FACTORS CONTRIBUTING TO LATE ANTENATAL CARE BOOKING IN MOPANI DISTRICT OF LIMPOPO PROVINCE

by

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Submitted in accordance with the requirements for the degree of

MASTER OF PUBLIC HEALTH

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF JM MATHIBE-NEKE

DECEMBER 2017
DECLARATION

I declare that FACTORS CONTRIBUTING TO LATE ANTENATAL CARE BOOKING IN MOPANI DISTRICT OF LIMPOPO PROVINCE is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

Victoria Joyce Ragolane

22 January 2018
FACTORS CONTRIBUTING TO LATE ANTENATAL CARE BOOKING IN MOPANI DISTRICT OF LIMPOPO PROVINCE

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ABSTRACT

Late booking is associated with high perinatal and maternal morbidity and mortality. The World Health Organization (WHO, 2016) recommends that pregnant women should book for ANC full first before 12 weeks of gestation. The aim of the study was to explore and describe factors contributing to late antenatal care booking at public health facilities of Mopani District. A qualitative approach was used. In-depth interviews were conducted with twenty one pregnant women who booked after twelve weeks of gestation and agreed to participate in the study.

The study was conducted at four selected public health care facilities rendering maternal health services in Mopani district. Data was collected through in-depth interview with the aid of an interview guide. The analysis of data was done manually using a coding system to develop themes.

The results revealed that there are personal and provider factors contributing to late antenatal care booking in Mopani district. Personal factors contributing to late antenatal care booking were unplanned and unaccepted pregnancy, lack of support, late recognition of pregnancy, cultural and religious beliefs, ignorance of the importance of antenatal care and fear. System or provider factors contributing to late booking were long waiting time, midwives’ attitude and lack of resources.

Keywords
Antenatal care; factors contributing to late antenatal care booking; late antenatal care booking; pregnancy.
ACKNOWLEDGEMENTS

Glory is to God almighty for granting me the grace, wisdom and strength to complete this study.
I appreciate the contribution of the following people and organisations for helping me achieve my goal of being a researcher.

- A heartfelt appreciation to my supervisor Professor JM Mathibe-Neke, for her utmost support, endless guidance and patience that shaped this dissertation. You encouragement will always be appreciated.
- Special appreciation to my husband Ramphalelwa, my son Katlego, my daughters Kgadi and Rebecca, for their unconditional love, support, sacrifice and understanding throughout the writing of this dissertation.
- My warm thanks go to my parents Lucas Kwinika and Maria Mesola Makhubele, my siblings Nomsa, Eunice, Lybon and Jessica, for their unconditional love, prayers and encouragement throughout the writing of this dissertation.
- A special appreciation to Limpopo Department of Health, for granting me the permission to conduct the study in the facilities.
- A special thanks to Dr RN Mongwe, the District Executive Manager of Mopani District, for granting the permission to enter and collect data at the selected health facilities.
- To the operational managers and midwives of the health facilities where data was collected for their cooperation and support.
- My heartfelt appreciation to all pregnant women who participated in this study for sharing their experiences with me.
Dedication

I dedicate this study to all pregnant women in Mopani District who shared their experiences with me and to future pregnant women who will benefit from the recommendations made in this study.
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<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal Care</td>
</tr>
<tr>
<td>BANC</td>
<td>Basic Antenatal Care</td>
</tr>
<tr>
<td>BANC+</td>
<td>Basic Antenatal Care plus</td>
</tr>
<tr>
<td>DHIS</td>
<td>District Health Information System</td>
</tr>
<tr>
<td>DHP</td>
<td>District Health Plan</td>
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<tr>
<td>DOH</td>
<td>Department of Health</td>
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<tr>
<td>ESMOE</td>
<td>Essential Steps in Managing Obstetric Emergencies</td>
</tr>
<tr>
<td>HAART</td>
<td>Highly Active Antiretroviral Treatment</td>
</tr>
<tr>
<td>Hb</td>
<td>Haemoglobin</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>IUGR</td>
<td>Intra-uterine Growth Restriction</td>
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<tr>
<td>ITN</td>
<td>Insecticide Treated bed Nets</td>
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<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MMR</td>
<td>Maternal Mortality Ratio</td>
</tr>
<tr>
<td>MUAC</td>
<td>Mid Upper Arm Circumference</td>
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<tr>
<td>LIMIC</td>
<td>Low and Middle Income Countries</td>
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<tr>
<td>NDOH</td>
<td>National Department of Health</td>
</tr>
<tr>
<td>NCCEMD</td>
<td>National Committee for Confidential Enquiry into Maternal Deaths</td>
</tr>
<tr>
<td>PIH</td>
<td>Pregnancy Induced Hypertension</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother to Child Transmission</td>
</tr>
<tr>
<td>SANC</td>
<td>South African Nursing Council</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goals</td>
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<tr>
<td>SFH</td>
<td>Symphysis Fundal Height</td>
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<td>UN</td>
<td>United Nations</td>
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CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

