PERCEPTIONS
OF NELSON MANDELA METROPOLITAN OBSTETRIC
UNIT MIDWIVES REGARDING CONSULTING
ADVANCED MIDWIVES

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PERCEPTIONS OF NELSON MANDELA METROPOLITAN OBSTETRIC UNIT MIDWIVES REGARDING CONSULTING ADVANCED MIDWIVES

by

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DECLARATION

I, Balandeli Siphumelele Israel Sonti (s203011627), hereby declare that the treatise for MASTER OF NURSING in Advanced Midwifery and Neonatal Nursing Science is my own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

Balandeli Siphumelele Israel Sonti

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DEDICATION

This treatise is dedicated to

My beloved parents,

The late Rev. Canon Hlathi and Nosapho,

for their unconditional love and

contribution to what and who I am today.

Above all for the gift of education and supporting me.

Thank you for teaching me to believe in myself, in God and in my dreams

To my beautiful children, Chuma and Bulali.

With much love.
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ABSTRACT

The perceptions of Nelson Mandela Metropolitan Municipality obstetric unit midwives regarding consulting advanced midwives were researched. Currently South Africa is burdened with an increasing maternal mortality rate despite the control measures that have been put in place. One of those control measures is the skilling of midwives and ensuring that skilled birth attendants assist every woman in confinement. A concern, though, was observed by the researcher that an increasing number of midwives in the country now have an additional qualification in advanced midwifery and yet the maternal and neonatal mortality rates are gradually increasing.

The researcher, as a midwife and a midwifery lecturer in that capacity, observed that in the clinical areas midwives prefer to consult with the doctor rather than the advanced midwife. In most cases looking and waiting for the doctor delays the management of the labouring woman as the doctor may not be immediately available. The advanced midwives are supposed to have advanced skills which should be used to assist in the absence of the doctor, particularly in the midwife obstetrics units.

The study objectives were firstly, to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives. Secondly, based on the results of the study, to make recommendations to the managers of the obstetric units within the NMM that will enhance consulting between advanced midwives and midwives in obstetric units.

The study was quantitative in nature and utilised an explorative, descriptive and contextual design. Sampling was made possible through simple random probability sampling using the non-replacement approach. The method of data collection was by self-administered questionnaires that were developed by the researcher under the guidance of a qualified and experienced statistician and researcher and the supervision of the research supervisor. Data was collected during July and September of 2014. One hundred and thirty questionnaires were distributed and ninety four were returned. Responses were captured on a spread sheet for easy and accurate calculation and the numerical data was categorized, ordered and manipulated with the help of a statistician using the software package Statistica Version 21 to ensure efficacy of the results.
The findings were presented by describing the biographic profile of participants, their competence in the identification and management of high risk situations, their consultation with advanced midwives in high risk situations, their reasons for not consulting advanced midwives and a description of factors that might encourage midwives to consult the advanced midwives. Literature controls were utilized to compare findings with current views of other researchers. Trustworthiness was maintained by observing the principles of reliability and validity. The ethical considerations of confidentiality, anonymity and protection of the participants from harm were maintained by the researcher.

The findings revealed that there were significant numbers of midwives with many years of clinical experience and years in the units. The age difference of the midwives in the obstetrics units was seen to be an added advantage to the care of women as the young and old could complement each other with the latest information and experience in dealing with midwifery related emergencies respectively. The difference in gender was as expected but did not have an influence on the non-consulting with advanced midwives by the midwives who are working in the obstetrics units. Also, the limited confidence of midwives regarding their performance of certain low risk skills and their confidence in the performance of the advanced midwives was a reason to consult with the advanced midwives in their areas of speciality.

Based on these findings, the researcher attended to the second objective and made the necessary recommendations to the managers of the obstetric units within the NMM to enhance consulting with advanced midwives by midwives in obstetric units. Midwives globally would gain information that would assist them in motivating recommendations to the managers of the obstetric units with regard to consulting with advanced midwives by midwives in their obstetric units.

**Key concepts**
- Midwife, Advanced midwife, Consult, Midwifery obstetric unit, Perceptions
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CHAPTER ONE
RESEARCH OVERVIEW

1. INTRODUCTION
South Africa’s first survey related to maternal mortality and morbidity was carried out in 1999 and thereafter at three yearly intervals in 2003, 2006, 2009 and, most recently, the 4th triennial report in 2012. The results from all these surveys remain essentially the same, an increased rate of maternal mortalities, with only a slight decline in the number of maternal deaths over the years in some provinces. Recommendations made based on these results have also remained the same over the years. One of the recommendations made is to train more midwives to attend to the pregnant and labouring women. Many midwives subsequently received training in additional advanced levels of skills to take care of women during confinement. Despite this, the increased maternal and infant mortalities remain persistent. There is a need to investigate this concern and perhaps to understand the usefulness of advanced trained midwives.

The proposed study utilized a quantitative, explorative, descriptive and contextual research design to investigate the perceptions of midwives in the Nelson Mandela Metropolitan (NMM) obstetric unit regarding consulting with advanced midwives. Results from the data analysis assisted with the development of recommendations that create an environment where these midwives could be used to the best advantage of their respective units.

2. BACKGROUND AND ORIENTATION
South Africa (SA) has the potential, comparable to some of the best countries, to save a substantial number of mothers’ and children’s lives. This potential is achieved because the basic and post basic midwifery training programmes of the country as stated in Regulation R425 of February 1985 (SANC, 2005:3) provide a definite direction for the midwifery care actions of midwives in this country.
In 1919, a midwifery training school was established in the former home of Paul Kruger under the board called “Die Bond van Afrikaanse Moeders”, with a training period of twelve (12) months if the student was not already a registered nurse. In 1945, the South African Nursing Council (SANC) took control over midwifery training from the South African Medical and Dental Council in terms of the Nursing Act 45 of 1944, and in 1949 the training period was further increased by SANC to eighteen (18) months for unregistered persons and nine (9) for registered nurses. By 1960 the training period had become twenty four months (24) and twelve (12) months respectively. The SA Nursing Council continued with the improvements of the programme and, in 1968, accepted the principle that a midwife should also be a registered nurse (Sellers, 2013:4). This principle meant a training period of four years in order to become a midwife (Sellers, 2013: 6). A person trained for three years to qualify as a registered nurse, followed by an additional one-year post-basic period of training to qualify as a midwife. This additional year could follow the basic general training immediately or after a few years. In 1986, the training of nurse-midwives was extended to a full four year continuous training by the addition of Community Nursing Science and Psychiatric Nursing Science. This permitted the graduate from this programme to be a registered nurse, now designated as a professional nurse (SANC 2005:3).

Such a change allowed the trainee to practice as a general nurse and community nurse, general nurse and psychiatric nurse, or general nurse and midwife; this variety of options may have been the beginning of some practice problems in midwifery.

The problems probably arise because the person who is a general nurse and midwife could be allocated to work in a midwifery unit, including a Midwifery Obstetric Unit (MOU), where he/she has to take full responsibility and to provide independent midwifery care (DoH, 2007:4). Such a situation could be problematic to the newly qualified registered nurse and midwife who does not yet have the necessary experience. Also, the necessary advanced support to the midwife working in an MOU is not readily available (Fraser et al., 2010:10). The midwives in an MOU work on their own and will consult with the doctor
when they encounter or are about to deal with a complication. It often takes time to obtain the necessary assistance.

It is at this level of care that the skills of the advanced trained midwife (ADM) could be useful. According to the national midwifery guidelines (DoH, 2007: 5), each MOU is supposed to be led by an ADM who will take responsibility to advise and assist with obstetrical emergencies. Due to the shortage of ADMs, general midwives (general nurse and midwife), some of whom might lack the necessary midwifery experience, lead some of these units making it advisable for them to consult with the doctors or ADM in the next level of care institutions.

The ADM is trained to act in the absence of, or while waiting for, the arrival of the doctor when a complication is imminent or arises. The ADM is supposed to be capable of performing advanced obstetrical skills as well as having the theoretical background related to the care of women with obstetrical complications (Pairman, Pincombe & Thorogood, 2006: vii). Examples of the skills involved are, among others, delivery of babies in a breech presentation, the use of forceps and vacuum extractors as emergency delivery instruments and the management of post-partum haemorrhage. The management of post-partum haemorrhage is one of the first five directly related causes of maternal mortalities globally and in SA is classified as an avoidable factor (DoH, 2012: 35).

The National Committee of Confidential Enquiries into Maternal Deaths (NCCEMD) is responsible for the confidential enquiry into maternal mortalities in South Africa. This Committee developed a reporting system for maternal deaths. Since its inception in 1999, this Committee issued triennial reports that revealed an increase in maternal deaths due to health worker related avoidable factors in its (DoH, 2010: viii). When maternal mortalities due to avoidable factors continue to occur, one questions the worth of the ADM, hence it is necessary to investigate the worth of these practitioners by exploring their utilisation in practice.
The five main causative maternal mortality factors as identified by NCCEDM are complications related to Human Immuno-deficiency Virus (HIV) infection, obstetric haemorrhage, complications of hypertension in pregnancy, medical and surgical disorders and pregnancy related sepsis (DoH, 2010:4). Most of these deaths have been associated with actions taken at Level one (MOU) institutions under avoidable circumstances. Presumably, these deaths occurred in the presence of an ADM, either at that unit or at the referral institution, who was not consulted or was consulted too late to be of assistance. One anticipates that the death rate will decrease with the presence of and ADM in the unit, or following consultations with the ADM in another unit, rather than waiting for the doctor.

Furthermore, the September, 2010 Millennium Development Goals (MDG) Summit Report also indicated the need for trained midwives who could assist in confinement and as such referred to the presence of trained healthcare workers during delivery as crucial in reducing maternal deaths. The MDGs specific related to midwifery are MDG numbers four (4) and five (5). These MDGs call for an annual reduction in the maternal and neonatal mortality rates by three-quarters (75%) by 2015 (Muller, 2009:83). SA responded positively to that call and started putting measures in place towards achieving the relevant MDGs. These measures include governmental support by means of bursaries, study leave and time-off for staff to be trained and ensuring that more midwives are currently being up-dated and empowered for the task. However, despite these efforts by the SA government the maternal mortality rates are increasing annually in the country. For that reason the focus of this current study will be to establish how the general midwives perceive the use of the skills of the advanced midwife. The information will assist to evaluate the role and use of the advanced midwife in the country and to recommend a plan that would enhance the utilization of the ADMs in order to limit the rate of maternal deaths at Level one institutions. The use of the ADM’s still seems to be a challenge.

The fact that the comprehensive basic nursing qualification programme in SA has midwifery as a subject sometimes gives rise to confusion in terms of keeping to the different roles and authority during practice (scope of practice). Such confusion may lead
to conflict amongst the midwives in the obstetric unit, leading to delayed or incorrectly done assessment and management of women during confinement and allowing deaths to continue to occur. Furthermore, such confusion impedes the progress of the country towards the achievement of the stated MDGs. The shortage of staff further aggravates these difficulties as many staff members have resigned and their posts are difficult to fill (DoH, 2012: 7).

For that reason, the current study aims to investigate perceptions of NMM MOU midwives regarding consulting with advanced midwives. Responses in the study could assist in sharing information that would identify the usefulness of ADMs as credible sources for consultation and for assistance in the absence of a doctor or obstetrician for referral purposes. This information would address possible concerns and allow the introduction of systems that will enhance the utilisation of advanced midwives. It might also be possible, through this study, to identify gaps that need attention in the curriculum of ADM’s in this country.

3. PROBLEM STATEMENT

The researcher was employed as a midwife at a hospital in the NMM area and has observed that midwives who work in the obstetric units in this area prefer the assistance of a doctor when there is a need for a referral, decision or plan for the management of a pregnant woman. Often there would be reluctance or no effort made to make use of the skill of the ADM who might be present at the time. Even the doctors disregarded the expertise of the ADM in the units and insisted on the midwives calling them before taking any decisions regarding the care of the labouring women. Such instructions could be acceptable in Levels two and three hospitals but not at a Level one institution. Delayed decision-making may result in complications because the waiting period is usually the critical interval when most intra-partum complications occur especially in the wake of emergency transport concerns.

Such observations motivated the researcher to carry out this research study to investigate the reasons related to the reluctance of the general midwives to use the available
midwifery expertise in the obstetric units. The researcher will use a quantitative research design to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives.

4. RESEARCH QUESTION

The study seeks to respond to the following questions:

- What are the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives?
- What are the preferred actions to be put in place to motivate midwives to consult the ADM’s in obstetric units in the NMM area?

