	.0 (0)	.0 (0)	40 (10)	20 (5)	40 (10)
12.	Nurse baby receiving photo-therapy	.0 (0)	6.5 (3)	28.3 (13)	30.4 (14)	34.8 (16)	3.9 (1)	7.7 (2)	34.6 (9)	26.9 (7)	26.9 (7)
13.	Baby bath in an incubator	.0 (0)	10.4 (5)	33.3 (16)	33.3 (16)	22.9 (11)	3.9 (1)	7.7 (2)	34.6 (9)	26.9 (7)	26.9 (7)
14.	Perform a stomach washout	2.1 (1)	6.3 (3)	31.2 (15)	35.4 (17)	25 (12)	7.7 (2)	19.2 (5)	23.1 (6)	23.1 (6)	26.9 (7)
15.	Give a nasogastric feed	4.2 (2)	16.7 (8)	20.8 (10)	35.4 (17)	22.9 (11)	.0 (0)	7.7 (2)	38.5 (10)	26.9 (7)	26.9 (7)
16.	Perform a dextro sticks	2.1 (1)	18.8 (9)	20.8 (10)	31.3 (15)	27 (13)	11.5 (3)	15.4 (4)	30.8 (8)	15.4 (4)	26.9 (7)
17.	Perform a total serum bilirubin	6.3 (3)	.0 (0)	33.3 (16)	35.4 (17)	25.0 (12)	7.7 (2)	19.2 (5)	38.5 (10)	11.5 (3)	23.1 (6)

Table 4.18: Neonatal care skills

The results of this study showed that most NQMs, that is, 37.5% (n=18) rated themselves as competent, experienced and able to perform a comprehensive assessment of the neonate independently. The majority, that is, 38.5% (n=10) of supervisors perceived NQMs to be competent, and can perform a comprehensive assessment of the neonate without support. A few responses from both groups, that is, 25% (n=12) of NQMs and 15.4% (n= 4) of supervisors indicated that NQMs were competent, experienced and able to teach others to perform a comprehensive assessment of the neonate. The mean score was 3.72. The standard deviation was .914.

Regarding planning, implementation and evaluation of care of the neonate, the findings of this study showed that a few, that is, 22.9 %(n=11) of NQMs perceived themselves as competent, and can plan, implement and evaluate care of the neonate without support. Only 11.6% (n=3) of supervisors perceived NQMs as competent, experienced, and able to teach others to plan, implement and evaluate care of the neonate. Responses from both groups indicated that while the majority, that is, 42.3% (n=11) of supervisors rated NQMs as competent and can plan, implement and evaluate care of the neonate without support, most NQMs, that is, 39.6% (n=19) perceived themselves as competent, experienced, and able to teach others. The mean score was 3.97. The standard deviation was .810.

Results of this study showed that a significant number, that is, 35.4% (n=17) of NQMs rated themselves as competent, experienced and able to teach others to assess the Apgar score; 30.8% (n=8) of supervisors rated NQMs competent, experienced, and able to assess Apgar score independently. The NQMs rated themselves higher than did the

supervisors; most, that is, 35.4% (n=17) of the NQMs rated themselves as competent, experienced and able to teach others to assess the Apgar score, whereas the majority of the supervisors, that is, 42.3% (n=11) perceived them as competent, and can assess Agpar score without support. The mean score was 3.91. The standard deviation was .863.

Findings showed that 31.3% (n=15) of NQMs perceived themselves as competent and can identify the newborn without support; however most, that is, 38.5% (n=10) of supervisors rated NQMs to be competent, experienced and able to identify the newborn independently. Consistent ratings were obtained as both supervisors and NQMs comprising 26.9% (n=7) and 25.0% (n=12) respectively rated NQMs as of competent, experienced and able to teach others about identification of a newborn. The mean score was 3.82. The standard deviation was .882.

Results of this particular study showed that 33.3% (n=16) of NQMs perceived themselves as competent, experienced and able to administer vitamin K 1 independently. Some of the supervisors, that is, 26.9% (n=7) perceived NQMs as competent and can administer vitamin k 1 without support. Both groups scored high ratings regarding this item; the majority of supervisors, that is, 53.8% (n=14) perceived NQMs to be competent, experienced and able to teach others about the administration of vitamin K1; most, that is, 43.8% (n=21) of NQMs rated themselves and competent, experienced and able to teach this skill. The mean score was 4.18. The standard deviation was .927.

Regarding performing eye care, 8.3% (n=4) of NQMs perceived themselves as competent and can perform most of the related activities without support. Only 28.0% of (n=7) of

supervisors rated NQMs as competent, experienced and able to teach others. There was incongruence as the majority, that is, 40.0 % (n=10) of supervisors perceived NQMs as competent and can perform most of the activities without support; this was in sharp contrast to the majority of NQMs, that is, 56.3% (n=27), who rated themselves as competent, experienced and able to teach others. The mean score was 4.21. The standard deviation was .897.

Results showed that 27.7% (n=13) of NQMs rated themselves as competent, experienced and able to perform cord care independently. Some supervisors, that is, 32.0% (n= 8) perceived NQMs as competent and can perform cord care without support. According to the majority of NQMs, 61.7% (n=29) of NQMs perceived themselves as competent, experienced and able to teach others to perform eye care, whereas only 36.0% of supervisors rated them as such. The mean score was 4.28. The standard deviation was .907.

The findings in this particular study revealed that 33.3% (n=16) of NQMs rated themselves as competent, experienced and able to perform the first baby bath independently. Some supervisors, that is, 38.5% (n=10) rated NQMs as competent and can perform first baby bath without support. A high number, that is 54.2% (n=26) of NQMs perceived themselves as competent, experienced and able to teach others to perform the first baby bath, compared to only 23.1% (n=6) of supervisors who rated NQMs as competent, experienced and able to teach others to perform the first baby bath. The mean score was 4.15. The standard deviation was dev .902.

The results showed that 29.8 % (n=14) of NQMs rated themselves as competent, experienced and able to complete a birth notification form independently. Only 23.1% (n=6) of supervisors rated NQMs as competent, experienced and able to teach others to complete a birth notification form. NQMs were more positive in their ratings than the supervisors; the majority of them, that is, 53.2% (n= 25) rated themselves as competent, experienced and able to teach others to complete a birth notification form, whereas 38.5% (n=10) of supervisors perceived NQMs as competent and can complete birth notification form without support. The mean score was 4.10. The standard deviation was .915.

According to the results, 10.4% (n=5) of NQMs perceived themselves as having no knowledge/experience of administering a B.C.G and polio drops; 34.6% (n=9) of supervisors perceived NQMs to be competent and can administer a B.C.G and polio drops without support. Both groups scored high ratings regarding this item; most, that is, 38.5% (n=10) of supervisors perceived NQMs as competent, experienced and able to teach others to administer a B.C.G and polio drops and 39.6% (n=19) of NQMs perceived themselves as such. The mean score was 3.86. The standard deviation was 1.174.

Results of this study showed that 18.8%. (n=9) of NQMs perceived themselves as competent and can implement scientific care of the neonate with complications without support. Supervisors, that is, 20.0% (n=5) perceived NQMs to be competent, experienced and able to implement scientific care of the neonate with complications independently. Findings showed that supervisors were more positive than NQMs as 40.0%. (n=10) of them rated NQMs to be competent, experienced and able to teach others about implementing scientific care of the neonate with complications, whereas only a few

NQMs, that is, 35.4% (n=17) perceived themselves as such. The mean score was 3.78. The standard deviation was .901.

Findings showed that 30.4% (n=14) of NQMs perceived themselves as competent, experienced and able to nurse a baby receiving photo-therapy independently. Few supervisors, that is, 26.9% (n=7) rated them as competent, experienced and able to teach others to nurse a baby receiving photo-therapy, 34.8% (n=16) of NQMs perceived themselves as competent, experienced and able to teach others to nurse a baby receiving photo-therapy. Most, that is, 34.6% (n=9) of the supervisors perceived NQMs to be competent and can nurse a baby receiving photo-therapy without support. The mean score was .3.78. The standard deviation was 1.00.

The results in this particular study revealed that 33.3% (n=16) of NQMs rated themselves as competent, experienced and able to bath a baby in an incubator independently. Most supervisors 34.6% (n=9) perceived NQMs to be competent and can bath a baby in an incubator without support. About 26.9% (n=7) of supervisors and 22.9% (n=11) of NQMs perceived NQMs to be competent, experienced and able to teach others to bath a baby in an incubator. The mean score was 3.78. The standard deviation was .995.

Results of this study showed that only a few, that is, 25.0 % (n=12) of NQMs perceived themselves as competent, experienced and able to teach others to perform a stomach washout while 23.1% (n=6) of supervisors rated them as competent, and can perform stomach washout without support. A higher number of NQMs, that is, 35.4% (n=17) rated themselves as competent, experienced, and able to perform stomach washout

independently, than the 19.2% (n=5) of supervisors who perceived them to have some knowledge/experience in this regard. The mean score was 3.64. The standard deviation was 1.105.

Results showed that a few of the NQMs, that is, 22.9 (n=11) perceived themselves as competent, experienced, and able to teach others the giving of a nasogastric feed. Only 26.9% (n=7) of supervisors rated NQMs as competent, experienced, and able to give a nasogastric feed independently. NQMs rated themselves slightly higher than the supervisors, as 35.4% (n=17) perceived themselves as competent, experienced and able to give a nasogastric feed independently (level 4). The majority, that is, 38.5% (n=10) of supervisors perceived NQMs to be competent, and can give nasogastric feed without support (level 3). The mean score was .3.62. The standard deviation was 1 .082.

The results in this study revealed that a few NQMs, that is, 18.8 % (n=9) rated themselves as having some knowledge /experience of performing a dextrosticks; 30.8% (n=8) of supervisors perceived NQMs as competent and can perform a dextrosticks without support. Responses from both groups indicated that a few, that is, 27 % (n=13) of NQMs and 26.9 %(n=7) of supervisors perceived NQMs as competent, experienced and able to teach others to perform a dextrosticks. The mean score was 3.51. The standard deviation was 1.219.

According to the findings of this study 33.3% (n=16) of NQMs rated themselves as competent and can perform a total serum bilirubin without support. Some supervisors; that is, 23.1. % (n=6) rated NQMs to be competent, experienced and able to teach others

about performing a total serum bilirubin. There was some degree of variation in appraisal of this competency with most, that is, 38.5% (n=9) of supervisors rating NQMs as competent and can perform a total serum bilirubin without support as opposed to 35.4. % (n=10) of NQMs who perceived themselves as competent, experienced and able to perform a total serum bilirubin independently. The mean score was 3.55. The standard deviation was 1.136.

4.3.3.5 Record keeping and legislation

This section intended to solicit NQMs and their supervisors' perceptions concerning recording keeping and legislation. (See Table 4.19).

