

**EXPLORING THE PROVISION OF EARLY ANTENATAL CARE
AT TSHINO-MUTSHA LOCAL AREA IN LIMPOPO PROVINCE,
SOUTH AFRICA**



University of Venda

By

Rhulani Sheillah Shinyawani (11610070)

A dissertation submitted in fulfilment of the requirements for the degree of

MASTER OF NURSING

In the Department of Advanced Nursing Science

School of Health Sciences

UNIVERSITY OF VENDA

SUPERVISOR: DR MALWELA T

CO-SUPERVISOR: PROF MAPUTLE M.S

YEAR: APRIL 2021

DECLARATION

I **Shinyawani Rhulani Sheillah**, hereby declare that this dissertation titled ***“Exploring the Provision of early Antenatal Care at Tshino-Mutsha Local Area in Limpopo Province, South Africa”*** submitted by me, has not been previously submitted for any degree at this or any other university and that it is my work in design and execution, and that all reference material contained therein has been duly acknowledged.

Signature:



Date: 26/04/2021

DEDICATION

The study is dedicated to my late mother in law who left me while busy with this work, my parents, my husband, kids, and all my siblings.

ACKNOWLEDGEMENTS

To the Lord my GOD, You have taken me this far, I salute your grace over me.

I would like to acknowledge the following people for making this study a success. Their love, support, patience, and prayers made me work so hard and complete this study.

- My supervisors, Doctor T Malwela for her guidance, support, encouragement, patience, and being there for me throughout the course of my studies though it was not easy but you were always there for me.
- My co-supervisor, Professor MS Maputle for being a shoulder to cry on whenever I needed assistance. Prof, you are a mother.
- Prof. TM Mothiba, my independent coder, for helping me with coding and the creation of themes and sub-themes.
- The Limpopo Department of Health for trusting me and allowing me to collect data in its Health Facilities.
- I would also like to thank all my Colleagues and the midwives who willingly participated in the study and ensure that they give full information for my benefit, their benefit, and our clients who had to receive the early antenatal booking. Midwives you were so kind.
- To my operational manager, Magogo for supporting me and allowing me to attend research presentations whenever I needed to, and my Colleagues, who attend school, she will say as long as the facility is covered go and learn. Magogo the love you have is priceless.
- My family for motivation, encouraging husband, and continuous support that he and my kids showed me in all circumstances. Vukosi and Risima you were my IT and source of vocabulary.

- The church, WTCC at Mavambe and Pastor Malomane B.R. and V.N, you were always there praying for me day and night, anytime the phone rings you immediately answered it and pray for me. Thank you.
- Finally I am grateful to Dr Mzamani Maluleke, Department of Human and Social Sciences UNIVEN English section for editorial assistance

ABSTRACT

Early antenatal care attendance is one of the interventions aimed at improving maternal and perinatal health outcomes. During this period and visits women are screened to identify complications associated with their pregnancy and to determine the level of care needed. However, there are still institutions where even if urine tests for Gravindex can be positive as early as 8 weeks but they are not initiating antenatal care on the same day of the test. The study's aim was to determine the perceptions of midwives on initiation of early antenatal care after a positive Gravindex test. The qualitative explorative, descriptive, and contextual design was applied. The study population comprised of midwives working at Tshino-Mutsha Local area. Non-probability, particularly purposive sampling was used to select about four clinics (Tshakhuma, Ha-Mutsha, Tshino and Manavhela), twenty participants were expected to be the sample size (five participants per clinic). However, the sample size was determined by data saturation which was reached at participant number 15. Face-to-face in-depth interviews were conducted using open-ended questions. An interview guide was used during the interviews to help the researcher to stay focused. Data analysis was done using thematic analysis to identify themes and sub-themes. Ethical principles were adhered to during the process of the whole study. The study findings revealed that there are paradoxical challenges experienced by midwives related to the provision of early antenatal care services such as lack of human resources and materials. It is recommended that the Department of Health in Limpopo Province should strengthen early antenatal booking services through adequate provision of materials and employing more midwives.

Keywords: Antenatal booking, Antenatal care, Early antenatal booking, Midwives, Positive Gravindex test.

LIST OF ACRONYMS AND ABBREVIATIONS

ANC	- Antenatal Care
BANC	- Basic Antenatal Care
DHIS	- District Health Information System
DoH	- Department of Health
EMTCT	- Elimination of mother to child transmission
FPD	- Foundation for Professional Development
HIV	- Human Immunodeficiency Virus
MaMMAS	- Maternal and Morbidity and Mortality Audit System
MD	- Maternal Death
MDG	- Millennium Development Goals
MUAC	- Mid Upper Arm Circumference
NDoH	- National Department of Health
PICT	- Provider Initiated Counselling and Testing
PMTCT	- Prevention of Mother to Child transmission
SANC	- South African Nursing Council
SDG	- Sustainable Development Goals
SHDC	- School of Higher Degree Committee
UHDC	- University Higher Degree Committee
UREC	- University Research Ethics Committee
WHO	- World Health Organization

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION.....	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	vi
LIST OF ACRONYMS AND ABBREVIATIONS.....	vii
CHAPTER 1	1
1. OVERVIEW OF THE STUDY.....	1
1.1. INTRODUCTION	1
1.2. BACKGROUND	1
1.3. PROBLEM STATEMENT	4
1.4. RATIONALE FOR THE STUDY	6
1.5. SIGNIFICANCE OF THE STUDY	6
1.6. STUDY PURPOSE AND OBJECTIVES.....	7
1.6.1. Purpose	7
1.6.2. Objectives	7
1.7. DEFINITION OF CONCEPTS	7
1.8. CONCEPTUAL FRAMEWORK	8
1.9. RESEARCH METHODOLOGY	10
1.9.1. Study design	10
1.9.2. Study settings	11
1.9.3. Study population and sampling	11
1.9.4. Measurement instruments.....	12
1.9.5. Pre-testing of the instrument	12
1.10. ETHICAL CONSIDERATIONS.....	14
1.12. PLAN FOR DISSEMINATION AND IMPLEMENTATION OF THE RESULTS	15
1.14. LAYOUT OF STUDY CHAPTERS	15
CHAPTER 2	16
2. LITERATURE REVIEW.....	16
2.2. PURPOSE OF LITERATURE REVIEW	16
2.3. THE IMPORTANCE OF EARLY INITIATION OF ANTENATAL CARE	16

2.4.	PROVISION OF ANTENATAL CARE ACCORDING TO WHO.....	18
2.5.	PROVISION OF ANTENATAL CARE INTERNATIONALLY	19
2.7.	PROVISION OF ANTENATAL CARE IN SOUTH AFRICA.....	21
2.8.	TRENDS ON ANTENATAL CARE IN SOUTH AFRICA	23
2.9.	EFFECTS OF POOR PROVISION OR NOT PROVIDING EARLY ANTENATAL CARE	23
2.10.	CHAPTER SUMMARY.....	24
CHAPTER 3		25
3.	RESEARCH METHODOLOGY AND DESIGN	25
3.1.	INTRODUCTION.....	25
3.2.	RESEARCH METHODOLOGY	25
3.3.	STUDY DESIGN	25
3.3.1.	Explorative Research Design	26
3.3.2.	Descriptive Research Design	26
3.3.3.	Contextual Research Design.....	26
3.4.	STUDY SETTING	27
3.5.	STUDY POPULATION AND SAMPLING	28
3.5.1.	Target Population.....	28
3.5.2.	Sample and sampling.....	29
3.5.3.	Sample size	29
3.5.4.	Inclusion criteria	29
3.6.	MEASUREMENT INSTRUMENTS.....	30
3.6.1.	Pre-testing of the instrument	30
3.7.	DATA COLLECTION.....	31
3.7.1.	Recruiting the participants	31
3.7.2.	Data collection process	31
3.8.	PLAN FOR DATA MANAGEMENT AND ANALYSIS	32
3.8.1.	Eight (8) Steps of Tesch's inductive, descriptive open coding technique, Creswell (2014) was used following the steps below.....	33
3.9.	MEASURES TO ENSURE TRUSTWORTHINESS	35
3.9.1.	Credibility	35
3.9.2.	Transferability.....	35

3.9.3. Dependability	36
3.9.4. Confirmability	36
3.10. ETHICAL CONSIDERATIONS	37
3.10.1. Permission to conduct the research study	37
3.10.2. Informed consent.....	38
3.10.3. Confidentiality and anonymity.....	38
3.10.4. Voluntary participation	39
3.10.5. No harm to the participants	39
3.11. CHAPTER SUMMARY	39
CHAPTER 4	40
4. PRESENTATION OF DATA ANALYSIS AND DISCUSSION OF FINDINGS	40
4.1. INTRODUCTION	40
4.2. DEMOGRAPHIC PROFILE OF PARTICIPANTS	40
4.3. PRESENTATION OF FINDINGS	41
4.4. DISCUSSION OF FINDINGS PER IDENTIFIED THEMES AND SUB-THEMES.....	43
4.5. CHAPTER SUMMARY	65
CHAPTER 5	66
5. SUMMARY, RECOMMENDATIONS, LIMITATIONS, AND CONCLUSION	66
5.1. INTRODUCTION	66
5.2. OVERVIEW OF STUDY.....	66
5.2.1. Restatement of the objectives	66
5.3. SUMMARY OF THE MAIN FINDINGS.....	67
5.4. RECOMMENDATIONS.....	69
5.4.1. Recommendations to management and practice.....	69
5.4.2. Recommendations for education and training.....	70
5.4.3. Recommendations for future research.....	71
5.5. LIMITATIONS OF THE STUDY.....	71
5.5. CONCLUSION	71
ANNEXURES	82
ANNEXURE A: PERMISSION LETTER (LIMPOPO DEPARTMENT OF HEALTH)	82

ANNEXURE B: PERMISSION LETTER (DISTRICT OFFICE)	84
ANNEXURE C: PERMISSION LETTER (TSHINO –MUTSHA LOCAL CLINICS).....	86
ANNEXURE D: UNIVEN INFORMED CONSENT	88
ANNEXURE E: INTERVIEW GUIDE.....	92
Section A: Demographic Information	92
Section B: RESEARCH QUESTIONS	92
ANNEXURE G: ETHICAL CLEARANCE CERTIFICATE.....	94
ANNEXURE H: APPROVAL LETTER FROM THE DEPARTMENT OF HEALTH	95
ANNEXURE I: INTERVIEW TRANSCRIPTS	97
ANNEXURE J: EDITING CERTIFICATE.....	102

LIST OF TABLES

Table1: Gravindex Data at Tshino Clinic Stats (February to July 2019)	5
Table 2: Summary of Measures to Ensure Trustworthiness.....	31
Table 3: Demographic profile of participants.....	35
Table 4: Themes and Sub-themes reflecting experiences during the provision of antenatal care at Tshino local area.....	36

LIST OF FIGURES

Figure 1: Information Processing Model.....	8
Figure 2: Map of Vhembe showing clinics of Tshino local area.....	24

CHAPTER 1

1. OVERVIEW OF THE STUDY

1.1. INTRODUCTION

Early antenatal booking is advocated during pregnancy before twelve weeks which is an opportunity to provide care for the prevention and management of existing and potential causes of maternal and new-born mortality and morbidity (World Health Organisation) (WHO, 2016). Initiation of antenatal attendance immediately after a positive Gravindex test is good timing to ensure optimal care and health outcomes of women and babies. The Department of Health (DoH) (2016) contend that antenatal care (ANC) in South Africa should be implemented according to the maternal guideline (2015), which states that a woman should visit health care services as soon as she suspects that she is pregnant. She is supposed to visit the clinic even if she has just missed one month where Gravindex test will be done and when results tested positive ANC must be given immediately. The benefits of early ANC attendance are associated with lower maternal mortality, morbidity, and better pregnancy outcomes. It also improves the health outcome of pregnant women as it is the entrance point for evidence-based intervention (Patil et al., 2013) where a woman is given a provisional delivery plan (DoH, 2015). When initiated, ANC provides an opportunity to screen and test diseases that are related to pregnancy (gestational age estimation, screening of genetics and congenital disorders, provision of iron supplements to prevent anaemia, puerperal sepsis, low birth weight, and preterm birth (Ngxongo, 2018). The test can be followed by giving folic acid to reduce the risk of neural tube defects, screen sexual transmitted infections, and treat them (WHO, 2016). During this time, non-communicable diseases like diabetes, hypertension are identified, and education is provided on lifestyle regarding the dangers of smoking, alcohol consumption, and drug abuse (Ragolane, 2017).

1.2. BACKGROUND

Globally antenatal care is directed and coordinated by W.H.O. However, there is a call to reduce perinatal and maternal morbidity and mortality globally by WHO and Early ANC attendance has been seen as the answer to this call (Chandni, Hodgson,&

Hayen. 2014). WHO (2016) also developed different models of ANC whereby each country adopts according to its needs. Above all these models, it is recommended that all countries from developed to under developed should initiate ANC as early as from week of conception to twelve weeks (WHO, 2016). Despite all these recommendations women are still found to be initiated ANC at the second or third trimester while they have availed themselves for gravindex test earlier. Ngxongo (2013) asserts that if an early antenatal care is provided, the high numbers of maternal deaths and mortality ratios can fall or decrease four times the number.

Early antenatal attendance is advocated by many authors as a cornerstone of maternal and perinatal care (Ngxongo, 2018). In developed countries like Norway, primary health care is responsible for providing ANC. Women are offered ANC by public and general practitioners for free (Norwegian Directorate of Health, 2017). In Norway it is recommended to start ANC between six and twelve weeks of pregnancy, despite this law, there are still reports of late booking. Sub-Saharan countries are middle- and low-income countries with high inequality in healthcare services due to many reasons. Ethiopia is one of the countries with underutilization of ANC (Tekelab, 2019). According to the Ethiopian Demography and Health Survey (EDHS) (2016), about 20% of women were provided early ANC while 62% of the whole population received ANC booking which shows that there is still a challenge in African countries regarding the provision of early ANC booking. WHO(2017) report highlighted the lack of early antenatal booking in low-resource settings result in loss of the opportunity for early gestational age determination, treatment of infections such as syphilis, dietary supplementation, and early initiation of antiretroviral therapy.

A country like Mozambique is a low-income country with a shortage of resources but ANC services are free in public institutions. According to FIGO News (10.04.2020) women are not getting ANC services as recommended by WHO (2016) and as a result, they present with eclampsia and postpartum haemorrhage which could have been prevented by recommended ANC booking. According to the study conducted in Bule Hora District, Ethiopia, The time which ANC booking was initiated has the utmost importance to ensure optimal health effects for both the pregnant woman and baby (Tufa, Tsegaye, and Seyoum. 2020). Maternal deaths that are most reported in our country indicate that the avoidable causes of maternal deaths include health provider-

related issues such as late initiation of ANC bookings. This delays identifying problems, referral to relevant facility causing women to be mismanaged and contribute to maternal death (Saving mothers, 2014). This indicates that several challenges relating to quality care remains.

Provision of antenatal care after testing Gravindex positive is one of the efforts and investment to sustain and accelerate progress in maternal health globally to reach sustainable development goals (Graham, Woods, &, Byass. 2016; WHO, 2015). There are deadly missed opportunities which are chances of doing or accomplishing something of value as first antenatal contact is a truck loaded with many services at one time which includes the opportunity to diagnose any condition that may have a bad effect on pregnancy, monitoring baseline vital, testing of human immune virus (HIV) and rendering of prevention of mother to child transmission(PMTCT) or elimination of mother to child transmission(EMTCT), pelvic assessment to identify the method of delivery, history taking regarding medical,-surgical, obstetric and family history of a pregnant woman in order to assess and classify if there is risk in recent pregnancy, giving of health education regarding lifestyle and dangers to be cautious in pregnancy are some of the activities that are performed at booking. The other important factor in building a relationship and trust between nurse and patient is compromised. However, women are coming and test positive for gravindex but returned home without receiving antenatal booking the very same day.

According to Toolkit for strengthening professional midwifery in Americas (2014), midwives must render quality and safe motherhood to pregnant women from conception until postpartum. It is still a challenge in developing countries due to some varied reasons like amongst others; shortage of staff, shortage of materials and resources, lack of in-service training, the problem with the transportation of specimens to laboratories, unavailability of basic antenatal care programme guidelines, and inadequate treatment modalities and poor infrastructure of healthcare facilities (Ngxongo & Sibiyi, 2013). Early antenatal care (ANC) booking is one of the essential cores as subscribed to the Society of Midwives in S.A and International Council of Midwives. Matlala, Lumadi (2019) found that the impact of shortage of midwives is related to poor provision of quality care and as a result increased workload leads to low morale and burnout. .

According to the Annual Report on Saving Mothers (2014), maternal morbidity and mortality still exist in health facilities due to poor implementation of revised guidelines by midwives as their perceptions regarding the guideline are not clear. Women are still dying during pregnancy and childbirth. There are qualified midwives in primary health care which is the care closer to them and they could be preventing these deaths by giving ANC immediately after the woman tested positive for gravindex (Annual Report on Saving Mothers, 2014). It is the researcher's view that the perceptions of midwives should be explored so that policy makers may consider them when making policies. WHO recommended that pregnant women should start ANC at the gestational age of fewer than twelve weeks as it is referred to as a critical opportunity for health care providers to deliver care, support, and give information to pregnant women in the first trimester (WHO, 2017). More than half of women now receive early ANC booking but too many are still left behind. It was suggested that early ANC visits could potentially be linked with good health outcomes for women and children (Trends in Maternal Mortality, 1990-2015).

According to Bomela (2020), maternal mortality still exists due to length magnitude of problems of maternal deaths, avoidable factors, missed opportunity and substandard care. A study conducted by Solarin and Black (2012) on women's ANC bookings in Inner City revealed that several pregnant women start ANC booking late and the reason given was that midwives delayed in the provision of care and 40% of them were not booked the very same day they tested positive for pregnancy, they were told to come back on another day. Another study conducted by Roberts, Sealy, Marshale, Manda Taylor, Gleason & Mataya (2015) on patient-provider relationship and ANC found that pregnant women do not attend ANC care early as nurses are always shouting and yelling at them. Many types of research were conducted on pregnant women regarding early antenatal booking and findings published but little has been done on perceptions of midwives regarding the provision of early antenatal booking.

1.3. PROBLEM STATEMENT

Burns and Groove (2015) described research problems as an area of concern in which there is a discrepancy between the way things are and the way they should be. According to Maternal guidelines of South Africa (Department of Health, 2015) and the Health Ministerial priorities, any woman who tests positive for Gravindex must receive

first antenatal care the very same day. The researcher is a professional registered midwife working at Tshino-Mutsha Local Area; daily observation shows that there is late initiation of ANC at Tshino-Mutsha Local area. However, pregnant women came to the clinic to be tested for gravindex earlier but are not initiated to antenatal care. The table below illustrates the trend of Gravindex test and initiation of antenatal care at the Tshino clinic.

Table 5. Gravindex Data at Tshino Clinic Stats (February to July 2019)

MONTH	NO. TESTED	NO. POSITIVE	NO. ANC SERVICES RENDERED
FEBRUARY	96	24	09
MARCH	76	17	03
APRIL	81	23	11
MAY	72	15	08
JUNE	63	21	04
JULY	46	24	16
TOTAL	434	124	51

Adopted: Tshino Clinic Gravindex Register from February to July 2019.

Table 1.1 above shows that 51 out of 124 women were initiated antenatal care the same day, meaning that only 50, 8% was initiated. The rate of early initiation of ANC is below the WHO recommendation and the national guidelines of South Africa which are 90% and 66% respectively. Early provision of antenatal is associated with positive outcomes like detection of possible maternal complications that affect pregnancy. Besides, early ANC is associated with reduced perinatal morbidity and mortality. However, Tshino Clinic has been found to delay screening of diseases and management which result in complications and increase morbidity and mortality which could have been preventable if ANC has been provided earlier. There is an increase in conditions like pregnancy-induced hypertension which results in eclampsia. Eclampsia is an avoidable condition and very dangerous as it needs proper management and the availability of drugs and skilled attendants to save the life of the mother and the baby. The other burning avoidable problem is the human immune virus

(HIV) which can be transmitted to the baby if early detection and initiation of prevention of mother-to-child transmission are not provided earlier. According to Foundation for Professional Development (FPD), the maternal mortality ratio in South Africa is 116.9 deaths for every 100 000 births because of clinical factor-like late booking (<http://m.bizcommunity.com>>Article). Therefore, the researcher sought to explore and describe the provision of early antenatal care booking after a positive Gravindex test at Tshino-Mutsha Local Area, to be able to identify the barriers and enablers.