5. PURPOSE

The purpose of the study is to explore and describe the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives. The researcher will make recommendations guidelines based on the findings from the study to enable nurse managers to optimize consulting between advanced midwives and the midwives in obstetric units in the NMM area. The relevant implementation of these guidelines will assist and limit the occurrence of avoidable maternal complications or deaths.

6. OBJECTIVES

The objectives of this study are two-fold.

- The **primary objective** is to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives.

- The **secondary objective** of the current study, based on the results, will be to make recommendations to the managers of the obstetric units within the NMM to enhance consulting with advanced midwives by midwives in obstetric units.
7. **CLARIFICATION OF CONCEPTS**

The researcher needs to define the specific concepts used in the research study. The abstract or theoretical meaning of the concepts needs to be clarified in order for other researchers to understand the context as related to this specific study (Polit & Beck, 2010: 66).

### 7.1 Midwife

A midwife, as defined by the World Health Organization (WHO), is a nurse with a qualification in midwifery who is registered with the relevant country’s licensing body as a midwife. The WHO does not prescribe who is eligible for registration in South Africa (SA).

The SA Nursing Act 50 of 2005 describes a midwife as “a person who, having been regularly admitted to midwifery education programmes, is legally licensed to give the necessary supervision, care and advice to women during pregnancy, labour and post-natal period”. Both definitions will be useful in the context of this study.

### 7.2 Advanced midwife

An advanced midwife is a midwife who is a clinical nurse specialist in midwifery, who has furthered her studies after the basic qualification of general nurse and midwife and who has been registered with the South African Nursing Council (SANC R212 of February 1993, as amended by R74 of January 1997). An advanced midwife acts as a consultant, educator and clinical specialist in the field of Midwifery and Neonatology Nursing Science.

The advanced midwife is differentiated from the generalist midwife in this study by the abbreviation ADM.

### 7.3 Midwifery Obstetric Unit (MOU)

According to Cronje and Grobler (2009:679), a MOU is a primary perinatal facility where midwives render maternal care to low-risk pregnant women. These units are situated in, and are part of the community and are linked to a referral hospital. The MOUs referred to in this study are situated in the NMM area.
7.4 **Perceptions**
A perception is the process through which we give meaning to the information we get from our senses (Louw & Edwards, 2009:150). The Oxford Online Dictionary (2013) defines perceptions as the way in which something is regarded, understood and interpreted.

7.5 **Consult**
The Oxford Online Dictionary (2013) defines consult as to seek information or advice from someone, especially an expert or professional. The concept will apply to expert professional advice in the context of this study.

7.6 **Professional Nurse**
The term professional nurse in SA refers to registered nurses listed on the register of the SANC, irrespective of the basic course(s) completed to achieve this status as a practitioner (SANC Nursing Act No 33 of 2005:6).

8. **RESEARCH DESIGN**
Research designs are the plans and the procedures for the research that plan the transition from broad assumptions to detailed methods of data collection and analysis. The selection of the research design is based on the nature of the research problem or the issue being addressed (Creswell, 2009:3) For the purpose of this study, the researcher will use a quantitative approach with a descriptive and exploratory design to determine the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives.

9. **RESEARCH METHODS**
The research methods refer to the techniques or methods used by the researcher to structure a study. The methods outline the scientific approach used to gather information, analyse data and describe findings related to the research question (Polit & Beck, 2008:16). A brief discussion of the research methods for the current study follows below.
9.1 Research population
The term population refers to all the elements, objects or substances that are the focus of the research and that meet the sampling criteria (Burns & Grove, 2009:343). Whereas Brink (2006: 123) perceives a research population as the entire group of individuals from which the sample is drawn. The population for this study will be all midwives working in obstetric units in the NMM area. A suitable sample is needed therefore a definite sampling method will be applied.

9.2 Sampling methods and Sample
A sample will be drawn from the population for the study by simple random probability and non-replacement method (Parahoo, 2006:379). The sampling method will be guided by a specific inclusion and exclusion criteria. Proctor, Allan and Lacey (2010) maintain that the use of simple random probability sampling in quantitative research reduces errors and biases in the study.

The list of names and units where the possible participants are working will form a sample frame from which the researcher will select midwives randomly by assigning a number to each name and picking the numbers out of a hat to obtain a sample. The name will be recorded and not replaced again before the next name is drawn to ensure equal opportunity for each participant (Burns & Grove, 2009:349). The sample size aimed at is 130 participants as discussed with and advised by the statistician. As soon as the sample has been finalised, data collection will start.

9.3 Data-collection Method
The data-collection method is the technique applied to obtain information required to answer the research question (Brink, 2006:141). The data-collection method will determine the accuracy of the research findings, therefore it has to be suited to the research questions and the research design. A structured data-collection approach will result in quantifiable data being collected (Polit & Beck, 2010: 338).
The perceptions of NMM obstetric unit midwives regarding consulting advanced midwives will be measured for the purpose of this study. Hence, a descriptive survey will be used for data collection. The survey will be conducted using a self-administered structured questionnaire. The use of a structured questionnaire will ensure that the data collected is unambiguous, easy to count and therefore quantifiable (Bowling, 2009:282). This questionnaire will be structured in such a manner that allows for exploration and descriptions of the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives. The questionnaire will be divided into two sections: Section A will collect the biographical data of the participant through closed-ended, yes/no and multiple choice style-questions, while Section B will focus on exploring and describing the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives.

9.4. Data-analysis Method

According to Brink (2006:170), data analysis entails categorizing, ordering, manipulating the data and describing it in meaningful terms. It begins with reviewing of the study objectives, which in this study are to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives, in order to identify what is needed to satisfy each objective. Data analysis forms part of the analytical phase and aims to answer the research question. The data needs to be systematically analysed in an organised manner using statistical analysis (Polit & Beck, 2010: 392).

A statistician will be used to guide the researcher in the organization and interpretation of the results of the current study. The statistician will also help to communicate the numerical data using the software package Statistica Version 21 to ensure efficacy of the results. Descriptive statistics, as indicated by the statistician and agreed upon by the research supervisor, will be used to summarize and describe the data. Results will be presented by means of frequency graphs, figures and tables to illustrate the perceptions of the participants (Parahoo, 2006: 379). The findings from the analysed data will be used to develop the necessary guidelines to enhance consulting of advanced midwives’ by midwives in obstetric units within the NMM area.
9.5. Pilot study

Burns and Grove (2009:549) describe a pilot study as a small study conducted prior to a larger research in order to determine whether the methodology, questionnaire and analysis method implemented are adequate and appropriate. According to Polit & Beck (2010: 563), a pilot study is a small trial run of the actual study. A pilot study allows the researcher to make adjustments prior to the main research (Brink, 2006: 166). For the current study the researcher will draw a sample of 25 participants from the sample frame for the purpose of a pilot study.

The questionnaires completed by the participants in the pilot study will be analysed and interpreted according to the proposed main study. Any adjustments needed to the final questionnaire will be made based on the findings from the pilot study.

10. QUALITY OF RESEARCH

Data quality can be influenced by many factors such as the subject, researcher, environment and instrument used. Validity and reliability ensure that the research is valid, meaningful, an accurate reflection of reality and can be replicated (Brink, 2006: 158). The researcher will use these measures to ensure the quality of the research findings.

10.1 Reliability

Burns and Grove (2009:377) state that reliability concerns measures to ensure the internal consistency of the research instrument and indicates the extent of random error in the measurement method. Reliability refers to the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time on the same person, or if used by two researchers (Brink, 2006: 165). Botma et al., (2010: 177) further propose that reliability is an indication of the extent of random error in the measurement method. The researcher will ensure reliability by the use of a statistician, the use of the same questionnaire for all the participants and by conducting a pilot study.
10.2 Validity
Validity is the approximate truth of an inference (Polit and Beck, 2008:286). Botma et al., (2010:174), state that validity refers to the degree to which a measurement represents a true value. In this study, content, face and construct validity will be the measures employed to enhance validity.

10.2.1 Content validity
Content validity involves an assessment of how well the measurement represents all the components of the variable to be measured (Brink, 2006:160). In this study, a statistician and the research supervisor will guide the whole process of the development of the questions and questionnaire. An in-depth literature review will be included to ensure and support content validity. The pilot study will also assist in this regard.

10.2.2 Face validity
Face validity means that the instrument appears to measure what it is supposed to measure. It is essentially based on an intuitive judgement made by experts in the field (Brink, 2006:160). The researcher will have the questionnaire assessed by at least one health professional experienced in quantitative research and midwifery clinical practice at the Department of Nursing Science at NMMU after it has been developed under the guidance of the statistician, to evaluate and to make recommendations before it is used in the field. Findings from the pilot study will be considered for this purpose.

11. RESEARCH ETHICS
Research participants and society need to be respected and protected against harm. For this purpose, codes of ethics were developed and there are specific bodies that enforce these codes (Bowling, 2010: 167). Established codes of ethics include are the Nuremberg Code, Declaration of Helsinki and the Belmont Report. The principles contained in these codes enable ethics committees to ensure that research participants are protected (Burkhardt and Nathaniel, 2008:306).
In this study, the researcher will observe the ethical concerns such as:

- The principle of permission,
- Informed consent,
- Privacy and confidentiality
- Cause no harm

Further discussions of these ethical principles as used in this study will be in chapter three.

12. CHAPTER LAYOUT
The chapter layout for the proposed study will be as below.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Name of chapter</th>
</tr>
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<tbody>
<tr>
<td>Chapter 1</td>
<td>Overview of the study</td>
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<tr>
<td>Chapter 2</td>
<td>Literature review</td>
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<tr>
<td>Chapter 3</td>
<td>Research design and methods</td>
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<td>Chapter 4</td>
<td>Data analysis and presentation of findings</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Discussion of findings</td>
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<tr>
<td>Chapter 6</td>
<td>Findings, limitations, summary, recommendations and conclusion</td>
</tr>
</tbody>
</table>

13. DISSEMINATION OF RESULTS
The final report will be submitted to the NMMU to be kept in the library for public use. Furthermore, the results will be shared with management and staff at all the obstetric units within the NMM area through a formal presentation as well as by in-service education sessions. An article will also be written and submitted in a peer reviewed obstetrics or midwifery journal for publication.
14. CONCLUSION

Advanced trained midwives are the backbone of many obstetric services especially with the shortage of obstetricians and the strengthening of primary healthcare services. Pregnancies and labour processes classified as low risk will sometimes change and complicate necessitating admission to high-care facilities. In the high-risk units, obstetricians/medical officers may not be readily available and such situations necessitate intervention by an advanced midwife. Advanced midwives are trained to play an important role in managing low-risk and high-risk obstetric patients and it appears that they may still be underutilized. A plan to change this assumption is needed hence the current proposed study.
CHAPTER 2
LITERATURE REVIEW

2.1 INTRODUCTION
The current chapter focuses on a review of the relevant literature as a background to the problem statement and the development of the questionnaire for this study. Limited information is available on the proposed study and, as a result, a wide range of information from related studies has been used to identify existing information that would provide justification regarding the perceptions of general midwives with regard to consulting advanced midwives. A general background will be outlined of the current practices of midwives, the knowledge of advanced midwives and the skills they have obtained.

Midwifery is traditionally holistic, combining an understanding of the social, psychological, spiritual and physical aspects of a woman's reproductive experience. Midwives promote wellness in women, babies and families both in their own right and in collaboration with other health care professionals (Duckett, 2005:34). From personal experience as a midwife, most midwives are not opposed to medical intervention but rather believe that most women with low risk pregnancies can safely give birth naturally with little or no medical intervention. The advanced midwife is trained to enhance this possibility by using the additional knowledge and experience gained during his/her training and the skills that were mastered.

The focus of the discussions in this chapter will be based on premise of the definition of a midwife and an advanced midwife, the different education and training together with the scopes of practice of these two categories of midwives. Factors related to willingness and resistance to change, placement, utilization and acknowledgement of the skill of any individual or professional, which in the context of this study will be that of the advanced midwife, will be explored to create a clear picture of the topic being investigated.
2.2 THE SCOPE OF PRACTICE OF MIDWIVES IN SOUTH AFRICA (SA)

The scope of practice for midwives in SA provides guidelines that prescribe how midwives should carry out their practice within the country’s legal framework and the global expectations and limitations. In SA a registered midwife is expected to carry out his/her duties according to the scope of practice as prescribed by the regulatory body, SANC, and reflected in regulation (R2488 of 26 October 1990). The particular regulation describes the responsibilities and actions to be taken by the registered midwife during antenatal care, labour and puerperium. It also stipulates the necessary monitoring of the woman and child during all these phases of confinement, the drugs to be administered and also recommends the conditions and the length of time to be spent with the woman and baby before and after delivery (SANC, R2488 of 26 October 1990). The regulation speaks to midwives in general and, where necessary, also describes conditions under which the midwife may refer the mother for further management to the registered person, who is registered in terms of section 45 (1) (q) of the Nursing Act, 1978 (Act No. 50 of 1978) or in terms of the Medical, Dental and Supplementary Health Service Professions Act, 1974 (Act No 56 of 1974). In most instances this person will be the doctor (obstetrician).