Record Keeping and legislation	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1 Complete necessary documentation relating to live and stillbirths		14.9 (7)	19.2 (9)	40.4 (19)	25.5 (12)		3.8 (1)	46.2 (12)	34.6 (9)	15.4 (4)
2 Display effective written communication with patient, family, community and multi-disciplinary team	14.9 (7)	25.5 (12)	23.4 (11)	19.1 (9)	17.1 (8)	.0 (0)	7.7 (2)	46.2 (12)	26.9 (7)	19.2 (5)
3 Display effective verbal communication with patient, family,	2.1 (1)	2.1 (1)	22.9 (11)	60.4 (29)	12.5 (6)	.0 (0)	3.8 (1)	30.8 (8)	42.3 (11)	23.1 (6)

community and multi-disciplinary team										
4 Keeping a legal records and documents	4.1 (2)	16.7 (8)	37.5 (18)	25. (12)	16.7 (8)	.0 (0)	3.8 (1)	42.3 (11)	30.8 (8)	23.1 (6)
5 Record data accurately	2.9 (1)	14.3 (5)	14.3 (5)	54.2 (19)	14.3 (5)	.0 (0)	.0 (0)	38.4 (10)	30.8 (8)	30.8 (8)

Table 4.19: Record keeping and legislation skills

Findings of this particular study showed that 19.2% (n=9) of NQMs rated themselves as competent, experienced, and can complete the necessary documentation relating to live and stillbirths without support. Only 15.4 % (n=4) of supervisors rated NQMs as competent, experienced and able to teach others to complete the necessary documentation relating to live and stillbirths. There were more differences than similarities; the majority, that is, 46.2% (n=12) of supervisors perceived NQMs as competent and can complete the necessary documentation relating to live and stillbirths without support, whereas the majority, that is, 40, 4% (n=19) of NQMs perceived themselves as competent, experienced and able to function independently in this regard. The mean score was 3.71. The standard deviation was. 935.

According to the results of this study, a few, that is, 14.9% (n=7) of NQMs perceived themselves as having no knowledge/experience of displaying effective written communication with the patient, family, community and multi-disciplinary team. Some 26.9% (n=7) of supervisors rated NQMs as competent, experienced, and able to display effective written communication with the patient, family, community and multi-

disciplinary team independently. NQMs, however, rated themselves slightly lower than the supervisors, as while 25.5% (n=12) of NQMs perceived themselves as having some knowledge/experience of displaying effective written communication with patient, family, community and multidisciplinary team, the majority, that is, 46.2% (n=12) of the supervisors rated them as competent, and can perform most of the activities without support. The mean score was 3.19. The standard deviation was 1.221

Findings of this particular study showed that only 12.5% (n=6) of NQMs rated themselves competent, experienced and able to teach others about displaying effective verbal communication with a patient, family, community and multi-disciplinary team. 30.8% (n=8) of supervisors rated NQMs as competent, and can display effective verbal communication with a patient, family, community and multi-disciplinary team without support. The results from both groups, that is, 42.3% (n=11) of supervisors and 60.4% (n=29) of NQMs indicated that NQMs were competent, experienced and able to display effective verbal communication with the patient, family, community and multidisciplinary team independently. The mean score was 3.16. The standard deviation was .609.

A few, that is, 16.7 %(n=8) of NQMs perceived themselves as competent, experienced and able to teach others keeping of legal records and documents. Findings further revealed that 30.8% (n=8) of supervisors rated NQMs to be competent, experienced and able to keep legal records and documents independently. Exactly 42.3% (n=11) of supervisors and 37.5% (n=18) of NQMs rated NQMs competent and can keep legal records and documents without support. The mean score was 3.55.The standard deviation

was 1.136.

The results in this study revealed that a few NQMs, that is, 14.3 % (n=5) rated themselves as having some knowledge/experience of recording data accurately; 38.4% (n=10) of supervisors perceived NQMs to be competent, and can record data accurately without support. Also, results showed that supervisors rated NQMs slightly higher than they themselves did. Most, that is, 30.8 % (n=8) of them perceived NQMs to be competent, experienced and able to teach others to record data accurately, while most of the NQMs, that is, 54.2% (n=19) perceived themselves to be competent, experienced and able to record data accurately and independently. The mean score was 3.55. The standard deviation was 1.136.

4.3.3.6 Medication used in obstetrics

The results of the perception of both groups regarding medication used in obstetrics competencies of NQMs will be reported based on the following subheadings: administer medications correctly according to prescription, legislation and scope of practice, recognize adverse effects of medication and take appropriate action and apply knowledge of drug interactions when prescribing and administering medications (See Table 4.20).

Medication used in obstetrics	NQMs					SUPERVISORS				
	1	2	3	4	5	1	2	3	4	5
	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)	% (F)
1 Administer medications correctly according to prescription, legislation and scope of practice	2.1 (1)	2.1 (1)	22.9 (11)	60.4 (29)	12.5 (6)	.0 (0)	3.8 (1)	34.6 (9)	30.8 (8)	30.8 (8)
2 Recognize adverse effects of medication and take appropriate action	2.1 (1)	2.1 (1)	25 (12)	37.5 (18)	33.3 (16)	.0 (0)	7.7 (2)	26.9 (7)	38.5 (10)	26.9 (7)
3 Apply knowledge of drug interactions when prescribing and administrating medications		4.2 (2)	33.2 (16)	31.3 (15)	31.3 (15)		15.4 (4)	23.1 (6)	34.6 (9)	26.9 (7)

Table 4.20: Medication used in obstetrics

The results of this study showed that very few, that is, 12.5% (n=16) of NQMs perceived themselves as competent, experienced and able to teach others to administer medication correctly according to prescription, legislation and scope of practice; 34.6% (n= 9) of supervisors rated NQMs as competent and can administer medication correctly according to prescription, legislation and scope of practice without support. The results further showed a high number, that is, 60.4% (n= 29) of NQMs rating themselves as competent, experienced, and able to administer medication correctly according to prescription, legislation and scope of practice independently compared to very few, that is, 30.8% (n=8) of supervisors who perceived them as such. The mean score was 3.82. The standard deviation was dev .817.

According to the findings of this study, 33.3% (n=16) of NQMs perceived themselves as competent, experienced and able to teach others recognition of adverse effects of medication and could take appropriate action, whereas only 26.9% (n=7) of supervisors perceived them as such. The results from both groups, that is, 38.5% (n=10) of supervisors and 37.5% (n=18) of NQMs indicate that NQMs are functioning at a level of being competent, experienced and able to recognize adverse effects of medication and take appropriate action independently. The mean score was 3.93 and the standard deviation was .926.

The results of this study revealed that only 31.3% (n=15) of NQMs perceived themselves to be competent, experienced and able to teach others about the application of knowledge of drug interactions when prescribing and administering medications. Also, very few, that is, 15.4% (n=4) of supervisors perceived NQMs to have some knowledge /experience of application of knowledge of drug interactions when prescribing and administering medications. However, NQMs, rated themselves slightly lower than the supervisors as 33.2% (n=16) of them rated themselves as competent and can apply knowledge of drug interactions when prescribing and administering medications without support, whereas the majority of supervisors, that is, 34.6% (n=9) rated NQMs to be competent, experienced and able to apply knowledge of drug interactions when prescribing and administering medications independently. The mean score was 3.84 and the standard deviation was .951.

4.4 Conclusion

In this chapter, the researcher analyzed data using tables to illustrate the results of the study. The results were grouped according to the different skills. These results are discussed and interpreted in chapter 5.

CHAPTER FIVE

DISCUSSION AND INTEPRETATION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion and interpretation of findings in relation to existing literature or text; it also provides recommendations and a conclusion to this study. To re-iterate, the purpose of this study was to explore and describe clinical competencies of NQMs in selected hospitals at the eThekwini Municipality. Twenty-six supervisors and 48 NQMs in midwifery units participated in this study. This chapter starts by presenting a discussion and interpretation of findings on demographic data, perceptions regarding cognitive competencies, which include problem-solving skills, research-related to competencies, clinical judgment, teaching and administration/ management, affective skills and psychomotor skills. The latter part presents the conclusion and recommendations.

5.2 Demographic data

The majority of the supervisors (52%) completed a one-year midwifery diploma, 32% had a four-year comprehensive diploma and a small percentage (16%) completed a four-year comprehensive degree. The work experience of these supervisors ranged from 10 to 24 years. Explaining the importance of having many years' experience in the field when serving as a supervisor or mentor, Fisher and Webb (2008:39) state that many years of

experience improved mentors' confidence and the experienced ones were better at supporting mentees and that contributed to improving their skills of assessment and judgment.

All 48 NQMs who participated in this study completed a four-year comprehensive course and had less than one years' experience in maternity units. The rationale for excluding those midwives with more than one years' experience was in line with Chetty and Gwele's (2001:82) viewpoint that the length of clinical exposure did influence perceptions of competency positively. Regarding teaching methodologies to which the NQMs were subjected, the lecture method seemed to be the dominating method of teaching, followed by the lecture method combined with a number of innovative teaching methodologies such as the case-based approach, the problem-based and community-based approaches.

Establishing the teaching methodology used was critical because these approaches have different strengths. Some are recommended if the intention is to teach the content, while others are preferred if the intention is to develop certain skills or competencies. In support of the use of the lecture method, Charlton (2006) states that it is probably the best teaching method, especially for communicating conceptual knowledge. This researcher, however, acknowledges the limitation of this method in that it is not ideal as the main method in a competency-based curriculum. In line with Charlton's viewpoint, Azer (2009) asserts that the lecture method does not need to be the main method of

instruction, particularly when the aim of the curriculum is to enhance cognitive skills such as generating a hypothesis and enhancing professional attitudes, interpersonal skills, ethical and moral values, commitment and integrity, as well as practical skills. Viewpoints of such authors may have had an influence on the change observed in this study, regarding the teaching methodologies where, in this study, the lecture method was combined with other innovative methods of teaching such as PBL and case-based teaching. Azer (2009) is of the understanding that the lecture method cannot teach the psychomotor skills and cognitive skills needed for problem solving, patient management or development of a professional attitude. Nursing, including midwifery, requires all these skills to produce a competent graduate, hence the need to use a variety of methods of instruction in a midwifery programme.

5.3 Cognitive Skills

In this study cognitive skills were grouped into problem solving skills, research, clinical judgment, and teaching and administration/management skills.

5.3.1 Problem-solving skills

The majority of the participants in this study from both groups rated NQMs between levels three and four of competence in problem-solving skills. Although the majority rated NQMs as competent to a certain degree, 32.5% of NQMs rated themselves at level one, which means no knowledge or experience in obtaining adequate information from a client. The differences in the perceptions by this group of NQMs and the large percentage of supervisors, who perceived NQMs as competent and can, perform most of the

activities related to problem solving without support, resulted in a significant difference in findings with the Chi square test below 0.005. These findings are in line with Khoza's (1996:230) findings where the majority of professional nurses perceived newly qualified nurses as competent; however, the majority of newly qualified nurses viewed themselves as 'not yet competent.'

The findings in this study further revealed that the majority of NQMs were perceived to be competent to a certain extent in skills related to problem solving; skills such as assessing client's needs, formulating the nursing care plan independently, defining the client's problem and performing most of the activities related to problem solving without support. The findings in this study reflect some improvement in the level of competence of NQMs when compared with the findings from previous studies on newly-qualified nurses in South Africa. For example, in the study by Chabeli (1999:44), newly qualified nurses were found to be unable to apply the nursing process when caring for patients with congestive cardiac failure.