South Africa just like other developing countries is experiencing high maternal and perinatal morbidity and mortality (South Africa 2016:34). Most maternal and perinatal deaths can be prevented. Antenatal care remains essentially one of the four pillars of safe motherhood, and it refers to the totality of health care rendered to women during pregnancy (Aduloju, Akintayo, Ade-Ojo, Awoleke, Aduloju & Ogundare 2016:772).

According to the guidelines for maternity care in South Africa(2016:34) antenatal care attempts to ensure, by antenatal preparation, the best possible pregnancy outcome for women and their babies by screening for pregnancy problems and the assessment of pregnancy risks. The screening and risk classification can only be helpful if the pregnant woman begins antenatal care as soon as missing the first period.

The World Health Organization (WHO 2016:53) recommends pregnant women to have their first ANC contact in the first 12 weeks’ gestation, with subsequent contacts taking place at 20, 26, 30, 34, 36, 38 and 40 weeks’ gestation. Early antenatal care booking help the pregnant woman and her partner prepare emotionally and physically for birth and care of their baby, particularly preparing for early and exclusive breastfeeding and essential new born care and considering the role of a supportive companion at birth.

There were 4452 maternal deaths entered on the database of the National Committee for Confidential Enquiry into Maternal Deaths (NCCEMD) (Saving Mothers 2011-2013:1-2). Late booking and non-attendance of antenatal care were identified as a woman avoidable factor for seventeen point nine percent (17.9%) of all maternal deaths in South Africa. Seventy-two percent of pregnant women in Mopani district in the financial year 2014/2015 booked above 12 weeks of gestation (DHIS 2014-2015). In the same year Mopani district had 32 maternal deaths which led to maternal mortality ratio of 135/100 000 live births and perinatal mortality rate of 32/1000 live births which both were very high. The researcher sought to explore and describe the factors contributing to late
antenatal care booking in Mopani district.

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

Maternity care is an integral component of primary health care and is provided freely for pregnant women in South Africa since July 1994 (South Africa 2016:12). While substantial progress has been made, countries need to consolidate and increase efforts and to expand their agendas to go beyond survival but to ensure women have a positive pregnancy experience (WHO 2016:101). Among the challenges mentioned to have contributed to the pregnancy related deaths was lack of antenatal care and poor quality antenatal care linked to the focused antenatal care which recommended five visits, WHO has increased the ANC visits from five to eight visits.

In 2016, at the start of the Sustainable Development Goals (SDGs) era, pregnancy-related preventable morbidity and mortality remained unacceptably high (WHO 2016:101). The WHO (2016:57) recommends pregnant women to have their first contact in the first 12 weeks’ gestation, with subsequent contacts taking place at 20, 26, 30, 34, 36, 38 and 40 weeks of gestation.

According to National Committee on Confidential Enquiry into Maternal Deaths (NCCEMD) in South Africa Saving Mothers Report (2011-2013:4) factors contributing to maternal deaths are related to challenges of the health care system, failure to use health care facilities, inadequacy of services and substandard care related to knowledge and skills of the health care providers. Maternal mortality ratio of South Africa was 310 per 100 000 live births according to NDOH (Annual Performance Plan: 2013-2014). Late booking and non-attendance of antenatal care were identified as patient avoidable factors that contributed to the reported mortalities. South Africa has adopted the 2016 WHO guidelines on antenatal care that recommends eight antenatal care visits and in South Africa it is called Basic Antenatal Care plus (BANC+). This initiative recommends that pregnant women book for antenatal care before 12 weeks and subsequent visits at 20, 26, 30, 34, 36, 38 and 40 weeks of gestation (Gebhardt, Pattinson, Hofmeyr, Moodley, MacDonald, Bekker, Hoffman, Holele & Nyalunga 2016:8).