Owing to the shortage of doctors, advanced midwives are now in a position to assist with the management of obstetrical complications either completely independent of the doctor or while waiting for medical attention. The rules setting out acts or omissions that are in line with the scope of practice for midwives are stipulated in Government Notice (R386 15 February 1985, as amended). Any deviation from these rules constitutes unlawful behaviour and the practitioner may be liable for disciplinary action and possibly a penalty. The aforementioned discussions were to explain the nature of the scope of the midwife and the need of the services of an advanced midwife.

The regulations and scope of practice of midwives are also applicable in MOU's. However, as previously indicated, the midwives working in the MOU may be newly qualified and may be overwhelmed with some of the responsibilities entrenched in the regulation but must act to her full capability as he or she may be the only midwife available.
at that time (Fraser, et al., 2010:9). This constitutes an offence but could be acceptable if there is an official report of the circumstances (Chapman, 2012:425). The midwife in the MOU could benefit from consulting with the ADM who is immediately available to him/her.

For this reason the government developed guidelines and protocols to assist midwives especially those working in MOUs (DoH, 2007:10). Midwives are further trained in advanced programmes to assist the development of their confidence in their abilities. Despite this, one notes that the utilization of the advanced midwife is still limited, as the doctor remains the preferred person to consult with.

2.3 MIDWIFERY EDUCATION AND TRAINING IN SOUTH AFRICA

The education and training of the midwives in SA is for the purpose of basic and post-basic qualification and therefore will be discussed as such in the following section.

In 1919, a midwifery training school was established in the former home of Paul Kruger, where the training period was twelve (12) months if the student was not already a registered nurse (Sellers, 2011:xlviii). The South African Nursing Council took control of midwifery training in 1945, and in 1949, the training period was increased to eighteen (18) months for unregistered persons and a new curriculum introduced for the qualified nurse. The period of training was nine months (9) for registered nurses. By 1960 the period of training in midwifery had become twenty four months (24) and twelve (12) months respectively. Such a step is in terms of the current responsibilities of a midwife and was an indication that the scope of responsibility was extending and that midwives were marketing themselves as having the ability to cope with the scope of work responsibility. In 1968, SANC adopted the principle that a midwife should also be a registered nurse (Sellers, 2011:xxxii). During that period, a person had to train for three years to qualify as a registered nurse followed by an additional one-year post-basic period of training to qualify as a midwife.

In 1986, a complete new nursing qualification and training was introduced. The training was for four continuous years and led to qualification/registration as a general nurse,
(community health care, psychiatry) and midwifery (R241). The qualification was that of a professional nurse. This qualification allowed the trainee to practice as a general midwife and that might have been the beginning of some practice challenges in midwifery. Mekwa (2000:282) holds the opinion this change was necessitated by the profession's compelling ideal of a generalist who could function efficiently in all four disciplines. According to Rycroft-Malone, Fontenla, Bick, and Seers (2008:152), in 1992 concerns began to be raised that midwives are poorly prepared to practice midwifery after the four year course compared to those who had done the one year midwifery course. Schoon and Motlometsi (2012:784), in their study on poor maternal outcomes, assert that the most devastating effect on the current maternal services is the integration of midwifery as a subset of the comprehensive nursing training programme. Different schools comply with the midwifery curriculum differently, namely, either for one full year or over two years part-time simultaneously with either primary health care or psychiatric nursing care as the regulation is not specific on this regard.

The main challenge is that the general midwife could also be allocated to work in a Midwifery Obstetric Unit (MOU), where he/she is expected to take full responsibility to independently conduct and coordinate midwifery care. This could be problematic to a newly qualified registered nurse, as the necessary support to the midwife working in an MOU is not readily available (Fraser et al., 2010:10). The concern, as observed by the researcher, still exists even after the introduction of the one year community service before registration as the newly qualified nurse, due to the shortage of midwives, does not have the expected mentoring towards registration but has to take responsibilities on his or her own. In an MOU, the midwives will consult with the doctor when they encounter or are about to deal with a complication. Such consultation often takes time as the needed doctor may not be readily available on the telephone, thus delaying the necessary assistance. The general midwife might find him/herself having to act beyond his/her scope as a means to avert a further complication. In some cases, as observed by the researcher, the ADM is readily available for consultation but will not be recognized for such assistance. The ADM is trained specifically to assist in the absence of a doctor.
The first advanced midwifery training programme was established in KwaZulu-Natal in 1980 at King Edward VIII Hospital, Durban. Candidates to this programme have to be in possession of a basic general nurse qualification with at least two years’ experience after the basic qualification. The programme extends over one year of continuous training (Section 2 9(b) (i) SANC R215: 5). Such requirements on their own signify the midwifery clinical experience needed in order to qualify as an ADM, hence the confidence to be a consultant in clinical midwifery. This qualification as stated in regulation R212 enables the graduate (advanced midwife) to function as a clinically focused, service orientated, independent midwife, who is able to render comprehensive midwifery care from the prenatal stage to the postnatal stage (SANC R1665:5). An advanced midwife refers to a registered nurse, who has undergone additional specialized training in an advanced course in midwifery. In addition to performing duties under the scope of practice for midwives, R2598 of 30 November 1984, as amended, and R2488 of 26 October 1990 as amended; he or she engages in complicated midwifery procedures (SANC, R1665:5). An advanced midwife by virtue of his or her additional training could act as a consultant, educator and clinical specialist in the field of Midwifery and Neonatal Nursing Science. The ADM is therefore a suitable consultant in midwifery and may assist to limit maternal and neonatal mortalities.

In view of the rising SA perinatal and maternal mortality and morbidity rates (Schoon and Motlometsi, 2012:784), it is essential to have a properly trained midwifery practitioner who is able to provide quality midwifery and neonatal nursing care in this country. Appropriate preparation and skills development of health workers, including midwives, is viewed by WHO (2006:26) as one of the solutions for decreasing maternal death rates globally, hence the need for this midwifery qualification in SA. The education and training that advanced midwives receive empowers them with the knowledge and skills to make timely internal adjustments and decisions regarding assessment and referral of patients to higher levels of care for the doctor’s intervention (DoH, 2008:iv). This bridges the gap between a doctor and a midwife, hence the need for consultation when necessary. Based on the knowledge acquired during basic midwifery training, the advanced midwife has a thorough knowledge of basic midwifery practice. Through this basic knowledge, he/she is
able to identify any deviation from normality and this will help in quick decision making in times of emergencies.

In addition to the basic midwifery knowledge, Fraser et al., (2006) suggests that a wide range of skills and personal attributes of working with childbearing women and other health care professionals should form part of the learning content and experiential teaching during learning. This in turn will shape the independent practitioner needed in midwifery practice. This is the kind of background that is considered before a candidate is accepted for training as an advanced midwife.

Different categories of midwives take care of women in a clinic, hospital or an MOU. These categories are, namely:

- Registered midwives
- Professional nurses
- Enrolled midwives and
- Advanced midwives

All these categories perform their duties under the SANC Regulation 2598 of 30 November 1984, as amended, and R2488 of 26 October 1990, as amended. They manage and refer the mother or child when complications arise, by performing their functions as under R2598 of 1984 and R2488 of 26 October 1990 SANC (R387 of 15 February 1985). Due to the shortage of ADMs it may at times become a confusing situation to decide when to act or not to act and when to refer, especially in an MOU. At times the experience in years as a practising labour ward midwife assists in this regard.

The relevant scope of practice within the above categories of midwives is regarded as essential to prevent professional role conflict and to promote early midwifery intervention when complications arise in the absence of the doctor, thus preventing an increase in maternal mortality rates. However, the limited recognition of the scope of practice for post-basic midwives is a concern. Despite this confusion and limited recognition, the role of the advanced midwife in midwifery care, which includes a variety of responsibilities
among which is that of a consultant, could still play an important role in maternal and child health services.

2.4 PLACEMENT AND UTILIZATION OF ADVANCED MIDWIVES.

In order to ensure that advanced midwives are practicing what they have been trained for, it is important to place and utilize them appropriately. The rationale is to improve on the quality care currently provided to all women, and their families in South Africa, during their childbearing ages. Loewenson and Thompson (2007:132) also state that in SA there is a mal-distribution of human health resources. In midwifery the mal-distribution, as observed in the clinical environment, is thought to be compounded by the limited number of advanced midwives and the fact that they most of them are allocated in hospitals instead of clinics or MOUs. The placement of ADMs in MOUs could assist in providing high quality care.

In order to comply with the principles of safe motherhood, in the areas where skilled attendants are utilized, they should demonstrate the quality of care that will help to reduce maternal and neonatal morbidity and mortality (DoH, 2005:22). The SA Health Ministry, together with the rest of the world, insists that mothers in confinement should be assisted by and have a skilled professional individual when they are in labour in an effort to meet MDG four and five (DoH, 2012). Furthermore, it is possible that the utilization of ADMs in maternity areas would ease the burden of the birth and delivery of the child owing to their skill. Therefore, placement and utilization of ADMs should be directed to areas offering midwifery services, especially where there are no or few doctors.

The latter argument holds value if, as suggested by Loewenson & Thompson (2007:206), the workplace is equipped with all resources that enhance and promote quality midwifery practice. To ensure that advanced midwives are competent enough to practice independently, they should be exposed to and be involved in midwifery issues during antenatal, intra-partum and the puerperal periods and also the neonatal care. The concept of advanced midwifery is not new in this country hence the concern regarding the limited use of these professionals that led to this study. The researcher will therefore
explore and describe the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives.

2.5 CONCLUSION
This chapter provided a review of the literature with regard to the perceptions of general midwives regarding consulting with advanced midwives. The chapter outlined the general background for understanding current training and practices of midwives, the knowledge of advanced midwives and the skills they are expected to have obtained. A substantial number of studies have been conducted on the evaluation of the basic midwifery courses, in which the focus was mainly on general nursing. Only a few researchers have paid attention to the evaluation of advanced midwives’ competencies. As a result, the researcher looked at the basic midwifery courses, advanced midwifery, the apparent confusion between the two professions as well as the placement and utilization of advanced midwives. The research methodology followed will be discussed in chapter 3.
CHAPTER 3
RESEARCH DESIGN AND METHODS

3.1 INTRODUCTION
Chapter one of this study provided an overview of the study while chapter two provided a literature review to justify the study. The literature review related to the perceptions of general midwives with regard to consulting advanced midwives and provided a general background for understanding current training and practices of midwives and the knowledge and the skills expected of advanced midwives to have obtained. This chapter will provide a discussion of the research design and methods used in the study, the research design and the methods, the data collection process and its methods, the process and method of data analysis and the applicable validity and reliability measures. The chapter will also include a description of the ethical considerations applied during the study.

3.2 RESEARCH DESIGN
The research design is the road map of how the researcher intends to conduct the study (de Vos, Strydom, Fouche & Delport, 2005:165; Mouton, 2005:55; Bless, Higson-Smith & Kagee, 2006:71). Specifically, it addresses how data will be collected in order to answer the research question. A quantitative research design with a descriptive, exploratory and contextual approach was used in this study. The full research design will be discussed in the next sub-sections.

3.2.1 Quantitative
Quantitative research focuses on using empirical evidence with findings based on reality (Polit & Beck, 2008:16). Data are gathered through formal measurements using structured instruments and are analysed through statistical procedures (Polit & Beck, 2008:16). The midwives in this study had to respond to questions related to their real action, namely consulting with advanced midwives. According to Creswell, (2009:3), quantitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem and in the context of this study, it is the challenge
related to MOU midwives not consulting with advanced midwives for assistance when needed.

The researcher selected the quantitative method as the most appropriate method to respond to the objectives of the study. This study dealt with numerical data collection methods, a self-administered structured questionnaire was the data-gathering tool and the analysis of the data done under the guidance of a statistician and research supervisor.

3.2.2 Descriptive
Descriptive research is a strategy of inquiry in which the researcher identifies the essence of human experiences regarding a phenomenon as described by participants. Descriptive procedures involve studying a small number of subjects through extensive and prolonged engagement to identify patterns and relationships of meaning (De Vos, Strydom, Fouche, & Delport, 2008:264). The current research is non-experimental, which means that the researcher observed, described and documented perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives by means of a survey (Polit & Beck, 2010: 236). The participants were allowed the opportunity to describe their perceptions through a self-administered structured questionnaire.