In this particular study the NQMs were perceived to be either at level 3 or 4 of competence in defining a client's problem and developing a care plan. In Lekhuleni's (2008:142) study, the participants reported that newly-qualified nurses had self-care deficits in the skill of health education but in this study NQMs were perceived to be somewhat competent in this area. In Lekhuleni's (2008:152) study the majority of newly-qualified nurses (93%) sought guidance from their mentors with regard to making a client diagnosis whereas in this study the NQMs were rated at levels three and four of

competence. In Khoza's (1996:139) study, newly-qualified nurses were perceived by professional nurses as incompetent when discriminating and synthesizing information obtained from assessments; this is contrary to the findings in this study.

The majority of supervisors (52%) in this study perceived NQMs to be at level 3 which means they can discriminate and synthesize information obtained from assessment without support. Sharing almost similar findings was the study by Hlongwa et al (2005:67) which revealed that comprehensively-prepared graduates from the R425 programme perceived themselves as competent in most of the problem-solving skills except in designing and implementing rehabilitation programmes.

5.3.2 Research-related skills

Research is an area that is still evolving, especially in midwifery practice. This was also observed in this study where NQMs were rated by both groups to be mainly between level 2 and 3 in the competences related to research. What was noted in this study, however, was that the NQMs rated themselves higher than the supervisors did in a number of research-related skills. For example, the majority of NQMs rated themselves at 3 and the majority of supervisors rated them at 2 in the ability to initiate research and ability to utilize research data to inform their practice. Taking into consideration the old curriculum to which most of the supervisors were exposed and in which research was not emphasized, and the new curriculum which has a component covering nursing research, it is not surprising that some of the supervisors were not aware of the new changes in the curriculum content; somehow their perceptions may be influenced by their previous

experience and reflections on the curricula to which they were exposed. More importantly, Nikodem (1998:2) points out that research in midwifery practice is still developing. It might be possible that these supervisors have never had an opportunity to witness NQMs engaged in research-conducting research is still in its infancy in the practice of midwifery.

The supervisors in this particular study rated NQMs lower (level 2) in identifying researchable midwifery problems and the majority of NQMs rated themselves at 3. A significant difference in findings was noted with a Chi square test of below 0.005. The better rating of NQMs by supervisors in identifying researchable midwifery problems may be associated with the findings from Meah et al (1996:75) study which reflected the fact that midwives viewed themselves as the closest professionals to the women who used the service and as such felt that they were in the best position to ask important research questions. More importantly, it is now a requirement in the four-year comprehensive programme that students undertake a research methodology course which for those undertaking this programme at degree level culminates in undertaking a mini research project following proposal development. In other nursing education institutions, especially nursing colleges, students only go as far as developing a research proposal, which according to Lekhuleni (2008:137), is not enough. Lekhuleni associates low competency levels in research with limited exposure of students to an actual research project even though they are being provided with some guidance in relevant proposal writing.

Reading and critically analyzing research is one of the critical skills required, especially in an era of evidence-based practice. The NQMs were, however rated by both groups at level 2 in the skill relating to reading and critically analyzing research and the skill of interpreting and applying findings to practice. Reading and critically analyzing research is a critical skill according to Paine (1991: 201) who asserts that a midwife must possess the skills necessary to read a professional article. Meah et al (1996:75) also reported difficulties experienced by midwives in reading published research. According to these authors this limitation contributed to midwives lack of self confidence which prevents them from attending educational courses designed to develop skills in critical appraisal. Emphasizing the importance of being able to read and critically analyze research articles, Korzier and Erb (2004:26) advised that if nurses were to use research, they must first learn to conduct a critical appraisal of research reports published in literature. As in this study, Lekhuleni's (2008: 140) study also showed that newly-qualified nurses, although they are not yet at expert level, they surely have some ability to put research into practice. This, however, is a skill that still needs attention in nursing and midwifery programmes in order to promote evidence-based practice. This author further indicated that the utilization of research knowledge has been described as one of the most urgent challenges in the field of nursing. Taylor (2008:2) too is of the view that strengthening this skill might be one of the solutions to addressing falling standards of care and in reducing reported high maternal and neonatal mortality rates being reported.

As in this particular study, literature has revealed a number of reasons for lower levels of competence in research and its utilization in practice. Taking into consideration

Nikodem's (1998:3) statement that midwifery research in South Africa is unfortunately not usually part of the practicing midwife's duties, one may understand why the newly qualified midwives are rated generally low in research skills. Although research is an important skill which should be shown to young nurses and midwives in day-to-day activities in practice settings, Lekhuleni (2008:140) associates poor utilization of research in practice with lack of time, presence of other goals with a higher priority, difficulty in recruiting and retaining staff, lack of organizational budgetary resources, an organizational perception of a lack of nurses eager for research and an organizational perception that research is not achievable in the real world. The work by Meah (1981:81) also revealed that some midwives reported difficulties in changing practice on the basis of research, because clients expected the same style of care they had received during earlier pregnancies. Another rationale that emerged from Khoza's (1996: 33) study for low competency levels in research skills was that research appeared to receive very little attention in the basic nursing educational programme. It also appears not to be emphasized, either in the scope of practice of a registered nurse (R2598). The low rating in research skills is not only reported in this study; inadequate confidence with regards to research competence upon graduation was also found in graduates of the study conducted by (Meah et al., 1996:75). Midwives felt they lacked the ability to evaluate research and the confidence to decide when it was appropriate to implement research findings.

5.3.3 Clinical judgment

The NQMs were perceived to be competent in most aspects of clinical judgment as the ratings by both graduates and their supervisors revealed that NQMs were functioning at

level 4. However, the difference was noted in the item related to interpreting verbal and non-verbal cues from clients. Most of the supervisors perceived NQMs, competent, experienced and able to interpret verbal and non-verbal cues from clients independently (level 4) whereas NQMs perceived themselves as having no knowledge /experience (level 1). On cross tabulation these results showed a significant difference between the responses of NQMs and those of supervisors. The low rating by NQMs is disconcerting since interpreting verbal and non-verbal cues from clients enables a midwife to identify a patient's needs and respond appropriately. The outcome of pregnancy and birth for a mother who has entrusted her life and her unborn child to a newly qualified midwife is dependent on the midwives ability to interpret accurately her needs, fears and feelings. The results of a study done by Fraser (2001:7) revealed that of particular importance to a few women was the ability of midwives to discern what was needed by responding to nonverbal cues. Veljoen cited in Lekhuleni (2008:125) asserted that the nurse should take note of verbal and non-verbal communication patterns during interaction with the patients. The nurse should continually compare the verbal messages from patients with the information detected through eye contact, facial expression, body language and gestures. Benner (1984:27) maintains though that competence is a process, hence one may therefore expect NQMs in this study to improve with time. Chetty and Gwele (2001:81) also are of the opinion that time spent in the working area had a definite effect on how graduates perceived their competencies.

Coiffi and Markham's (2008:270) findings suggest that the midwives used heuristics ('shortcut') techniques involving memories of particular cases during the decision

making process. They revealed that the more experienced the nurses are concerning relevant clinical phenomena, the more likely they are to manage complex decision-making situations adequately and to make appropriate judgments about patients. These findings support the results of this particular study in the sense that the midwives of this study did not have enough cases to recall that would facilitate interpretation of verbal and non-verbal cues from their clients since they were newly qualified midwives in this field.

There was, however, congruency in the rating related to the items 'prioritizing client's problems/needs; planning and organizing one's work daily, specifying midwifery intervention in order of priority and identifying preventive actions to minimize patient risk' . All these items above were perceived by both groups as being performed at level 4, which Benner describes as proficient performance. The fact that, overall, NQMs were perceived competent in most items of clinical judgment is commendable since in daily practice midwives must often cope with clinical decision-making situations in the absence of obstetricians. These findings show some development in the preparation of NQMs when compared with the study by Khoza in 1996. Khoza's (1996:220) study revealed that senior professional nurses perceived newly-qualified nurses to be incompetent in specific clinical judgment skills. Emphasizing the importance of clinical judgment skills, Coiffi et al (2005:131) state that in midwifery practice, clinical decision making involving higher cognitive skills is critical to the safety and treatment outcome of mothers and infants. The development of these skills in midwifery students is therefore mandatory.

NQMs in this study were perceived to be competent, experienced and able to prioritize clients' problems/needs independently. These findings were encouraging because the study by Fraser (1998:80) reported that ability to prioritize care appeared lacking in midwives during their first year of practice.

Respondents in this study perceived NQMs as functioning at level 4 on planning and organizing their daily work. Similar results to this study were revealed by Khoza (1996:142); senior professional nurses rated newly-qualified nurses competent in identifying preventive actions to minimize patient risk in general nursing unit. These findings reflect this as being a long-standing strength in the education and training programme as this was observed as far back as 1996.

The overall rating by both groups of level 4 performance by NQMs on clinical judgment, coupled with competent results on problem solving skills, demonstrates that teaching of nursing process as well as critical thinking skills were emphasized during training. The results are also in line with Lekhuleni's (2008: 142) findings which revealed that newly-qualified professional nurses were competent in making independent decisions during care of women in labour. It is no surprise that the NQMs in this study perceived themselves as having no knowledge/experience of interpreting verbal and non-verbal cues from clients; they cannot apply intuition since, according to Benner (1984:38), intuition is used by the expert practitioner who has very wide previous experience. This also confirmed the results of Crishaw's (1981:107) study that found that more clinical experience and previous experience in dealing with ethical dilemmas facilitated ethical

decision making. Coiffi (1998:18) asserts that teaching strategies that develop clinical decision–making skills are crucial. In conclusion, the low rating attributed to interpreting verbal and non-verbal cues from clients implies a lack of confidence in assessment skills. The fact that midwives have acquired their diplomas means that they do have the necessary theory to assist them to carry out this skill confidently. Milligan (1998:275), however, asserts that knowing relevant theory is not enough if it cannot be put into practice; therefore attention should be paid to this aspect during professional preparation.

5.3.4 Teaching-related competencies

Teaching is one of the competencies of a midwife irrespective of the level; (junior or senior). In this particular study NQMs were perceived by a majority to have skills that ranged from level 2 to level 4: advanced beginner, competent and proficient. The NQMs were found to be competent in identifying learning needs of clients and student midwives, in the use of teaching strategies, use of teaching aids and setting of learning objectives. The results of this particular study confirmed the results of the study by Moeti et al (2004:79) indicating that newly-registered nurses were competent in the education of students, clients, their relatives and members of the community. According to Moeti et al (2004), this skill is an important basic skill due to the role it plays in the prevention of disease and promotion of health. These results also support the findings by Khoza (1996: 220) who found that teaching clients and nurses was not perceived by senior professional nurses to be lacking when observing newly-qualified nurses in a midwifery unit.

Midwives do not only teach clients and their families; they also have to teach their

subordinates. The results of this study are commendable since Mellish (1984:48) states that a nurse has a duty and a responsibility to pass on knowledge and skills she has acquired, in the course of her professional practice, to other health professional neophytes. Furthermore, Currie (1999:284) asserts that midwife practitioners have a clearly-defined role in supporting students during their practice placements. They act as supporters, aiming to empower and enable; this should assist the student in the transition towards becoming a practitioner and facilitating professional socialization. The better rating in the teaching skill may be associated with the social learning theory where learners learn what is modelled to them in their social learning environment. This may mean that facilitators, either in class or a clinical setting, modelled good teaching skills to the students and this has been passed on to the students.