1.4. RATIONALE FOR THE STUDY

The study conducted by Solarin and Black (2012) revealed that there is a delay in the initiation of early booking by midwives as they inform women who come to consult to come back later and some end up booking at the third trimester. As such the researcher has identified the same problem at Tshino-Mutsha local area where midwives are not complying with the minister's dash board indicators of starting ANC the same day the woman test positive for gravindex. Early antenatal care aims to ensure that pregnancy does not cause any harm to the mother and to keep the foetus healthy during the antenatal period. Early ANC bookings assist in identifying and addressing preventable conditions such as pregnancy-induced conditions (hypertension, diabetes) that complicate maternal and neonatal health and increases maternal morbidity & neonatal death. Besides, midwives have appropriate opportunities to provide health education to pregnant women. Pregnant women will have knowledge and will be able to identify warning danger signs in pregnancy, and then report to midwives to attend to them hence a reduction of maternal mortality rate. Therefore, the study sought to explore the provision of early antenatal booking at Tshino-Mutsha Local area in Limpopo Province, South Africa.

1.5. SIGNIFICANCE OF THE STUDY

The findings of the study are expected to help to improve the midwifery practice as well as the initiation and maintenance of early antenatal booking by midwives at clinics. The study findings may also enable midwives to share their challenges and empower them with knowledge about the importance of early ANC booking. This may assist midwives to come up with mechanisms that can enable them to accelerate early ANC booking to reduce maternal mortality and morbidity which is a burden to the country.

The community might also benefit by receiving good care during pregnancy, childbirth, and puerperium as well as being empowered to do early booking. The recommendations of the study can be used in education and policy formulation to improve guidelines and policies on early antenatal care. The recommendations are envisaged to enlighten the Department of Health on challenges as perceived by midwives regarding the provision of early antenatal booking and midwives' expectations.

1.6. STUDY PURPOSE AND OBJECTIVES

1.6.1. Purpose

The main purpose of this study was to determine the perceptions of midwives on initiation of early antenatal care after a positive gravindex test at Tshino-Mutsha Local Area in Limpopo Province, South Africa.

1.6.2. Objectives

The objectives of this study were to:

- To describe the provision of early antenatal care at Tshino-Mutsha Local Area in Limpopo Province, South Africa.
- To describe barriers and facilitating factors on the provision of early antenatal care after a positive Gravindex test at Tshino-Mutsha Local Area.

1.7. DEFINITION OF CONCEPTS

Antenatal care

Antenatal care refers to the service that is given to the expecting/pregnant woman from the confirmed time of conception until the beginning of labour (Fraser, Cooper & Nolte, 2014). In this study, antenatal care shall mean the care that the midwives gave to the woman after a positive gravindex test.

Booking

It is booking Appointment where the woman enters the maternity care pathway, characterised by information giving and detailed history-taking to help the woman choose the most appropriate antenatal care pathway and reduce maternal and

neonatal risks (DoH,2016). In this study booking shall mean a woman who started antenatal care early on or before 12 weeks.

Early antenatal care

Early antenatal care refers to care that a woman is given at the gestational age of fewer than twelve weeks (WHO.2017). In this study, early antenatal care shall mean all activities of care given to a woman the very same day she tested positive for Gravindex after missing her periods within twelve weeks of gestation.

Midwives

The term midwives refer to a licensed person who is registered with the South African Nursing Council after completion of a recognized education and training programme to nurture, assist and treat the client, who can be women, a neonate, or a family, in the process of promoting healthy pregnancy, labour and the postpartum period (DoH, 2020). In this study, midwives shall mean professional nurses trained to attend to women whose Gravindex test positive.

Positive Gravindex test

Gravindex test refers to an agglutination inhibition test performed on a urine sample to detect the presence of the human chorionic gonadotropin which indicates pregnancy (Hornby, 2015). In this study, the Positive Gravindex test shall mean all urine samples that were tested to rule out pregnancy in child bearing women who missed their periods.

Provision

The word provision refers to the act of supplying something of need or wanted (Hornby, 2015). In this study, the provision shall mean providing early antenatal care to pregnant women by midwives.

1.8. CONCEPTUAL FRAMEWORK

The researcher used Information Processing Model as a theory underpinning the study. The Information Processing Model guided the process and assisted the researcher to gain a better understanding of the perceptions of midwives on the provision of early ANC.

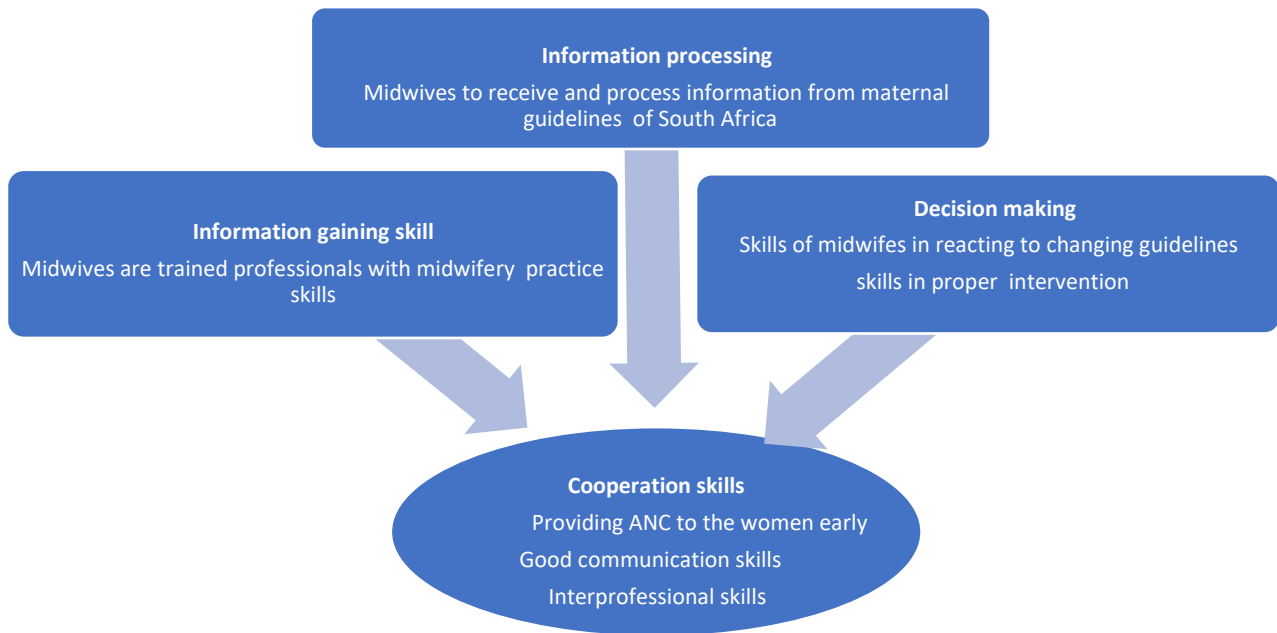


Figure 3. Information Processing Model

The researcher adopted the Information process model and linked it with the daily practice of midwives with regard to provision of early ANC according to the maternal guideline of South Africa (2015) which governs midwives on how and when first antenatal care should be done. According to Standing (2008), there is a relationship between clinical decision making and **Information Processing Model**. When providing care, midwives are involved in decision making, information processing, critical thinking, problem-solving, clinical judgment, ethical values, and professional accountability to select the best action that improved patient's health and minimize potential harm.

1.8.1. The origin of the Information Processing Model

The Information Processing Model is the framework used by cognitive psychologists to explain and describe mental processes, how information is received, processed, stored, and retrieved in the human brain. It was developed by the American Psychologist Miller in 1956 as he believed that the mind receives stimulus from the environment, processes, and stores it on the sensory register, locates it on short term memory, rehearses it, and responds to it as output. It has been broadened most notable by Atkinson and Shiffrin's stage theory (1968). It consists of stages that represent the stages of processing which are: input, storage, and output.

1.8.2. Application of the Information Processing Model

In this study, the Information Processing Model was applied as a guideline or a policy to make decisions regarding the provision of ANC. Midwives were governed by policies like the basic policy which indicates that when a woman tests positive for Gravindex, she must be provided with ANC on the very same day of the test. The control process was the nurse-midwives who were stimulated by the environment which was the policy of ANC. The policy encoded and stored in the mind at the same time recognized what it says, processed it to short-term memory. Therefore nurse-midwives became acquainted with the policy and implemented it for that time or partly and the response or output was poor. When they continued with the process and rehearsed the policy which was putting more effort into implementing it, they then reached the long term memory. This indicates that the policy had become a habit on them and the response or output will be improved provision of early ANC within the organizations.

1.9. RESEARCH METHODOLOGY

Research methodology refers to the specific procedure or techniques used to identify, select, process, and analyse information about the topic (Polit & Beck, 2014). The research methodology used in this study was qualitative as the researcher wanted to get more in-depth information from participants. The research methodology has been explained in detail in chapter 3.

1.9.1. Study design

Gary (2013) defines study design as a plan or blueprint of how one intends to conduct the research. In this study, the researcher used explorative, descriptive, and contextual research designs. The rationale for using the explorative, descriptive, and contextual design was to enable the researcher to explore and obtain complete and accurate information about the provision of antenatal care at the Tshino-local area (Kumar, 2014). Through the explorative design, the researcher was able to explore the circumstances and events around the provision of early antenatal care. The descriptive and contextual design enabled the researcher to describe the provision of early ante-natal services as they occur in the natural setting at the Tshino-local area (Polit & Beck, 2012).

1.9.2. Study settings

A study setting refers to a specific place where data will be collected (Brink, Van der Walt & Van Rensburg, 2017). This study was conducted at Tshino-Mutsha Local Area which is clustered under Makhado Area, under Vhembe District Municipality of Limpopo Province. The Local Area has eight clinics namely; Davhana, Tshimbupfe, Manavhela, Tshino, Ha-Mutsha, Tshakhuma, Levubu, and Vyeboom as well as one mobile team that serve areas that are more than five kilometres from clinics.

1.9.3. Study population and sampling

This section detailed the target population, sample, and sampling, and inclusion or exclusion criteria.

1.9.3.1. Target Population

According to Brink et al. (2017), the target population is a complete set of people that pose some common characteristics that the researcher was interested in studying. In this study, the target population was all registered midwives working at Vhembe District Municipality who meets the criteria. The actual population of this study was all registered midwives working at Tshino-Mutsha local area.

1.9.3.2. Sample and sampling

According to Brink et al. (2017), a sample is a subset of the population that is selected to represent the population. For this study, the researcher used nonprobability purposive sampling, which according to Brink et al. (2017), allowed the researcher to judge and select participants who know more about the topic. The researcher purposively selected clinics under Tshino-Mutsha local area. The local area has eight (8) clinics and one mobile clinic; four out of 8 clinics (Tshakhuma, Ha Mutsha, Tshino, and Manavhela) were selected. Thereafter, the researcher has purposively selected at least 5 midwives per clinic to participate in the study

1.9.3.3. Sample size

About 4 clinics (Tshakhuma, Ha-Mutsha, Tshino, and Manavhela) were part of the study setting and twenty participants were expected to be the sample size (five per facility). However, the sample size was determined by data saturation which was reached at participant number 15.

1.9.3.4. Inclusion criteria

Midwives who were:

- Working at Tshino-Mutsha Local Area
- rendering ANC
- Having the qualification of basic midwifery or advanced diploma in midwifery
- had two years working experience or more, and
- Voluntarily agreed to participate were part of the study.

1.9.4. Measurement instruments

The researcher conducted a semi-structured face-to-face interview using an interview guide. The interview proceedings were captured using voice recordings and capturing of field notes.

The two-main questions were:

1. *“Based on your experience, describe how is the provision of early antenatal care in your facility” and*
2. *“Explain what may be the barriers and facilitating factors of provision of early antenatal booking after a positive Gravindex test at Tshino-Mutsha Local Area”* (see Annexure E).

Probing questions were asked to gather more information as the participants were freely giving possible answers. All the interviews were conducted in English as all the participants were professionals. The researcher had first made an appointment with the participants before interviewing them. Thereafter permission was sought from the operational manager of the clinic and also from the participants.

1.9.5. Pre-testing of the instrument

Brink et al. (2017) described a pre-test as a ‘feasibility’, which refers to specific pretesting of the research instrument. The researcher had rehearsed questions to check if they were clear enough to give more information. The voice recorder was tested for functionality by connecting it with relevant batteries, switching it on and off. The pre-test study was conducted amongst two professional nurses working in one of the identified clinics.

1.9.6. Plan for data collection

Data collection is the process of collecting information from participants which start by recruiting the participants who will be willing to give you that information.

1.9.6.1. Recruiting the participants

The researcher received an ethical certificate from the University of Venda Research Ethics Committee. Applied and received permission from Limpopo Department of Health, Vhembe District Department of Health, and Tshino-Mutsha local area. Thereafter the researcher started to recruit participants to take part in the study. Information letter and consent form which had the information that they can need to decide on participation or not were also given to participants. The researcher herself was available so that if they needed clarity she may clear them.

1.9.6.2. Data collection process

The researcher as the main data collector conducted face-to-face in-depth interviews with midwives to collect relevant data regarding the study. The interviews were conducted from September to December 2020. The interviews were conducted in a private room to ensure privacy. To make the participants feel at ease and to understand the participant's backgrounds, the researcher started by asking the demographic questions. Each interview lasted between 30-45 minutes. To ensure the quality of data the following techniques were applied: summarizing, probing, and listening. The researcher also used reflexivity, intuition, and bracketing to exclude preconceptions to enter the world of participants with an open mind. Data collection process has been discussed in details in chapter 3:

1.9.7. Plan for data management and analysis

Data analysis is a systematic process of applying logical techniques to describe and illustrate, condense and recap, and evaluate data. Its importance is to ensure accurate and appropriate analysis of findings (Miles, Huberman & Saldana. 2014). Data were analysed using the thematic analysis method. Data analysis has been discussed in chapter 3.

1.9.8 Measures to ensure trustworthiness

Trustworthiness measures the degree to which procedures were employed to ensure the accuracy of findings (Brink et al., 2017). To enhance trustworthiness the researcher adopted the model of Guba and Lincoln (1994), which comprises of credibility, transferability, dependability, and Confirmability. The four strategies have been discussed in full in Chapter 3.

1.10. ETHICAL CONSIDERATIONS

Ethical consideration is concerned with matters of plagiarism and honesty in reporting of results in all research. Ethics is the discipline dealing with principles of moral values and moral conduct (De Vos, 2015). The following principles of research ethics were followed when conducting the research study as participants were human: permission to conduct research study was obtained from the School of Higher Degree Committee, University of Higher Degree Committee, and University of Venda Research Ethics Committee, Limpopo Department of Health, Vhembe District and Tshino-Mutsha local area. Informed consent was obtained from participants through the provision of complete information regarding participation in the study. The researcher outlined the purpose of the study and the interview sessions and recordings. More importantly, the researcher also emphasised that participation in the study is voluntary and that participants can withdraw from the study at any given time without fear of victimisation. Confidentiality and anonymity were ensured through the use of codes to identify the participants instead of using names. Additionally, the participants were informed that the information provided during the interview will be kept confidential under lock and key. They were also advised that participation is voluntary; they could withdraw anytime they feel to without any penalty or being forced to participate. The principle of no harm has been adhered to it as there was nothing given to them or information regarding their salary.

1.11. LIMITATIONS OF THE STUDY

In this study, transferability of research findings may not be possible, like most qualitative studies where transferability is not feasible. The researcher had conducted the study in one district, one municipality, and one local area in Vhembe District of Limpopo Province, and also the sample size is limited. This cannot lead to generalization of the findings.

1.12. PLAN FOR DISSEMINATION AND IMPLEMENTATION OF THE RESULTS

The study findings were communicated to participants, Tshino-Mutsha Local area managers and management, Department of Health Vhembe District, and Limpopo Province. Copies of study findings were also be submitted to the School of Health Sciences, University of Venda.

1.13. CHAPTER SUMMARY

Chapter 1 provided an overview of the study, which included the introduction, background, problem statement, purpose and objectives of the study, research methodology and design, and ethical considerations which are the steps that the researcher followed while conducting this study. Relevant concepts were also defined. Chapter 2 will review the literature in the context of the study.

1.14. LAYOUT OF STUDY CHAPTERS

Chapter 1: Overview of the Study

Chapter 2: Literature Review

Chapter 3: Research Methodology and Design

Chapter 4: Data Analysis and Discussion of findings

Chapter 5: Recommendations, Conclusions, and Limitation

CHAPTER 2

2. LITERATURE REVIEW

2.1. INTRODUCTION

Chapter 1 provided the orientation to the study. This chapter reviewed the literature regarding antenatal care, provision of early antenatal care.

2.2. PURPOSE OF LITERATURE REVIEW

Literature review is the systemic process of searching of information from previous scholars related to the topic of interest to find out what is known and unknown about the study context (Brink et al, 2017). De Vos (2015) states that literature review is the process of finding, looking, understanding, and formation of conclusions from published research information, methodology, and theory done by previous scholars regarding the topic of interest. The purpose of the literature review is to gain knowledge about the topic, make conclusions and identify gaps and develop theory and guidelines for clinical practice (Burns & Groove, 2015).

This study's literature reviewed has focused on the provision of early antenatal care, trends on early antenatal care according to the World Health Organisation (WHO), internationally, in African countries (Sub-Saharan), as well as in our country South Africa to determine the perceptions of midwives regarding the provision and initiation of early antenatal care, to also improve in early provision of antenatal booking which is the pillar of safe motherhood.

2.3. THE IMPORTANCE OF EARLY INITIATION OF ANTENATAL CARE

Early and timely initiation of Antenatal Care (ANC) is of vital importance to safeguard the well-being of both the mother and the foetus and it also assists the mothers to receive full packages of antenatal care services (Alemu & Aragaw, 2018). Through early ANC booking midwives can identify and detect the risks in pregnancy early and the preventative measures against pregnancy and labour complications are undertaken to ensure the safe delivery of the baby (Geta & Yallw, 2017). Additionally, early provision of ANC also assists the health workers in the provision of appropriate

information and care based on the screening results, gestational age, and the health condition (Paudel, Jha & Mehata, 2017). According to Guidelines for maternity care in South Africa (2015), pregnant women should be screened for risk factors and other medical conditions that can be treated early during the first visit to the clinic or health care facility. Furthermore, complications such as hypertension and pregnancy diabetes mellitus can be prevented and treated early (Mulondo, 2020). In the context of this study, the provision of early ANC by midwives in the identified clinics is explored.

Globally though there has been progressing in terms of the use and access of health care services and reduction of maternal and stillbirth, late provision of ANC is still regarded as a major challenge (Geta & Yallw, 2017). Whilst in the developing world it has been estimated that amongst many maternal and still deaths occurs in women who were not provided or did not initiate early or have not utilized ANC services, financial burdens and cultural factors has been reported as some of the barriers contributing to late initiation (Oyerinde, 2013; Mullachery, Silver, Macinko, 2016; Blecher Davén Kollipara, Maharaj Mansvelder & Gaarekwe 2017). Throughout Sub-Saharan Africa, it has been documented that there is still low ANC attendance with late provision and attendance, few visits, and late attendance at first antenatal visit making it difficult to accomplish the sustainable development goal of reduction in maternal deaths (Geta & Yallw, 2017).

In South Africa, insufficient delivery of health services including ANC has been reported as a challenge due to the strained economy resulting from structural and political issues (Mulondo, 2020). The World Health Organization (2016) has reported that these factors are the cause of deterioration of ANC services in SA resulting in maternal and stillbirth. A similar study was conducted by Ragolane (2017) in Mopani district wherein the results revealed more than 79% of pregnant women were documented to only provided antenatal care services after 12 weeks of gestation. These factors might have contributed to maternal and neonatal mortality because of the increased risk of several pregnancy-related conditions such as pregnancy-induced hypertension (PIH) (Ragolane 2017; Mulondo, 2020). Furthermore, late ANC provision is associated with higher maternal and neonatal morbidity, such as eclampsia, pre-term birth, and low birth weight (Sanda, 2014).