3.2.3 Explorative
A central objective in an explorative research is to understand the composition or demographics of a particular population and build an understanding of that population’s knowledge, attitudes and practices on a particular topic or issue (O’Leary, 2010:110). The researcher needed to understand the factors influencing the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives. The researcher wanted to understand why and how midwives decide not to make use of the skill and knowledge of advanced midwives to help with the diagnosis and management action plans for the women in their units.
3.2.4 Contextual
Botma, Greeff, Mulaudzi & Wright (2010: 88) suggest that research can be conducted in a variety of contexts or settings. These could be natural or field contexts, partially controlled or highly controlled contexts (Botma et al., 2010: 88). Furthermore, Burns and Grove (2009:178) maintain that research context is the body, world and the concerns unique to each person within which one can understand that person. In this study, the context is an MOU in the NMM with or without an antenatal care clinic attached to it.

3.3 RESEARCH METHODS
Research methods refer to the techniques or methods used by the researcher to structure a study. The methods outline the scientific approach used to gather information, analyse data and describe findings related to the research question (Polit & Beck, 2008:16). In so doing, the researcher determines a firm foundation for the purpose of credibility of the research findings. The researcher posed three questions in the context of the current study for which answers were sought.

The research methods in this study included the research population, sample and sampling method that enabled the data collection process to proceed as directed by the study objectives. A full description of the data-collection methods follows including the data collection instruments and period, data-analysis method, pilot study and the measures to maintain reliability and validity of the study in order to justify the results of the study.

3.3.1 Research population
The term population refers to all the elements, objects or substances that are the focus of the research (Burns & Grove, 2009:343). A research population, as perceived by Brink (2006: 123), is the entire group of individuals from which the sample is drawn. To this effect, Burns & Grove (2009: 342) describe a target population as the entire set of individuals or elements who meet the sampling criteria.
The researcher wanted to study NMM obstetric unit midwives’ perceptions regarding consulting advanced midwives. This was the specific characteristic of interest to the researcher and therefore the research population included all the midwives working in obstetric units in the NMM area. The population was delimited to a homogenous group of participants through the use of inclusion criteria. The total number of midwives who formed the sample frame of this study was 157 (Davies, 2007:58).

3.3.2 Sample and Sampling methods

A sample refers to the individuals who are the actual participants in the research study. Inclusion and exclusion criteria are used to help the researcher to decide whether a participant is eligible to form part of the sample group or not (Brink, 2006: 123). The sample was selected from among midwives fitting the following inclusion criteria.

The participant had to:

- be registered with the South African Nursing Council as a midwife or a professional nurse
- be working in the MOU for at least six months
- be working in an MOU within the NMM area
- be permanently employed in that obstetric unit.

The exclusion criteria were:

- Midwives who are managers of the units
- Midwives who are ADM’s

Simple random probability sampling using the non-replacement approach was the sampling method used. The use of a sample is more practical and economical than with large target populations (Polit & Beck, 2010:241). Furthermore, Burns & Grove (2009:349) maintain that selection with non-replacement is the most conservative random sampling approach as it provides exactly equal opportunities for each participant to be selected.
The sampling process commenced with the researcher obtaining the names of all eligible midwives from the main human resource office of the NMM area as all these obstetric units fall under the control of the District Department of Health. Operational Managers in the different obstetric units were approached to confirm the accuracy of the lists (Davies, 2007:58). The list of names formed a sample frame from which the researcher selected midwives randomly by assigning a number to each name and picking the numbers out of a hat to obtain a sample. The name, after being allocated a number, was recorded and not replaced before the next name was drawn to ensure equal opportunity for each participant (Burns & Grove 2009: 349). The sample size aimed at and advised by the statistician was 130 participants.

The size of the sample depends on the magnitude of anticipated changes and the degree of ‘fit’ between the sample and the population (Burns & Grove 2009:357; Parahoo, 2006:276). The population in this study was homogenous thus accommodating ‘fit with sample’ and the change expected is not of major significance hence the sampling of at least 83% of the population was deemed suitable.

3.3.3 Data-collection
Brink (2006:141) defines a data-collection method as the technique applied to obtain information required to answer the research question. The current research is non-experimental, which means that the researcher should observe, describe and document the midwives' attitudes and thus choosing a survey as data collection method. The perceptions of NMM obstetric unit midwives regarding consulting advanced midwives was measured by means of a descriptive survey using a self-administered structured questionnaire (see Annexure D), and the period of data collection was July to September 2013.

3.3.3.1 The questionnaire
To respond to the research questions and objectives, the questionnaire (See Annexure A) was divided into five sections, namely, Section A, B, C, D and Section E in the following manner:
Section A included the biographical profile while Section B included:

- Information regarding confidence in the ability to manage low risk delivery
- Information regarding understanding of accurate midwifery classification
- Information regarding knowledge of recognition of the need to refer
- Information regarding the need for advanced skill
- Information regarding the need for immediate referral to Level 3 institutions

Section C included information regarding the performance of advanced skills, Section D referral to the advanced midwife and Section E comprised information regarding the confidence in the performance of the advanced skills by the advanced midwife.

After securing permission to conduct the study, entry to the site was determined and confirmed following the correct procedures (see Annexure A), which were to approach the Chief Executive Officer of the hospitals or Operational Managers of the different MOUs. The selected participants each received a hand-delivered questionnaire in a closed envelope, together with a letter explaining the aim and purpose of the study, the ethical considerations adopted in the study as well as a self-addressed self-sealing envelope for returning the completed questionnaire (Annexure B and C). An informed consent form, which the participants had to complete for their participation was also enclosed. Participants had to either complete the questionnaire on their own and submit it as directed, or complete it in the presence of the researcher.

Most of the participants chose to complete the questionnaire as a group under the researcher’s guidance as this was an option given to them, to eliminate the submission of incomplete questionnaires. This option of individual group completions was facilitated by the easy availability of the researcher to answer queries or questions related to the questionnaire thus enhancing the quality of responses. The option chosen furthermore forced the data collection to be at work and therefore tea and lunch breaks were the suitable periods to complete the questionnaires. The researcher was compelled to have a field-worker who worked in the same facility as the participants to assist, especially to accommodate day and night shift data collection times. The use of the fieldworker also
helped to speed up data collection process while the researcher is collecting in other units.

Each participant placed his or her completed questionnaire in the box provided that the researcher or fieldworker removed at the end of each session. Each site visited had its own box with a specific label to identify it from the other boxes.

### 3.3.4 Data-analysis

Data analysis forms part of the analytical phase and aims to answer the research question. According to Brink (2006:170), it entails classifying, collating, manipulating the data and describing it in meaningful terms. It begins with reviewing of the study objectives to identify what is needed to satisfy each objective. Polit & Beck (2010:392) further maintain that data needs to be systematically analysed in an organised manner with the help of statistical analysis.

As the researcher is not skilled in the use of statistics, a statistician from the Nelson Mandela Metropolitan University (NMMU) Unit for Statistical Consultation was approached to guide the organization and interpretation of the results. The statistician also helped to communicate the numerical data using the software package Statistica Version 11 to ensure efficacy of the results. The statistician used descriptive statistics, namely frequencies and percentages for categorical data, and means, statistical variations or medians and percentiles for continuous data to illustrate the perceptions of the participants (Parahoo, 2006:379). The findings from the analysed data will be presented in Chapter 4.

### 3.4 QUALITY OF RESEARCH

Many factors such as the subject, the researcher, the environment and the instrument used influence data quality. Validity and reliability ensure that the research is valid, meaningful, an accurate reflection of reality and can be replicated (Brink, 2006: 158).
3.4.1 Reliability
Burns and Grove (2009:377) state that reliability concerns measures to ensure the internal consistency of the research instrument and indicates the extent of random error in the measurement method. Reliability refers to the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time on the same person, or if used by two researchers (Brink, 2006: 165). Botma et al., (2010:177) further propose that reliability is an indication of the extent of random error in the measurement method. To ascertain reliability, the statistician guided the entire process from the development of the questionnaire to assisting with the analysis of the data to ensure objectivity. Internal consistency was maintained by using the same questionnaire for all respondents. A pilot study was also done to ensure that the questionnaire accurately investigated the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives.

3.4.2 Validity
Validity is the approximate truth of an inference (Polit and Beck, 2008:286). According to Botma et al., (2010:174), validity refers to the degree to which a measurement represents a true value. They further emphasize that validity is always a matter of degree and is not absolute. The focus should be placed on the sample formation and the measuring instrument to ensure a true reflection of the entire population. Validity further ensures the extent to which a measure accurately represents a behaviour, attitude or event (Polit & Beck, 2010: 106). Simons (2009: 127) confirms that validity is concerned with how the merit of the study is established; whether it is sound, defensible, coherent, well grounded, appropriate to the case and worthy of recognition. In this study, content, face and construct validity were measures employed to enhance validity.

3.4.2.1 Content validity
Content validity involves an assessment of how well the measurement represents all the components of the variable to be measured (Brink, 2006:160). Content validity refers to whether the questionnaire and the items it contains is representative of the content domain the researcher intends to measure (De Vos, et al., 2005:161). A statistician and
the research supervisor will guide the whole process of the development of the questions and questionnaire for this study. A literature review will be included to ensure and support content validity. The pilot study also assisted in this regard.

3.4.2.2 Face validity

Face validity means that the instrument appears to measure what it is supposed to measure. It is based on an intuitive judgement made by experts in the field (Brink, 2006:160). After developing the questionnaire under the guidance of the statistician, the researcher had it assessed by an experienced health professional at the Department of Nursing Science at NMMU who had knowledge and experience in quantitative research and midwifery clinical practice. Such an action was to ensure of that the questionnaire measures health and midwifery action, to evaluate it and to make recommendations before it was used in the field. Findings from the pilot study were also considered for this purpose.

3.5 RESEARCH ETHICS

Research participants and society need to be respected and protected against harm. For this purpose codes of ethics were developed and there are specific bodies that enforce these codes (Bowling, 2010: 167). The main codes of ethics in research are the Nuremberg Code, the Declaration of Helsinki and the Belmont Report. The principles in these codes are used by ethics committees to ensure that research participants are protected (Burkhardt and Nathaniel, 2008:306).

In this study, the researcher will observe the ethical concerns such as:

- The principles of permission,
- Informed consent,
- Privacy and confidentiality
- Cause no harm

The discussions of ethical guidance in this study follow below.
### 3.5.1 Obtaining permission

To gain permission to conduct the study, the researcher submitted an application in the form of a research proposal to the Department of Nursing Science and to the Faculty Research, Technology and Innovation Committee of the Nelson Mandela Metropolitan University. The application documents were also forwarded to the relevant persons at the Department of Health for the purpose of permission to gain entry to the obstetric units within the NMM area. (See Annexure A).

### 3.5.2 Informed Consent

An important ethical principle that directs research is that the participants should be informed and give their voluntary written consent to participate in a research study (Neuman, 2007: 54). Informed voluntary consent applied in this study. The researcher ensured that the participants felt free to participate and that participation or non-participation was voluntary (see Annexure C).

After independently receiving information regarding the research, the participants were informed that they are free to choose whether or not to participate in the study without risking any penalties (Burkhardt & Nathaniel, 2008: 54).

### 3.5.3 Cause no harm

The participants should be protected from any form of harm or discomfort (Davis, Tshudin & Raeve 2006: 59). As previously mentioned, the participants were also advised that they could withdraw at any stage of the research without forfeiting their status as a colleague or team member. At the pilot study stage the questionnaire was checked for potentially damaging questions. Parahoo (2006) maintains that questions on knowledge, behaviour or experience may also be threatening to health professionals.

### 3.5.4 Maintaining confidentiality

Confidentiality requires that the participants' personal information and responses be kept private (Burkhardt & Nathaniel, 2008: 309). The researcher ensured confidentiality by not revealing the names of the participants. The questionnaires were numbered from number
1 to 100, and the code was according to the names of either days of the week or month of data collection. No names were attached to the questionnaires and only the researcher, supervisor and the statistician had access to the collected data. A written guarantee was given to the participants that the data collected remained confidential and that only the researcher and the statistician would have access to it.

3.5.5 Maintaining privacy
Privacy is an individual’s right to determine the time, extent and general circumstances under which personal information will be shared with or withheld from others (Burns & Grove, 2009:194). The researcher ensured privacy by not revealing the names of the participants and the completed questionnaires were sealed and posted by the participants themselves in the dedicated sealed box.