5.3.5 Administration/Management

The NQMs were rated by both groups consistently between levels 3 and 4 in all administration-related competencies; for example, record keeping, working with constrained resources, maintaining accountability, evaluating own practice, committing oneself to unit objectives and influencing and leading others. The consistently-high scores given by both NQMs and supervisors in all administrative skills is in contrast to previous studies. For example, in Moeti et al (2004) and Khoza (1996,) newly qualified nurses were found to lack good managerial skills. What was noted, however, was that NQMs were not confident about their record keeping ability in this study as they rated themselves lower than their supervisors. Ratings at level 3 and 4, although portraying a positive picture, means much still needs to be done. Rampfumedzi (2006:59) also noted

some concerns about record keeping in the midwifery unit. Rampfumedzi's study reported that documentation was incomplete and sometimes absent. Lack of knowledge and experience was cited in Rampfumedzi's study as one of the reasons for poor records. Other studies had contradictory findings; they were those by Khoza (1996:158), Fraser (1998:80), Lekhuleni (2008:45), Carrison, Kotze and Rooyen (2005:71), Hlongwa et al (2005:82). Although the NQMs were rated higher by the majority, that is, it was not an overwhelming majority i.e. 57.7% of the supervisors and 45.9% of NQMs.

5.4 Affective Skills

Affective skills included adaptive skills and interpersonal communication skills.

5.4.1 Adaptive/Adjustive skills

In adaptive skills, the NQMs were perceived to be between levels 3 and 4 by the majority of the participants. NQMs were perceived to be sensitive to people's feelings, had good listening skills and accepted criticism from colleagues. According to Sellers (2004:983), emotional support includes listening, expressing understanding and acceptance of the feelings expressed, no matter how different from your own they may be. These findings seem to be supported by Lekhuleni's findings (2008:153); here research revealed that newly-qualified nurses expected to accept criticism of their performance during mentoring. In line with these findings, Johnston et al (2008:50) published results that showed that new graduates found non-judgmental guidance to be supportive. Unsupportive behavior has been described as being overly critical of new graduates in front of patients and staff.

The findings further revealed that supervisors rated NQMs lower (level 3) in confidence in midwifery ability, working under pressure, and adjusting to the work environment whereas NQMs perceived themselves as level 4. According to Benner, during a competent level of development, which is level 3 in this study, nurses are viewed as having what it takes to function capably with an increased capacity to view situations holistically. Other studies such as Khoza (1996:164) and Thomka cited in Newton and McKenna (2007:4), however, contradict the results of this study. Khoza (1996:164) revealed that senior professional nurses perceived newly-qualified nurses in a midwifery unit to be inadequate regarding confidence in their nursing practice. Thomka, cited in Newton and McKenna (2007:4) also identified the fact that new graduates entered their graduate programme with a sense of feeling unprepared for their roles as new nurses. Chetty and Gwele (2001:82) were of the opinion that graduates needed more clinical exposure during their educational preparation in order to feel confident about their competency after graduation.

5.4.2 Interpersonal communication skills

Hlongwa et al (2005:68) revealed in their study that R425 graduates perceived themselves to be competent in communication or interpersonal relationships, including listening to clients and their families and communicating information to a member of the multi-disciplinary team. Butler, Fraser and Murphy (2008:265) associated midwive's good communication skills with exposure to problem-based learning (PBL). Although the study by Khoza (1996) did not specify the teaching methodology used, newly- qualified graduates were also found to be competent in communication skills. These authors

concurred with the view that PBL developed students' communication skills and ability to function in teams. The findings in this study show some improvement in the level of competence of NQMs when compared with the findings in the study by that of Lekhuleni (2008:156) who concluded that newly-qualified nurses were lacking in communication and listening skills. Emphasizing the importance of listening skills, Butler, Fraser and Murphy (2008:265) described listening as an element of being able to communicate effectively which is an essential attribute to be considered at midwifery registration.

The findings in this study also showed that newly-qualified midwives communicated in a professional and ethical manner. The NQM's were perceived to be competent in promoting their clients' right to privacy, respecting a client's freedom of choice and right to make decisions, supporting human dignity while engaging in professional practice, informing and discussing with clients their conditions (right to information), practice within the scope of a registered midwife, demonstrating knowledge of the ethics of midwifery and explaining procedures to a client. Consistency was noted in the ratings by both NQMs and their immediate supervisors. These findings are in line with those of Khoza, (1996:168); Kinnane, (2008:265); Glover, (1999:14) and Fraser (1998:90). These authors assert that midwives face many different, often difficult, ethical situations everyday which they have to deal with.

5.5 Perceived level of competence in psychomotor skills

Psychomotor skills required in midwifery clinical setting will be discussed with respect to antenatal care, intrapartum care, pueperium, neonatal care, record keeping, legislation

and medication used in obstetrics. According to Leap (2002:20), graduates of a midwifery education programme should be capable of taking responsibility for the total care of a woman throughout the women's pregnancy, labour, and birth and the early postnatal period.

5.5.1 Antenatal care skills.

Findings from the data collected in this particular study revealed that the majority from both NQMs and supervisors' groups rated NQMs as competent in all antenatal care skills with scores ranging between level 3 and level 5. The NQMs were perceived to be competent in skills such as history taking during antenatal care, conducting a thorough physical examination of the pregnant women, conducting abdominal palpation, calculating E.D.D using the wheel, performing a pelvic assessment to detect abnormalities and adequacy of pelvis, recognizing and giving advice relating to the minor and common disorders in pregnancy, teaching pregnant women to perform kick count chart, teaching them antenatal exercises, formulating a nursing care plan for identified needs, (including minor disorders), giving appropriate health education and referring where necessary. Midwives in the study by Gunathanga and Fernando (2000:313) also perceived themselves to be competent in antenatal care skills including conducting abdominal palpations. The rationale given by Johnson (2001:361) for competence in antenatal care phase and they are expected to provide information to women on antenatal screening, obtaining consent and either taking blood samples or arranging for this to be done. Sellers (2004:993) also asserts that the midwife with her basic knowledge and skills, working within her scope of practice, is responsible for taking a thorough history

and making a thorough examination at the initial antenatal visit. WHO (2005) pointed out that it is critical that skilled attendants, including midwives have good assessment skills because most of the maternal and neonatal deaths are related to poor assessment of clients. Assessment is the skill that is used throughout pregnancy, in detecting complications early and acting appropriately for the sake of the woman and the baby.

What was noted in this study, however, was the significant difference in the perceptions of NQMs and supervisors in screening high-risk pregnancies and identifying signs and symptoms of pregnancy; the majority of the NQMs (53.2%) rated themselves higher than their supervisors who rated them lower. The lower rating by the supervisors tallies with the findings in Prual, Toure, Huguet and Laurent's (2000:13) study which revealed that the quality of the screening for risk factors by midwives was poor. Fraser's study (1998: 165) also revealed that midwives at the booking interview seemed to lack knowledge of some of the screening tests.

A striking feature that emerged from this study was a large number (66.7%) of level 5 ratings by the NQMs. This implies that NQMs appeared to feel that they were able to carry out their professional roles as midwives with regard to antenatal care as laid down by their scope of practice, by the South African Nursing Council (Regulation 2488 of 26 1990). According to Benner (1994: 32) they are functioning at an expert level, that is, they have an intuitive grasp of each situation. In contrast, only calculation of E.D.D and undertaking common investigations were scored as expert performance by supervisors. Most of the items were scored as proficient performance by supervisors. There were

however, significant differences on: undertake and interpret common investigation, identify signs and symptoms of pregnancy and screen high risk pregnancies; NQMs rated themselves higher than the supervisors did.

5.5.2 Intrapartum care skills

Although the NQMs were not perceived to be at an expert level, it was encouraging to learn that they were perceived mainly by the majority of supervisors as competent in intrapartum care. A notable percentage of NQMs 29.8% considered themselves as still at a novice level, especially in skills such as obtaining a detailed history to confirm labour, performing a vaginal examination and manually determining intensity, duration and frequency of contractions. NQM's perceptions are in line with Benner's (1984: 20) notion that a newly-qualified nurse is a novice, one who has had no experience of the situations he or she is expected to perform. In line with the findings in this study, Glover (1999) and Fraser (1998:90) revealed in their studies that a number of students, on completion of their training, felt that they had not developed sufficient skills to feel confident enough to carry out a vaginal examination without supervision.

Although the majority of the NQMs perceived themselves proficient in recording data accurately using partograph, applying and interpreting maternal fetal monitor, performing passive and active management of the 3rd stage of labour, examining the perineum and vulva for lacerations, performing management of the 4th stage of labour, checking the uterus post delivery, and suturing episiotomy, supervisors perceived them to be at level three of competence in that they still needed to gain more experience in that

area of practice. The studies by Fullerton et al (2003:184) and Pettersson (2004: 35) clearly pointed out that midwives could not repair episiotomy and the overall documentation of graphs, when initiated, was found to be inadequate. This means this is an area that needs strengthening in the preparation of midwives.

What was encouraging in this study was that both groups perceived NQMs as competent in skills such as rupturing membranes artificially, administration of oxytocic with, or immediately after, the delivery of the baby, examining the placenta and membrane, and assessing blood loss. The NQMs were also perceived to be competent in interpreting data accurately using the partograph, monitoring a woman on pitocin, recognizing and managing obstetrical emergencies in the absence of a medical officer, performing episiotomy if necessary, delivering the baby safely following the mechanism of labour, detecting and managing of potential and actual problems of labour and when to initiate appropriate referral. Harvey et al (2007:4) assert that inadequate competence among existing health workers is one of the most important barriers towards realization of health centre intrapartum care strategy which is aimed at reducing maternal mortality. Rukanuddin et al (2007: 400) pointed out that the midwives in Pakistan were found to lack competence in a number of intrapartum skills. These researchers associated this with the lack of availability of hospitals where students were able to conduct deliveries under supervision of a qualified midwife or a doctor. Rukanuddin et al further indicated that many nurses in Pakistan were licensed as midwives but did not have the skill or knowledge to practice as midwives. Harvey et al (2007:3) and Mpantsha (2003) in their studies showed that newly-qualified midwives did not understand partograph. This is

contrary to the findings in this study and these findings reflect the fact that midwifery training might be moving in a positive direction and one that might eventually contribute significantly to addressing maternal and neonatal mortality rate problems.

What was noted, however, in the skills related to intrapartum care was that the majority of supervisors rated NQMs lower than the NQMs themselves, especially in the skills related to dealing with women in labour. The lower rating of NQMs by the supervisors, who, even though they perceived NQMs as competent, may be reflecting the findings from Leap's (2002:21) study which indicated that with the increasing use of technology in childbirth and escalating caesarean section rates, the opportunity for the student to learn about normal childbirth is now limited. This challenge, that is, of limited opportunity to deal with women in labour, may continue to be a problem in the training of midwives, especially in South Africa where the majority of pregnant women undergo caesarean section because of the prevention of transmission of HIV to babies during normal birth.