2.4. PROVISION OF ANTENATAL CARE ACCORDING TO WHO

WHO is a specialized agency of United Nations that is concerned with international public health, which was established on 07 April 1948 in Geneva, Switzerland (WHO, 2017). The purpose of WHO is to direct and coordinate authority on international health and attain a high level of health for all. In this study, this is seen by norms and standards which are set in the maternal guideline for South Africa which present how antenatal care should be provided. There is a global call to reduce maternal and child mortality rates and early antenatal booking is one of the strategies recommended by to answer the call (WHO, 2016). According to WHO (2016), early antenatal care is achieved when a woman who missed her period for at least twelve weeks and below visit the health facility for any reason but end-up receiving antenatal care the very same day of visit. Early antenatal care is said to reduce complications from pregnancy and childbirth, stillbirths, and perinatal death.

WHO as the mother body has different models of antenatal care which each country adopts according to the need of that country. In all the models it is recommended that in all countries antenatal care should be provided at the gestational age of twelve weeks or below, therefore the other visits or contacts will depend on the country's adopted model (WHO, 2016). The types of models include Basic Antenatal Care (BANC), Focused Antenatal Care (FANC), Basic Antenatal Care Plus (BANC plus). According to Ban Ki moon, United Nations (UN) secretary-general: "To achieve every woman's children and adolescent health we need innovative, evidence-based approaches to antenatal care". Provision of early antenatal care facilities uptake of preventative measures, early detection of risks, reduce complications, and address health inequalities (WHO, 2016).

WHO envisions a world where every pregnant woman receives quality care in pregnancy as early as possible to achieve positive pregnancy outcome. Early antenatal care is a global truck caring for different items important for the health of pregnant woman which includes screening, diagnosing health problems which may be due to pregnancy or increased by pregnancy, health promotion and prevention of diseases (WHO, 2014). The benefits of early antenatal care includes the following; nutritional intervention, maternal and foetal assessment, preventative measures,

intervention of common psychological problems, and health system intervention which improve utilization and quality (WHO, 2016).

Despite WHO's recommendations that all women should be initiated on antenatal care in the first trimester, there are still pregnant women who are found to receive their first antenatal care in the second trimester. This is where the study comes in to find out the perceptions of midwives regarding the provision of early antenatal care as recommended by (W.H.O, 2016).

2.5. PROVISION OF ANTENATAL CARE INTERNATIONALLY

Early provision of antenatal care is an important moment for midwives to provide care to the pregnant woman which includes screening, testing which helps to accomplish the goal of a positive pregnancy experience. Although antenatal care provides assistance to pregnant women to improve maternal and child health, its coverage is not universal or adequately provided globally.

A study conducted in Brazil indicates that antenatal care is rendered to the entire population at the community level through Family Health Strategy (FHS) which is the main source of primary care provided by public health system (Andrade, Noronha, Queiroz et al, 2017). The country strengthens the relationship between pregnant women and health professionals through use of community health agents who visit the families and identify and refer pregnant women to receive antenatal care as early as possible. However, Brazil is like any other country which has its flaws antenatal coverage like inequalities in socioeconomic (World Bank Gini Index, 2017) under WHO which is the mother body in health, it is recommended that the first antenatal care visit should be between six to twelve weeks of gestation by the Norwegian Directorate of health. However late provision of ANC is also common in Norway. In studies conducted in developed countries, it is revealed that late provision of ANC is still common despite Ireland which recommended that the first contact between pregnant woman and healthcare provider should be provisioned at thirteen weeks of pregnancy. According to May 2019 report from US Centres for Disease Control and Prevention (CDC), it was revealed that the US has the highest maternal death rate with approximately 700 women who die each year as a result of pregnancy-related complications. On the report, it is also indicated that a contributory factor is lack of guiding protocols or tools to help ensure the quality of care provision. In these cases,

midwives at the forefront of maternal health are left without option but to use their discretion on the provision of antenatal care.

2.6. PROVISION OF ANTENATAL CARE IN AFRICAN COUNTRIES (SUBSAHARAN)

African countries are middle and low-income countries that have high inequality in healthcare services due to many reasons like poverty and lack of resources (WHO, 2016). Many pregnant women in sub-Saharan Africa start antenatal care late which is caused by both service providers and women themselves. De Vaal (2011) discovered that majority of those who come late are: multigravidas, unmarried and unemployed women.

Ethiopia is one of the countries in Africa with low income. A study conducted in Ethiopia by Tekelab (2019) regarding maternal health has found that Ethiopia has a high rate of maternal and neonatal death and underutilization of ANC. According to the Ethiopian Demography and Health Survey (EDHS) 2016, about 20% of women were provided early antenatal while 62% of the whole population received antenatal care late at second and third trimester which shows that there is still a challenge in African countries regarding the provision of early antenatal care.

Ethiopia uses the guideline called Ethiopian National Maternal and Newborn Care Services Guideline of 2015 in maternal health services. It is the sixth country that contributes to 50% of maternal death worldwide. A study conducted by Gebremeskel (2015) in Ethiopia on the timing of first antenatal attendance also revealed that 82% of pregnant women start antenatal care late due to lack of education but according to Gross et al. (2012) in a study conducted in Tanzania it was revealed that women start antenatal care late reporting bad quality of service they receive, whereby they are sent back home without receiving antenatal care the same day due to insufficient staff, drugs, and shortage of antenatal cards.

According to the study conducted in Zambia by Banda et al. (2012), it was revealed that those who become pregnant unplanned are the ones contributing to the failure of provision of early antenatal care.

2.7. PROVISION OF ANTENATAL CARE IN SOUTH AFRICA

South Africa is one of the African countries which are still developing. The maternal care that South Africa provides is under the mother body WHO but also governed by its guideline called Guideline for Maternity Care in South Africa, a Manual for Clinics, Health Centres and District Hospitals which has been revised in 2015 (NDoH, 2016). Maternity care is one of the dashboard indicators in South Africa and is free on public health facilities. In 2008 our beloved country South Africa has adopted the BANC initiative which had five contact visits moving from the traditional model which was developed earlier in the 1900s which was prescribed by the South African Nursing Council in the scope of practice for midwives (Regulation R2598 of 1987 as amended by Regulation R260 of 1991).

The focused antenatal care approach is goal-oriented and was adopted in 2002. As the BANC approach was seen as productive in South Africa it was improved to BANC Plus in 2017 which does not differ much from the original BANC approach but also increased contacts with a pregnant woman to eight contacts to try and reduce or minimize avoidable causes of maternal death such as poor initial assessment, problems with recognising problems, delays in referring the pregnant women to relevant health facility resulting in managing pregnant women at an inappropriate health care facility, incorrect management/care (WHO, 2016). Despite all the efforts, that the government is doing in South Africa there is still high numbers of late provision of antenatal care due to various reasons.

The South African maternity guideline is also emphasising early antenatal care which should be at twelve weeks or below (NDoH, 2015), with the purpose of early screening, assessing, diagnosing, and proper management of pregnant woman and pregnancy outcome which includes information giving, physical and psychological preparation for childbirth and parenthood (NDoH, 2015) and those are considered pillars of safe motherhood (NDoH, 2016).

During the first contact of antenatal care, the following activities are performed: history taking regarding current pregnancy, previous pregnancy and complications with their outcomes, medical history, surgical history, and family history including any genetic disorder, allergies, and use of any medication, alcohol, smoking or any substance use. Physical examination also includes weight, height, heart rate, anaemia, blood

pressure, oedema, and any lymphadenopathy. Breasts are palpated for any lump; the heart is also examined for any murmur, and the lungs to hear air flow sound. The abdomen is examined for any scar, swelling, and enlargement of the liver or vital organs inside. Symphysis fundal height is a measure to determine and check correlation with dates and vulva, vaginal examination for any abnormality. Pelvic assessment is also done to determine adequacy for pelvis so that place of delivery can be identified. Mid-upper arm circumference is also measured to detect malnutrition or obesity. History of the last normal menstrual cycle is obtained to estimate gestational age and date of delivery (Sellers, 2018).

Essential screening investigations are also conducted according to WHO (2016) which includes urine dipstick to detect the pre-existing renal condition, and also detect the presence of protein in the urine which is a sign of eclampsia even though pre-eclampsia starts to present after twenty weeks of gestation. Human Immune Virus (HIV) testing to start prevention of mother-to-child transmission as early as possible. Haemoglobin level test to detect anaemia. There is also Rapid Rhesus factor test to detect if positive or negative. If results are negative the process of taking other blood according to the schedule may be followed and client is booked for anti D after delivery. Blood for syphilis test is also taken so that if results are positive or reactive the woman and her partner may get treatment as early as possible. In S.A there is a rapid test for RH, HB, and malaria. In malaria risk areas also malaria is tested on the first visit. Pap smear is also important as the status of the cervix is also important to rule out cancer (NDoH, 2015).

Vaccination is also done against tetanus to prevent neonatal tetanus, folic acid 5mg is also given as an oral daily dose to a woman as early consumption of folic acid reduces the risk of neural tube defects in the foetus and iron supplements like ferrous sulphate minimises the risk of preterm deliveries and development of small for gestational age and low birth weight babies. Calcium is also given to prevent preeclampsia. The management plan is done based on findings. Lastly, the information in the form of health education regarding dangers in pregnancy, self-care, delivery plan, newborn and contraception, date of next visit and a woman is issued with record or card filled and this is considered as the woman has received first antenatal care in S.A (NDoH, 2015), before the woman leaves she is registered to mom connect which is the

programme from the Department of Health to educate and advise women during pregnancy and after delivery.

2.8. TRENDS ON ANTENATAL CARE IN SOUTH AFRICA

In a study conducted by Solarin and Black (2013) regarding antenatal care, it was revealed that women present themselves early for antenatal care but they are returned home without care which is why they book late for ANC. Another study conducted by Roberts (2015) revealed that pregnant women do not attend early antenatal care as nurses yell and swear at them. In 2016 expert review of maternal deaths between 2014 and 2016 has revealed that there are still maternal deaths in the country due to lack of antenatal care, late provision of antenatal care (Haddad, Makin, Pattison, Forsyth, 2016).

According to the study conducted by Ebonwu, Mumbar, Uys, Wainberg & Medina Marino (2018) regarding determinants of late antenatal care presentation in rural and peri-urban communities of South Africa, it was found that early antenatal care is delayed by staff whereby pregnant women reported that they present themselves earlier but they are given an appointment to initiate ANC at later date. Another study conducted by Ragolane (2017) on factors contributing to late antenatal care at Mopani District found that pregnant women presents themselves late for ANC due to nurses negative attitude or laziness as they turn them away after a positive gravindex test and shortage of resources while some indicated facility problem where they do not have clinics, only mobile clinic visit and they don't offer antenatal care in mobile services. It is the researcher's view that this study is conducted to determine the perceptions of midwives regarding the provision of early antenatal care as a lot has been revealed from pregnant women and little or none from midwives is heard.

2.9. EFFECTS OF POOR PROVISION OR NOT PROVIDING EARLY ANTENATAL CARE

Poor or lack of provision of early antenatal care results in many problems which most of which are irreversible to the pregnant woman and the baby, while some contribute to maternal and neonatal death (DoH, 2015). The problems include transmission of mother-to-child diseases like HIV and AIDS, neural tube defects, eclampsia which in

some health facilities there are not enough resources to manage, conditions like ectopic pregnancy which are life-threatening and can be diagnosed in the early ANC (DoH, 2015). Lastly is the death of a pregnant woman with or without a foetus due to avoidable causes which should have been prevented and these results in litigations and according to reports from the district more litigation are from the maternal health side. So it is of interest of the researcher to conduct this study to find out how early antenatal care is provided and any challenges that are encountered by midwives while their call is to save and improve pregnancy outcome.

2.10. CHAPTER SUMMARY

This chapter focused on the literature review regarding the provision of early antenatal care as directed by W.H.O, how antenatal care is provided internationally, in sub-Saharan Africa, South Africa, as well as the effects of poor provision of early antenatal. The researcher has tried to review many studies to find out the gap in the provision of early antenatal while in many findings fingers are pointed to midwives by pregnant women while on the other hand, midwives point back at pregnant women and the Department of Health. However, the purpose of this study is to explore and describe the provision of early antenatal care at Tshino Mutsha local area.

CHAPTER 3

3. RESEARCH METHODOLOGY AND DESIGN

3.1. INTRODUCTION

The previous chapter reviewed and discussed literature related to the provision of early antenatal care. This chapter discusses how the methodology and design were applied and how data was collected, processed, and analysed which includes study settings, population, and sampling method, trustworthiness, and ethical considerations in this study.

3.2. RESEARCH METHODOLOGY

Research methodology refers to the specific procedure or techniques used to identify, select, process, and analyse information about the topic (Polit & Beck, 2014). It informs how data will be collected or generated and how data will be analysed. The researcher used a qualitative research approach. A qualitative approach was flexible when the researcher was exploring, describing, and contextualizing a subjective phenomenon in the belief that the truths about the reality regarding the provision of early antenatal are grounded in peoples lived experiences which were midwives in this study and it also enabled the researcher to obtain more in-depth information regarding the study topic.

3.3. STUDY DESIGN

Gary (2013) defines study design as a plan or blueprint of how one intends to conduct the research. In this study, the researcher used explorative, descriptive, and contextual research designs. The design is holistic, inductive, and complex as the study is conducted in real settings. The descriptive design aims at obtaining complete and accurate information about the phenomenon through observation, description, and classification to provide new information on the phenomenon (Kumar, 2014).

3.3.1. Explorative Research Design

Explorative research design is the design that is undertaken when a new area is investigated or when little is known about an area of interest while on the other side exploratory design is conducted to gain new insight, discover new ideas, and/or increase knowledge of a phenomenon (Polit, 2013). In this study, exploratory design was used to assist in determining the potential perceptions of midwives on provision of early ANC at Tshino-Mutsha Local Area in Limpopo Province, South Africa. Through exploration, the researcher gained more information about barriers and facilitating factors on the provision of early antenatal care at Tshino-Mutsha local area by probing more and asking to follow up questions to get more information and clarity, while doing so the researcher was listening attentively to participants giving them more time to say what they know while observing their emotions.

3.3.2. Descriptive Research Design

The descriptive design may be used to identify problems with current practices. The researcher chose this design to obtain in-depth and accurate information by interviewing participants and probing to get more information until data was saturated. According to Leedy and Ormrod (2015), the use of descriptive design enables the researcher to get an in-depth description and understanding, actions and events in all their complexity. Descriptive research design allowed the researcher to study the nature of the problem that exists in real-life situations concerning the provision of early ANC at Tshino-Mutsha local area. The researcher applied the descriptive research design by asking the participants to describe how they provide early antenatal care in their respective facilities, and also what they perceive to be barriers/ challenges with facilitating factors when providing this service. The opportunity was given to describe the way they practice it on daily basis.

3.3.3. Contextual Research Design

Contextual research design is the design that focuses on specific events in natural settings (Burns & Groove, 2016). The researcher conducted an inquiry in the working environment (clinics) of the participants which was free from manipulation. This helped to ascertain real-life motivations and insight into the behaviour of participants, and how they interact with pregnant women after a positive gravindex which helped the researcher to interpret and consolidate that data in a structured way. This was

achieved through observation and interviews. The researcher was following the contextual rule to identify and label portions that influence the actions of midwives on the provision of early antenatal care as they tend to give very accurate information.

3.4. STUDY SETTING

A study setting refers to a specific place where data will be collected (Brink, Van de Walt & Van Rensburg, 2017). This study was conducted at Tshino-Mutsha Local Area which is clustered under Makhado Area, Vhembe District, of Limpopo Province. Limpopo Province is the northernmost province of South Africa and is named after Limpopo River which forms the province's western and northern borders. Limpopo has five districts in which Vhembe, where the study is conducted, is one. Vhembe District has four local municipalities wherein Makhado which has Tshino Mutsha local area is one of those municipalities. The health services at Vhembe District are delivered by one regional hospital, six district hospitals, one specialized psychiatric hospital, eight community health centres, 112 clinics, and 22 mobile clinics, and this is where the selected clinics were from. The Local Area has eight clinics namely; Davhana, Tshimbupfe, Manavhela, Tshino, Ha-Mutsha, Tshakhuma, Levubu, and Vyeboom as well as one mobile team that serves areas that are more than five kilometres from clinics and refers patients to Tshilidzini and Elim Hospitals. The communities serviced believe in Christianity while others believe in tradition. There are many traditional healers within the area. The clinics render 24 hours' services through the on-call system from 18H00 to 06H00 daily. The services they offer include treatment of minor ailments, tuberculosis(TB) services, human immune virus and acquired immunodeficiency syndrome (HIV & AIDS) services including the elimination of mother to child transmission (EMTCT), mother and child which includes family planning, ANC, deliveries, postnatal care, immunization and growth monitoring and mental health care services. In this area, women start ANC after 20 weeks of pregnancy. The local area has a maximum of three midwives per shift in each clinic with one advanced midwife posted at Levubu clinic.

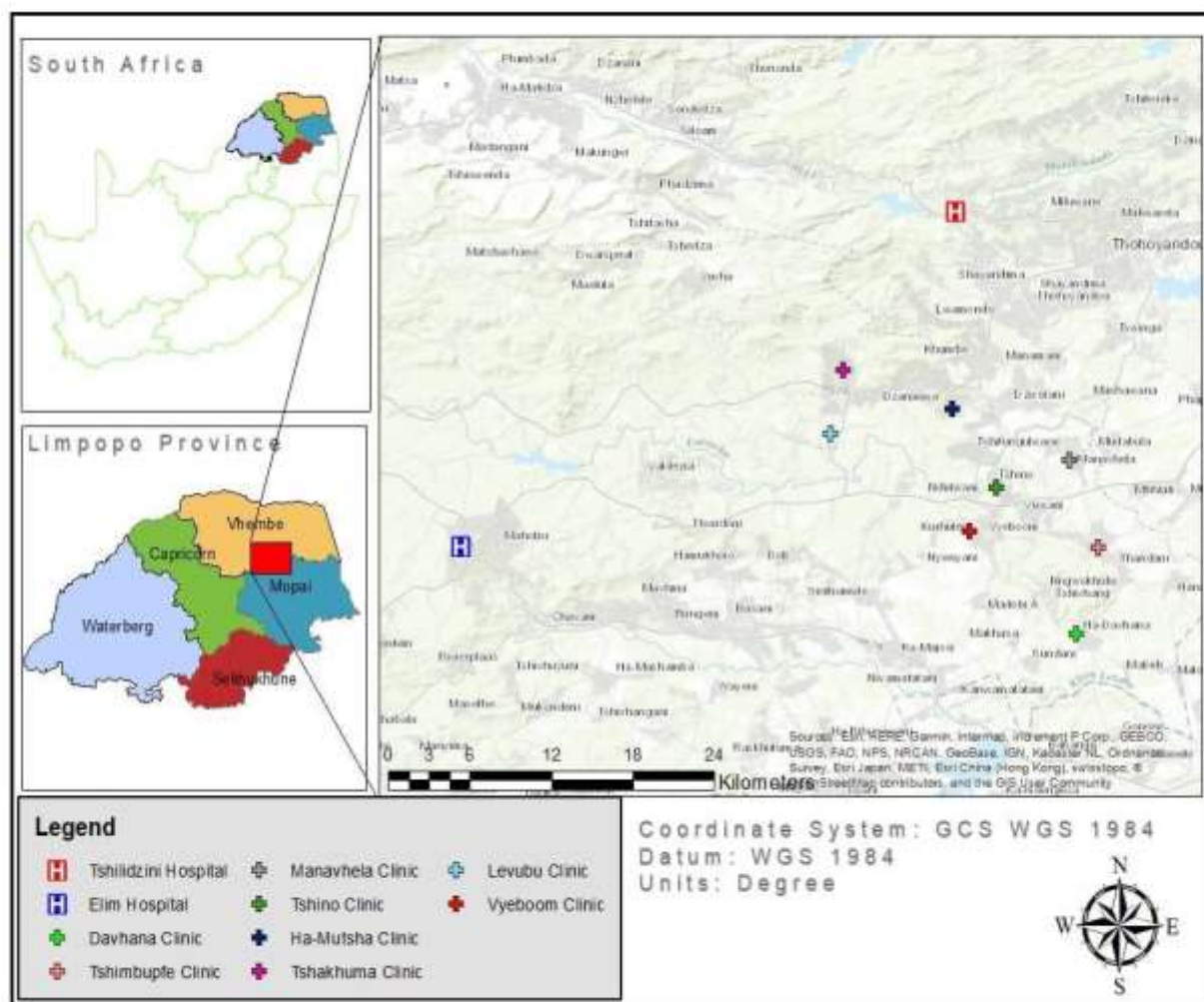


Figure 4: Map of Vhembe showing clinics of Tshino local area:

3.5. STUDY POPULATION AND SAMPLING

This section provides details about the target population, sample and sampling procedures, and inclusion or exclusion criteria.