Despite the fact that ANC is offered free in South Africa the majority of pregnant women seek antenatal care after 12 weeks of gestation (DHIS:2016-2017). Facts show that early
booking offer many benefits to pregnant women and their unborn babies. Reproductive tract infections such as syphilis, gonorrhoea, and chlamydia can be identified and treated through ANC (South Africa 2016:12). According to Lincetto, Mothebesoane-Anoh, Gomez and Munjanja (2016:53), “it has been estimated that 25 percent of maternal deaths occur during pregnancy, with variability between countries depending on the prevalence of unsafe abortion, violence, and disease in the area. Between a third and a half of maternal deaths are due to causes such as hypertension (pre-eclampsia and eclampsia) and antepartum haemorrhage, which are directly related to inadequate care during pregnancy”.

ANC coverage in South Africa is more than ninety percent according to Annual Report (2016/2017), however, only forty-five percent of pregnant women initiated antenatal care before 12 weeks of gestation. In Limpopo province the ANC first visit before 12 weeks was 33% for 2016/2017 financial year (DHIS: 2016/2017). Mopani District had high rates of booking above 12 weeks up to seventy-nine percent in (DHIS: 2016/2017).

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<th>July</th>
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<td>ANC 1st visit &lt; 12 weeks</td>
<td>199</td>
<td>148</td>
<td>155</td>
<td>192</td>
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<td>ANC 1st visit 13-19 weeks</td>
<td>1094</td>
<td>1100</td>
<td>1095</td>
<td>1199</td>
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<td>ANC 1st visit &gt; 20 weeks</td>
<td>1476</td>
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Source: Mopani District DHIS report 2016

In many Low and Middle Income Countries (LIMIC), pregnancy outcomes and ANC coverage are worse among women who are poor, least educated and residing in rural areas. Many low-income countries still struggle with widespread poverty and hunger, particularly among rural populations (South Africa 2016:12). Therefore, providing early antenatal care and food supplements could help address inequalities by improving maternal nutritional status and increasing ANC coverage among disadvantaged women (WHO 2016:101). Antenatal care (ANC) is important for both maternal and foetal health. Pregnant women who initiate antenatal care late are more likely to develop complications (Aung, Khaing, Lwin, & Dar 2016:900).

Adverse outcomes may also occur in pregnancies without clear risk factors. Early booking
may necessitate performance of early antenatal ultrasound examinations in all pregnancies which will prove beneficial by enabling earlier detection of problems that may not be apparent such as multiple pregnancies. Intra uterine growth restriction (IUGR), congenital anomalies, malpresentations and by allowing accurate gestational age estimation, leading to timely and appropriate management of pregnancy complications (WHO 2016:52).

Risky behaviours in pregnant women such as the use of alcohol and drugs and other substances that is detrimental to the unborn baby can be identified in the first antenatal care visit through history taking and appropriate counselling is to prevent conditions such as alcohol foetal syndrome and sometimes intrauterine foetal deaths as outlined in the guidelines for maternity care in South Africa (2015:34). Comprehensive assessment of the wellbeing of the pregnant women include collecting history of psychiatric illnesses, pre-existing medical and surgical conditions, previous obstetric history and family and genetic disorders as recommended in the guidelines for maternity care in South Africa (2015:34). Facts indicate that early detection of risk factors will enable early interventions and ultimately reduce the related morbidity and mortality.

Another benefit of early antenatal care is the establishment of the maternal nutritional status which has a direct impact to the growth of the unborn baby. By performing a Mid Upper Arm Circumference (MUAC) the midwife will be able to detect malnourished pregnant women and early referral to social workers or dieticians. The MUAC is also used to predict medical conditions such as maternal hypertension and diabetes e.g. MUAC > 33cm suggest obesity and is associated with increased risk of pre-eclampsia, maternal diabetes and with a tendency of delivering larger than normal babies.