3.6 Conclusion
In this chapter, the research methodology was discussed wherein instruments used for collecting data were fully described. The validity and reliability of the questionnaire was maintained to ensure that the questionnaire served was user friendly. The aspects of ethical issues were also taken into consideration. Data analysis and the presentation of the data collected will be discussed in Chapter 4.
CHAPTER 4
DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 INTRODUCTION
Chapter four deals with the analysis of the collected data and the presentation of the findings related to the responses of the Nelson Mandela Metropolitan obstetric unit midwives regarding consulting with advanced midwives. According to Brink (2006:170) data analysis entails categorizing, ordering, manipulating the data and describing it in meaningful terms. Furthermore, Brink (2006:170) maintains that data analysis begins with reviewing the study objectives to identify what is needed to satisfy each objective. For this current study the objectives were to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives. A second objective, based on the results of this objective, is for the researcher to make recommendations to the midwifery managers to enhance consultation between advanced midwives and MOU midwives.

Bless, Higson-Smith and Kagee (2006:163) stress the importance of data analysis. These authors state that the data analysis process allows the researcher to generalize findings from the sample used in the research to the larger population of interest to the researcher. Therefore the aim of data presentation is to explain the observed patterns and trends in the data. The data was analysed and interpreted according to the sequence of the questionnaire as described in chapter three.

Data was obtained from the responses of 94 midwives from a possible 130. The questionnaires were completed and returned by the participants during July to September 2013. Questionnaires were completed and posted in the collection boxes provided during each data collection session and at each collection point. The questionnaires were transported in these boxes to the house of the researcher where they were opened one at a time. Responses were captured on a spread sheet for easy and accurate calculation and the numerical data was categorized, ordered and manipulated with the help of a statistician using the software package Statistica Version 21 to ensure efficacy of the
results. The findings are presented by describing the biographic profile of participants, their competence in identification and management of high risk situations, their consultation with advanced midwives in high risk situations, their reasons for not consulting advanced midwives and a description of factors that might encourage midwives to consult the advanced midwives. The presentation of the results follows below.

4.2 DESCRIPTIVE STATISTICS
According to Neuman (2006:347) descriptive statistics are simple statistics used by researchers to describe basic patterns in the data.

4.2.1 Section 1: Biographic profile of participants
The rationale for obtaining biographic information from participants was to compile a profile of the midwives who were working in obstetric units in the NMM area and to determine the relationship between selected biographic variables (age, gender, qualifications, experience as a nurse in the respective unit as well as professional and academic qualifications) to consulting with advanced midwives.

4.2.1.1 Age distribution of midwives working in obstetric units in the NMM area
The age distribution of midwives working in obstetric units in the NMM area is indicated in Table 4.1 on the next page. Fifteen (16 %) participants were between 25 and 30 years old, the median age group was 36-40 whilst 44 (47%) of the participants were in the age group of 41 years and older.

<table>
<thead>
<tr>
<th>Age interval</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 – 30 years</td>
<td>15</td>
<td>16 %</td>
<td>16 %</td>
</tr>
<tr>
<td>31 – 35 years</td>
<td>17</td>
<td>18 %</td>
<td>34 %</td>
</tr>
<tr>
<td>36 – 40 years</td>
<td>18</td>
<td>19 %</td>
<td>53 %</td>
</tr>
<tr>
<td>41 years and more</td>
<td>44</td>
<td>47 %</td>
<td>100 %</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100 %</td>
<td></td>
</tr>
</tbody>
</table>
4.2.1.2 Gender of participants

The population studied consisted of 3 (3%) males and 91 (97%) females. Gender could not be excluded as the profession is open to both genders. Midwifery is predominately a female profession in South Africa and therefore this gender distribution could be expected.

4.2.1.3 Participants’ work experience as a nurse

The purpose of including an item on the work experience of the participants in the questionnaire was to establish whether there was a relationship between work experience and consulting with advanced midwives. The figure below presents the participants’ work experience data.

Findings as presented in Figure 4.1 reveal that 30 (32%) of the participants had worked for 21 or more years as compared to 20 (21%) of midwives who worked for 0 to 5 years as professional nurses.
4.2.1.4 Participants’ work experience in the MOU

This item was included to establish whether there was a relationship between the participant’s work experiences in an MOU in relation to consulting with advanced midwives.

Table 4.3 Work experience in the MOU

<table>
<thead>
<tr>
<th>Work experience</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months - 2 years</td>
<td>23</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>2 - 5 years</td>
<td>23</td>
<td>25%</td>
<td>49%</td>
</tr>
<tr>
<td>6 - 10 years</td>
<td>25</td>
<td>27%</td>
<td>76%</td>
</tr>
<tr>
<td>11 - 15 years</td>
<td>8</td>
<td>9%</td>
<td>85%</td>
</tr>
<tr>
<td>16 years and more</td>
<td>14</td>
<td>15%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Most (25) respondents working in MOU’s had 6-10 years’ work experience in the same unit and the least (8) had 11-15 years’ work experience.

4.2.1.5 Participants’ academic qualifications

The purpose of including an item on the academic qualification of the participants in the questionnaire was to establish whether there was a relationship between the participants’ qualifications and consulting with advanced midwives.

Table 4.4 Academic qualifications

<table>
<thead>
<tr>
<th>Academic qualifications</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters</td>
<td>3</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Honours</td>
<td>4</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>B.Cur</td>
<td>32</td>
<td>34%</td>
<td>41%</td>
</tr>
<tr>
<td>Diploma</td>
<td>55</td>
<td>59%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.4 reveals that the majority (55) of the participants hold a diploma qualification in nursing while three and four participants respectively were in possession of post-basic qualifications other than Advanced Clinical Midwifery and Neonatology.

4.2.1.6 Participants’ professional qualifications

The purpose of including an item on the professional qualifications of the participants in the questionnaire was to establish whether there was a relationship between the respondents’ professional qualifications and consulting with advanced midwives.

Table 4.5 Professional qualifications

<table>
<thead>
<tr>
<th>Professional qualifications</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalist midwife</td>
<td>22</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Professional nurse</td>
<td>68</td>
<td>74%</td>
<td>98%</td>
</tr>
<tr>
<td>Enrolled midwife</td>
<td>0</td>
<td>0%</td>
<td>98%</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Non-responding</td>
<td>2</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>94</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4 reveals that the majority (68) of the participants were professional nurses while a minority (2) was in the other group which means they could be professional nurses doing the one year midwifery course. Two of the participants did not respond to the question.

4.2.1.7 Factor Measurement

Responses were made on a 5-point intensity of agreement Likert scale and all factors were adapted from scales that had demonstrated high internal consistency reliability and strong factorial validity in the studies from which they were drawn. The items for discussion in this section of the research study are reflected in Tables 4.6 and 4.7 below which lists the factors that were derived from the questionnaire. The questionnaire
consisted of Sections A, B, C, D and E. Section A which formed the participant’s biographical data has already been discussed and therefore will not be included below.

Table 4.6 Clarification of factors

<table>
<thead>
<tr>
<th>Factors</th>
<th>Items in Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB1</td>
<td>Section B Items:</td>
</tr>
<tr>
<td></td>
<td>B1 - Confidence in the ability to manage low risk delivery</td>
</tr>
<tr>
<td></td>
<td>B2 - Understanding of accurate midwifery classification</td>
</tr>
<tr>
<td></td>
<td>B5 - Knowledge of recognition of need to refer</td>
</tr>
<tr>
<td>FB2</td>
<td>B6 - Need for advanced skill</td>
</tr>
<tr>
<td></td>
<td>B8 - Immediate referral to Level 3 institutions</td>
</tr>
<tr>
<td>FC</td>
<td>Section C items:</td>
</tr>
<tr>
<td></td>
<td>C1-C8 - Performance of advanced skills</td>
</tr>
<tr>
<td>FD</td>
<td>Section D items:</td>
</tr>
<tr>
<td></td>
<td>D1-D8 - Referral to the advanced midwife</td>
</tr>
<tr>
<td>FE</td>
<td>Section E items:</td>
</tr>
<tr>
<td></td>
<td>E1-E8 - Confident performance of advanced skills by the ADM</td>
</tr>
<tr>
<td>Overall factor</td>
<td>Factors</td>
</tr>
<tr>
<td>FT</td>
<td>FB1, FB2, FC, FD &amp; FE</td>
</tr>
</tbody>
</table>

Table 4.7 Descriptive statistics Factor B1 to Factor T

<table>
<thead>
<tr>
<th></th>
<th>FB1</th>
<th>FB2</th>
<th>FC</th>
<th>FD</th>
<th>FE</th>
<th>FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>94</td>
<td>85</td>
<td>93</td>
<td>92</td>
<td>90</td>
<td>92</td>
</tr>
<tr>
<td>Mean</td>
<td>4.43</td>
<td>3.67</td>
<td>2.01</td>
<td>2.16</td>
<td>3.42</td>
<td>3.12</td>
</tr>
<tr>
<td>S.D.</td>
<td>0.61</td>
<td>1.11</td>
<td>0.54</td>
<td>0.86</td>
<td>1.03</td>
<td>0.50</td>
</tr>
<tr>
<td>Minimum</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.85</td>
</tr>
<tr>
<td>Quartile 1</td>
<td>4.00</td>
<td>3.00</td>
<td>1.63</td>
<td>1.38</td>
<td>3.00</td>
<td>2.85</td>
</tr>
<tr>
<td>Median</td>
<td>4.50</td>
<td>4.00</td>
<td>1.88</td>
<td>2.13</td>
<td>3.50</td>
<td>3.18</td>
</tr>
<tr>
<td>Quartile 3</td>
<td>5.00</td>
<td>4.50</td>
<td>2.38</td>
<td>2.66</td>
<td>4.13</td>
<td>3.41</td>
</tr>
<tr>
<td>Maximum</td>
<td>5.00</td>
<td>5.00</td>
<td>3.50</td>
<td>4.00</td>
<td>5.00</td>
<td>4.35</td>
</tr>
</tbody>
</table>
4.2.1.8 Reliability of responses

The reliability of participants’ responses to the questionnaire on each scale was tested using Cronbach’s alpha. As indicated in Table 4.7 above, the alphas ranged from $\alpha=0.57$ to $\alpha=0.92$, presenting acceptable to good internal consistency and reliability (Botma, Greef, Mulaudzi & Wright 2010: 177).

Table 4.8 Factor scores’ Cronbach’s alphas

<table>
<thead>
<tr>
<th>Factor</th>
<th>N</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor B1</td>
<td>94</td>
<td>0.80</td>
</tr>
<tr>
<td>Factor B2</td>
<td>85</td>
<td>0.73</td>
</tr>
<tr>
<td>Factor C</td>
<td>93</td>
<td>0.81</td>
</tr>
<tr>
<td>Factor D</td>
<td>92</td>
<td>0.90</td>
</tr>
<tr>
<td>Factor E</td>
<td>90</td>
<td>0.92</td>
</tr>
<tr>
<td>Factor T</td>
<td>92</td>
<td>0.57</td>
</tr>
</tbody>
</table>

4.2.1.9 Participant’s attitudes

The purpose for including this item was to describe the standard deviations, reliabilities and correlation coefficients for the consultation with advanced midwives by NMM obstetric unit midwives. Participants responded to the Sections B, C, D and E of the questionnaire (see Annexure D). A total of eight items were used to measure their agreement or disagreement with each of the statements and were scored on the 5 point Likert-type scale, ranging from ‘strongly disagree’ to ‘strongly agree.’

4.2.1.9.1 Confidence in the ability to manage low risk situations

The confidence of the midwives to manage low-risk situations was measured by a 5 point Likert scale. This scale consisted of seven statement items that either positively or negatively relates to the midwives’ confidence in managing low risk situations. Participants indicated their agreement or disagreement with each of the statements on
the 5 point scale, ranging from ‘strongly disagree’ to ‘strongly agree’. A Cronbach alpha inter-item rating for this scale was $\alpha = 0.80$. The mean of confidence in the ability to manage low risk delivery ($M = 4.43$, $SD = 0.61$) was very high, as was the mean of understanding accurate midwifery classification ($M = 3.67$, $SD = 1.11$). The mean of confidence in the performance of advanced skills by the ADM ($M = 3.42$, $SD = 1.03$) was high. Items B3, B4, B7 of section B of the questionnaire were left out of the study to maintain internal consistency, as they had poor Cronbach alphas.

4.2.9.2 Performance of advanced skills

The performance of advanced skills by the midwives was measured by testing whether or not they were knowledgeable in performing skills that ought to be performed by the advanced midwife. The Cronbach inter-item for this scale was $\alpha = 0.81$ and the mean of performance of advanced skills ($M = 2.01$, $SD = 0.54$) was low.

4.2.9.3 Referral to the advanced midwife

A 5-point Likert-type scale with 8 items was used to measure the extent to which the participants referred to the advanced midwife when necessary. The scale reliability was $\alpha = 0.90$ and the mean of referral to the advanced midwife ($M = 2.16$, $SD = 0.86$) was low.