3.5.1. Target Population

According to Brink et al. (2017), the target population is a complete set of people that pose some common characteristics that the researcher is interested in studying. In this study, the target population was all registered midwives working at Vhembe District Municipality who meets the criteria. The actual population of this study was all registered midwives working at Tshino-Mutsha local area.

3.5.2. Sample and sampling

According to Brink et al. (2017), a sample is a subset of the population that is selected to represent the population. For this study, the researcher used nonprobability purposive sampling, which according to Brink et al. (2017), allow the researcher to judge and select participants who know more about the topic. Purposive sampling is also called judgmental sampling. The researcher started by purposively selecting the clinics under Tshino-Mutsha local area. The criterion used to select these clinics was those clinics with the highest statistics of women who had booked for ANC after 20 weeks' gestation. The local area has eight (8) clinics and one mobile clinic, four out of 8 clinics have high statistics of antenatal care accounting for 75% of local area statistic, the four clinics selected were; Tshakhuma, Ha-Mutsha, Tshino, and Manavhela thereafter, the researcher purposively selected at least 5 midwives per clinic to participate in the study.

3.5.3. Sample size

The purpose of the study, more dense information, and data saturation is determined by the size of the sample used (Brink et al, 2018), but this also can be determined by data saturation. About 4 clinics (Tshakhuma, Ha-Mutsha, Tshino, and Manavhela) were part of the study setting and a total of twenty participants were expected to be the sample size (five per facility). However, the sample size for this study was also determined by data saturation as data was saturated with fifteen participants who were seen by participants repeating the same information.

3.5.4. Inclusion criteria

Inclusion criteria refer to the common characteristics that the sample has to be included in the study (Brink et al, 2018). In this study, midwives who were working at Tshino-Mutsha Local Area, rendering ANC, with basic midwifery or advanced diploma in midwifery and who had two years working experience or more, and voluntarily agreed to participate were part of the study.

3.6. MEASUREMENT INSTRUMENTS

For this study, the researcher used an interview guide to ask questions to collect data while also voice recording the interviews was done which will be helpful when analysing data. The researcher was used semi-structured questions and the interviews were face-to-face. The two-main questions were;

- *“Based on your experience, describe how is the provision of early antenatal care in your facility” and*
- *“Explain what may be the barriers and facilitating factors of provision of early antenatal care after a positive Gravindex test at Tshino-Mutsha Local Area”* (see Annexure E).

The researcher used probing questions to gather more information as the participants were freely giving possible answers. The Interview guide was used as a tool to assist the researcher when asking questions. The researcher interviewed participants in English as all of them were professionals. Voice recording was done as another way of collecting data to get all information given by participants; permission was sought from the participants. The researcher had first made an appointment with the participants before interviewing them.

3.6.1. Pre-testing of the instrument

Brink et al. (2017) described that a pre-test as a ‘feasibility’, which refers to specific pretesting of the research instrument. The researcher is responsible for data collection by conducting all the interviews. Before the commencement of the interview, the researcher rehearsed questions to check if they are clear enough to illicit sufficient information. The voice recorder was tested for functionality by connecting it with relevant batteries, switching it on and off. The researcher had identified two participants with the same characteristics to those who were sampled as participants and interview them to test the effectiveness of the interview guide. By doing so the researcher was able to allocate time for the interview, rehearsing probing techniques to be used and testing the ambiguity of questions. Also by doing so the researcher was testing the voice recorder to check if it properly recorded all the information as data collected during pre-test was analysed to evaluate the efficacy of the instrument. Those professional nurses (midwives) were excluded in the main study to avoid bias as they would already know the questions to be asked. The results of the pre-test

indicated the need to ask more follow-up questions to explore the challenges experienced.

3.7. DATA COLLECTION

3.7.1. Recruiting the participants

After receiving the ethical clearance from the University of Venda Research Ethics Committee (UREC), the researcher applied to the Limpopo Provincial Department of Health for a permission letter to access the selected health facilities which was also approved. Thereafter, the researcher also sent the permission letter from the province to the district where they also gave her approval to present to the managers of the selected clinics while requesting permission to conduct the study. After receiving positive responses from the managers, the researcher communicated telephonically and face to face with the managers to secure a meeting for the arrangement of convenient dates and times to conduct interviews. In that meeting, the researcher also approached participants and asked them to confirm that they were willing to participate in the study, where the researcher even explained the rationale, significance, purpose, objectives of the study to participants and issued them with a letter of information which includes informed consent so that those who were interested may take part in the study voluntarily and with understanding. The researcher also briefed the participants on the procedure of interviews, risks, and benefits of participating in the study and to prepare them, and establish rapport. In this meeting, the researcher also arranged for a reserved cubicle or side ward to use during the interview as all interviews were conducted at their working areas but conducted at the participants' convenient time. Convenient dates were secured to visit the clinics for interviews and participants responded positively as the researcher was their colleague.

3.7.2. Data collection process

Data collection is the process of gathering information relevant to the study topic from selected samples to reach the purpose and objectives of the related study (Brink et al, 2018). The researcher was the main data collector. The researcher interviewed midwives to get in-depth information regarding the study. Interviews were conducted in English as the medium of communication as participants were all professionals. Each interview session lasted between 20 to 35 minutes. The process of data collection took three months, depended on data saturation. The main questions were;

“based on your experience, describe how is the provision of early antenatal care in your facility” and “explain what may be the barriers and facilitating factors of provision of early antenatal care after a positive Gravindex test at Tshino-Mutsha Local Area”. Interviews were mostly conducted on Wednesdays, Fridays, weekends, and holidays as arranged. The researcher first went to the clinics to arrange with the available participants for a convenient date and on that set date she would call in the morning for the reminder and verify about the convenient time for the interview. During interviews, some midwives refused the use of a voice recorder saying that they feel not free to participate on its use, the use was not forced but explanation on importance of use was explained and ethical principles also explained to try and give them the reason to understand its purpose of use. Most of them allowed it to be used and this did not have any impact on data collected as it was just one participant who insisted on not using the voice recorder. Field notes were captured and non-verbal cues were noted to be used during data analysis. The researcher employed the following techniques to ensure the quality of the collected data summarizing, probing, and listening:

Summarizing, allowed the researcher to condense and crystallize the essence of the participant's statement.

Probing, the researcher requested more information from the participants during the interview by making vague comments that could have multiple meanings.

Listening, the researcher listened carefully to the participants' messages and respond to the meaning behind these messages accurately to enhance interviews.

The data collected were transcribed verbatim.

3.8. PLAN FOR DATA MANAGEMENT AND ANALYSIS

Data analysis is a systematic process of applying logical techniques to describe and illustrate, condense and recap, and evaluate data. Its importance is to ensure accurate and appropriate analysis of the findings (Miles, Huberman & Saldana. 2014). Data collected was kept safe by the researcher and supervisor whereby it was locked and opened through a secret pin when using the computer while the original ones in the form of field notes, voice notes, and transcripts were locked unaltered. Data was analysed using Tesch's analysis method of exploring and organizing raw data, as well

as analysing and interpreting data to give them meaning. Tesch's analysis is an analytic process that emphasises the pinpointing, examining, and recording patterns within data. Data in qualitative research occurs in written form, audiotapes, and or photographs, so it is a hands-on process. The researcher listened to all audiotapes and transcribed them verbatim and reread the transcripts to get an understanding of the interviews and familiarize her with the data, thereafter, organize them by codes, group them into themes and sub-themes, categorise them and write up the report then communicate the results.

3.8.1. Eight (8) Steps of Tesch's inductive, descriptive open coding technique, Creswell (2014) was used following the steps below

Steps 1 – Reading through the data

The researcher got a sense of the whole by reading all the verbatim transcripts carefully. This gave ideas about the data segments and how they look like/mean. The meaning that emerged during reading were written down and all ideas as they come to mind. The researcher carefully and repeatedly read the transcripts of all the participants and understood them.

An uninterrupted period to digest and thought about the data in totality was created. The researcher engaged in data analysis and wrote notes and impressions as they come to mind.

Step 2 – Reduction of the collected

The researcher scaled down the data collected to codes based on the existence or frequency of concepts used in the verbatim transcriptions. The researcher then listed all topics that emerged during the scaling down. The researcher grouped similar topics, and those that did not have association were clustered separately. Notes were written on margins and the researcher started recording thoughts about the data on the margins of the paper where the verbatim transcripts appear.

Step 3 – Asking questions about the meaning of the collected data

The researcher read through the transcriptions again and analyse them. This time the researcher asked herself questions about the transcriptions of the interview, based

on the codes (mental picture codes when reading through) which existed from the frequency of the concepts. The questions were “Which words describe it?” “What is this about?” and “What is the underlying meaning?”

Step 4 – Abbreviation of topics to codes

The researcher started to abbreviate the topics that have emerged as codes. These codes need to be written next to the appropriate segments of the transcription. Differentiations of the codes by including all meaningful instances of a specific code’s data were done. All these codes were written on the margins of the paper against the data they represent with a different pen colour as to the one in Step 3.

Step 5 – Development of themes and sub-themes

The researcher developed themes and sub-themes from coded data and the associated texts and reduced the total list by grouping topics that relate to one another to create meaning of the themes and sub-themes.

Step 6 – Compare the codes, topics, and themes for duplication

The researcher in this step reworks from the beginning to check the work for duplication and to refined codes, topics, and themes where necessary. Using the list of all codes she checked for duplication. The researcher grouped similar codes and recoded others that were necessary so that they fit in the description.

Step 7 – Initial grouping of all themes and sub-themes

The data belonging to each theme were assembled in one column and preliminary analysis was performed, which was followed by the meeting between the researcher and co-coder to reach a consensus on themes and sub-themes that each one has come up with independently.

Step 8 – Presentation of results

The researcher and co-coder/ independent coder concluded the analysis with common themes and sub-themes which will be presented, discussed, and supported by literature in the next chapter.

3.9. MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness measures the degree to which procedures were employed to ensure the accuracy of findings (Brink et al., 2017). To enhance trustworthiness the researcher adopted the model of Guba and Lincoln (1994), which comprises of credibility, transferability, dependability, and Confirmability.

3.9.1. Credibility

Credibility was achieved through prolonged engagement with participants. The researcher immersed herself in the world of participants by visiting and communicating with participants time and again to gain insight into the context of the study and minimize distortions of information until data is saturated. Every time the researcher visited participants the researcher stayed with one participant for more than 30 minutes. The establishment of trust and rapport was done through member checking and in-depth understanding of culture and language and spending reasonable time with participants. Triangulation was done through the multiple uses of data collection tools for example the use of voice recorder and field notes. Member checking was achieved through conducting follow-up interviews, playback audio tape to confirm responses, rephrasing, and verifying the accuracy of the researcher's interpretation.

3.9.2. Transferability

Transferability is the generalisation of findings and attempts of application to other contexts, settings, or other groups (De Vos, 2015). Transferability was achieved through the sampling method used, detailed description of design and data, peer evaluation which was through independent checking by colleagues and supervision experts. The researcher had thoroughly described the methodology, the purposive sampling method that was used to select the participants, data collection, and how data was analysed to ensure applicability of the study to other contexts. The researcher collected in-depth, one-to-one interviews to enhance transferability. Data was collected from selected nurse-midwives from selected clinics and the findings of this study cannot be generalised as it was conducted in one district, one local area, therefore it cannot be generalised to present the whole country.

3.9.3. Dependability

Dependability refers to the provision of evidence such that if it were to be repeated with the same or similar participants in the same or similar context, its findings would be similar (De Vos, 2015). Dependability was achieved through dense description which was a complete description of design whereby the researcher has presented and explained all the steps that were followed when conducting the study. This included triangulation through expert guidance from supervisors, field notes and literature control, stepwise replication whereby the independent coder analysed the data and discussed the findings with the researcher.

3.9.4. Confirmability

Confirmability refers to freedom from bias in the research procedures; whereby data reflected the voice of participants not of the researcher (De Vos, 2015). Voice recorder and transcripts were made available to supervisors to confirm the findings. An Independent coder was also used to confirm the neutrality of findings. Through audit trials where raw data were analysed and conclusions formulated, the researcher has guarded against imposing her ideas to ensure accuracy, relevance, and meaning. The independent coder also analysed transcripts independently and sent exactly the findings. The work was presented to the supervisor and co supervisor for validation.

Table 6: Summary of Measures to Ensure Trustworthiness

STRATEGY	POSSIBLE ACTION TAKEN BY RESEARCHER
Credibility	<p>Prolonged engagement in the field research site</p> <p>Use of peer debriefing</p> <p>Triangulation</p> <p>Member checking</p> <p>Persistent observation</p>

Transferability	<p>Provision of a thick dense description of methodology and design</p> <p>Sampling method which is non-probability purposive sampling</p>
Dependability	<p>Audit trial, showing how data was collected and analysed and made available raw data, field notes, and interview transcripts</p> <p>Stepwise replication through the use of independent coder</p> <p>Peer examination</p> <p>Literature control</p>
Confirmability	<p>Reflexive journal practice</p> <p>Audit trial</p> <p>Triangulation</p> <p>Involvement of supervisor</p>

3.10. ETHICAL CONSIDERATIONS

Ethical consideration is concerned with matters of plagiarism and honesty in reporting of results in all research. Ethics is the discipline dealing with principles of moral values and moral conduct (De Vos, 2015). The following principles of research ethics were followed when conducting the research study as participants were human:

3.10.1. Permission to conduct the research study

The research proposal was presented to the School Higher Degree Committee (SHDC) for approval and then approved, submitted to the University Higher Degree Committee (UHDC) for approval. Approved, the proposal was sent to the University of

Venda Research Ethics Committee (UREC) for ethical clearance, and then the researcher was given a formal ethical clearance certificate from the UREC (see Annexure G). The researcher uploaded the approved proposal together with the ethical clearance to the Department of Health (DoH) Provincial to ask permission to access the clinics to collect the data by sending an application to the district. The DoH Provincial approved and gave the researcher a formal letter of permission to conduct the study (see annexures); the researcher also submitted the letter from DoH to the Vhembe district municipality office. The district office issued the letter to the researcher to access the clinics of Tshino-Mutsha Local Area, and then the researcher forwarded the permission letter to the managers of the local clinics. Then the researcher started arrangements with participants as outlined in the recruitment procedure above.

3.10.2. Informed consent

Information letter is detailed information that is given to participants explaining what the study is all about, benefits and who are the beneficiaries, how long will it take, and the risks involved (Barker, Pistrang & Elliot, 2015). The researcher explained the purpose of the research, benefits, how the research was to be conducted, and the duration of the interviews. The researcher has also given a consent form to participants to read and understand and the consent form included who to contact for any queries so that the participants can decide to take part by signing the consent or not. The university standardised informed consent or information letter is attached as an annexure and it was signed by participants before interviews were conducted.

3.10.3. Confidentiality and anonymity

Confidentiality refers to the assurance that the identifying of information will not be made available to anyone who is not directly involved in the study. Part of the ethical concern to be addressed included among others anonymity and confidentiality among the participants. The researcher ensured that the information of the participants outlined in the study remained confidential. According to Neuman (2014), anonymity is the ethical protection that people who are being studied remain nameless; their identity was protected from disclosure and remains unknown. The researcher applied anonymity where participants were not asked their names, addresses, and identity numbers. Raw data were entered into the computer using codes. Names of participants, facilities, and addresses were not included on interview guide and

transcript sheet. All data collected including transcript sheets, voice noted and field notes were kept confidential by the researcher, only the researcher and supervisors has access to them.

3.10.4. Voluntary participation

Voluntary participation refers to the participant's rights and willingness to freely choose to subject them to the scrutiny inherent research. The researcher explained the rationale, significance, objectives, and purpose of the study to participants so that they had understanding and ability to decide whether they participate or not. The rights of participants to withdraw without any penalty, anytime they fill were also explained. An information letter with a consent form was also explained so that participants gave consent before they participate in the study.

3.10.5. No harm to the participants

Creswell (2017) maintains that participants should be given the assurance that they will be indemnified against physical and emotional harm. In this study, participants were made aware of the rationale, significance, purpose, and objectives, benefits of the study. The researcher ensured that there is no harm by conducting interviews in a private room and also structuring the questions carefully.

3.11. CHAPTER SUMMARY

This chapter presented the research methodology and research design applied by the researcher in this study which includes study settings, population, and sampling, measurement of the instrument and pre-testing of the instrument, data collection, and analysis, measures to ensure the trustworthiness of the study and ethical considerations followed when conducting the study. The next chapter which is chapter four (4) will present data analysis and discussion of findings.

CHAPTER 4

4. PRESENTATION OF DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1. INTRODUCTION

The previous chapter presented research methodology and designs applied in this study. This chapter presents data analysis as well as discussion of the findings that were found after data analysis regarding exploring the provision of early antenatal care at Tshino Mutsha local area, and support them with literature. From the results, three main themes with sub-themes emerged using Tesch's 8 steps of inductive, descriptive, and open coding techniques. Themes and sub-themes are discussed and supported with literature and conceptualized within the information processing model and quotes from transcripts which are written in italic form.

The participants selected for this study were 20; however data saturation was reached at participant number 15. The midwives are identified as participants 1, 2.3 etc.

4.2. DEMOGRAPHIC PROFILE OF PARTICIPANTS

Demographic profile was presented to provide a clear description of characteristics of participants, which was as follows:

Table 7: Demographic profile of participants

Total number of participants (midwives)	15
Age group of participants in years	
30-40	03
40-50	08
50-60	04
Gender	

Males	02
Females	13
Qualifications	
Basic Midwifery Diploma	14
Advanced Diploma in Midwifery	01
Years of experience as midwife	
2-10	09
10-20	06

4.3. PRESENTATION OF FINDINGS

The findings or results presents what midwives at Tshino Mutsha local area encounter during the provision of early antenatal care booking. Three themes with sub-themes on each emerged as a conclusion of analysed data using Tesch's analysis method and presented as follows:

Table 8: Themes and Sub-themes reflecting experiences during the provision of antenatal care at Tshino local area

THEMES	SUB-THEMES
1. Description of paradoxical challenges/ barriers experienced related to the provision of early antenatal care	<p>1.1 Explanation that there is the existence of lack and shortage of various resources leading to poor provision of antenatal care.</p> <p>1.2 Lack of support from management problematic on various issues causing frustration, fear, and suffering during provision of care.</p> <p>1.3 Provision of substandard care resulting from several challenges experienced.</p> <p>1.4 Existence of system and</p>

	<p>administrative challenges experienced by midwives</p> <p>1.5 An explanation of the existence of inconsistent practices amongst midwives during antenatal care provision.</p> <p>1.6 Description that nurses are blamed at multiple levels of care.</p> <p>1.7 Existing lack of trust by women in antenatal services provided to them at the PHC level.</p> <p>1.8 Lack of acceptance of pregnancies by most young women emanating from various reasons.</p> <p>1.9. Poor acceptance of medication and health education instructions by pregnant women experienced by nurses.</p>
<p>2. Description of the responsibilities and services provided to pregnant women</p>	<p>2.1 Description that health education provided by midwives/ nurses to pregnant women.</p> <p>2.2 Description of the process that is adhered to during provision of care of pregnant women.</p> <p>2.3 Existing of various services available for pregnant women described.</p> <p>2.4. Comparison of various services provided at different levels of care described.</p>

3. Suggestions made by midwives to improve the provision of early	3.1 Staffing must be based on patients' statistics to address the
antenatal bookings at primary health care level	<p>PHC needs.</p> <p>3.2 Grouping of consultations preferred against supermarket approach.</p> <p>3.3 Request for full support by management suggested.</p> <p>3.4 Involvement of all stakeholders in PHC and maternal and child care affairs suggested.</p> <p>3.5 Provision of adequate human and material resources is suggested.</p> <p>3.6. Suggestion that clear communication channels between management, clinics, and staff at all levels of care to be clarified.</p>

4.4. DISCUSSION OF FINDINGS PER IDENTIFIED THEMES AND SUB-THEMES

The themes and their sub-themes presented in table 4 are discussed below.

Participant's direct quotations are also presented and supported by the literature.