5.5.3 Pueperium care skills

The NQMs were perceived to be competent or proficient in skills related to management of the pueperium stage. They were perceived competent in recognizing physiological changes in the reproductive system, educating mothers on lactation, identifying problems and (potential problems) in the care of the mother and baby and demonstrating post-natal exercises to the women in the pueperium. The NQMs were also perceived as competent in performing vulva swabbing, conducting a thorough physical and psychological

assessment of the pueperium women and teaching the mother the technique of breast feeding. In line with these findings were the findings from the studies by Gunathanga and Fernando (2000:313); Lekhuleni (2008:1); Furber and Thompson (2008:50) and Begley (2000:29). Their research studies revealed that newly-qualified nurses were competent in post-natal care skills and assessment of post-natal mothers and in managing lactation.

In the study by Cantrill, Creedy and Cookes (2003:315), the newly-qualified midwives were rated lower in the management of low milk supply. Management of lactation seems to be a challenge because in South Africa, currently, lactation management forms part of continuing education for those in midwifery units or services. Harrison (2008:36) is of the view that all staff members should receive at least 18 hours of training in the anatomy of the breast, and 34 hours in the theory and practical aspects of breastfeeding. The NQMs may have gained some grounding in lactation management because part of their educational preparation includes a module that covers breast physiology which they have to pass. In line with the findings in this study, the study by Gunathanga and Fernando (2000:313) indicated that newly-qualified midwives were found to be very competent/competent in a number of skills related to pueperium including identifying abnormalities of lochia.

5.5.4 Neonatal care skills

The NQMs were perceived to be competent or proficient in a number of skills related to neonatal care. These skills include administering vitamin K, performing cord care,

administering BCG and polio drops and implementing nursing care of the neonate with complications. Similar findings were obtained by Lekhuleni (2008:188) where newly-qualified nurses appeared competent in carrying out immunizations. The rationale given by Harrison (2008:36) for midwives to be competent in neonatal care is that midwives manage all routine newborn care after birth and are expected to give vitamin K1. More importantly, they deal with neonatal emergencies; therefore they are expected to be familiar with emergency treatment, particularly in the resuscitation of an asphyxiated infant at birth, the initial care of a low-birth-weight infant and treatment of one who has respiratory distress.

These positive results highlighted above are contradictory to the findings in the studies by Bloomfield, Townsend and Rogers (2003), Rahi, Taneja, Misra, Mathur and Badhan (2006) and Fraser (1998:77) where newly-qualified nurses were perceived as incompetent in performing most of the neonatal care skills such as cord care, examination of the newborn as well as receiving and resuscitating babies at birth. Bloomfield et al (2003:42) in their study further revealed that midwives need more training to be able to do an examination of the newborn.

What was noted in this study was that the majority of supervisors rated NQMs lower (advanced beginner level) in planning, implementing and evaluating care of the neonate, assessing Apgar score, performing eye care, performing first baby bath, completing birth notification form, nursing a baby receiving phototherapy, bathing a baby in an incubator, giving a nasogastric feed, performing dextrosticks, and performing a total serum

bilirubin. Possibly these are some of the skills that differentiate the basic midwifery curriculum from an advanced midwifery curriculum. The lower rating in these skills is in line with the findings in the O'Connor, Pearce, Smith, Voegdi and Walton (2001:563) study where newly qualified-midwives were also rated lower.

An improvement is noted regarding how NQMs are perceived in the skills related to neonatal care when compared with the findings in Khumalo's (1997) study. Although Khumalo's study was conducted amongst advanced midwives, neonatal care emerged as a challenge even at a level of advanced midwifery. Khumalo (1997:64) concluded that neonatal care skills among advanced midwives required a closer look as it was rated lower than all the other areas of midwifery practice.

5.5.5 Record keeping and legislation

In general, the NQMs were perceived competent in record keeping and in keeping legal documents. They were also perceived by the majority to be competent in documentation related to live and stillbirths. There were, however, variations in the way the two groups perceived the level of competence of NQMs in certain items; for example, the majority of NQMs were not very confident with their skills relating to communication with a patient, family, community and multi-disciplinary team. They perceived themselves to be between the level of an advanced beginner or competent midwife. The majority of the supervisors, on the other hand, perceived them to be between competent and proficient. A similarity was observed in the skills related to keeping legal records. These results were, however, contrary to the findings in the study by Fraser (2001:7) where midwives were found to be "not competent" in record keeping and reading patient's notes. Mellish and Brink (1986:205) asserts that record keeping, besides

showing the progress of a patient towards or away from recovery, is a means by which proof can be presented of the care which has been given. Competence, according to Benner's model, means much still has to be done for a nurse to function at a proficient or expert level. This means in-service education and mentoring programmes have a critical role to play in improving the level of competence of NQMs in record keeping.

5.5.6 Medication used in obstetrics

Both groups perceived NQMs competent in the skills related to administration of medication used in obstetrics and control of medications. The NQMs were viewed as competent in administering medication correctly and safely according to the prescription, legislation and scope of practice. Participants rated themselves lower than supervisors in the ability to apply knowledge of drug interactions when prescribing and administrating medications. According to Clark and Holmes (2007:20), drug administration was the core skill that induced most anxiety among newly-qualified nurses. Although competence in drug administration and management was acceptable for NQMs, these midwives need to pay attention to the related skills to improve their level of competence, especially because most of the litigations reported to the SANC were related to errors in drug administration and management. Studies by Mooney (2007:843); Cragin et al (2007:57); Fraser (1998: 77) and Carrison et al (2005:70) also highlight the gap in the knowledge and skills related to drug administration and management in maternity units. Some of these authors cite pharmacological course content pertinent to women health and pregnancy not being explicitly defined in the nursing courses. Some of the challenges lie with the immediate application of pharmacology knowledge in four-year programmes,

where pharmacology is undertaken in the early years in the programme and midwifery is only at the final level. The challenge may also be confounded by the lack of communication between midwifery lecturers and the department teaching pharmacology; communication is needed to establish the relevance of the pharmacology content taught.

In summary, the findings in this study reveal improvement in the NQM's level of competence in a number of areas when compared with a number of previous studies. Although these results are not conclusive, or generalizable due to a smaller sample used, one may assume that the positive change in the levels of competence of NQMs is as a result of recommendations from previous studies factored into revised midwifery programmes. More importantly, the four-year comprehensive nursing programme, which was introduced in 1986, is reaching a level of maturity, after about 24 years. Since then there has been ongoing research to improve the quality of graduates produced. Taking into consideration the Benner model (from novice to expert), NQMs are expected to demonstrate functioning at the level of the novice (level 1) but the findings generally indicate that they are functioning at a level 3 (competence). The rationale by Jasper (2006) for NQMs functioning at level 3 is that the novice and advanced beginner levels take place during the training period where students are placed in clinical settings and they acquire some skills. By the time they graduate they have gone past these first two stages. This may be true in the context of this study where student midwives are expected, by the regulatory body, to complete a certain minimum number of hours in clinical settings engaging in hands-on midwifery practice and attempting to master

certain competencies or skills so that they can submit credible evidence to indicate that they have met these minimum requirements.

5.6 Conclusion

Founded on the concern regarding high maternal and neonatal mortality rates, especially in South Africa, this study intended to explore and describe clinical competencies of NQMs in selected hospitals which fall within the eThekwini Municipality. Benner's five-stage model was used to guide the study. Using a quantitative approach that is driven by the positivist paradigm, data was collected through a structured questionnaire from a group of NQMs and a group of supervisors.

The NQMs were perceived to be competent in a number of areas but gaps were also established in their preparation for midwifery practice. A number of gaps identified in the competencies of NQMs may be addressed in a number of ways including the recommendations made below.

6. Recommendations

The recommendations are categorized into curriculum, clinical preparation of midwives, and further research.

6.1 Curriculum

Curriculum reviews need to include reviewing of teaching methodologies used to see whether they are able to develop the required professional, personal and midwifery

practice skills. Teaching methodologies such as case-based teaching, problem-based learning and other innovative strategies may be used to produce a competent graduate, a graduate that is able to communicate effectively, work in teams, solve problems and at the same time have the required discipline specific knowledge.

The research methodology component in the curriculum needs to be strengthened and academic institutions should provide supportive structures such as well-stocked libraries, access to computers and on-line journals, educators with some expertise in research to guide the students as they undertake their research projects, as well as having a person with some skills in statistical data analysis. The research module should also introduce the concept of evidence-based practice, identifying relevant resources and how to interrogate them to be used in order to base practice.

Gaps were also identified in communication skills, both verbal and written communication. These components need to be strengthened in the midwifery curriculum and special attention needs to be given to communication that is specific to midwifery practice. There should also be some form of assessment that will also assess these skills to ensure that graduates produced are competent in communication skills.

6.2 Clinical preparation of student midwives

Although clinical preparation is part of the curriculum, it is important to highlight these recommendations for it to get the appropriate attention. Special attention should be given to history taking and how to obtain adequate information from the client to ensure proper

management. Mentors in midwifery clinical settings should guide the students in these skills.

Special attention needs to be given to skills related to neonatal care. The students and the newly-qualified midwives should be rotated throughout the midwifery units, including neonatal care units, to ensure that they acquire the required skills. Hands-on practice in neonatal care should be encouraged under the supervision of a qualified midwife.

The practical aspect of record keeping should be attended to in the clinical learning of the students. The students should be engaged in practical experiences where they learn more about record keeping. The students should be encouraged to take a lead in auditing of charts; attainment of this skill could also be monitored and evaluated during the community service year which newly-qualified nurses are expected to serve. During this period, regular feedback should be given to the provincial community service programme co-ordinator on the performance of these practitioners.

6.3 Building the capacity of mentors or clinical supervisors

The in-service education programmes in midwifery units should also address the needs related to the preparation of basic midwives. The skills of concern such as neonatal care, record keeping in midwifery units and communication skills in midwifery should form part of the continuous in-service education programme. More importantly, the in-service education programmes should be needs-based and be guided by the needs of those in midwifery practice.

6.4 Further research in the area

The analysis and discussion of the research results indicated a number of areas which could benefit from further research, including a research study that will involve non-participant observation and interviews to observe competency elements as part of competency standards. Research should also be conducted that will establish ways of facilitating and improving competency levels of newly-qualified graduates. This study ought to include midwives who are supporting NQMs in their clinical settings during their training. In this way the experienced midwives can contribute to the production of competent newly qualified midwives.