4.2.9.4 Confidence in the performance of advanced skills by the advanced midwife

A 5-point Likert-type scale with 8 items was used to measure the level of participants' confidence in the performance of advanced skills by the advanced midwife. The Cronbach inter-item for this scale was $\alpha = 0.92$ and the mean of the confident performance of advanced skill by the advanced midwife ($M = 3.42$, $SD = 1.03$) was low.
5. Conclusion
This chapter presented the data as derived and analyzed from the structured questionnaires. It was impossible for the researcher to get all 130 questionnaires that formed the research sample completed due to inadequacy of staff in the units. It was however possible to obtain critical information to the success of the study from the 94 completed questionnaires. The perceptions of NMM obstetric unit midwives regarding consulting advanced midwives were generally positive. The findings presented relate to demographical statistics, confidence in the ability to manage low risk deliveries and the understanding of accurate midwifery classification was generally good. There were however, some areas of concern. Some sections of the questionnaire were excluded in these findings as they did not maintain internal reliability. Figures and tables have been used to enhance the presentation of the data. The description and discussion of the findings will be done in chapter 5.
CHAPTER 5
DISCUSSION OF THE RESEARCH FINDINGS

5.1 INTRODUCTION

Chapter 4 presented the results of the data analysis of the data collected for the study. In this current chapter, the focus is on a discussion of the findings as a means to create a better understanding of those results in the context of this study. The researcher followed the advice of Bless, Higson-Smith and Kagee (2006:167), who recommended that after presenting the findings, it is useful to summarize the aims of the research, compare these with the findings and draw conclusions to what extent and in which manner the goal was achieved. The research goal and objectives that were set out for the study are reiterated in the next sub-section.

5.2 Goal and objectives

The research goal and objectives were as follows.

5.2.1 Research goal

The goal for this study was to explore and describe the perceptions of Nelson Mandela Metropolitan (NMM) obstetric unit midwives regarding consulting with advanced midwives.

5.2.2 Research objectives were as follows:

- The primary objective was to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives.

- The secondary objective of the current study, based on the results, was to make recommendations to the managers of the obstetric units within the NMM to enhance consulting with advanced midwives by midwives in obstetric units.
The researcher, with the help of these objectives, sought to describe the following:

- The nature and extent of consulting with the advanced midwives by the midwives in MOU’s
- The reasons for the limited consulting with advanced midwives by the midwives
- The recommendations that could assist the managers to optimize consulting with advanced midwives by midwives in obstetric units in the NMM area.

The following sub-subsection will demonstrate how the first objective was met and also assist with the identification of the recommendations to be made.

5.3 Discussion of findings

The discussion will be in the sequence of the questionnaire, namely, information on the biographic profile of the participants, their competence in the identification and management of high risk situations, their consultation with advanced midwives in high risk situations, their reasons for not consulting advanced midwives and a description of the factors that might encourage midwives to consult the advanced midwives.

5.3.1 Biographic profile of the participants

The statistics related to the demographic profile will be discussed based on the records of the SANC. All the figures explaining the statistics are as in the SANC records. The profile of the midwives working in obstetric units in the NMM area has been established to determine the relationship between selected biographic variables (age, gender, qualifications, and experience as a nurse in the respective unit as well as professional and academic qualifications) and consulting with advanced midwives. This will be discussed in the following sub-sections.
5.3.1.1 Age and work experience of midwives working obstetric units in the NMM area

In terms of the age groups of the midwives (hereafter called “the participants”), there was a wide distribution with (47%) of participants working in obstetric units in the NMM area aged between 41 years and more. The average (19%) being in the 36-40 year age group and a minority (16%) of the participants were between 25 and 30 years old. This information is congruent with the SANC register statistics in terms of age distribution of all the registered midwives in the country (see Figure 5.1. below).

![Age Distribution Pie Chart]

As at 2013-12-31

Figure 5.1: Age distribution of Registered Nurses in the country as at 2013 SANC

In terms of the participants’ work experience as a nurse, 30 (32%) of them had worked for 21 or more years as compared to 20 (21%) of the participants who worked for 0 to 5 years as professional nurses. Such statistics indicate the extent of experience present throughout the city and could affect the rate of consulting with advanced midwives as was explained in chapter one. Fisher and Webb (2008:39) assert that many years of experience improved midwives’ confidence and the experienced ones are better at supporting younger midwives. While younger midwives are expected to bring new scientific knowledge and skills, the experience of older midwives should not be ignored as a source of mentorship to newly qualified midwives.
Furthermore, a wide distribution of 25 participants working in Midwifery obstetric units (MOUs) had 6-10 years’ work experience in the same unit, with at least (8) having 11-15 years’ work experience. All this information supports the conclusion that there is no shortage of experience in the local MOU’s but what should be looked at is how that experience is being used to the advantage of the midwifery care rendered.

Currently the maternal mortality ratio in the NMM is 119.36 per year (DoH, 2012:19) which is an increased number compared to the nature of midwifery experience available. Maternal mortality is defined as the death of any woman while pregnant or within 42 completed days of termination of pregnancy, irrespective of the duration or site of pregnancy, from any cause related to or aggravated by pregnancy but not from accidental or incidental causes. Maternal mortality rate is defined internationally, as the maternal death rate per 100,000 live births.

5.3.1.2 Gender of participants

The population studied consisted of 3 (3%) males and 91 (97%) females. Midwifery is predominately a female profession in South Africa, therefore this gender distribution could be expected and thus did not have any significance in the current study as the participants’ did not perceive gender as a reason for not consulting advanced midwives. The gender distribution in the Eastern Cape Province, as reflected in the registers of the SANC, correlates positively with these findings (see Table 5.1 below).

Table 5.1 Geographical distribution of the population of nursing manpower in the Eastern Cape

<table>
<thead>
<tr>
<th>Province</th>
<th>Population 2013</th>
<th>Registered nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>3 502 000</td>
<td>13 667</td>
</tr>
<tr>
<td>Males</td>
<td>3 118 200</td>
<td>1 271</td>
</tr>
<tr>
<td>Total</td>
<td>6 620 200</td>
<td>14 938</td>
</tr>
</tbody>
</table>
5.3.1.3 Participants’ academic and professional qualifications

This survey differentiates between academic and professional qualifications of the NMM obstetric unit midwives. This was necessary because there is significant variation in the types of qualifications nurses and midwives obtain at both basic and post-basic level, particularly in midwifery. Different categories of midwives take care of women in a clinic, hospital or an MOU. These categories are, namely:

- Registered midwives
- Professional nurses
- Enrolled midwives and
- Advanced midwives

All these categories perform their duties under the SANC Regulation 2598 of 30 November 1984, as amended, and R2488 of 26 October 1990, as amended. They manage and refer the mother or child when complications arise, by performing their functions as under R2598 of 1984 and R2488 of 26 October 1990 SANC (R387 of 15 February 1985). Due to the shortage of ADMs it becomes confusing to decide when to act or not to act and when to refer, particularly in an MOU.

The majority (55) of the participants hold a diploma qualification in nursing while three and four participants respectively were in possession of post-basic qualifications other than Advanced Clinical Midwifery and Neonatology. This information signifies that midwives do not just depend on basic midwifery knowledge, but are also eager to expand their skills in order to enhance the management of the women in their care. Consulting is a skill and therefore it is appreciated to see that midwives at MOU’s are ready to be introduced to new knowledge and skill. In terms of the professional qualifications, Table 4.5 in Chapter 4 reveals that the majority (68) of the participants were professional nurses (general nursing, community health care, psychiatry and midwifery) while a minority (2) was in the other group which means they could be professional nurses who completed the one year midwifery course.
5.3.2 Participants’ attitudes

The purpose for including this item was to describe the standard deviations, reliabilities and correlation coefficients for consulting advanced midwives by NMM obstetric unit midwives. Participants responded to the Sections B, C, D and E of the questionnaire (see Annexure D). A total of eight items were used to measure their agreement or disagreement with each of the statements using the 5 point Likert-type scale, ranging from ‘strongly disagree’ to ‘strongly agree.’

5.3.2.1 Confidence in the ability to manage low risk situations

The aim of this part of the study was to give participants an opportunity to report their own perceived competence in managing low risk situations. For the purpose of this study, confidence of the midwives to manage low-risk situations was measured by a 5 point Likert scale. This scale consisted of seven statement items that either positively or negatively relate to the midwives’ confidence in managing low risk situations. Participants indicated their agreement or disagreement with each of the statements on the 5 point scale, ranging from ‘strongly disagree’ to ‘strongly agree.’ A Cronbach inter-item for this scale was α= 0.80. The mean of confidence in the ability to manage low risk delivery (M=4.43, SD= 0.61) was very high, as was the mean of understanding accurate midwifery classification (M=3.67, SD=1.11).

Findings in this section reveal that midwives perceived themselves to be confident in many, but not necessarily all, low risk midwifery skills as outlined in the questionnaire (Annexure D). This is not a concern since there are an increased number of experienced midwives in these units. According to Mulondo, Khoza and Risenga (2013:1) midwifery practice requires a midwife who is confident and competent in providing antenatal services during pregnancy, labour and the puerperium. The competent midwife should be able to conduct the delivery of a normal healthy baby on her own.
The Guidelines of Maternity Care in South Africa (2007) were developed to give guidance to midwives in providing midwifery care services in the clinics, health centres and district hospitals where specialist obstetricians are not normally available. From these findings it appears that the midwives are not receiving the support they need to be helpful, but are still reluctant to consult with the ADMs despite the high confidence in their performance.

The mean of confident performance of advanced skills by the ADM (M=3.42, SD=1.03) was high. Items B3, B4, B7 of section B of the questionnaire were left out of the study to maintain internal consistency, as they had poor Cronbach alphas.

The South African Nursing Council (SANC) requires the advanced midwife to have the necessary knowledge, skills, attitudes and values to render efficient professional service. This is the body that regulates the practice of nurses by promulgating the regulations relating to the conditions under which midwives and enrolled midwives may carry on with their profession (R2488 of 26 October 1990) and in so doing had provided the regulation relating to the scope of practice of registered nurses (R2598 of 30 November 1984) as amended (Searle, 2007:178) and a practice standards framework. The focus of these regulations was the safety of the patient being taken care of.

The SA Health Ministry together with the rest of the world, in an effort to meet Millennium Development Goals (MDG) four and five, insists that mothers in confinement should be assisted and have a skilled professional individual when they are in labour (DoH, 2012:13). The SA government developed a set of national midwifery guidelines where referral is described as necessary if the baseline care given is not effective.

5.3.2.2 Performance of advanced skills

The performance of advanced skills by the participants was measured by testing whether or not they were knowledgeable about performing the skills that ought to be performed by the advanced midwife. The Cronbach inter-item for this scale was α= 0.81 and the mean of performance of advanced skills (M= 2.01, SD= 0.54) was low. These findings reveal that the participants perceived themselves as not competent in performing
advanced skills. Similarly, in a study of 130 midwives, Mulondo, Khoza and Risenga (2013:5), found that 57% of the midwives do not perceive themselves to be competent in delivering a breech presentation, which is one of the skills expected to be done by an advanced midwife. The finding is therefore consistent with the level of care but inconsistent with the reluctance to consult an advanced midwife who might be at hand.

The regulation (R2488) specifies the conditions under which midwives may practice their profession of midwifery care on pregnant women and the actions that they should take while waiting for the doctor. The regulation further insists on an endorsement should the midwife not be able to act according to this expectation. Such a statement could be used in the case where the midwife consulted with the ADM in the absence of the doctor. Advanced skills are treated as emergencies at Midwifery Obstetric Units (MOUs) where doctors are not readily available. They are also considered as critical skills that a midwife needs to acquire in the Advanced Midwifery and Neonatal Nursing Science programme. So it is a safer option to consult with advanced midwives.

5.3.2.3 Referral to the advanced midwife

A 5-point Likert-type scale with 8 items was used to measure the extent to which the participants referred to the advanced midwife when necessary. The scale reliability was $\alpha= 0.90$ and the mean of referral to the advanced midwife ($M=2.16$, $SD = 0.86$) was low.

According to Mthetwa (2006:79), various factors influence use or non-use of referral pathways and inappropriate or appropriate use of maternity care services. These are categorized as patient related factors, health system related factors and health professional related factors. Other factors such as poor understanding of the referral system and lack of confidence in the ability of midwives at MOUs to manage complications also contribute to midwives by-passing referral to the advanced midwife (Majoko, Nylstrom, Munjanja and Lindmark: 2005:8).

The poor understanding by midwives of the referral systems and guidelines may also lead to non-referral of high risk patients to higher levels of care. Majoko et al., (2005:17) show
that health providers in Zimbabwe sometimes fail to refer women with high risk pregnancies to the next level of care. Of a total of 1077 multiparous women with complications during a previous pregnancy who were eligible for referral, only 41% were referred. The researchers concluded that the nurse/midwife should be involved when reviewing the indications for antenatal referrals as this may prevent a disregard of some of the referral indications.