THEME 1: DESCRIPTION OF PARADOXICAL CHALLENGES/ BARRIERS EXPERIENCED RELATED TO THE PROVISION OF EARLY ANTENATAL CARE

In this theme, participants shared their challenges/ barriers experienced during the provision of early antenatal care. These lead the researcher to conclude that midwives has serious challenges which needs to be addresses in order to improve early antenatal care in the area. The theme is divided into sub-themes which specifically illustrate the information or data given by participants regarding the study topic.

Sub-theme 1.1: Explanation that there is the existence of lack and or shortage of various resources leading to poor provision of antenatal care.

The study findings revealed that lack and shortage of various resources including shortage of staff is the major problem that hampers efficiency at service delivery. It

was observed that indeed most women are responding to call of early antenatal care but they are not getting what they were supposed to have due to this unpleasant condition. some of the participants indicated that:

Participant 1: *“Yes our facility is too busy but we fail to meet targets due to challenges that the department is not considering like shortage of staff, availability of resources and support”.*

Participant 2: *“To me is not easier due to some challenges like short staff but I encourage women who missed their period to come for gravindex test as soon as they realize that they missed period to check if they are pregnant or not so that if they are pregnant they can start booking early. Most of the women are responding well as they come for the test but they find that there is no gravindex kit so you return the woman and advise her to come and check again.*

Participant 2 continues and said: *This makes them loose trust as we encourage and fail to deliver. For those who find the kit and test positive for gravindex if the facility is not busy that day we book them same day but because mostly you find that it is two midwives available and this facility is busy we usually return them to come back on Wednesday as a common day where there is more staff.*

Participant 2 added by saying: *“Sometimes you find that it is not busy but there is no maternity record books, no iron supplements, sometimes the woman came late mostly on Fridays and weekends where the laboratory car has passed and on weekends it does not come so it becomes a challenge to midwife woman as she must be taken bloods as part of the antenatal care service and she will be telling that during the week she is busy this is the only time she has”.*

Participant 6: *“We are trying to serve the community but there are still challenges which disturb us to reach where we should be like; shortage of resources because you can advise clients to bring along gravindex kit while some cannot even afford to buy it”*

Data presented above is in line with the findings of the study that was conducted by Ward (2014) on nine common problems in the nursing profession indicating that shortage of resources which include staff in a health facility is associated with failure by midwives to adequately implement maternal guidelines which results in an increase in maternal, morbidity and mortality. In support of these findings, the Royal College of

Midwives, 2015 it was found that there is an overload of work on the staff, reduction of services caused by staff shortages, and budget cuts. Various authors indicated that midwives were complaining regarding the shortage of equipment which impedes midwives to render maternal health care services (Scheffler et al., 2015). A cross-sectional study was done by Ebonwu, Mumbauer, Uys, Wainberg, and Medina-Marino (2018) in South Africa on determinants of late antenatal care presentation in rural and peri-urban communities in South Africa, revealed limited access to health services and shortage of health care personnel as some of the contributors to late ANC presentation.

Sub-theme: 1.2. Lack of support from management is problematic on various issues, causing frustration, fear, and suffering during the provision of care.

Participants shared similar experiences on lack of support by management which they view as non-existent. Practising midwifery in rural primary health care is seen as the environment in which you survive by resilience. Lack of support affects how they should provide proper care in their respective working environment. This is reflected in the following quotes:

Participant 1: *On Wednesdays, we book many and also attend many follow-ups which indicate that the facility is too busy but the maternal health and child directorate has never been seen there to support these numbers or check how we are coping they just need statistics only or come when there is the case reported.*

Participant 2: *“lack of support from management as they have been reported about the problems, see how we work statistically but they do anything or even just to pay a visit to support us, and on those visit, they would be identifying the gaps and how can they support us as facility needs are not uniform. Even those who are heads of the directorate in the district we haven’t seen them here and they should be concerned why we are not booking on other days buy once they get statistic of Wednesdays is fine with them”.*

Participant 3: *“Those people don’t support us because they fail even to check maybe from the depot the shortage of resources as you find that what clinic A is crying of also all the clinics at Vhembe District do not have. They only come when there is a problem*

to accuse you not to support you. Instead they should be focusing on staffing according to population and ensuring that we have recourses to work with”.

Participant 8”: *Lack of support from management which is rare to see them, they are only seen when there is a problem, and because there is no bond between staff and them you feel threatened”.*

Participant 12: *“Lack of support from management is destroying us, you may be working with your manager and find that the facility is busy that day but he/she won’t bother to come and help you knowing very well that there is a shortage of staff and seeing that the facility is full, which discourage nurses to perform better. the Department also is not encouraging or even visiting us”.*

The study findings concur with the study done in Tanzania by Tibandebage et al. (2016) exploring manager’s empowerment nurse-midwives to improve maternal health care, a comparison of two resource-poor hospitals. The results of the study by Tibandebage et al. (2016), revealed a lack of support to midwives by managers as one of the barriers in the improvement of antenatal services. Bogren et al. (2020), Conducted study in the Democratic Republic of Congo on Midwives’ challenges and factors that motivate them to remain in their work revealed that lack of support and poor relationships with their supervisors contribute to insecurity and poor maternal health services. Whilst in South Africa Matlala and Lumadi (2019) study on perceptions of midwives on shortage and retention of staff revealed that though the midwives are passionate about their job, there is a lack of support and involvement of midwives in the decision-making by the management which could be one of the motivational factors. According to the information processing model which guided this study, during the provision of care, the midwives need to be at the centre of the decision-making, information processing, critical thinking and problem-solving, processes related to their profession (Standing, 2008). Contrary, Goshu et al. (2020), conducted study in Ethiopia reported that midwives received regular support from their managers in a form of case presentations, seminars, and bedside rounds. This is in support of the information processing model which states that for the midwives to process and implement the information they need proper support.

Sub-theme 1.3: Provision of substandard care resulting from several challenges experienced.

Participants revealed that challenges such as shortage of human resources and equipment might result in the provision of sub-standard care. Midwives alluded that they are doing the best in providing early antenatal care, but they are aware that sometimes it is of substandard due to situations that are beyond their control. They explained some of the reasons as follows:

Participant 3: *Because of shortage of staff we fail to render service on supermarket approach, we schedule appointments and sometimes that scheduled date does not suit the client, and because of scheduled dates some clients have no privacy on the service and they end up coming to book late saying that others will be counting months for them if they come earlier. Those who were returned the day they came because of shortage of staff, usually comeback very late. When we see many patients being two we become tired and there are lots of mistakes we do. Patients queue for a long time and some end up going back without help but being tired of the queue. Midwives who are lazy to book usually give excuse about shortage of staff and they end up by giving schedule date. Staffs concentrate on other services and ignore others which are important like early booking and when there is workload they develop an attitude.*

Participant 10: *“The main challenge is a shortage of resources which are human and equipment. With human is the one which results in turning them back and come back on the common day where at least there will be enough staff. Being understaffed causes workload and its results is burnout, and clients suffer the consequences. Also in equipment when you don’t have supply how can you be expected to provide something tangible”*

The findings concur with Jinga, Mongwenyana, Moolla, Malete, and Onoya (2019) which revealed that challenges such as long waiting due to limited staff contributed to late ANC. Findings from the study of these authors further reported that in some cases the patients were turned away because of the imposed daily quota. Scheffler et al. (2015) revealed that health care professionals indicated that they were experiencing challenges about resources that included insufficient staff, shortage of equipment that had a great impact on the health care service delivery and patients. Ngxongo (2018)

reported that midwives face various challenges during the application of the maternal guidelines which has resulted in some PHC clinics abandoning the basic antenatal approach and reverting to the traditional approach to ANC services.

Sub-theme 1.4: Existence of system and administrative challenges experienced by midwives

The study revealed that there are various challenges experienced by midwives during the provisions of ANC including poor record-keeping, increased workloads by providing care that is supposed to be done by other health professionals, and postponing enrolling antenatal care. There is lot of paper work that is added to midwives and most of them is repetition, for example all patients must have file which remain in facility and in case of pregnant women they must have maternity case record which they carry along everywhere they go and on her visit both files must be recorded by one midwife, this increase paper work to midwives.

Participant 1: *Sometimes there are no maternity record books, you have to compromise on the booklet of the woman so that when the cards are back you will transfer the information to the card which is a double job and this is frustrating and time-consuming. So it's better to book when the maternity cards are there.*

Participant 11: *During weekends and public holiday I don't do unless if the following day the specimen transport will be working so that they will collect it to the laboratory. Otherwise, as long as the department is not doing anything with the environment situation so that it can be user friendly we are also relaxed.*

Participant 13: *Women are coming for gravindex test but to find that they go back without a test because of shortage of test strips. If it is not the issue of test strips they may come and find that there is one midwife who is providing all the facility services and they are returned, that is why we resorted to the allocation of days with services so that on that date they get service.*

In a qualitative study conducted by Haddrill, Jones, Mitchell, and Anumba (2014) findings revealed that in understanding delayed access to antenatal care most of the participants identified system and administrative failure as contributory factors to late ANC. According to Jinga et al. (2019), In South Africa, though an ideal clinic was

introduced in 2014 which guides the department and healthcare workers in quality improvement process by ensuring that an ideal clinic is expected to have good infrastructure, adequate staff, adequate medicine and supplies, good administrative processes and harnesses partner and stakeholders support there are still some challenges in the implementation of such services.

Su-theme 1.5: An explanation of the existence of inconsistent practices amongst midwives during antenatal care provision.

Participants indicated that though there are maternal guidelines available to guide them, due to challenges they are experiencing during the provision of ANC care, there is inconsistency in practice amongst midwives.

Maternal health guidelines and policies emphasize early antenatal care but in an awkward situation where there are a lot of environmental factors or challenges that influence the decisions of midwives to provide early antenatal care the same day. Some of the challenges include a shortage of staff in a busy facility which compels a nurse midwife to postpone and give the patient which is a pregnant woman appointment to come back.

Participant 8: *“So these are some of the challenges that we come across and makes us fail to deliver while on the other hand, our facility is busy, short-staffed, in short of resources, transport of specimen and lack of support from management as we normally see them when there is a problem”.*

Participant 9: *“Yes, resources like maternity record books where you have to tell women to bring along booklets to improvise maternity card and in that booklet on first booking there is a lot of information needed that is missed because of shortage and the card itself will guide you on getting the information. When the maternity books are back you have to transfer information from the booklet and this is time-consuming and frustrating on the other hand when a woman goes to the hospital without a card it appears as if the nurses at the clinic had done it purposefully, they will phone you as if you are wrong so this also frustrating as an individual, you decide to await bookings when there are no maternity cards and book them when there is supply as it is not my fault to supply”.*

Medical and non-medical supplies are the second most important part of health care services (Booyens, 2016), meaning that if the health facility has to function well it has to be with well functional equipment and supply. As a result midwives or nursing staff become inconsistent in providing services. Some of the problems that pregnant women complain or present with cannot be managed successfully without the availability of relevant equipment. In case there are no urine test strips there is no way there can be proper management of a pregnant woman and this does not affect midwives only but mostly the life of a pregnant woman who has to start antenatal care without urine testing.

Sub-theme 1.6: Description that nurses/ midwives are blamed at multiple levels of care

During discussion participant kept on saying that: “when things go wrong with the pregnant woman is the midwife only who failed”. Participants continued indicating mostly those who are at primary health care as they know nothing(saying in an angry manner). It was also indicated that this usually happens between midwives in primary health care and hospital. In hospital settings, a midwife or nurse works on a specific unit or ward but in primary health care registered midwife focuses on all activities at once and this result in many mistakes, and when they evaluate the situation, they do not remember what that nurse is going through down there.

Participant 6: *“is the same because even if you use a booklet for the high-risk client it becomes an issue when the patient arrives at the hospital because they can phone to embarrass you and lot of information are omitted in the booklet. It’s the same because if we don’t finish the queue and tell them that we are knocking off on the department side we denied them service so it’s better to push the line and knock off”.*

Participant 7: *“I was also booking them but due to pressure I had to leave it because while booking those who are on the queue will be quarrelling and yelling at you as if you are making them late purposefully and you end up being frustrated by workload and their noise”.*

Participant 8: *when a woman goes to the hospital without a maternity card it’s like you at the clinic you did it purposefully whereas there is no supply, they will phone you as if you are wrong so this also frustrates as an individual.*

The Institute for Safe Medication Practices (2017) indicated that in most health care settings, there was some form of disrespect among health care professionals which involve peers, interdisciplinary teams, and patients. Disrespect usually results in blame which can be in many forms but at the end; it affects patient care (Grissinger, 2017). In the United States (US) Hope (2020) reported in the US sun an incidence where the mother was blaming the midwife for her child death, which was beyond the hands of the midwife. In PHC when clients come and found that there is no equipment a nurse is blamed and accused of laziness and many more things while on the other hand the department would be saying that a nurse should have come up with an alternative plan.

Sub-theme 1.7: Existing lack of trust by women on antenatal services provided to them at primary health care clinics.

Participants revealed that there is a lack of trust from pregnant women in the antenatal services provided in the primary health care facilities resulting in the late booking. They also indicated that some pregnant women say that they become less motivated to book early as there is no difference in early booking and late booking.

Participant 2: *“Most of the women are responding well as they come for the test but they find that there is no gravindex kit so you return the woman and advise to come and check again. This makes them loose trust as we encourage them to come and do the test but fail to render service as expected”.*

Participant 4: *“Clients come to the clinic but there is no maternity card, no iron supplements, and no gravindex kit what next, and they lose trust in the service”.*

Participant 10: *“Yes it becomes a lie when you give information on things which pregnant women were supposed to get but they are not available. However, it is important to ensure that when patients receive information about early booking they should always receive appropriate service. So it’s a lie or empty promise if failed to fulfil, no trust in the use of health facilities in future pregnancies”.*

Lack of resources undermines the quality of antenatal care offered to pregnant women. Dissatisfaction with care is related to the late antenatal booking (Mrisho, Obrist,

Schellenberg, Haws et al. (2009). Mulondo (2020) recommended that to ensure trust and confidence it is the responsibility of the midwives to promote relationships of mutual trust, respect and dignity with pregnant women by providing on-going support, advice, education, and counselling.

Sub-theme 1.8: Lack of acceptance of pregnancies by most young women emanating from various reasons.

Majority of young women provides reasons which frighten them to continue with pregnancy and then opted for termination of such pregnancy. The reasons include fear of rejection by partners due to lack of trust and knowledge and fear to be blamed by parents as they were still at school leading them to consult at clinic far from home. Many pregnant women especially adolescents' tend to start antenatal care late resulting in them not benefiting from preventable and curative service due to a perceived lack of support (Warri, George. 2020). Participants supported by the following:

Participant 4: *"Here we also have a high number of students from TVET who come for test and when they test positive they opt for termination of pregnancy, some say as they are still at school they will book at their home clinics but in reality, you can see that pregnancy is not wanted, it was just confirmation so that further steps can be taken".*

Participant 6: *"Some are coming to test to confirm so that they may go for TOP as a method of family planning".*

Participant 13: *"In most cases, I see a lack of acceptance of pregnancy by teenagers and young women due to their reasons such as still at school, no support from boyfriend or partner, and at home, there will be a problem with parents so they neglect pregnancy or opt for CTOP".*

The following literature supports what participant said: Previous negative pregnancy outcomes also influence some pregnant women to delay initiating early antenatal booking because initially, they were planning to terminate the pregnancy (Haddrill et al. 2014). Similar results were reported in Indonesia where most women with

unplanned pregnancies reported for antenatal care late after several attempts to terminate the pregnancy (Titaley, Dibley, Roberts, 2010).

Sub-theme 1.9: Poor acceptance of medication and health education instructions by pregnant women experienced by midwives.

The study results revealed that women who have had previous pregnancies tend to book for ANC late and this is due to experience they have on previous pregnancies, culture as they are working in rural areas, and belief that everyone has. Participants go on elaborating as follows:

Participant 3: *“Some will even go to clinics that are far because they are not known there. Some are afraid to be tested and with paragravidas and multiparas they’ve got experience in such a way that they take you seriously when you advice”.*

Participant 13: *“These multiparas come late due to experiences while those who know that they have to be transferred to high-risk delay themselves without any reason, while some don’t go to the hospital when referred you will see them when in labour progressed themselves”.*

Participant 14: *“Multiparas has experience with pregnancy and some use the first experience not knowing that every pregnancy is unique, while some do it purposefully but focusing on when they start early they will have many follow-ups”.*

According to Uluk, Ekanem & Abasiatattai (2017), some pregnant women see antenatal care as a routine on pregnancy and prefer to present themselves later for ANC, while some because of bad obstetric history contemplate terminating the pregnancy and when they fail they resort to late presentation to antenatal care. The challenge is that women in such a situation do not take any instruction from nurse midwives. Previous experience of pregnant women makes them less motivated to follow instructions from midwives. Pregnant women with positive obstetric history perceive pregnancy and safe delivery to be normal experiences and did not see the need to be referred to the next level of care or use medication. In various studies conducted on the cooperation of patients, authors viewed cooperation as an important part of the health care system, which means pregnant women and midwives must support each other, work together to improve maternal health outcomes. The study

conducted by Mulondo (2020) reported that maternal parity plays a major role in first attendance at antenatal care centres. Women with five or more pregnancies with successful outcomes were reluctant to attend antenatal care.

THEME 2: DESCRIPTION OF THE RESPONSIBILITIES AND SERVICES PROVIDED TO PREGNANT WOMEN

During discussion about the provision of early antenatal care services participant illustrated a lot about midwives responsibility of ensuring that all relevant services are offered to a pregnant woman who includes giving of health education regarding pregnancy and ensure that a proper level of care of pregnancy is identified. During discussion participants also indicated that they give health education to groups and individually and refer pregnant women to relevant levels of care but due to their reasons they don't do as they are told.

Sub-theme 2.1: Description that health education provided by midwives to pregnant women

Health education is the best way of giving information to clients. It can be given in different ways which can be face to face, leaflet, pictures on notice boards or walls and media. Giving health education is one of the functions of primary health care services to prevent, give awareness about any disease or dangers to be aware of during pregnancy. Participants reported that they give health education daily and through the involvement of community stakeholders that is why most of the women come for gravindex test and other services available, but there is still a challenge as some pregnant women come late to the clinic and claim that they were not aware of the pregnancy. Some participants have this to say:

Participant 2: *"I encourage women who missed their period to come for gravindex test as soon as they realize that they missed period to check if they are pregnant or not so that if they are pregnant they can start booking early".*

Participant 4: *"All am saying is individual health education is not effective like mass or group because if the information is given to groups they ask different questions which help others and more information is gained, all members are empowered on antenatal booking".*

Participant 5 *“Through health education and they choose as they are entitled of rights to choose, we don’t force them but we give information. Patients are empowered of rights and they forget the responsibilities too. We also work hand in hand with CWH and have been taught on screening and empowered with information regarding early booking so that when they go to the community they able to dish out information and screen them. Those who understood them are being referred and come to a health facility to book”.*

The above information was concurred by Rani (2018) by saying that it is important for midwives to continuously provide health education including a promotion, protection, maintenance of health during pregnancy, detection of high-risk cases earlier, foresee complications and prevent them, remove anxiety, fear associated with pregnancy and delivery, reduce maternal and infant mortality and morbidity and sensitize the mother about the need of family planning. Dinh, Bonner, Clark, Ramsbotham, and Hines (2016) also agree that giving health information to women contributes significantly to the improvement of maternal and child health care outcomes.

Sub-theme 2.2: Description of processes that are adhered to during provision of care of pregnant women

Midwives indicated that they are aware of processes that they adhere to during the provision of early antenatal care booking like first confirming pregnancy through use of gravindex kit which becomes a challenge due to shortage of resources. This shows that midwives have necessary knowledge on what to do but they are failing to do or implement the correct way due to challenges they face which includes material and human resources. According to WHO (2016), it is important that a woman’s antenatal care contact with healthcare providers should be more than a simple visit but should be an opportunity for good quality care. The services to be offered to one client may take approximately two hours.

Participant 8: *Antenatal care first contact takes time as it has various activities to be done the very same day which is why it needs staff and resources. You have to confirm pregnancy by use of gravindex kit but it is out of stock how can you start providing the service, you screen a pregnant woman with history taking which is recorded in maternity card which is not there; you take blood specimens using books and*

laboratory jar, test for HIV and manage according to results. This is strenuous to one midwife”.