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ANNEXURES

Annexure 1

Data Collection tools

ANNEXURE 1 (B) Questionnaire (For Newly Qualified Midwives)

Institution Code	A
Participant No	

All information herewith provided will be treated confidentially. It is not necessary to indicate your name in this questionnaire

INSTRUCTIONS:

1. Please answer all questions by providing an "X" in the box corresponding to the chosen alternative.

2. Please answer all questions as honestly, frankly and objectively as possible.

SECTION A

DEMOGRAPHIC DATA

1. Please indicate your rank in maternity

Rank	Answer	
Supervisor	1	
Newly qualified nurse	2	

2. Please state your age ---------- ( )

3. Which educational program did you complete to become a midwife?

Programme	Answer	
3.1 One-year diploma course	1	
3.2 Four-year comprehensive diploma course	2	
3.3 Four-year comprehensive degree course	3	

4. Indicate your period of experience in maternity---------years ( ) -------- months ( )

5. Teaching approach used during training (more than one answer possible)

Teaching Approach	Answer
5.1 Lecture method	1
5.2 Case-based approach	2
5.3 Problem-based approach	3
5.4 Community-based approach	4

SECTION B

Competencies acquired from midwifery programme

Please indicate to what extent you feel newly qualified midwives can perform the following tasks:

Please use the following scale to tick the appropriate answer

Competent , experienced and able to teach others	5
Competent, experienced and able to function independently	4
Competent and can perform most of the activities without support.	3
Some knowledge/ experience	2
No knowledge/ experience	1

COGNITIVE SKILLS

Problem solving:

1. Obtain adequate information from a client	1	2	3	4	5
2. Assess a client's needs	1	2	3	4	5
3. Define a client's problem	1	2	3	4	5
4.Formulate a nursing care plan	1	2	3	4	5
5. Discriminate and synthesize information obtained from assessment	1	2	3	4	5
Research					
6.Identify researchable midwifery problem	1	2	3	4	5
7. Initiate research	1	2	3	4	5
8. Read and critically analyze research	1	2	3	4	5
9. Use research data to inform my practice	1	2	3	4	5
10. Determine the applicability of the results in the community	1	2	3	4	5
Clinical judgment					
11. Interpret verbal and non-verbal cues from clients	1	2	3	4	5
12. Prioritize client's problems/needs	1	2	3	4	5
13. Plan and organize one's work daily	1	2	3	4	5
14. Specify midwifery intervention in order of priority	1	2	3	4	5
15. Identify preventive actions to minimize patient risk	1	2	3	4	5
Teaching					
16.Identify learning needs of clients and student midwives	1	2	3	4	5
17. Set objectives for teaching	1	2	3	4	5
18. Use teaching strategies	1	2	3	4	5
19. Use teaching aids in teaching clients	1	2	3	4	5
20. Teach a client's family members about the client's needs	1	2	3	4	5
21. Evaluate learning	1	2	3	4	5
Administration/management					
22. Produce clear and accurate reports (e.g. birth notification, immunization statistics)	1	2	3	4	5
23. Work with constraints, e.g. time limits, shortage of staff	1	2	3	4	5

24. Delegate aspects of care to peers and subordinates	1	2	3	4	5
25. Implement policies and procedures as needed	1	2	3	4	5
26. Maintain accountability from own care	1	2	3	4	5
27. Evaluate own practice	1	2	3	4	5
28. Manage conflict effectively	1	2	3	4	5
29. Commit oneself to unit objectives	1	2	3	4	5
30. Influence and lead others	1	2	3	4	5
AFFECTIVE SKILLS					
Adaptive /adjustive skills					
31. Sensitive to people's feelings	1	2	3	4	5
32. Accept criticism from colleagues	1	2	3	4	5
33. Confident in my midwifery ability	1	2	3	4	5
34. Work under pressure	1	2	3	4	5
35.Adjust to work environment	1	2	3	4	5
Interpersonal communication					
36. Communicate a feeling of acceptance of each client	1	2	3	4	5
37. Promote the client's right to privacy	1	2	3	4	5
38. Explain procedures to a client before performing them	1	2	3	4	5
39. Communicate information to other health team members	1	2	3	4	5
40. Apply meaningful touch	1	2	3	4	5
41. Seek assistance when necessary	1	2	3	4	5
42 .Create safe environment for clients	1	2	3	4	5
43.Listen to clients and their families	1	2	3	4	5
44. Support human dignity while engaging in professional practice	1	2	3	4	5
45. Respect client's freedom of choice and the right to make a decision	1	2	3	4	5
46. Inform and discuss with clients their conditions	1	2	3	4	5
47. Practice within the scope of a registered midwife	1	2	3	4	5
48. Demonstrate knowledge of the ethics of midwifery	1	2	3	4	5

PSYCHOMOTOR SKILLS

Antenatal care

49. Take history during ante-natal care (ANC)	1	2	3	4	5
50. Conduct a thorough physical examination of the pregnant women	1	2	3	4	5
51. Conduct abdominal palpation	1	2	3	4	5
52. Calculate E.D.D. using the L.M.P	1	2	3	4	5
53 Calculate E.D.D. using the wheel	1	2	3	4	5
54. Undertake and interpret common investigation eg.RPR FBC	1	2	3	4	5
55. Recognize the minor and common disorders in pregnancy	1	2	3	4	5

56. Give advice relating to the minor and common disorders in pregnancy	1	2	3	4	5
57. Teach ante-natal exercise	1	2	3	4	5
58. Draw up a suitable diet to meet the needs of a pregnant women and her unborn baby	1	2	3	4	5
59. Teach pregnant women to perform kick count chart	1	2	3	4	5
60. Identify abnormal physiological changes	1	2	3	4	5
61. Identify the signs and symptoms of a pregnancy	1	2	3	4	5
62.Give appropriate health education	1	2	3	4	5
63. Screen high-risk pregnancies	1	2	3	4	5
64 Refer high-risk pregnancies	1	2	3	4	5
65. Formulate a nursing care plan for identified needs including minor disorders	1	2	3	4	5
66. Perform pelvic assessment to detect abnormalities and adequacy of pelvis	1	2	3	4	5

Intrapartum care

67. Obtain a detailed history to confirm labour	1	2	3	4	5
68. Perform vaginal examination	1	2	3	4	5
69. Interpret data accurately using the partogram	1	2	3	4	5
70 Record data accurately using the partogram	1	2	3	4	5
71. Manually determine intensity, duration and frequency of contractions.	1	2	3	4	5
72.Apply and interpret maternal fetal monitor	1	2	3	4	5
73. Monitor a woman on pitocin drip	1	2	3	4	5
74.Recognise and manage obstetrical emergencies in the absence of medical officer	1	2	3	4	5
75. Rupture membranes artificially	1	2	3	4	5
76.Perform episiotomy if necessary	1	2	3	4	5
77. Deliver the baby safely following the mechanism of labour	1	2	3	4	5
78. Perform passive and active management of the 3rd stage o f labour	1	2	3	4	5
79. Administration of oxytocic with, or immediately after, the delivery of the baby	1	2	3	4	5
80.Examine the perineum and vulva for lacerations	1	2	3	4	5
81.Perform management of the 4th stage of labour	1	2	3	4	5
82. Check the uterus post delivery	1	2	3	4	5
83.Examine the placenta and membrane	1	2	3	4	5
84. Assess the blood loss	1	2	3	4	5
85. Suture episiotomy	1	2	3	4	5
86. Detect and manage potential and actual problems of labour and refer appropriately.	1	2	3	4	5

Puerperium

87. Recognize the physiological changes in the reproductive system	1	2	3	4	5
88. Inspect and record vaginal discharge	1	2	3	4	5
89. Perform vulva swabbing	1	2	3	4	5
90. Conduct a thorough physical and psychological assessment of the puerperium women	1	2	3	4	5
91 Educate mother on lactation	1	2	3	4	5
92. Teach the mother the technique of breast feeding.	1	2	3	4	5
93. Identify problems and potential problems in the care of the mother and baby in the pueperium	1	2	3	4	5
94. Demonstrate post-natal exercises to the women in the pueperium	1	2	3	4	5
95.Give relevant health education	1	2	3	4	5

Neonatal care

96. Perform a comprehensive assessment of the neonate	1	2	3	4	5
97. Plan ,implement, evaluate care of the neonate	1	2	3	4	5
98. Assess Apgar score	1	2	3	4	5
99. Identify the newborn	1	2	3	4	5
100. Administer vitamin K1	1	2	3	4	5
101. Perform eye care	1	2	3	4	5
102.Perform cord care	1	2	3	4	5
103.Perform first baby bath	1	2	3	4	5
104. Complete birth notification form	1	2	3	4	5
105. Administer B.C.G and polio drops	1	2	3	4	5
106. Implement nursing care of the neonate with complications	1	2	3	4	5
107. Nurse baby receiving photo-therapy	1	2	3	4	5
108. Bath baby in an incubator	1	2	3	4	5
109. Perform a stomach washout	1	2	3	4	5
110. Give a nasogastric feed	1	2	3	4	5
111. Perform a dextrosticks	1	2	3	4	5
112. Perform a total serum bilirubin	1	2	3	4	5

Record keeping and legislation

113. Complete necessary documentation relating to live and stillbirths	1	2	3	4	5
114. Display effective written communication with patient.family,community and multi-disciplinary team	1	2	3	4	5
115. Display effective verbal communication with patient.family,community and multi-disciplinary team	1	2	3	4	5

116. Keeping of legal records and documents	1	2	3	4	5
117. Record data accurately	1	2	3	4	5

Medication used in obstetrics

118. Administer medications correctly according to the prescription, legislation and scope of practice	1	2	3	4	5
119. Recognize adverse effects of medication and take appropriate action	1	2	3	4	5
120. Apply knowledge of drug interactions when prescribing and administrating medications	1	2	3	4	5

ANNEXURE 1 (A) Questionnaire: (For Supervisors)

Institution Code	
Participant No	

All information herewith provided will be treated confidentially. It is not necessary to indicate your name in this questionnaire

INSTRUCTIONS:

1. Please answer all questions by providing an "X" in the box corresponding to the chosen alternative.

2. Please answer all questions as honestly, frankly and objectively as possible.

SECTION A

DEMOGRAPHIC DATA

1. Please indicate your rank in maternity

Rank	Answer	
Supervisor	1	
Newly qualified nurse	2	

2. Please state your age ---------- ( )

3. Which educational programme did you complete to become a midwife?

Programme	Answer	
3.1 One- year diploma course	1	
3.2 Four-year comprehensive diploma course	2	
3.3 Four-year comprehensive degree course	3	

4. Indicate your period of experience in maternity---------years ( ) -------- months ( )

SECTION B

Competencies acquired from midwifery programme

Please indicate to what extent you feel newly qualified midwives can perform the following tasks:

Please use the following scale to tick the appropriate answer

Competent , experienced and able to teach others	5
Competent, experienced and able to function independently	4
Competent and can perform most of the activities without support.	3
Some knowledge/ experience	2
No knowledge/ experience	1

COGNITIVE SKILLS

Problem solving:

1. Obtain adequate information from a client	1	2	3	4	5
2. Assess a clients' needs	1	2	3	4	5
3. Define a client's problem	1	2	3	4	5
4.Formulate a nursing care plan	1	2	3	4	5
5. Discriminate and synthesize information obtained from assessment	1	2	3	4	5