However it is not only about health worker knowledge and perceptions, as sometimes the reasons for non-referral are mixed. As Pasquier, Rabilloud & Janody (2005:155) found, appropriate referrals are dependent on the willingness of health professionals at referring facilities to conform to the referral system and on the availability of resources at the receiving facilities. In their study, the referral of women with high risk and intermediate risk pregnancies to level three and two respectively did not work as clinicians at the referring facilities (level two and one hospitals) were not willing to transfer women due to concerns about losing their competences, and level three facilities refused to receive intermediate risk pregnancies due to lack of resources.

5.3.2.4 Confident performance of advanced skills by the advanced midwife

A 5-point Likert-type scale with 8 items was used to measure the level of participants’ confidence in the performance of advanced skills by the advanced midwife. The Cronbach inter-item for this scale was $\alpha = 0.92$ and the mean regarding the confident performance of advanced skill by the advanced midwife ($M = 3.42$, $SD = 1.03$) was low.

An advanced midwife by virtue of his or her additional training and expertise acts as a consultant, educator and clinical specialist in the field of midwifery and neonatal nursing science. It may be expected that individuals who have trained in particular skills and tasks may be more confident than those who are not. Whilst competence is a prerequisite of the midwife’s role and is measured by examination, confidence is necessary for the individual to develop skills within the workplace environment.
Bedwell (2012:54) argues that confidence in ability ensures the individual will continue to use these skills. However, whilst competence can be objectively measured, confidence is subjective and is not necessarily visible to others. It is important that confidence is not misplaced in terms of competence.

6 Conclusion

The findings presented and discussed in this chapter illustrated the fact that numerous factors could contribute to the midwives in the NMM area not consulting advanced midwives. The midwives perceived themselves confident in the ability to manage low risk situations and not competent in performing advanced skills. With particular reference to this study, participants did not refer to the advanced midwife. The next and last chapter of this study will present the conclusion, limitations and recommendations pertaining to the perception of NMM obstetric midwives with regard to consulting advanced midwives.
CHAPTER 6
CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

6.1 Introduction
The previous chapter presented and discussed the data analysis results. The focus in this chapter will be on drawing conclusions regarding the study, describing the limitations in conducting the study and making recommendations based on the research findings. These recommendations could be used by nursing and midwifery managers to assist the midwives to improve how they consult and utilise the skills and services of the ADMs.

6.2 Objectives of the study
The objectives of the research study were as follows:

- The primary objective was to describe and explore the perceptions of NMM obstetric unit midwives regarding consulting advanced midwives.

- The secondary objective of the current study, based on the results, was to make recommendations to the managers of the obstetric units within the NMM to enhance consulting with advanced midwives by midwives in obstetric units.

6.3 Achieving the research objectives
To achieve objective number one, a quantitative, explorative, descriptive and contextual research design was used to conduct this empirical research study. Simple random probability sampling using the non-replacement approach was used to select the sample. Ninety-four questionnaires were completed and returned to the researcher from a possible total of 130 questionnaires. The inclusion criteria used for the sample were:

- The participant had to be registered with the South African Nursing Council as a midwife or a professional nurse with midwifery as one of the qualifications.
The participant must have been employed as a midwife for at least six months prior the data collection.

The participant should be working in an obstetric unit within the NMM area.

The participant should be permanently employed in that obstetric unit.

The exclusion criteria were:

- Midwives who are managers of the units.
- Midwives who are ADM’s

Responses on the data collection tools were captured on a spread sheet for easy and accurate calculation and the numerical data was categorized, ordered and manipulated with the help of an experienced statistician and researcher using the software package Statistica Version 21 to ensure efficacy of the results. The findings were presented by describing the biographic profile of participants, their competence in the identification and management of high risk situations, their consultation with advanced midwives in high risk situations, their reasons for not consulting advanced midwives and a description of factors that might encourage midwives to consult the advanced midwives.

Objective two was reached by making recommendations for clinical practice, further research studies and nursing education based on the findings.

6.4 Summary of the research findings

Following the analysis of data from the participants in the study, it emerged that there are a number of midwives with many years of clinical experience and years of practice in the units. The age difference of the midwives in the obstetrics units was seen to be an added advantage to the care of women as the young and old could complement each other with the latest information and the experience in dealing with midwifery-related emergencies respectively. The difference in gender was as expected but did not have an influence in the non-consulting with advanced midwives by the midwives working in the obstetrics units. Also, the limited confidence in their performance of certain low risk skills and their
confidence in the performance of the advanced midwives was a reason to consult with the advanced midwives in their areas of speciality.

6.5 Limitations
The limitations of the study were as follows:

- Some of the questionnaires were not fully completed hence they could not be captured.
- The biggest limitation was that the study took a long time to complete due to access related issues.

6.6 Recommendations
The following recommendations are made to address clinical midwifery practice, education and future research. The recommendations are made in light of the research findings and the limitations of the research study conducted. The recommendations will now be discussed.

6.6.1 Recommendations for clinical midwifery practice
The midwifery managers should ensure that the challenges that are faced by midwives are addressed as follows:

- Nurse Managers should consider developing a specific intervention targeted at creating an environment where advanced midwives could be utilized effectively. For example, a policy/protocol could be developed detailing the specific aspects with respect to referral and consulting with advanced midwives at the obstetric unit of the referral institution.
- The nurse managers should meet with the doctors to discuss the policy/protocol to be followed
- The nurse managers should assist the advanced midwives to enable them to act as an important resource for the midwives in the MOU’s, build a therapeutic relationship between them and the midwives by making sure that there is continuous skills training and development in the units.
• The ADMs should avail themselves should there be a need for consultation because the ADMs, in their clinical capacity, are expected to be consultants in midwifery practice. For example, the mentoring of newly-qualified midwives by preceptors and experienced midwives, as well as advanced midwives.
• Programmes should be developed by ADMs to support midwives

6.6.2 Recommendations for nursing education

The following recommendations are proposed for nursing education:

• Regular workshops should be held for midwives including midwifery educators to develop strategies to rebuild the future of the ADMs and to maintain and sustain their competency levels. These midwives should be encouraged to share their experiences with each other.
• Regular trial runs with midwives on the importance of high risk situation identification, assessment and management. Therefore the midwives must be made aware of their knowledge needs and be provided with information and skills for the provision of midwifery care to meet maternal and neonatal needs during pregnancy, labour and the puerperium.
• Advanced midwives should attend workshops specifically for improving their skills.
• Encourage the development of a curriculum that would include the practical training of midwives and doctors together. Such a curriculum would assist with confidence on the skill and knowledge of the ADMs and allow them to be approached by the midwives for consultation.
• Include information related to the skill and competency of ADMs as discussed in the study in the basic nursing and midwifery programmes.
6.6.3 Recommendations for nursing research

The following recommendations are proposed for nursing research:

- A similar research study should be conducted in a variety of geographic areas with many different maternal health facilities.
- A research study that includes doctors should be conducted.
- A similar study should investigate perceptions of the ADMs with regard to their utilisation and support in the clinical environment.
- The study should be expanded to other provinces.

In summary, both objectives of the study as stated above have been responded to. The research questions have also been answered. These research questions were:

- What are the perceptions of NMM obstetric unit midwives regarding consulting with advanced midwives?
- What are the preferred actions to be put in place to motivate midwives to consult the ADM’s in obstetric units in the NMM area?

The study has been successful and was conducted within the approved ethical research principles thus enhancing authenticity. Documents to this regard are included as annexures to this study.

7. Conclusion

The most important finding of this study was the statistically significant indication of the advanced midwives not being consulted in their areas of speciality. In view of the rising perinatal and maternal mortality and morbidity rates in South Africa, it is essential to have a properly trained midwifery practitioner who is able to provide quality midwifery and neonatal nursing care in obstetric units of this country. However, if advanced midwives are not consulted, they cannot make the necessary contributions. The education and training that advanced midwives receive empowers them with the knowledge and skills that enable them to make potentially life-saving internal adjustments and decisions regarding assessment and referral of patients to higher levels of care, including timeous specialist intervention. In short, the advanced midwife is situated between the midwife on
the one hand, and the doctor or specialist on the other hand, and can be drawn upon both as a specialist in his/her own right, and as a mediator between the midwife and the doctor or specialist thus proving the need for consultation with the advanced midwife for the prevention of maternal deaths.
REFERENCE LIST


ANNEXURE A

PERMISSION LETTER TO DEPARTMENT OF HEALTH
1st July 2013

Chief Executive Officer
Port Elizabeth Hospital Complex
Walton Building
Parsons Hill
Port Elizabeth
6001

Dear Sir/Madam

RE: REQUEST TO CONDUCT A STUDY ON PERCEPTIONS OF NELSON MANDELA METROPOLITAN OBSTETRIC UNIT MIDWIVES REGARDING CONSULTING ADVANCED MIDWIVES.

My name is Israel Sonti, a student in the Department of Nursing of the Nelson Mandela Metropolitan University. I am carrying out the research as part of my degree for Master of Nursing in Advanced Midwifery and Neonatal Nursing Science under the supervision of Prof S.James.

This letter serves to kindly seek your permission to conduct a study “perceptions of Nelson Mandela Metropolitan Obstetric Unit midwives regarding consulting advanced midwives.

The purpose of the study is to create increased awareness among general midwives on utilization of advanced midwives for consulting in obstetric units. The study will also enable doctors to understand and acknowledge the use of the advanced midwives in their absence. Internationally, some other countries which may also be faced with such a challenge might find the recommendations and guidelines from this study useful for their purpose.
The objectives of the study are to describe and explore the perceptions of Nelson Mandela Metropolitan Obstetric Unit midwives regarding consulting advanced midwives.

**Research plan and method**

The researcher will gain access to the obstetric units in the Nelson Mandela Metropolitan Municipal (NMMM) area by writing letters to the relevant structures such as the hospital management and unit managers, informing them of the proposed study (a brief description of the study explaining the research topic, aims and objectives, as well as data-collection methods) as well as obtaining permission to conduct the study.

The target population for this study is all general midwives working in obstetric units in the Nelson Mandela Metropolitan Municipal area. Written informed consent will be obtained from each participant, and the survey will be conducted using a self-administered structured questionnaire with closed-ended, yes/no and multiple choice style-questions and it will be hand-delivered to these units.

The following inclusion criteria will be used to select the sample.

- The participant has to be registered with the South African Nursing Council as a midwife or a professional nurse with midwifery as one of the qualifications.
- The participant must have been employed as a midwife for at least six months.
- The participant should be working in an obstetric unit within the NMMM area.
- The participant should be permanently employed in that obstetric unit.

The exclusion criteria will be:

- Midwives who are session workers.
- Midwives who are managers of the units.
- Midwives who are ADM’s

All information collected will be in the strictest confidence. Participants may withdraw from the study at any time without penalty.

**Health institution involvement**

Once I have received your consent to approach the general midwives in obstetric units in the in NMMM area, I will

- Arrange a time with the hospital management for data collection to take place.
- Obtain informed consent from participants
I have provided you with a copy of my treatise proposal which includes copies of the measure and consent and assent forms to be used in the research process, as well as a copy of the approval letter which I received from the NMMU Faculty Research, Technology and Innovation Committee. Please note that recommendations and amendments stated in the letter have been made to the satisfaction of my supervisor and statistician.

Upon completion of the study, I undertake to provide the Department of Health with a bound copy of the full research report. If you require any further information, please do not hesitate to contact me or my supervisor.

I trust my request will reach your favourable consideration.

Yours faithfully

Israel Sonti

.....................

Researcher (NMMU)

Israel.Sonti@nmmu.ac.za
ANNEXURE B

LETTER TO GENERAL MIDWIVES REQUESTING THEIR PARTICIPATION
Dear colleague

RE: REQUEST FOR YOUR PARTICIPATION IN A STUDY ON GENERAL MIDWIVES.

This letter serves to kindly request your participation in a study “Perceptions of Nelson Mandela Metropolitan Obstetric Unit midwives regarding consulting advanced midwives”. My name is Israel Sonti, a student in the Department of Nursing of the Nelson Mandela Metropolitan University. I am carrying out the research as part of my degree for Master of Nursing in Advanced Midwifery and Neonatal Nursing Science under the supervision of Prof S.James.

This research entails general midwives with not less than 6 months of employment in an obstetric unit. The objectives of the study are to describe and explore the perceptions of Nelson Mandela Metropolitan Obstetric Unit midwives regarding consulting advanced midwives.

The information will be used to develop guidelines for managers of the obstetric units within the NMMM area for the best way to make use of the services of advanced trained midwives in their respective units.