Participant 11: *“Antenatal first booking involves PMTCT so in the absence of a lay counsellor it increases the workload to the midwife as the first booking has the long process”.*

The first thing that a midwife must do according to NDoH (2015) is to confirm pregnancy by history taking and gravindex test. The South African guideline and its policies say after a woman tested positive for gravindex must be counselled and if she opts to continue with a pregnancy she must be offered antenatal care the very same day. During this process, the midwife will take a history from the pregnant woman regarding her medical and surgical history, family history as part of assessing the health of the pregnant woman which includes obstetrical history, medications in use, and current health problems including allergy.

Sub-theme 2.3: Existence of various services available for pregnant women described

Participant showed that they have enough knowledge related to antenatal care services by indicating that, antenatal care first contact has lot of activities to be carried; it has to be done with insight and completely as is the one that will determine the type of care the woman should receive. It was described by many researchers that antenatal care is one vehicle carrying many passengers to the same destination (Ngxongo, 2013)), it was also described in this study by participants that during antenatal care various activities are provided to a pregnant woman. The services include the screening of tuberculosis (TB), HIV counselling and testing prevention of mother-to-child transmission (pmtct), and elimination of mother-to-child transmission (emtct). The reason for integrating these services is to respond to the need of pregnant woman’s cries for a better outcome of pregnancy.

Participant 14: *“Some patients come on awkward time just before you knock off you will be tired in such a way that even what will come out from your mouth can make a patient not to come back early. Early ANC takes time and if a patient arrives late she will find that lay counsellors have knocked off so you have to start from HIV testing”.*

Participant 12: *“Without the collection of blood to rule out any problem in pregnancy such as HB, RPR, RH and give relevant education you did not do a thorough antenatal booking.*

The NDoH (2015) provides a list of transmittable diseases which health practitioners should focus on and they include; syphilis, TB, HIV. Malaria is also concentrated in malaria risk areas and also getting a chance to prevent maternal and neonatal tetanus by giving recommended doses of vaccine as NDoH (2020) aims at zero HIV, syphilis, and TB transmission from pregnant mothers to infants. It is also recommended that all this can be achieved through early antenatal booking, which promotes early screening and diagnosis, proper management which includes early identification of proper place of and checking if it needs urgent attention or not.

Sub-theme:2.4 Comparison of various services provided at different levels of care described.

WHO has developed a strategy of health care worldwide as levels of care where services that are provided differ according to the designated level, which is promotive, preventative, curative, rehabilitative, and supportive/ palliative. In South Africa, it is described in NDoH (2015) as efficient, effective, and functional and is primary, secondary, tertiary, and quaternary. These levels are efforts to diagnose, treat, and maintain the physical or emotional status of a person where in this study is a pregnant woman.

Participant 2: *“Primary health care or clinic offers many services unlike hospital which is subdivided into units according to conditions and staffed according to its level”.*

Participant 9: *“ most pregnant women when asked their reasons for not going to the referred institution they indicate that the service they get is not the same with what they received in clinic, and when they reach there they get new faces and they are far from home”.*

The health and wellbeing of the citizens of each country is of importance, which is why each country adopted its strategies that can enable them to provide healthcare a service according to the demand and availability of expects. All this levels has the

same purpose which is to improve the care of individuals depending on the severity of condition.

THEME 3: VARIOUS SUGGESTIONS WERE MADE BY MIDWIVES WHOM THEY PERCEIVE THEY CAN IMPROVE PROVISION OF EARLY ANTENATAL CARE BOOKING AT PRIMARY HEALTH CARE LEVEL.

Participants suggest that for the department of health to overcome the challenges in provision of early antenatal booking and able scale up service delivery they must not sit alone, design policies and impose them on staff, but develop or have a way of getting their suggestions from staff as they are the ones who execute the service on the floor. Midwives made their own suggestion regarding their experiences which has emerged in the subthemes as follows:

Sub-theme 3.1: Staffing must be based on patient statistics to address the facility's need.

According to participants, shortage of staff is one of the challenges experienced by midwives on their daily execution of service. Where there is little staff and demand of care there is compromise in service to be rendered. The staff allocation should meet the demand of care per unit in order to provide excellent service, service that is provided in primary health care might be the same but the demand differs according to population. This was confirmed by many participants in the study as follows:

Participant 2: *“Staffing the facility according to the statistics so that staff can be delegated, share work according to the need of the facility such as if there is enough staff daily there would be midwife delegated to maternal health or ANC”.*

Participant 6: *“If I was responsible for making recommendation and enforces implementation I would be recommending that every facility must be staffed according to population”.*

The South African national Department of Health adopted the WISN strategy, developed the guideline, and implemented it in 2015, which includes primary health care normative (norms) and standards to determine the primary health care facility specific staffing norms to guide the WISN implementation process. Shortages of staff result from various causes like attrition rate which results in workload to available staff.

According to Ravhengani (2017), sometimes under shortage and workload is due to nurses who have to work non-nursing duties like pharmaceutical services, administrative duties like opening files for patients.

Sub-theme 3.2: Grouping of consultation preferred against supermarket approach.

During data collection, participants indicated that because of challenges they face they end up preferring grouping consultation against the supermarket approach. Grouping of consultation is the olden/ traditional way which was used for providing of services, though it was proven to be not effective but because there is no balance between the proven method which is supermarket approach and available resources like staff the old method is preferred and supported by participants with these facts:

Participant 9: *“Alright, as you know that primary health care or clinic offers many services unlike hospital which is subdivided into units and staffed according to, our facility sees more than 200 clients per day by three professional nurses as a maximum each day who are the very same midwives we are talking about and has to do all the services including ANC booking so it becomes a challenge as workload becomes too big for them so they use their discretion of categorising cases to cope with the situation”.*

Participant 14: *“Women are coming for gravindex and if there is the kit and they test positive we give them an appointment for Tuesday or Thursdays as allocated for maternal health for smooth running of the facility”.*

Participant 10: *“Because of shortage of staff we fail to render service on supermarket approach, we schedule appointments and sometimes those scheduled dates do not suit the client, and because of scheduled dates some clients have no privacy on the service and they end up coming to book late saying that others will be counting months for the if they come earlier”.*

Participant 11: *“Our facility is old and don’t have space and I am aware that all the clinics have lodged complaints to the Department of health that they should be building new structures or extend them so that there may be enough space because if the*

space is small it becomes a challenge to run all services same day the option is divide services into days rather supermarket to avoid congestion with a shortage of staff”.

Group consultation is the traditional way of consulting patients which was launched in 1978 at the World Health Organisation Conference, where the Alma Ata Declaration advocated health for all (WHO, 1978). Previously a patient has to visit the health facility on a specific day for a specific reason for example a woman will come the whole week, the first day for a minor ailment. The second day for reproductive health and when she tested positive for gravindex she will comeback for antenatal booking maybe the following day or any other day that they were given. However, researchers have found that it is not user friendly and abusive to citizens then integrated primary health care services were introduced which also called supermarket approach or one-stop-shop.

In supermarket approach services are integrated and provided the same day under one roof, for example: If a woman come for minor ailment consultation then if pregnancy is suspected, she is tested gravindex, if results are positive and she opts to keep pregnancy antenatal care booking should be provided including all services which are rendered during first booking like HIV counselling and testing the very same day if results are negative and she opts for contraceptives she must be given the same day. According to participants, this approach becomes a challenge to follow due to under staffing, shortage of resources, infrastructure, and unrealistic expectations because one of the advantages of the supermarket is to reduce long queues (Igumbor, Davids, Nieuwoudt, Lee &Roomaney, 2016), but if there are insufficient resources like staff it becomes impossible.

Nurses opt to use the traditional way of group consultations based on common days where there is enough staff to provide various services on a particular day. The only challenge is a situation where they have many patients and they do not have space because the infrastructure is not up graded when they introduce the approach. According to Hilty, Rabinowitz, ma Carron, Katzelnick, Chang & Fortney (2017), for services to be integrated, health personnel have to work hand in hand to address the person’s needs, and these places greater demand of staff and resources. In this study, participants confirmed that services are rendered based on the staff ratio of that day which leads to fragmentation of services.

Another advantage of the supermarket approach is to enhance confidentiality because in a single queue no one except the nurse knows the purpose of visit of all the patients there and stigma attached to the consultation is reduced and encourage the use of health care services by community members. However, since the introduction of free services in primary health facilities the department has noted the increase of patients load and this increased workload to the staff that is not increased, the only result is compromised quality of care (NDoH, 2004).

Sub-theme:3.3 Request for full support by management suggested.

Participants also suggested that if management can give support many challenges can be overcome and improve service for the benefit of pregnant woman, department and midwives. It was articulated during data collection that management support improves morale of staff, quality of service.

Participant 9: *“They must also support facilities so that they may be able to identify problems as soon as possible. They must also have a yearly program of moral regeneration of midwives to revive them and also a refresher course in midwifery.*

Participant 12: *I think their visit can help to give us hope that one day it will work out and still on their visit they can be able to identify some problems and come up with another way of working it out before it becomes hazardous to clients. I for one don’t even know them. The other challenge is the lack of in-service training regarding maternal health; sometimes they call the facility managers for training the very same people who do are not in contact with the client”.*

According to the Canadian Nurses Association (2010), it was revealed that having the support of nurse manager which in this study is operational manager, manager of maternal health and district manager is of paramount importance to enable personnel in health care (midwives) delivery to function better. Senior managers in healthcare institutions have to provide support to employees to enable them to achieve set objectives such as compliance with quality standards like an early antenatal booking (Rispel & Chirwamunyewende, 2014, S.A NDoH, 2013).

According to Tucker and Singer (2013), management should visit healthcare clinics in the form of “executive walk Rounds” or Management By Walking Around (MBWA)

which is considered as active involvement as opposed to the more physical of senior manager and enables senior managers to work with staff to identify and resolve problems, this positively influences personnel compliance and this also sends a visible signal that the organisation is serious about resolving problems.

Sub-theme 3.4: Involvement of all stakeholders in primary health care and maternal and child care affairs suggested.

This can be defined as coordination whereby all stakeholders are involved to work together to achieve the strategic goal of the organisation or directorate of maternal and child care affairs. It also entails integrating all organisational tasks, resources, community members as clinic committees, and the department itself to meet these goals (Booyens, 2016). Participants described as follows;

Participant 2: *“Community stakeholders to teach community members the importance of queuing, how service is rendered and lastly educating clients on the importance of early booking”.*

Participant 3: *“Reinforcement of educating the community involves all stakeholders including traditional healers, spiritual healers on early booking. Community members are expected to allow home-based carers in their homes when doing door-to-door campaigns. Patients must be encouraged by all stakeholders to book at their nearest clinics for easy tracing and follow-ups. Churches should give support to pregnant teenagers because they are discriminated and it makes them try and hide pregnancies which also results in a late booking. General practitioners are responsible to initiate and record antenatal care to patients who consult them rather than referring them to start booking at the clinic and most of them present themselves late at clinics”.*

Participant 7: *“Traditional leaders, churches in the community must be empowered with information on early antenatal care services so that wherever they have meetings or gatherings they may spread the information”.*

To successfully involve all stakeholders there must be empowerment regarding their roles. According to WHO (2018), primary health care requires the involvement of a workforce with a wide range of skills and expertise both across the health system and in other sectors and segments of the community, policy-makers, economists,

managers, educators, hospital administrators, community agents, academics and experts to work together across the sector to respond to the needs of maternal and child care affairs (WHO, Unicef.2018).

In a study conducted in Ghana, it was revealed that community members appreciated the quality of pregnancy-related services due to the involvement of stakeholders (Kushitor et al. 2019). The involvement of all stakeholders can be also called collaboration which at the community level is a principle of primary health care since its origin (Lund, Tomlinson & Patel, 2016). Various stakeholders must be engaged in primary health care including chiefs, community counsellors, civic organisations, and non-governmental organisations as they are the cornerstone of mobilisation, health promotion, and a better understanding of illness in society, and mouthpiece of facility staff to and from the community.

Sub-theme 3.5: Provision of adequate human and material resources suggested.

The participants cited the challenge of human and material resources. They suggested that if the Department of Health can provide them with adequate resources while attending to other challenges, the provision of early antenatal booking can improve because women come to the clinic but there is no manpower.

Participant 6: *“If I was responsible for making recommendations and thereafter enforce its implementation, I would recommend that every facility must be staffed according to population, ensure that resources are available like maternity card, medications, and necessary supplies that are used during antenatal care”.*

Participant 11: *“(Laughing) you say so, some of the things are clear in such a way that they don’t need to be asked. Things like staffing and supply of material resources are things that the department should not wait for recommendations because it’s their focus”.*

Participant 15: *“I can recommend that the department is the one holding everything needed like staff, materials which are the main keys to provision of early antenatal care will be simple. If each village can have a well-equipped, clinic am telling you it can be used efficiently because women have to pay to reach the clinic and find that there is no service”.*

It was also found in a study conducted by Malelo-Ndou, Ramathuba & Netshisaulu (2019), that providing care in poor resource settings because of lack of equipment poses a challenge. Proper management of patients including pregnant women for antenatal booking requires adequate material, adequate human resource. Malelo-Ndou, Ramathuba & Netshisaulu further indicated that shortage of human resources is a major issue in Limpopo Province and there are a lot of vacant posts that are not filled as they are frozen. A study conducted in Nigeria by Oyekale (2017), it was found that the shortage of drugs was caused by supply chain management where they delay supply of drugs to facilities, sometimes they deliver drugs that were not ordered and this affect service readiness in primary health care facilities. Participants also indicated that providing adequate human resources should include non-nurses as nurses spent a lot of time in non-nursing duties like ordering of medicine, stock-taking which needs a specific person to focus on. If this can be possible in primary health care it can open doors to check what is happening at the depot for medication, maybe they are understaffed too.

Sub-theme 3.6: Suggestion that clear communication channels between management, clinics, and staff at all levels of care to be clarified.

Good communication is the best remedy to achieve the goal of an institution, organisation or family. Health department is a family or institution on its own as it has a common goal. During discussions participants proposed that there should be a clear communication channel, whereby communication involves interpersonal relationships. Examples of those proposals were expressed as follows:

Participant 2: *There should be support and clear communication between hospital staff and clinic because if they see that patient came from the clinic without maternity card they will fill the card and give it to a woman rather than giving and saying go to the clinic they will fill it if there is mistake call a clinic nurse and embarrass her.*

Participant 3: *Good communication between clinics and hospitals, support from management as well as the fact that management should be approachable when one has a problem.*

Participant 13: *I suggest that the communication should be clear and accompanied by professionalism to improve teamwork and smooth running at all levels of care*

because our main focus is quality health outcomes. If there is clear communication it becomes simple to seek help, ask for an opinion and when there is a shortage it becomes simple to outsource from a neighbour or even the next level. Communication is the best medicine that can improve the provision of services.

According to Booyens (2014) communication is like the central nervous system, it directs and controls management processes. She further indicated that the communication culture within an organisation should be in line with cooperate culture and should be used to encourage positive values such as quality, objectives, and good client services using free flow, clear and appropriate communication.

Effective communication enhances the patient's experience and reduces complaints. It can improve the health system and nurses at the primary level can work with the hospital, management as weak areas can be improved (Ali, 2017). According to Booyens (2014) communication can be in various ways but the most important is communication is a dialogue not monologue therefore is the process of conversation between employer to employees, employee- employee and it involves feedback giving so that there may be suggestion and opinions to improve the provision of service.

4.5. CHAPTER SUMMARY

This chapter provided an analysis of data collected from participants and discussions supported by literature. The next chapter will present summary of the study, limitations and recommendations.

CHAPTER 5

5. SUMMARY, RECOMMENDATIONS, LIMITATIONS, AND CONCLUSION

5.1. INTRODUCTION

The results of the study as presented in chapter 4 pointed different challenges experienced by midwives in the provision of early antenatal booking at Tshino-Mutsha Local Area in Limpopo Province, South Africa. This chapter provides overview, recommendations, summary, and limitations of the study and the conclusions that were drawn from the study findings, and the themes and subthemes which were articulated in chapter 4. The recommendations are specified to enable the midwives, the Department of Health Limpopo to develop strategies to improve the current challenges experienced by midwives aiming to improve the uptake of early ANC bookings.

5.2. OVERVIEW OF STUDY

The study sought to explore the perceptions of midwives in the provision of early antenatal care and also to describe the barriers and facilitating factors on the provision of early antenatal care at Tshino Mutsha Local area, Vhembe District Municipality of Limpopo Province.

5.2.1. Restatement of the objectives

The purpose of this study was to explore the perception of midwives in the provision of early antenatal care booking at Tshino-Mutsha Local Area in Limpopo Province, South Africa.

The objectives of the study were to:

- To describe the provision of early antenatal care at Tshino-Mutsha Local Area in Limpopo Province, South Africa.

- To describe barriers and facilitating factors of provision of early antenatal care after a positive Gravindex test at Tshino-Mutsha Local Area.

The above objectives were achieved through the following:

Description of provision of early antenatal care at Tshino Mutsha local area, through in-depth, one-to one interviews were conducted amongst midwives at selected clinics of Tshino-Mutsha Local Area in Limpopo Province, South Africa. A total of 20 midwives were purposively sampled however data saturation was reached at participant number 15.

During interviews sessions, the barriers and facilitating factors of provision of early antenatal care were described by participants. Raw data was transcribed verbatim as explained in chapter 3 of this study. Data were analysed using Tesch's method of data analysis, three themes, and their sub-themes in each emerged and discussed. An independent coder also analysed verbatim transcripts of data. Trustworthiness was also followed to obtain dense quality data through the application of credibility, transferability, Confirmability, and dependability formulated by Guba's model of trustworthiness.

5.3. SUMMARY OF THE MAIN FINDINGS

The study findings are based on the following themes which emerged during data analysis.

Theme 1: Description of paradoxical challenges/ barriers experienced related to the provision of early antenatal care

Nine sub-themes emerged from this theme and the paradoxical challenges/ barriers experienced related to the provision of antenatal care were described. The challenges included lack and shortage of various resources leading to poor provision of antenatal care, lack of support from management was cited as problematic on various issues causing frustration, fear, and suffering during provision of care, provision of substandard care resulting from several challenges experienced. Existence of system and administrative challenges experienced by midwives, the existence of inconsistency practices amongst midwives during antenatal care provision, the description that nurses are blamed at multiple levels of care, lack of trust by women

on antenatal services provided to them at the PHC level, lack of acceptance of pregnancies by most young women emanating from various reasons and poor acceptance of medication and health education instructions by pregnant women experienced by nurses.

According to the information processing model which guided this study, the midwives receive information / maternal guideline of South Africa (2015) which governs them on the provision and implantation of ANC services. However, the study findings revealed that though the midwives receive and process the Information guidelines they experience different challenges in the implementation of those guidelines which affect the early provision of antenatal care. In the similar context of the rural areas of Limpopo, Mothapo, Maputle, Shilubane, and Netshikweta (2021) also reported that midwives experience different challenges including poor supply of both human and material resources. These challenges affect the ability of the midwives to process and implement the maternal guidelines. Another study done in Ghana exploring midwives experiences of implementing respectful maternity care knowledge in daily maternity care practices revealed that though there are policies and training provided the hospital logistics and resources do not support the provision of quality maternal and child health care (Dzombeku, Mensah, Nakua, Agbadi, Lori and Donkor, 2021).

Theme 2: Description of the responsibilities and services provided to pregnant women

Four sub-themes emerged from this theme describing the responsibilities and services provided to pregnant women. They also described the health education provided by midwives/ nurses to pregnant women. The participants described the process that is adhered to during the provision of care of pregnant women, existence of various services available for pregnant women described, and the comparison of various services provided at different levels of care described. The study results are in line with the information processing model and the maternal guidelines (2015), where the midwives must receive and process information to pregnant women on antenatal care and child health through health education, information leaflets and awareness campaigns. Furthermore, the new Ideal clinic is aimed at improving the quality of care in SA primary health care services through delivering different levels of care to

pregnant women at the same time. Mogawane, Mothiba, and Malema (2015) study emphasized the importance of continuous support which includes health education, advice, and counseling to be provided each time women visit a primary healthcare facility; this should be done both before and during pregnancy.

Theme 3: Suggestions made by midwives to improve the provision of early antenatal care at the primary health care level.