Research					
6.Identify researchable midwifery problem	1	2	3	4	5
7. Initiate research	1	2	3	4	5
8. Read and critically analyze research	1	2	3	4	5
9. Use research data to inform his/her practice	1	2	3	4	5
10. Determine the applicability of the results in the community	1	2	3	4	5
Clinical judgment					
11. Interpret verbal and non-verbal cues from clients	1	2	3	4	5
12. Prioritize client's problems	1	2	3	4	5
13. Plan and organize one's work daily	1	2	3	4	5
14. Specify midwifery intervention in order of priority	1	2	3	4	5
15. Identify preventive actions to minimize patient risk	1	2	3	4	5
Teaching					
16.Identify learning needs of clients and student midwives	1	2	3	4	5
17. Set objectives for teaching	1	2	3	4	5
18. Use teaching strategies	1	2	3	4	5
19. Use teaching aids in teaching clients	1	2	3	4	5
20. Teach a client's family members about the client's needs	1	2	3	4	5
21. Evaluate learning	1	2	3	4	5
Administration/management					
22. Produce clear and accurate reports (e.g. birth notification, immunization statistics)	1	2	3	4	5
23. Work with constraints, e.g.time limits, shortage of staff	1	2	3	4	5
24. Delegate aspects of care to peers	1	2	3	4	5
25. Implement policies and procedures as needed	1	2	3	4	5
26. Maintain accountability from his/her care	1	2	3	4	5
27. Evaluate his/her practice	1	2	3	4	5
28. Manage conflict effectively	1	2	3	4	5
29. Commit him/herself to unit objectives	1	2	3	4	5
30. Influence and lead others	1	2	3	4	5
AFFECTIVE SKILLS					
Adaptive /adjustive skills					
31. Sensitive to people's feelings	1	2	3	4	5
32. Accept criticism from colleagues	1	2	3	4	5
33. Confident in his/her midwifery ability	1	2	3	4	5
34. Work under pressure	1	2	3	4	5
35.Adjust to work environment	1	2	3	4	5
Interpersonal communication					
36. Communicate a feeling of acceptance of each client	1	2	3	4	5
37. Promote the client's right to privacy	1	2	3	4	5
38. Explain procedures to a client before performing them	1	2	3	4	5

39. Communicate information to other health team members	1	2	3	4	5
40. Apply meaningful touch	1	2	3	4	5
41. Seek assistance when necessary	1	2	3	4	5
42 .Create safe environment for clients	1	2	3	4	5
43.Listen to clients and their families	1	2	3	4	5
44. Support human dignity while engaging in professional practice	1	2	3	4	5
45. Respect client's freedom of choice and the right to make a decision	1	2	3	4	5
46. Inform and discuss with clients their conditions	1	2	3	4	5
47. Practice within the scope of a registered midwife	1	2	3	4	5
48. Demonstrate knowledge of the ethics of midwifery	1	2	3	4	5

PSYCHOMOTOR SKILLS

Antenatal care

49. Take history during ante-natal care (ANC)	1	2	3	4	5
50. Conduct a thorough physical examination of the pregnant women	1	2	3	4	5
51. Conduct abdominal palpation	1	2	3	4	5
52. Calculate E.D.D. using the L.M.P	1	2	3	4	5
53 Calculate E.D.D. using the wheel	1	2	3	4	5
54. Undertake and interpret common investigation eg.RPR FBC	1	2	3	4	5
55. Recognize the minor and common disorders in pregnancy	1	2	3	4	5
56. Give advice relating to the minor and common disorders in pregnancy	1	2	3	4	5
57. Teach ante-natal exercises	1	2	3	4	5
58. Draw up a suitable diet to meet the needs of a pregnant women and unborn baby	1	2	3	4	5
59. Teach pregnant women to perform kick count chart	1	2	3	4	5
60. Identify abnormal physiological changes	1	2	3	4	5
61. Identify the signs and symptoms of pregnancy	1	2	3	4	5
62.Give appropriate health education	1	2	3	4	5
63. Screen high-risk pregnancies	1	2	3	4	5
64 Refer high-risk pregnancies	1	2	3	4	5
65. Formulate a nursing care plan for identified needs including minor disorders	1	2	3	4	5
66. Perform pelvic assessment to detect abnormalities and adequacy of pelvis	1	2	3	4	5

Intrapartum care

67. Obtain a detailed history to confirm labour	1	2	3	4	5
68. Perform vaginal examination	1	2	3	4	5
69. Interpret data accurately using the partogram	1	2	3	4	5
70 Record data accurately using the partogram	1	2	3	4	5
71. Manually determine intensity, duration and frequency of contractions.	1	2	3	4	5
72.Apply and interpret maternal fetal monitor	1	2	3	4	5
73. Monitor a woman on pitocin drip	1	2	3	4	5
74.Recognise and manage obstetrical emergencies in the absence of a medical officer	1	2	3	4	5
75. Rupture membranes artificially	1	2	3	4	5
76.Perform episiotomy if necessary	1	2	3	4	5
77. Deliver the baby safely following the mechanism of labour	1	2	3	4	5
78. Perform passive and active management of the 3rd stage o f labour	1	2	3	4	5
79. Administration of oxytocic with, or immediately after, the delivery of the baby	1	2	3	4	5
80.Examine the perineum and vulva for lacerations	1	2	3	4	5
81.Perform management of the 4th stage of labour	1	2	3	4	5
82. Check the uterus post delivery	1	2	3	4	5
83.Examine the placenta and membrane	1	2	3	4	5
84. Assess the blood loss	1	2	3	4	5
85. Suture episiotomy	1	2	3	4	5
86. Detect and manage potential and actual problems of labour and refer appropriately.	1	2	3	4	5

Puerperium

87. Recognize the physiological changes in the reproductive system	1	2	3	4	5
88. Inspect and record vaginal discharge	1	2	3	4	5
89. Perform vulva swabbing	1	2	3	4	5
90. Conduct a thorough physical and psychological assessment of the puerperium women	1	2	3	4	5
91 Educate mother on lactation	1	2	3	4	5
92. Teach the mother the technique of breast feeding.	1	2	3	4	5
93. Identify problems and potential problems in the care of the mother and baby in the pueperium	1	2	3	4	5
94. Demonstrate post-natal exercise to the women in the pueperium	1	2	3	4	5
95.Give relevant health education	1	2	3	4	5

Neonatal care

96. Perform a comprehensive assessment of the neonate	1	2	3	4	5
97. Plan ,implement, evaluate care of the neonate	1	2	3	4	5
98. Assess Apgar score	1	2	3	4	5
99. Identify the newborn	1	2	3	4	5
100. Administer vitamin K1	1	2	3	4	5
101. Perform eye care	1	2	3	4	5
102.Perform cord care	1	2	3	4	5
103.Perform first baby bath	1	2	3	4	5
104. Complete birth notification form	1	2	3	4	5
105. Administer B.C.G and polio drops	1	2	3	4	5
106. Implement the scientific care of the neonate with complications	1	2	3	4	5
107. Nurse baby receiving photo-therapy	1	2	3	4	5
108. Bath baby in an incubator	1	2	3	4	5
109. Perform a stomach washout	1	2	3	4	5
110. Give a nasogastric feed	1	2	3	4	5
111. Perform a dextrosticks	1	2	3	4	5
112. Perform a total serum bilirubin	1	2	3	4	5

Record keeping and legislation

113. Complete necessary documentation relating to live and stillbirths	1	2	3	4	5
114. Display effective written communication with patient.family,community and multi-disciplinary team	1	2	3	4	5
115. Display effective verbal communication with patient.family,community and multi-disciplinary team	1	2	3	4	5
116. Keeping of legal records and documents	1	2	3	4	5
117. Record data accurately	1	2	3	4	5

Medication used in obstetrics

118. Administer medications correctly according to the prescription, legislation and scope of practice	1	2	3	4	5
119. Recognize adverse effects of medication and take appropriate action	1	2	3	4	5
120. Apply knowledge of drug interactions when prescribing and administrating medications	1	2	3	4	5

Annexure 2

Application for Permission Letters

Department of Health
KwaZulu-Natal Province
Private Bag X 9051
Pietermaritzburg
3200
1 July 2010

From: Miss. Zanele P Zwane
Master's Student
University of KwaZulu Natal
Nursing School
P.O Box 40141
Durban-South Africa.
E-mail: zanelezwane@hotmail.com

RE: REQUESTING PERMISSION IN INITIATING A RESEARCH STUDY AT THE FOLLOWING PROVINCIAL HOSPITALS: PRINCE MSHIYENI MEMORIAL, KING EDWARD VIII, R.H. KHANS, ADDINGTON AND McCORD,

I am a student at the Nursing School of the University of KwaZulu Natal in Durban, studying for the Master's Degree in Progressive Education for Health Professional.

As a requirement for the degree, I have to conduct a research project, titled "**Exploration of the perceived competencies of newly qualified midwives in selected hospitals at eThekwini Municipality**".

The aim of the study will be to explore and describe clinical competencies of NQMs in selected hospitals which fall within the eThekwini District.

I hereby request your permission to conduct this study in the above institutions.

I would like to collect data from the newly qualified midwives and their supervisors

I would like to commence the data collection process by August 2009

Permission for voluntary participation will be requested from newly qualified nurses and their supervisors. This will be done during the tea and lunch breaks .They will both be required to fill in a questionnaire. Their rights related to confidentiality, informed consent, freedom of choice and anonymity will be observed

I trust my application will receive your favorable consideration. I have provided you with a letter from the ethical committee of the University of KwaZulu Natal as well as a copy of my research proposal.

I can be contacted on the above fax number 031-9067772

Thanking you

Z.P. Zwane (Cell 0820545359)

Supervisor: Prof N.F. Mtshali

The Nursing Service Manager
Prince Mshiyeni Memorial Hospital
Private Bag X 07
Mobeni
4060
26 June 2009

From: Miss. Zanele P Zwane
Master's Student
University of KwaZulu Natal
Nursing School
P.O Box 40141,Durban-South Africa.
E-mail: zanelezwane@hotmail.com

Dear Madam,

Application for permission to conduct a research project in August –September 2009

I am a student at the Nursing School of the University of KwaZulu Natal in Durban, studying for the Master's Degree in Progressive Education for Health Professional.

As a requirement for the degree, I have to conduct a research project, titled "**Exploration of the perceived competencies of newly qualified midwives in selected hospitals at eThekwini Municipality**".

I therefore request your permission to send questionnaires to these diplomates and to their supervisors as part of the data collection process.

Permission for voluntary participation will be requested from newly qualified nurses and supervisors and their rights to informed consent, confidentiality and anonymity will be ensured.
My research proposal has been passed by the School of Nursing. I have also had ethical clearance from the university's ethics' committee.
I trust my application will receive your favorable consideration, as information obtained will be of relevance to the province in the planning of cost-effective methods of training personnel required to meet health care needs.