The survey will be conducted using self-administered structured questionnaires.

You may withdraw from participating in the study at any stage and information will be managed confidentially and anonymity will be maintained, and there will be no penalty. There will be no immediate benefits for participating, but information obtained will be used to create increased awareness and acknowledgement of the use of advanced midwives.
Upon completion of the study, I undertake to provide your institution with a bound copy of the full research report. If you require any further information, please do not hesitate to contact me or my supervisor at the numbers provided. If you agree to participate in this study, you are also required to provide a written consent form attached to verify that you understand and agree to the conditions.

Furthermore, it is important that you are aware of the fact that the ethical integrity of the study has been approved by the Research Ethics Committee (Human) of the university. The REC-H consists of a group of independent experts who have the responsibility to ensure that the rights and welfare of participants in research are protected and that studies are conducted in an ethical manner. Studies cannot be conducted without REC-H’s approval. Queries with regard to your rights as a research subject can be directed to the Research Ethics Committee (Human), Department of Research Capacity Development, PO Box 77000, Nelson Mandela Metropolitan University, Port Elizabeth, 6031.

I trust my request will reach your favorable consideration.

Yours Sincerely,

Israel Sonti

……………………
Researcher
Cell: 079 165 1870

Prof. S. James

……………………
Supervisor
041 504 2253
ANNEXURE C

INFORMED CONSENT FORM
INFORMED CONSENT

I………………………………………………………………….give permission to participate in the research study titled “perceptions of Nelson Mandela Metropolitan Obstetric Unit midwives regarding consulting advanced midwives”.

The researcher explained the nature and the purpose of the study to me. Everything I do and say during this study will be treated in the strictest confidence. I also understand that I can withdraw to participate in the study at any time if I do not continue to be the subject of the study. No penalty will be imposed on me.

Signed at…………………………………on the………..of………………………2013.

Signature of the participant……………………………………
Witness………………………………………………
Signature of the researcher……………………………………
ANNEXURE D

THE QUESTIONNAIRE
Title: Perceptions of Nelson Mandela Metropolitan Obstetric Unit midwives regarding consulting advanced midwives.

Dear participants

Kindly complete the following questionnaire.

QUESTIONNAIRE

1. Please indicate your choice by an X

SECTION A

Biographical data

1. Gender

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<td>Male</td>
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<td>Female</td>
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2. Age in years

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<td>25-30</td>
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<tr>
<td>31-35</td>
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<tr>
<td>36-40</td>
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<tr>
<td>41 and more</td>
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</table>
3. Work experience as a professional nurse in years.

<table>
<thead>
<tr>
<th>Years</th>
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<tr>
<td>0-5</td>
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<tr>
<td>6-10</td>
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<tr>
<td>11-15</td>
</tr>
<tr>
<td>16-20</td>
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<tr>
<td>21 and more</td>
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</table>

4. Work experience in this MOU in months and years

<table>
<thead>
<tr>
<th>Months</th>
</tr>
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<tbody>
<tr>
<td>6 months-2 years</td>
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<tr>
<td>2-5 years</td>
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<tr>
<td>6-10 years</td>
</tr>
<tr>
<td>11-15 years</td>
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<tr>
<td>16 years and more</td>
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</table>

5. Your academic qualifications

<table>
<thead>
<tr>
<th>Qualification</th>
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</thead>
<tbody>
<tr>
<td>Masters degree</td>
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<tr>
<td>Honours degree</td>
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<tr>
<td>B.Cur</td>
</tr>
<tr>
<td>Diploma</td>
</tr>
</tbody>
</table>
6. Your professional qualifications.

<table>
<thead>
<tr>
<th>Generalist midwife</th>
<th>Professional Nurse</th>
<th>Enrolled midwife</th>
<th>Other</th>
</tr>
</thead>
</table>

SECTION B

Indicate the extent to which you agree or disagree with the statements below. As a guide to your responses use the scale as indicated below. Mark your response with an X:

1= Strongly Disagree(SD), 2=Disagree(D), 3=Neutral(N), 4=Agree(A), 5=Strongly Agree(SA)

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am confident in the management of low-risk labor and delivery in my labour ward</td>
<td></td>
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<td></td>
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<tr>
<td>2. I understand the relevance of accurate midwifery classification of women admitted in my labour unit</td>
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<tr>
<td>3. I am confident in performing basic emergency midwifery care to labouring women in my labour ward.</td>
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<tr>
<td>4. I am not performing any high risk emergency activities in my labour ward.</td>
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<tr>
<td>5. I am knowledgeable with recognition the need for the referral of high risk laboring women to a higher level of care</td>
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</tbody>
</table>
RESPOND TO Q6-Q9 ONLY IF YOU ARE WORKING IN AN MOU

1= Strongly Disagree(SD), 2=Disagree(D), 3=Neutral(N), 4=Agree(A), 5=Strongly Agree(SA)

<table>
<thead>
<tr>
<th>ACTION</th>
<th>NEVER</th>
<th>SELDOM</th>
<th>OFTEN</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual removal of retained placenta</td>
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<tr>
<td>Forceps delivery</td>
<td></td>
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<tr>
<td>Vacuum extraction</td>
<td></td>
<td></td>
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<tr>
<td>Breech delivery</td>
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<tr>
<td>Delivery of shoulder dystocia</td>
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<tr>
<td>Delivery of Multiple pregnancies</td>
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</tbody>
</table>

SECTION C

To what extent do you perform the following actions in your labour ward? Mark your response with an X, using the scale provided below.

1= Never, 2=Seldom, 3=Often, 4=Always
SECTION D
To what extent do you refer patients to the advanced midwife for the following? Mark your response with an X. If never or seldom, motivate why in the spaces provided.

<table>
<thead>
<tr>
<th>ACTION</th>
<th>NEVER</th>
<th>SELDOM</th>
<th>OFTEN</th>
<th>ALWAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual removal of retained placenta</td>
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<td>Forceps delivery</td>
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<tr>
<td>Vacuum extraction</td>
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<td>Breech delivery</td>
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<td>Response</td>
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<tr>
<td>Delivery of Multiple pregnancies</td>
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<tr>
<td>Delivery of mal-presentation</td>
<td>![Response options]</td>
<td>![Response options]</td>
<td>![Response options]</td>
<td>![Response options]</td>
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<tr>
<td>Management of pre-eclamptic woman</td>
<td>![Response options]</td>
<td>![Response options]</td>
<td>![Response options]</td>
<td>![Response options]</td>
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**SECTION E**

To what extent do you agree/disagree that the advanced midwife in your labour ward performs the skills listed below confidently? Use the scale below and mark your response with an X.
1= Strongly Disagree (SD), 2=Disagree (D), 3=Neutral (N), 4=Agree (A), 5=Strongly Agree (SA)

<table>
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<tr>
<th>ACTION</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
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<tr>
<td>Manual removal of retained placenta</td>
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<td>Forceps delivery</td>
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<td>Vacuum extraction</td>
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<td>Breech delivery</td>
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<td>Delivery of shoulder dystocia</td>
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<td>Delivery of Multiple pregnancies</td>
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<td>Delivery of mal-presentation</td>
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<tr>
<td>Management of pre-eclamptic woman</td>
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</table>

Thank you for your participation.
ANNEXURE E

REC- H FORM AND ACCEPTANCE LETTER
APPLICATION FOR APPROVAL
NMMU RESEARCH ETHICS COMMITTEE (HUMAN)

SECTION A: (To be filled in by a representative from the Faculty RTI Committee)

<table>
<thead>
<tr>
<th>Application reference code:</th>
<th>H</th>
<th>...2013........</th>
<th>Health Sciences</th>
<th>Nursing Science</th>
<th>203011627</th>
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<tr>
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<td>HUMAN</td>
<td>YEAR</td>
<td>FACULTY</td>
<td>DEPARTMENT</td>
<td>NUMBER</td>
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<td>Resolution of FRTI Committee:</td>
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<td>Ethics approval given (for noting by the REC-H)</td>
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<tr>
<td>Referred to REC-H for consideration (if referred to REC-H, electronic copy of application documents to be emailed to <a href="mailto:Imtiaz.Khan@nmmu.ac.za">Imtiaz.Khan@nmmu.ac.za</a>)</td>
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<td>Resolution date:</td>
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<td>Faculty RTI representative signature:</td>
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1. GENERAL PARTICULARS

TITLE OF STUDY
a) Concise descriptive title of study (must contain key words that best describe the study):
   Perceptions of midwives with regard to consulting advanced midwives when necessary in obstetric units within the Nelson Mandela Metropolitan Municipality (NMMM)

PRIMARY RESPONSIBLE PERSON (PRP)
b) Name of PRP (must be member of permanent staff. Usually the supervisor in the case of students):
   Type PRP name here Dr S. V. James, NMMU North Campus, J Block, Department of Nursing Science
c) Contact number/s of PRP: 041-504 2253
d) Affiliation of PRP: Faculty Select Faculty Health Sciences
   Department (or equivalent): Nursing Science

PRINCIPLE INVESTIGATORS AND CO-WORKERS
e) Name and affiliation of principal investigator (PI) / researcher (may be same as PRP):
   Type PI name here Gender: Male

f) Name(s) and affiliation(s) of all co workers (e.g. co-investigator/assistant researchers/supervisor/co-supervisor/promoter/co-promoter). If names are not yet known, state the affiliations of the groups they will be drawn from, e.g. Interns/M-students, etc. and the number of persons involved:
   Dr S.V James

STUDY DETAILS
g) Scope of study: Local

h) If for degree purposes: Master's

i) Funding: No specific funding
   Additional information (e.g. source of funds or how combined funding is split): Not applicable

j) Are there any restrictions or conditions attached to publication and/or presentation of the study results? Bad
   If YES, elaborate (Any restrictions or conditions contained in contracts must be made available to the Committee):

k) If not, please indicate: Not applicable
Copies to:
Supervisor: Dr SV James

Student number: 283011627
Contact person: Ms N Isaacs
16 June 2013
Mr BSI Scoti
PO Box 311
Zastron
Free State
9950

FINAL RESEARCH/PROJECT PROPOSAL
QUALIFICATION: M CUR (ADVANCED CLINICAL MIDWIFERY AND NEONATAL NURSING SCIENCE)
TITLE: PERCEPTIONS OF MIDWIVES WITH REGARD TO CONSULTING ADVANCED MIDWIVES WHEN NECESSARY IN OBSTETRICS UNITS WITHIN THE NELSON MANDELA METROPOLITAN MUNICIPALITY (NMMM)

Please be advised that your final research project was approved by the Faculty Research, Technology and Innovation Committee, subject to the following amendments/recommendations being made to the satisfaction of your Supervisor:

COMMENTS/RECOMMENDATIONS

1. Research question needs to be reformatted if the title is changed.
2. The research question needs to be reformatted if the title is changed.
3. Objective 1 needs to be reformatted if the title is changed.
4. Objective 2 needs to be reformatted. It was too bulky.
5. Supportive literature (Introduction)
   - The literature should highlight the scope of practice of an Advanced Midwife. How does it differ from an ordinary midwife?
   - Statistics relating to the number of complicated births handled by advanced midwives should be indicated.
6. Page 10 - Simple random sampling
   - It was recommended that the participant's name not be replaced after being drawn for the first time.
7. Statistical analysis methods
   - Could the results of the pilot study not be added to the main study if the survey was found to be adequate?
   - Stipulate the software package that would be used.
8. Questionnaire
   - The questionnaire needs to be revised.
   - The questions were vague. What type of cases must be referred to the advanced midwives?
   - Be more specific.
   - To what extent have the advanced midwives been used?
9. References (text)
   - Be consistent with the spacing in references.
ANNEXURE F

PORT ELIZABETH HOSPITAL COMPLEX ACCEPTANCE LETTER
Mr BSI Sonti  
PO Box 311  
Zastron  
9950  

Dear Mr. Sonti,

Re: PERMISSION TO CONDUCT A RESEARCH STUDY - PERCEPTIONS OF NELSON MANDELA METROPOLITAN OBSTETRIC UNIT MIDWIVES REGARDING CONSULTING ADVANCED MIDWIVES

This letter serves to confirm that the PE Hospital Complex Clinical Governance has no objections to allowing you to conduct your research at the Complex.

You are to obtain approval directly from the institution manager to conduct your research at Dora Nginza Hospital.

Please liaise with Dr B Mbulawa-Hans, the Acting CEO of Dora Nginza Hospital. The office contact number is 041-406 4211.

We wish you well with your research and further studies.

Sincerely,

[Signature]

MRS P M DEYSSEL  
ACTING HEAD : CLINICAL GOVERNANCE

Cc: Dr JA Kotze  
    Dr B Mbulawa-Hans