Six sub-themes emerged which pinpoint suggestions made by midwives to improve the provision of early antenatal care at the primary health care level. Availability and provision of staff and material resources including depot for medication to address the primary health care needs. Due to the shortage of staff grouping of consultation be considered rather than supermarket approach. Full support by management suggested and involvement of all stakeholders from the community to health care management is expected to improve maternal and child affairs. Clarification of clear channels of communications between management, clinics, and staff at all levels. Ngxongo (2018) also recommended that the South African health system must first address the challenges experienced by the midwives during the implementation of maternal guidelines. Such challenges include shortage of staff, lack of cooperation from referral hospitals, lack of in-service training, problems with transportation of specimens to laboratories, lack of material resources, unavailability of Basic Antenatal Care programme guidelines and lack of management support.

5.4. RECOMMENDATIONS

Based on the findings from the three themes that emerged during data collection through face to face interviews with the midwives at Tshino- Mutsha Local area, maternal guidelines of South Africa,(2015), and the information processing model the following recommendations were made:

5.4.1. Recommendations to management and practice

The Department of Health must:

- Ensure that the data element in the Department of Health Information System is aligned with the Guideline and strategy proposed by WHO which regards

early booking as twelve weeks and it below not less than twenty weeks of gestation.

- Ensure availability of human and material resources that are used during the provision of antenatal care booking. The human resource to include non-nursing such as a pharmacist, admin clerks etc.
- Strengthen ideal realisation clinic and WISN strategies which ensures that the facility is ready for the provision of antenatal care booking and offer other services without compromising the other.
- Ensure the supply of medications from pharmacies, and depot so that pregnant women will have trust in the use of health facilities.
- Ensure that the busy facility must have an advanced midwife to attend to those with problems and support the other midwives
- Maternal health directorate to support midwives at primary health care level as they are prone to challenges.
- Ensure that they provide psychological support to midwives after they had a problem during the provision of care.
- Strengthen involvement of all stakeholders in primary health care, maternal, and child care affairs.
- Change strategy of specimen collection, to ensure that specimen is collected daily to cater to those who come for antenatal care during weekends and holidays as antenatal care should be provided daily.
- Improve the infrastructure so that all services can be rendered effectively

5.4.2. Recommendations for education and training

The Department of Health, Clinics, and Midwives must

- Strengthen the provision of early antenatal information through various platforms such as radio, television, and pamphlets
- For those who stay far from health facilities and are visited by mobile clinics, there should be visiting points with facilities so that the midwives from the team will have space to provide antenatal care to pregnant women rather than not considering them.

- Arrange refresher courses and provide regular updates to midwives so that they can be stimulated and improve their midwifery skills.

5.4.3. Recommendations for future research

- Further research should be undertaken on the strategies to improve the challenges described by the midwives in the provision of early ANC.
- Future qualitative studies exploring and describing managers' experiences in the provision of early antenatal in other health facilities at Vhembe District Municipality in Limpopo Province should be conducted.
- A repeat study within the same local area focusing on the impact of the recommendations made in this study to improve the provision of early antenatal care.

5.5. LIMITATIONS OF THE STUDY

The sample of the study does not reflect the views of all nurse midwives at Vhembe District Municipality in Limpopo Province, South Africa, or the world at large but for the local area which is Tshino-Mutsha Local Area. However, the objectives of this study were to explore and describe the provision of early antenatal and the challenges they encounter during the provision of early antenatal care with rich, dense, and contextualised data.

5.5. CONCLUSION

Shortage of human and material resources, supply, and medication compromise the quality of care, motivation of staff, and utilization of services. Other factors such as infrastructure support and monitoring system, contributes to low quality and this leads midwives not to comply with the essential guidelines and sometimes postpone antenatal care booking which displays negative attitude on pregnant women and community. The study findings could help to improve early antenatal care which on the other hand improves maternal and neonatal health.

6. REFERENCES

- Andrade, M.V., Noronha, K.V.M, Queiroz Barbosa, A.C *et al.* Family health strategy and equity in prenatal care: a population based cross sectional study in Minas Gerias, Brazil. *Int J Equity Health* **16**, 24 (2017).
- Ali, M. 2017. Communication skills: benefits of effective communication for patients. *Nursing Times* [online]; 113: 12,18-19.
- Alkema, L., Chou, D., Zhang, S., Moller, A.B., Gemmill. 2016. *Global, national, regional levels and trends in maternal mortality between 1990 and 2015*. Systemic analysis by UN Maternal mortality estimation inter-agency group. *Lancet*
- Alemu, Y and Aragaw, A. 2018. Early initiations of first antenatal care visit and associated factor among mothers who gave birth in the last six months preceding birth in Bahir Dar Zuria Woreda North West Ethiopia. *Reproductive Health*:15.203.
- Babbie, E. 2016. *The practice of social research*. Cape Town: Oxford University Press.
- Banda, I, Michelo, C & Hazemba, A. 2012. Factors associated with late antenatal booking care attendance in selected rural and urban communities of Copperbelt Province of Zambia. *Medical journal of Zambia*, 39(3):29-26.
- Barker, C., Pistrang, N., and Elliot, R. 2015. *Research methods in clinical psychology. An introduction for student and practitioners (3rd ed.)*. New York: John Wiley & Sons Inc.
- Blecher M, Davén J, Kollipara A, Maharaj Y, Mansvelder A, Gaarekwe O. 2017. Health spending at a time of low economic growth and fiscal constraint. *South African Health Review*,2017.(1):25–39.
- Booyens, S.W. & Bezuidenhout, M 2013. *Dimensions of healthcare management*. 3rd ed. Pretoria: Juta and Company Ltd
- Bogren, M., Grahn, M., Kaboru, B.B, & Berg, M. 2020. Midwives' challenges and factors that motivate them to remain in their workplace in the Democratic Republic of Congo—an interview study. *Hum Resour Health*. 18 (65).

Bomela, N.J. Maternal mortality by socio demographic characteristics and cause of death in South Africa: 2007-2015. *BMC Public Health* **20**, 157 (2020). <http://doi.org/10.1186/s12889-020-8179-x>

Brink, H., Van der Walt, C. and van Rensburg, G. 2017. *Fundamentals of research methodology for healthcare professionals (4th ed.)*. Cape Town: Lansdowne

Braun, V, Clarke, V. 2013. *Successful qualitative research: A practical guide for beginners*. London: Sage.

Burns, R.N, Groove, S.K and Gray, J. 2016. *The practice of nursing research: Appraisal, synthesis and generation of evidence (8th ed.)*. Elsevier: eBook.

Chandni, J.C.S, Hodgson, R, Hayen, A. 2014. Factors associated with the use and quality of antenatal care in Nepal: A population-based study using the demographic and health survey data. *BioMed Central Pregnancy and Childbirth*.

Creswell, J.W, Creswell, J.D. 2017. *Research design: A qualitative, quantitative, and mixed-method approaches*. City Sage Publications.

De Vaal, S.J. 2011. Late booking at the Michael Mapongwana antenatal Clinic, Khayelitsha: Understanding the reasons. Unpublished thesis (mfammed).

De Vos, A, Strydom, H, Fouch, C.B and Delport, C.L.S. 2015. *Research at grassroots for social science and human service profession (4th ed.)*. Cape Town: Lansdowne.

Department of Health. 2014. Saving Mothers 2011-2013: Sixth Report on Confidential Enquiries into Maternal Deaths in South Africa, NCCEMD, Pretoria, Government Printers.

Department of Health. 2015. *Key steps to prevent avoidable maternal, neonatal, and child mortality as recommended by the ministerial committees*. UNICEF

Dinh, T. T. H, Bonner, A, Clark, R, Ramsbotham, J & Hines, S. 2016. The effectiveness of teach-back method on adherence of self-management in health education for

people with chronic disease: a systemic review. JBI Database of Systemic Reviews and Implementation Reports, 14 (1), pp. 210-247.

Dzomeku, V.M., Boamah Mensah, A.B., Nakua, E.K. 2021. Midwives' experiences of implementing respectful maternity care knowledge in daily maternity care practices after participating in a four-day RMC training. *BMC Nurs.* 20, 39.

Ebonwu, J, Mumbauer, Auys, M, Wainberg, ML, Medina-Marino, A. 2018. Determinants of late antenatal care presentation in rural and peri-urban communities in South Africa: A cross-sectional study. *PLoS ONE* .13(3): e0191903

Fraser, D.M, Cooper, M.A and Nolte, A.G.W.2014. *Myles textbook for Midwives*. African edition, Pretoria. Elsevier

Firoz, T., Chou, D., von Dadelszen, P., Agrawal, P., Verkuik, R. 2013." Measuring Maternal

Health: Focusing on Maternal Morbidity". *Bulletin of the World Health Organisation*. 91 (10):794-96.

Gary, T. 2013. *How to do your research project: A guide for students in education and applied science*. London: Sage publications Ltd.

Gebremeskel, F, Yohannes, D and Admasu, B. 2015. Timing of first antenatal care attendance and associated factors among pregnant women in Arba Minch Town South Ethiopia. *Journal of environmental and Public Health*. Available from:
<http://dx.doi.org/10.1155/2015/971506> (accessed 11 June 2017)

Geta, MB & Yallew, WW. 2017. Early Initiation of Antenatal Care and Factors Associated with Early Antenatal Care Initiation at Health Facilities in Southern Ethiopia. *Advances in Public Health*,(2) 1-6.

Graham, W., Woodd, S., Byass, P., Filippi, V., Gon, G., Virgo, S., Chou, D., Hounton, S., Lozano, R., Pattison, R., Singh, S. Diversity and divergence: the dynamic burden of poor maternal health. *The Lancet* 4; 388(10056):2164-75. IF: 44.002.

Grissinger, M., 2017. Disrespectful Behaviour in Health Care: Its Impact, Why It

Arises and Persists, And How to Address It –Part 2. *Pharmacy and Therapeutics*. 42(2).74-75,77

Gross,, K, Alba S, Glass, T.R., Schellenberg, J.A and Obrist, B. 2012. Timing of antenatal care for adolescents and adult pregnant women in South-Eastern Tanzania. *BMC Preg and Childbirth*, 12 (16); 1-12.

Guidelines for maternity care in South Africa: *A manual for clinics, community health centres and district hospitals*.2015. (4th ed.). Pretoria: National Department of Health.

Haddad, D.A.N, Makin, J.D, Pattison, R.C, Forsyth, B.W.2016. Barriers to early prenatal care in South Africa. *International Journal of Gynaecology & Obstetrics*. 132:64-67.

Haddrill, R., Jones, G.L., Mitchell, C.A & Anumba, DOC. 2014. Understanding delayed access to antenatal care: a qualitative interview study. *BMC Pregnancy Childbirth* . 14, 207(2014). .

Hilty, O, Rabinowitz, T, Mc Carron, R, Katzelnick, D, Chang, T, & Fortney, J. 2017. An update on telepsychiatry and how it can leverage collaborative stepped and integrated services to primary care. *Psychosomatics*, 2(59), pp.227-250

Hornby, A.S. 2010. Oxford advanced dictionary. (8th ed.). Oxford University.

Hope, I. 2020. 'i grieve every day' my baby died due to midwife error — I won't let her loss be in vain. The US Sun. Oct 25, 2020. <https://www.thesun.co.uk/fabulous/13020663/mum-baby-death-midwife-error>.

Accessed 5 April 2021.

Igumbo, J, Davids, A, Nieuwoudt, C, Lee, J, & Roomaney, R. 2016. Assessment of activities performed by clinical nurse practitioners and implications of staffing and patient care at primary health care level in South Africa. *Curationis*. 39 (1) 7-8

Jinga, N. Mongwenyana, C., Moola, A. et al. 2019. Reasons of late presentation for antenatal care, healthcare provider's perspective. *BMC Health Serv. Res* .19, 1016

Kaswa, R, Rapusingle. F. D, Longo-Mbenza, B. 2018. Exploring the pregnant women's perspectives of late booking of antenatal care services at Mbekweni Health Centre in

Eastern Cape, South Africa. *African journal of Primary Health Care & Family medicine*. South Africa. AFR J Prim Health Care Fam Med. 2018 Jul 2;10(1):e1-e9. Doi:10.4102/phcfm.v10i1.1300.PMID:30035599;

Kumar, R. 2014. *Research Methodology a Step-by-Step Guide for Beginners* (4th ed.). SAGE Publishers Ltd., London.

Kushitor, M.K, Biney, A.A, Wright, K et al. 2019. A qualitative appraisal of stakeholders' perspectives of a community-based primary health care program in rural Ghana. *BMC Health serv Res* 19, 675.

Leedy, P.D, and Ormrod, J.E. 2015. *Practical research: planning and design* (11th ed.) Boston, MA: Pearson

Jinga, N., Mongwenyana, C., Moolla, A. Malete, G & Onoya, D. 2019. Reasons for late presentation for antenatal care, healthcare providers' perspective. *BMC Health Serv Res* . **19**: 1016.

Lund, C, Tomlinson, M and Patel, V. 2016. Integration of mental health into primary health care in low-middle-income countries: the prime mental healthcare plans. *The British Journal of Psychiatry*. 1 (208): 1-2

Malelo-Ndou, H, Ramathuba, D.U, Netshisaulu, K.G. 2019. Challenges experienced by healthcare professionals working in resource-poor intensive care settings in the Limpopo Province of South Africa. *Curationis*, 1-8.

Matlala, M.S. & Lumadi, T.G., 2019, 'Perceptions of midwives on shortage and retention of staff at a public hospital in Tshwane District', *Curationis* 42(1), a1952.

Miles, M.B, Huberman, A.M, Saldana, J. 2014. *Qualitative data analysis*. SAGE.

Mothapo, KE, Maputle, MS, Shilubane, HN, Netshikweta, L. 2021. Challenges Midwives in Limpopo Province Encounter when Implementing Saving Mothers Recommendations. *Open Nursing Journal*. 14(1):292-299

Mogawane MA, Mothiba TM, Malema RN. 2015. Indigenous practices of pregnant women at Dilokong hospital in Limpopo province, South Africa. *Curationis*. 38(2): 1553.

- Muhwava, L.S, Morojele, N, & London, L. 2014. Psychological factors associated with early initiation and frequency of antenatal care visits in a rural and urban setting in South Africa: A cross-sectional survey. *BMC Pregnancy and childbirth*, 16:18
- Mulondo, SA. 2020. Factors associated with underutilization of antenatal care services in Limpopo, South Africa. *British Journal of Midwifery*. 28 (11): 788-792
- Mullachery P, Silver D, Macinko J. 2016. Changes in health care inequity in Brazil between 2008 and 2013. *International Journal for Equity in Health*. 15(1):140.
- Munyewende, O.P, Rispel, L, C & Chirwa, T. 2014. Positive practice environments influence job satisfaction of primary health care clinic nursing managers in two South African Provinces; *Human Resources for Health*. 12, 11-14.
- National Committee on Confidential Enquiry into Causes of Maternal Deaths. Saving Mothers 2014-201. 2017. Seventh Report on Confidential Enquiries into Maternal Deaths in South Africa. Pretoria: National Department of Health.
- National Department of Health Annual Performance Plan, 2016/17-2018/19. National Department of Health. Pretoria.
- Neuman, W.L. 2014. *Social research methods, qualitative and quantitative approach (7th ed.)*. Pearson.
- Ngxongo, T.S.P. 2018. Basic Antenatal Care Approach to Antenatal Care Service Provision, Selected Topics in Midwifery Care, Ana Polona Mivsek, IntechOpen.
- Ngxongo, T.S.P, Sibiyi, M.N. 2013. Challenges regarding the implementation of Basic Antenatal Care in eThekweni District, KwaZulu-Natal. *Journal of Nursing*. 22(7):906-913.
- Oyerinde K. 2013. Can antenatal care result in significant maternal mortality reduction in developing countries? *J Community Med Health Educ*. 3(2):2–3.
- Oyekale. S, A,. 2017. Assessment of primary health care facilities' service readiness in Nigeria. *BMC Health Service Research*, 17,1-12.

Paudel RY, Jha, T & Mehata, S. 2017. Timing of First Antenatal Care (ANC) and Inequalities in Early Initiation of ANC in Nepal. *Frontier in Public Health*, 5, 242.

Pan American Health Organisation, Latin American Center for Perinatology, Women and Reproductive Health. Toolkit for strengthening professional midwifery in the Americas. 3rd ed. Monte video: CLAP/WR, 2014. (CLAP/WR. SCIENTIFIC Publication, 1599-02)

Patil, C.L, Abrahams, E.T, Klima, C, Kaponda, C.N.P, Leshabari, S.C, Vonderheid, S.C, Kamanga, M, Norr, K.F. 2013.Centering Pregnancy-Africa: a pilot of group antenatal care to address Millennium Development Goals. *Midwifery*. 29(10):1190-8.
Polit, D and Beck, C.T. 2014. 9thed. *Essentials of Nursing Research: Appraising for nursing practice (9th ed.)*. Wolters Kluwer.

Ragolane V.J.2017. Factors contributing to late antenatal care booking in Mopani District of Limpopo Province. Published MPH dissertation. Pretoria: University of South Africa

Ramavhoya, T.I. 2018. Development of a strategy to facilitate the implementation of maternal health care guidelines in Limpopo Province, South Africa.

Rani, V. E. 2018. Health education on antenatal care. Health & medicine

Ravhengani, N.M."2017 implementing workload indicators of staffing needs (WISN). Tool to Determine Human Resource in Primary Health Care settings in South Africa: A concept Analysis" IOSR Journal of Nursing and Health Science (IOSR- JNHS), 6(6)

Roberts J, Sealy D, Marshark H, Manda-Tayler L, Gleason P &Mataya R. 2015. *The patients-provider relationship and antenatal uptake to referral hospitals in Malawi: a qualitative study*. School of Public health Lama Linda University. California.

Royal College of Midwives. 2015. Maternity services overworked, understaffed, and struggling to cope shows senior midwives survey Maternity, 15 Mansfield ST,t, London, presented by Amy Liversidge.

Rural- Proofing the Department of Health "WISN" Staffing Norms, 2014

- Sanda HU. 2014. Media awareness and utilization of antenatal care services by pregnant women in Kano State-Nigeria. *Journal of Social Science Studies*. 1(2):85.
- Scheffler, E., Visage, S., & Schneider, M. 2015. The impact of health services variables on health care access in a low resourced urban setting in the Western Cape, South Africa. *African Journal of Primary Health Care & Family Medicine*. 7 (1): 1-11.
- Sellers P.M; Edited by Dippenaar J, Da Serra D. 2018. 3rd ed. *Sellers Midwifery*. Juta Legal and Academic Publishers
- Simkhada, B ,Van Teijlingen, E. R. Porter, M & Simkhada, P. “Factors affecting the utilization of antenatal care in developing countries: a systematic review of the literature,” *Journal of Advanced Nursing*. 61 (3) 244–260.
- Standing, M. 2008. Clinical judgment and decision-making in nursing-Nine modes of practice in a revised cognitive continuum. *Journal of Advanced Nursing*. 62, 124134.
- Solarin, J and Black, V. 2013. “They told me not to come back”, antenatal booking experience in Inner City, Johannesburg. *Maternal and child health journal* (2); 359364.
- South African Nursing Council R2598- regulations relating to scope of practice of persons who are registered or enrolled. 1991. [cited 2013 July 8]. Available from: www.sanc.co.za/regulat/Reg-Scp.htm
- South African National Department of Health, 2013a, Quality improvement guide: Quality improvement guide: Quality improvement- The key to providing improved quality of care, Government Printers, Pretoria
- South African National Department of Health. National consolidated guidelines for the management of HIV in adults, adolescents, children, and infants and prevention of mother to child transmission. February 2020
- Saving Mothers. 2014. *Annual report and detailed analysis of maternal death due to non-pregnant-related infections*. Department of Health.
- Tekelab, T, Chojenta, C, Smith, R, Loxton, O. 2019. Factors affecting utilization of antenatal care: A systemic review and meta-analysis. *PLOS ONE* 14(4): eo214848.doi 10. 1371/ journal pone. 0214848.

Titaley CR, Dibley MJ, Roberts CL. 2010. Factors associated with underutilization of antenatal care services in Indonesia: results of Indonesia Demographic and Health Survey 2002/2003 and 2007. *BMC Public Health*.10:48

Tibandebage, P., Kida, T., Mackintosh, M.& Ikingura, J. 2016. Can managers empower nurse-midwives to improve maternal health care? A comparison of two resource-poor hospitals in Tanzania. *The International Journal of Health Planning and Management*, 31(4), 79-395.