Yours faithfully

Z.P. Zwane (Cell 0820545359)

Supervisor: Prof N.F. Mtshali

To: The Nursing Service Manager
King Edward V111 Hospital
Private Bag X 02
Congella
4013
26 June 2009

From: Miss. Zanele P Zwane
Master's Student
University of KwaZulu Natal
Nursing School
P.O Box 40141,Durban-South Africa.
E-mail: zanelezwane@hotmail.com

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Yours faithfully

Z.P. Zwane (Cell 0820545359)

Supervisor: Prof N.F. Mtshali

To: The Nursing Service Manager
Addington Hospital
P.O.Box 977
Durban
4000
26 June 2009

From: Miss. Zanele P Zwane
Master's Student
University of KwaZulu Natal
Nursing School
P.O Box 40141,Durban-South Africa.
E-mail: zanelezwane@hotmail.com

Dear Madam,

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Yours faithfully

Z.P. Zwane (Cell 0820545359)

Supervisor: Prof N.F. Mtshali

To: The Nursing Service Manager
R.K.Khan Hospital
Private Bag X004
Chartsworth
4030
26 June 2009

From: Miss. Zanele P Zwane
Master's Student
University of KwaZulu Natal
Nursing School
P.O Box 40141,Durban-South Africa.
E-mail: zanelezwane@hotmail.com

Dear Madam,

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Yours faithfully

Z.P. Zwane (Cell 0820545359)

Supervisor: Prof N.F. Mtshali

To: The Nursing Service Manager McCord Hospital
28 McCord Road
Overport
Durban
4001
26 June 2009

From: Miss. Zanele P Zwane
Master's Student
University of KwaZulu Natal
Nursing School
P.O Box 40141,Durban-South Africa.
E-mail: zanelezwane@hotmail.com

Dear Madam,

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Yours faithfully

Z.P. Zwane (Cell 0820545359

Supervisor: Prof N.F. Mtshali

Annexure 3

Letters of Approval

UNIVERSITY OF
KWAZULU-NATAL

RESEARCH OFFICE (GOVAN MBEKI CENTRE)
WESTVILLE CAMPUS
TELEPHONE NO.: 031 – 2603587
EMAIL : ximbap@ukzn.ac.za

24 JUNE 2009

MS. Z ZWANE (208528803)
SCHOOL OF NURSING

Dear Ms. Zwane

ETHICAL CLEARANCE APPROVAL NUMBER: HSS/0310/09M

I wish to confirm that ethical clearance has been granted for the following project:

"Exploration of the perceived clinical competencies of newly qualified midwives in selected hospitals at eThekwini Municipality"

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years

Yours faithfully

MS. PHUMELELE XIMBA
ADMINISTRATOR
HUMANITIES & SOCIAL SCIENCES ETHICS COMMITTEE

cc. Supervisor (Prof. N Mtshali)
cc. Mr. S Reddy

HEALTH
KwaZulu-Natal

Health Research & Knowledge Management sub-component
10 – 102 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg, 3200
Tel.: 033 – 395 2805
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

Reference: HRKM092-09
Enquiries: Mr X. Xaba
Telephone: 033-395 2805

25 August 2009

Dear Ms Z. Zwane

Subject: Approval of Research

1. The research proposal titled **"Exploration of the perceived competencies of newly qualified midwives (NQM) in selelcted hospitals at eThekwini Municipality"** was reviewed by the KwaZulu-Natal Department of Health. The proposal is hereby **approved** for the study to be undertaken at *King Edward VIII, Addington, Prince Mshiyeni, RK Khan and McCords hospitals*.

2. You are requested to undertake the following:
   a. Make the necessary arrangement with identified facility before commencing with your research project.
   b. Provide an interim progress reports and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za.

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

Yours Sincerely

Dr. S.S.S. Buthelezi
Chairperson: Provincial Health Research Committee
KwaZulu-Natal Department of Health

HEALTH
KwaZulu-Natal

PRINCE MSHIYENI MEMORIAL HOSPITAL
Private Bag X07, MOBENI 4060
Mangosuthu Highway
OFFICE OF THE MEDICAL MANAGER
DR ISMAIL JAJBHAY
Tel: 031-9078304/17, **Fax:** 0866060372
E mail: ismail.jajbhay@kznhealth.gov.za
www.kznhealth.gov.za

Reference: **EC 30.2009**
Enquiries: **Dr. IMS Jajbhay**
Telephone: **031 907 8304**
Date: **2010.03.19**

TO: ZANELE ZWANE

RE: LETTER OF PERMISSION/ APPROVAL TO CONDUCT RESEARCH AT PMMH

I have pleasure in informing you that PMMH has considered your application to conduct research on **EXPLORATION OF THE PERCEIVED COMPETENCIES OF NEWLY QUALIFIED MIDWIVES** in our Institution. We hereby approve your research subject to DOH KZN guidelines.

Please note the following:

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

Sincerely

KZN Department of Health
Private Bag X07
MOBENI 4060
2010 -04- 07
Prince Mshiyeni Memorial Hospital
Office of the Hospital Manager

MR. NBL GWALA
HOSPITAL MANAGER

HEALTH
KwaZulu-Natal

KING EDWARD VIII HOSPITAL
Private Bag X02, **CONGELLA** 4013
Corner of François & Sydney Road
Tel.:031-3603853, Fax: 031-2061457
Email.:rejoice.khuzwayo@.kznhealth.gov.za
www.kznhealth.gov.za

Enq.:Miss. R.Khuzwayo
Ref.: KE 2/7/1/ (28/2009)
Research Programming

12 October 2009

Ms. Zanele P. Zwane
Nursing School
UNIVERSITY OF KWAZULU-NATAL

Dear Ms. Zwane

Protocol : "Exploration of the perceived competencies of newly qualified midwives in selected hospitals at eThekwini Municipality"

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

Please ensure the following:-

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

- Before commencement:
  * Discuss your research project with our relevant Directorate Managers
  * Sign an indemnity form at Room8, CEO's Complex, Admin. Block.

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

Yours faithfully

SUPPORTED/~~NOT SUPPORTED~~

DR. O.S.B. BALOYI
MEDICAL MANAGER

13/10/2009
DATE

APPROVED/NOT APPROVED

MR. M. BHEKISWAYO
CHIEF EXECUTIVE OFFICER

13/10/2009
DATE

HEALTH
KwaZulu-Natal

ADDINGTON HOSPITAL
OFFICE OF THE HOSPITAL MANAGER
Postal Address: P.O. Box 977, DURBAN, 4000
Physical Address: 16 Erskine Terrace, South Beach
Tel.: (031) 327-2970, Fax.:(031) 368-3300
Email.: addington.management@kznhealth.gov.za
www.kznhealth.gov.za

AD/9/3/2

Enquiries: Dr J E Hurst
Extension: 2970 / 2568

21 January 2010

Ms Zanele Zwane
c/o University of KwaZulu-Natal
DURBAN
4041

Dear Ms Zwane

RE: REQUEST TO CONDUCT RESEARCH - EXPLORATION OF THE PERCEIVED CLINICAL COMPETENCIES OF NEWLY QUALIFIED MIDWIVES IN SELECTED HOPITALS AT eTHEKWINI MUNICIPALITY

Your request in the above regard refers.

Management supports your request.

HOSPITAL MANAGER

JEH/jc

HEALTH
KwaZulu-Natal

R.K. Khan Hospital
Private Bag X004,
CHATSWORTH, 4030
Tel.: 031 4596001, Fax.: 031 4011247
Email.:reena.ramcharan@.kznhealth.gov.za
www.kznhealth.co.za

ENQUIRIES: DR P.S. SUBBAN

1 SEPTEMBER 2009

Ms Zanele P. Zwane
University of KZN-Natal
Nursing School
P.O. Box 40141
DURBAN
4000

Dear Madam

RE: PERMISSION TO CONDUCT A RESEARCH PROJECT : EXPLORATION OF THE PERCEIVED COMPETENCIES OF NEWLY QUALIFIED MIDWIVES

Permission is granted to conduct the above research at this Institution provided:-

- Confidentiality is maintained at all times
- Your research does not interfere with the smooth running of the hospital
- Research is conducted during normal working hours.
- The hospital receives a copy of your research on completion.

Yours faithfully

HOSPITAL CEO

McCord Hospital
(Association Incorporated under Section 21)
Bringing Care, Hope & Excellence

Tel : +27 31 268 5700 Fax : +27 31 268 5705
Docex : 315 Durban Email : info@mccord.co.za
28 McCord Road Overport Durban 4001
P.O. Box 37587 Overport 4067 South Africa
www.mccord.org.za

20th October 2009

Ms. Zanele Zwane

Dear Ms. Zwane,

Re: Permission to Conduct Research

Please be informed that, after the one on one interview, you are herewith granted permission to conduct your research.

We wish you success.

Yours faithfully,

Mrs. ZE Mageba
Director Nursing Service

Mrs. TM Shezi
Principal/ Nursing Service Manager

Annexure 4

Information Form

Annexure: 3 **Information Document**

Topic: EXPLORATION OF THE PERCEIVED COMPETENCIES OF NEWLY QUALIFIED MIDWIVES WORKING IN HOSPITALS AT ETHEKWINI MUNICIPALITY.

I, Zanele Zwane, am a master's student at the University of KwaZulu-Natal, South Africa. As part of my Masters Degree in Nursing, I am required to conduct a research project in an area of interest. My area of interest is **EXPLORATION OF THE PERCEIVED COMPETENCIES OF NEWLY QUALIFIED MIDWIVES WORKING IN HOSPITALS AT ETHEKWINI MUNICIPALITY**
Your participation is requested because you meet the criteria of the people to participate in this study.

The purpose of the study is to explore and describe clinical competencies of newly qualified midwives in selected hospitals at eThekwini municipality. It is hoped that findings from this study could lead to the improvement of maternal and neonatal quality of life in the community and consequently reduction in maternal mortality in South Africa. The outcome of this study is also intended to be specification of knowledge and skill that should be included within a midwifery course of studies.

You will be requested to complete a questionnaire that will take about 30 to 45 minutes of your time.

Please note that your identity and information will be treated with the utmost confidentiality.

Please feel free to ask any questions you may have so that you are clear about what is expected of you.
Please note that:

- you are free to participate or not participate in this research proposal
- you are free to withdraw at any stage without repercussions
- your name will not be used, nor will you be identified with any comment made when the data is published
- There will be no risks attached to your participation.

The results of this project (the report) will be made available to you on completion of this research.

Therefore I am asking you to participate in this study.

Thank you

Annexure 5

Letter for the Informed Consent

Informed Consent document

Dear colleague,

Re: Permission to conduct a study on **Exploration of The Perceived Competencies of Newly Qualified Midwives working in hospitals at eThekwini Municipality**

I am Zanele Zwane, a Masters student in Nursing Education at the University of KwaZulu Natal South Africa. As part of this qualification I am required to do a research project on an area of interest. I therefore request that you participate in this study and indicate your interest by signing this consent form. Please read the attached information sheet before signing this form.

Before you participate in this study, please circle **the appropriate answer below**

1. Have you read the participant information sheet YES/ NO
2. Have you had the opportunity to ask questions regarding this research YES/ NO
3. Have you received satisfactory answers to your questions? YES/ NO
4. Have you had an opportunity to discuss this project? YES/ NO
5. Have you received enough information about this project? YES/ NO
6. Do you understand the implications of your involvement in the project? YES/ NO
7. Do you understand that you are free to withdraw from the project?
   (a) At any time YES/ NO
   (b) Without having to give a reason for withdrawing YES/ NO
9. Did you agree to voluntarily participate in this project YES/ NO

I..... (Full names) agree that the research study has been explained to me orally. I understand what my involvement in the study means and that I voluntarily agree to be involved in the study.

Signature: _____

Date:_____

If you have any queries about the research, please contact Zanele Zwane Student No: 208528803 by email at 208528803@ukzn.ac.za. or cell number: 0820545359

Research supervisor is Professor NG Mtshali from the University of Kwa-Zulu Natal. Her email address is mtshalin3@uikzn.ac.za, for further inquiry if there is a need.