Trends in maternal mortality: 1990-2015.UNICEF

Tucker, A.L & Singer, S.J. 2013. The effectiveness of management-by- walking around: A randomised field study, Harvard Business School; Boston, MA

Tufa G, Tsegaye R, Seyoum D. 2020. Factors associated with timely antenatal care booking among pregnant women in remote area of Bule Hora District, Southern Ethiopia. *Int J Women's Health*.2020, 12:657-666
<https://doi.org/10.2147/IJWH.S255009>

Utuk, N.M, Ekanem, A, Abasiattai, A.M. 2017. Timing and reasons for antenatal care booking among women in tertiary health care centre in Southern Nigeria. *Int J Reprod Contracept Obstet Gynecol*.2017;6:3731-6

Ward, J. 2014. Nine common problems in the nursing profession, <http://www.Nursetogether.com>, New York.

Warri, D, George, A. Perceptions of pregnant women of reasons for late initiation on antenatal care; a qualitative interview study. *BMC Pregnancy Childbirth* 20, 70 (2020)

Warwick, C.2017. The challenges facing midwifery are immense. No wonder we have a crisis on our hands. The telegraph Health and Fitness News, United Kingdom.

World Bank Gini Index [Internet] Available from : [http:// data. Worldbank.org/ indicator/51. POV. GINI](http://data.Worldbank.org/indicator/51.POV.GINI). Accessed 4 Jan 2017

WHO Recommendations on Antenatal Positive Pregnancy Experience. Geneva: World Health Organization; 2016. 4, implementation of ANC guideline and recommendations: introducing the 2016 WHO ANC model

World Health Organisation. 2016a. WHO recommendations on antenatal care for positive pregnancy experience. GENEVA

World Health Organization. 2016b. Provision of effective antenatal care: Integrate Management of Pregnancy and Child Birth (IMPAC). Geneva: World Health Organization.

WHO, UNICEF. Trends in maternal mortality: 1990-2015: estimates by WHO, UNICEF, UNFPA, World Bank and the United Nations Population Division; Executive summary, 2015. WHO Press. Geneva, www.who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/

WHO, UNICEF. 2018. A vision for primary health care in the 21st century. WHO. GENEVA

World Health Organisation. WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: World Health Organisation; 2016

ANNEXURES

ANNEXURE A: PERMISSION LETTER (LIMPOPO DEPARTMENT OF HEALTH)

P.O. Box 1517

Vuwani

0952

10 April 2019

THE MANAGER

Limpopo Department of Health

Private bag x 9302

Polokwane.

0700

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I Rhulani Sheillah Shinyawani a student from the University of Venda, Department of Advanced Nursing Science doing Masters in nursing degree, hereby request to conduct a research study at some of the clinics in Vhembe District. The title of the study is: **Exploring the Provision of early antenatal care at Tshino-Mutsha Local Area, at Vhembe District Municipality**; the purpose of the study is to explore the provision of early antenatal care after a positive gravindex test and factors that hinder implementation.

The methodology that will be used is a qualitative contextual, descriptive, explorative design where in-depth interviews will be conducted with midwives who wish to

participate to obtain information. The participants will be given information that the study is voluntary and a consent form will be signed by them, they will be informed that they should feel free to withdraw at any time. Ethical considerations will be strictly adhered to.

For further communication regarding the above request, please use the contact details below.

Yours faithfully

Shinyawani R.S

Cell no: 083 437 7556.

Email: rhullys03@gmail.com

Supervisor: Dr Malwela T

Cell no: 0789115972

Email: thivhulawi.malwela@univen.ac.za

ANNEXURE B: PERMISSION LETTER (DISTRICT OFFICE)

P.O. Box 1517

Vuwani

0952

10 April 2019

District Executive Manager

Vhembe district

Private Bag x 5009

Thohoyandou, 0950

Dear Sir

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I Rhulani Sheillah Shinyawani a student from the University of Venda, Department of Advanced Nursing Science doing Masters in nursing degree, hereby ask for permission to conduct a research study at some of the clinics under the Makhado sub-district, Tshino-Mutsha local area. The title of the study is: **Exploring the provision of early antenatal care at Tshino-Mutsha Local Area, Vhembe District Municipality**; the purpose of the study is to explore the provision of early antenatal care after a positive gravindex test and factors that hinders implementation.

The methodology that will be used is qualitative contextual, descriptive, explorative design where in-depth interviews will be conducted to midwives who wish to participate to obtain information. The participants will be given information that the study is voluntary and consent form will be signed by them, they will be informed that they should feel free to withdraw at any time. Ethical considerations will be strictly adhered to.

For further communication regarding the above request, please use the contacts details below.

Yours faithfully Shinyawani R.S

Cell no: 083 437 7556

Email: rhullys03@gmail.com

Supervisor: Dr Malwela T

Cell no: 0789115972

Email: thivhulawi.malwela@univen.ac.za

ANNEXURE C: PERMISSION LETTER (TSHINO –MUTSHA LOCAL CLINICS)

P.O. Box 1517

Vuwani

0952

10 April 2019

The Manager

Tshino-Mutsha Local Area

Attention: Mhangani M.V

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I Rhulani Sheillah Shinyawani a student from the University of Venda, Department of Advanced Nursing Science doing Masters in nursing degree, hereby request permission to conduct a research study at some of the clinics of the Tshino-Mutsha local area. The title of the study is: **Exploring the provision of early antenatal care at Tshino-Mutsha Local Area, Vhembe District Municipality.** The purpose of the study is to explore the provision of early antenatal care after a positive gravindex test and factors that hinder implementation.

The methodology that will be used is a qualitative contextual, descriptive, explorative design where in-depth interviews will be conducted with midwives who wish to participate to obtain information. The participants will be given information that the study is voluntary and a consent form will be signed by them, they will be informed that they should feel free to withdraw at any time. Ethical considerations will be strictly adhered to.

For further communication concerning the above request, please use contact details below.

Yours faithfully

Shinyawani R.S

Cell no: 083 437 7556; Email: rhullys03@gmail.com

Supervisor: Dr Malwela T.

Cell no: 0789115972

Email: thivhulawi.malwela@univen.ac.za

ANNEXURE D: UNIVEN INFORMED CONSENT

RESEARCH ETHICS COMMITTEE

LETTER OF INFORMATION

Title of the Research Study: Exploring the provision of early antenatal at Tshino-Mutsha Local Area, Limpopo Province, South Africa.

Principal Investigator/Researcher: Shinyawani Rhulani Sheillah (BCUR HONS)

Co-Investigators/Supervisor: Prof. Maputle.M.S. and Dr Malwela. T.

Introduction and purpose of study:

Antenatal Care is the basic care given to all women who test positive to Gravindex as it decreases chances of complications and risks during pregnancy, intrapartum, postnatal. It needs skilled midwives who are ready to improve life. The purpose of this study is to describe and explore the provision of early antenatal care after positive gravindex test at Tshino-Mutsha Local Area.

Outline of Procedures:

The participants will be qualified midwives who will be selected purposefully and will be asked questions regarding their perceptions towards the provision of early antenatal after positive gravindex test at Tshino-Mutsha Local Area. The inclusion criteria for participants is qualification as midwife or advanced midwife registered with S.A.N.C and experience of at least two years and above rendering antenatal care. The tools that will be used to obtain information are interview guide and audio recorder, as well as the researcher as the main tool to collect data. In-depth interviews will be conducted with follow ups until data is saturated on their working environment, no placebo or any treatment will be given. Only 30 – 40 minutes can be used. Participants are expected to give any information they know regarding the topic.

Risks or Discomforts to the Participant:

No risk that the participants will experience as the aim of the study is to get information so that recommendations can be made and challenges can be addressed to relevant stakeholders.

Benefits:

The benefits to participants will be shared experience, improved, accessible working conditions and improved health for community or society. To the researcher, the benefits will include an improved health service and, qualification for Master's degree.

Reason/s why the participant may be withdrawn from the study:

Participant may be withdrawn due to non-compliance, illness or when she decides to withdraw to continue with the study and there will be no adverse consequence or penalties if the participant chooses to withdraw.

Remuneration: There will be no monetary or other types of remuneration to be received.

Cost of study: Participants are not at all expected to cover any cost towards the study.

Confidentiality:

Confidentiality and anonymity will be ensured by providing each participant with a code name to conceal the real name. Code name will be used when discussing and analysing data.

Master list of participants' names and matching codes will be kept safe during the study process and after the study is complete the list of real names will be destroyed by the researcher. The information will not be given to anyone except the supervisor and the University Research Ethics committee on demand.

Research-related injury:

There will be no form of compensation should there be any research-related injury or adverse effects.

Persons to Contact in the Event of any problems or queries:

Shinyawani R.S. 083 437 7556 or my supervisor. Dr Malwela T. 0789115972. email: thivhulawi.malwela@univen.ac.za, Co-Supervisor Pro. Maputle M.S. 082 757 2013 or the University Research Ethics Committee secretariat on 015 962 9058. Complaints can be reported to the Director: Research and Innovation, Prof G.E Ekosse on 015 962 8313 or Georges Ivo. Ekosse@univen.ac.za.

General:

Participation is voluntary, refusal to participate will not involve any penalty, and withdrawal from participation by a participant can be made anytime without risk to the wellbeing of the participants or the profession.

CONSENT

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials, and diagnosis will be anonymously processed into a study report.
- Because of the requirements of research, I agree that the data collected during this study can be processed in a computerized system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant

Date

Time

Signature

I

.....

.....

.....

(.name of researcher.....) Herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher

.....

Date.....

Signature.....

Full Name of Witness (if applicable)

.....

Date.....

Signature.....

Full Name of Legal Guardian (if applicable)

.....

Date.....

Signature.....

ANNEXURE E: INTERVIEW GUIDE

Participants Code:

Date of Interview:

Section A: Demographic Information

1. Age of participant:

2. Gender of participant:

Female

Male

3. Qualifications:

Basic midwifery

Advanced diploma
in Midwifery

4. Years of Service:

Section B: RESEARCH QUESTIONS

1. Based on your experience describe how is the provision of early antenatal care in your facility?
2. Explain anything you perceive as a barrier or challenge to provision of early antenatal booking in your facility.
3. Probing questions will emanate from the interview

ANNEXURE F: CODING CERTIFICATE

Qualitative data analysis

MASTERS DISSERTATION

OF RS Shinyawani

THIS IS TO CERTIFY THAT:

Professor Tebogo M. Mothiba has co-coded the following qualitative data:

Unstructured one-to-one interviews

For the study: EXPLORING THE PROVISION OF EARLY ANTENATAL CARE AT TSHINO-MUTSHA LOCAL AREA, LIMPOPO PROVINCE, SOUTH AFRICA

I declare that the candidate and I have reached consensus on the major themes reflected by the data. I further declare that adequate data saturation was achieved as evidenced by repeating themes.

Prof TM Mothiba

NOVEMBER 2020



TM Mothiba (PhD)

ANNEXURE G: ETHICAL CLEARANCE CERTIFICATE

ETHICS APPROVAL CERTIFICATE

RESEARCH AND INNOVATION
OFFICE OF THE DIRECTOR

NAME OF RESEARCHER/INVESTIGATOR:

Ms RS Shinyawani

STUDENT NO:

11610070

PROJECT TITLE: Provision of early antenatal care at Tshino-Mutsha local area, Limpopo province, South Africa.

PROJECT NO: SHS/20/PDC/18/0608

SUPERVISORS/ CO-RESEARCHERS/ CO-INVESTIGATORS

NAME	INSTITUTION & DEPARTMENT	ROLE
Dr T Malwela	University of Venda	Supervisor
Prof MS Maputle	University of Venda	Co - Supervisor
Ms RS Shinyawani	University of Venda	Investigator – Student

Type: **Masters Research**

Risk: **Minimal risk to humans, animals or environment**

Approval Period: **August 2020 – August 2022**

The Human and Clinical Trials Research Ethics Committee (HCTREC) hereby approves your project as indicated above.

General Conditions

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

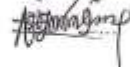
- The project leader (principal investigator) must report in the prescribed format to the REC:
 - Annually (or as otherwise requested) on the progress of the project, and upon completion of the project
 - Within 48hrs in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
- Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the REC. Would there be deviation from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the REC and new approval received before or on the expiry date.
- In the interest of ethical responsibility, the REC retains the right to:
 - Request access to any information or data at any time during the course or after completion of the project.
 - To ask further questions; Seek additional information; Require further modification or monitor the conduct of your research or the informed consent process.
 - Withdraw or postpone approval if:
 - Any unethical principles or practices of the project are revealed or suspected.
 - It becomes apparent that any relevant information was withheld from the REC or that information has been false or misrepresented.
 - The required annual report and reporting of adverse events was not done timely and accurately.
 - New institutional rules, national legislation or international conventions deem it necessary.

ISSUED BY:

UNIVERSITY OF VENDA, RESEARCH ETHICS COMMITTEE

Date Considered: July 2020

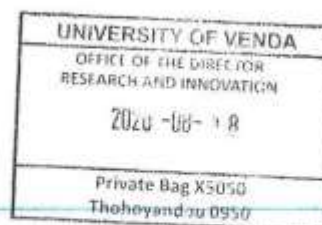
Name of the HCTREC Deputy Chairperson: PASCAL BESSONG

Signature: 

Director Research and Innovation

Signature: ...GIEEkoose...

17 August 2020



ANNEXURE H: APPROVAL LETTER FROM THE DEPARTMENT OF HEALTH



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH

Ref. LP2020-08-057

Enquires: PF Mahlokwane

Tel • 015-293 6028

Email : Kurhula.Hlomane@dhsd.limpopo.gov.za

Rhulani Shinyawani

PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL FACILITIES

Your Study Topic as indicated below;

Provision of early antenatal care at Tshino-Mutsha local area, Limpopo province, South Africa

1. Permission to conduct research study as per your research proposal is hereby Granted.
2. Kindly note the following:
 - a. Present this letter of permission to the institution supervisor/s a week before the study is conducted.
 - b. In the course of your study, there should be no action that disrupts the routine services, or incur any cost on the Department.
 - c. After completion of study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
 - d. The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
 - e. The approval is only valid for a 1-year period.

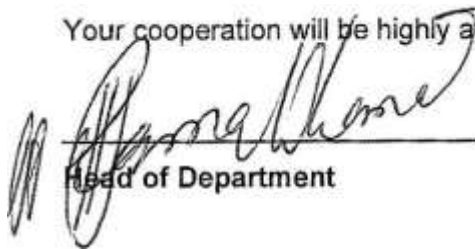
Website: <http://www.limpopo.gov.za>

The heartland of Southern Africa – Development is about people!

f. If the proposal has been amended, a new approval should be sought from the
Department of Health

g. Kindly note that, the Department can withdraw the approval at
any time.

Your cooperation will be highly appreciated


Head of Department

14/09/2020
Date

Private Bag X 9302 Polokwane

Fidel Castro, Ruz House, 18 College Street. Polokwane, 0700 Tel: 015 293 6000/12.

Fax: 015 293 6211.

ANNEXURE I: INTERVIEW TRANSCRIPTS

TRANSCRIPT

R	<p>Am Shinyawani R.S a student from UNIVEN doing master's degree in nursing. Part of my studies is conducting research study which is the reason am here. My topic is " Exploring the provision of early antenatal booking at Tshino-Mutsha Local Area with the purpose and objective of exploring and describing the provision of early antenatal booking, describe barriers and facilitating factors in the provision of early antenatal booking at Tshino-Mutsha Local Area. Feel free to give any information you have regarding the topic as the information will never be used to spy and punish anyone but to improve service delivery, working condition and life of the community.</p> <p>The main question is can you describe how you provide early antenatal booking at your facility?</p>
P	<p>Antenatal care first booking really is not simple due to many challenges that we face than solutions. To be honest I do first booking when there is enough staff that day or the facility is not busy, otherwise I turn them to come back on a common day where there will be staff as first visit takes more time and effort. We also give health education regarding early antenatal booking, but it becomes a lie as they will come and find us unprepared for them because you find that even gravindex kit sometimes they have to buy first to confirm pregnancy before they book, sometimes they come and only to find that there is no enough staff and when they turn they lose trust on what is said. For those who come late I give education on importance of early booking and challenge we are facing regarding coming late, shortage of staff and advise them to come back earlier on the given date. During weekends and public holiday</p>

	I don't do unless if the following day the specimen transport will be working so that they will collect it to laboratory. Otherwise as long as the department is not doing anything with the environment situation so that it can be user friendly we are also relaxed.
R	How many clients do you see per day including positive gravindex cases?
P	Per day each professional nurse can consult 70 clients with five to six positive gravindex cases which is a lot.
R	Okay, but when you turn the positive gravindex clients you are no longer following the maternal guideline which says you must book the woman the very same day of positive gravindex. Can you elaborate how you are working?
P	The guideline is there but it's impossible to follow it because the environment we are working in is not the way it should be, I think the department adopted the guideline but fail to provide resources so that it will be user-friendly. We are just doing what we can.
R	I understand. If I heard you well you also said that the health education that you are giving becomes a lie to clients, can you elaborate more on that?
P	Yes, it becomes a lie because you are giving information on things that when they come they don't get, rather than when the clients heard the information on early booking when she comes she gets the service the very same day as encouraged to come. So it's a lie or empty promise if failed to be fulfilled.
R	What are the challenges that you come across which disturb the provision of early antenatal booking?
P	The main challenge is shortage of resources which are human and equipment. With human is the one which result in turning

	<p>Them back and come back on the common day where at least there will be enough staff. Being under staffed causes workload and its results is burnout, and clients suffer the consequences. Also in equipment when you don't have supply how can you be expected to provide something tangible, some clients you can understand that she took a step by coming to the facility but financially she cannot stretch more to can buy necessary resources to can help her. Some clients just come for confirmation so that they may go for top while some confirm undecided whether they want pregnancy or not and you can force them to book same day. Late booking is also a challenge and the most vulnerable group to it are those with poor child spacing as they are shy to come back in short space of time and those with experience of previous pregnancy. Those who come during late hours when advised to come back they don't come. Some book in other province and when they come this side they say it's their first booking and mostly they tested positive for HIV and when they have to be tested again they test negative on rapid test because they are on treatment while some are still on shock of HIV status so they do window shopping by going to book on other clinics in order to confirm status. The culture and belief of other people which needs to be respected, some cultures are not allowed to book before the pregnancy is visible to everyone, while others belief is that when they book early they will bewitched. Poor working condition as you can see our facility is very old and some cubicles are compromised by screens and it hardly becomes overcrowded in such a way that privacy is compromised.</p>
R	<p>Yes you have challenges guys, but still with these challenges you have the other side which is buttered. Can you explain what facilitates you to continue providing early antenatal</p>
	<p>booking in this situation?</p>

P	High risk clients who understand their situation and present themselves earlier cannot be ignored as they are taking responsibility. Those who honour the appointment of coming back but the main thing regardless of every situation we come across is to try and improve the maternal health outcome of the poor community by early diagnosing, management and proper referral.
R	Okay, to take you back, you are saying high risk clients who understand their situation and present themselves earlier. How would you identify a new high risk to the ones you are turning back?
P	That one is difficult but also simple because you are not turning back for good but arrange with them to come back within that week, and some through history taking because we don't turn them in the reception area.
R	I hear you. Seeing that things are not working on early antenatal booking, what can you recommend in order to improve the provision of this service?
P	I can recommend that facilities should be well equipped with necessary resources, environment be conducive to render those services, in service training for staff and also counselling and support. Management to support this directorate as it was done on covid 19 because antenatal care first booking is a matter of life and death.
R	Is there anything you would like to add regarding the topic?
P	No, I think I have given you the relevant information on my side, only you can ask or come back if there is other information left.

R	Okay thank you for the information, time and effort. I will come anytime but if you remember something just give me a call ill come.
P	Good luck, hope this study can be our mouth; we are enough (laughing).

ANNEXURE J: EDITING CERTIFICATE

23 APRIL 2021

SCHOOL OF HUMAN AND SOCIAL SCIENCES


DEPARTMENT OF ENGLISH (ECS SECTION)

To whom it may concern

This serves to confirm I have been requested by Rhulani Sheillah Shinyawani (Student number 11610070) to proof-read her dissertation for Master of Nursing. She is a student in the Department of Advanced Nursing Sciences in the School of Health Sciences.

The title of her dissertation is: **Exploring the provision of early antenatal care at Tshino-Mutsha local area in Limpopo Province, South Africa**. I have carefully read the dissertation focusing on proof-reading and editing, and then made appropriate suggestions indicated in track changes.

Yours Sincerely



Dr Mzamani Maluleke

Tel: 015 962 8291/ Cell: 0680707323



University of Venda