Guidelines for maternity care in South Africa (2015:35) recommends that all pregnant women receive daily supplement of calcium tablets 1000 mg; to prevent complications of pre-eclampsia. It is therefore important for the pregnant women to commence the calcium supplementation during the first trimester. Anaemia is a common problem in developing countries, associated with poor dietary intake of iron and folate and parasitic infections such as hookworm and bilharzia (South Africa 2015:116). It is for this reason that pregnant women s’ haemoglobin should be checked at the first trimester to establish the status and iron and folate supplementation be commenced. Preventive measures, including tetanus toxoid immunisation, de-worming, and intermittent preventive treatment of malaria in pregnancy and insecticide treated bed nets (ITN) are more beneficial if
commenced during the first trimester WHO (2016:52).

Department of Health (DOH) South Africa launched a mom connect project to improve the access to information for pregnant women, the women are registered at the government clinics through the use of the cell phones to receive staged-based message about their pregnancy, self-care and danger signs of pregnancy. Mom connect service is more beneficial to pregnant women who book early because the messages are based on the gestational age. Despite the benefits of antenatal care mentioned above the majority of pregnant women in South Africa are presenting themselves for antenatal care after 12 weeks of pregnancy according to (DHIS :2015-2016)

Late antenatal care booking is associated with late HIV detection which causes delayed commencement of antiretroviral therapy leading to mother to child transmission of HIV and maternal and perinatal deaths. Thirty-seven point four of all maternal deaths recorded by National Committee on Confidentiality Enquiry of Maternal Deaths (NCCEMD) were related to HIV/AIDS (Saving Mothers 2011-2013). This is evidence enough that early antenatal care could have reduced some deaths by early identification of HIV and early treatment initiation.

In a study conducted by Adegbola and Kuku (2015:12-20) on the factors affecting gestational age at booking in Lagos University Teaching Hospital, Lagos, Nigeria ,it was confirmed that late booking for antenatal care is common in developing countries and several studies were conducted which attempted to bring knowledge about the factors that contribute to this phenomenon, However the common findings of the literature reviewed acknowledged that late antenatal care booking is a challenge in developing countries which is influenced by variables like age of the mother, literacy level, accessibility to health care etc. Thus a detailed understanding of the factors contributing to late antenatal care booking has not been established prompting further research into this problem.

Both South Africa (2015:34) and WHO (2016:52) recommend that pregnant women should initiate antenatal care as soon as they miss their first period, because early antenatal care prompt early detection of high risk women and allow timeous intervention; thus, preventing maternal and perinatal morbidity and mortality. WHO (2016:52) regards a woman as “booked early” if ANC was initiated before 12 weeks of gestation and has received tetanus toxoid and attended ANC eight times.
Lincetto, Mothebesoane-Anoh, Gomez and Munjanja (2016:53) in a study to review antenatal care indicate that 25 percent of maternal deaths occur during pregnancy, with variability between countries depending on the prevalence of unsafe abortion, violence, and disease in the area. According to Saving Mothers’ Report between a third and a half of maternal deaths are due to causes such as hypertension (pre-eclampsia and eclampsia) and antepartum haemorrhage, which are directly related to inadequate care during pregnancy (Saving Mothers 2011-2013). WHO (2016:52) highlights that certain pre-existing conditions become more severe during pregnancy. Malaria, HIV/AIDS, anaemia and malnutrition are associated with increased maternal and new-born complications as well as death where the prevalence of these conditions is high.

Lancet (2015:367) showed that women who have been subject to female genital mutilation are significantly more likely to have complications during childbirth; as such these women need to be identified during ANC to ensure that they are classified as high risk and to deliver in hospital.

According to Lincetto et al (2016:53) social, family, and community context and beliefs affect health during pregnancy either positively or negatively. Some cultures promote special foods and rest for pregnant women, but in others, pregnancy is not to be acknowledged. In these cases, women continue to work hard and nutritional taboos may deprive them of essential nutrients, adding to nutritional deficiencies, particularly iron, protein, and certain vitamins (Lincetto et al 2016:53). Women who book in the first trimester are taught diets which are nutritious for both mother and baby. Women with special nutritional needs are referred to dieticians and those from poor backgrounds are referred to social workers (South Africa 2015:34).

According to WHO (2016:52) ANC improves the survival and health of babies directly by reducing stillbirths and neonatal deaths and indirectly by providing an entry point for health contacts with the woman at a key point in the continuum of care. In sub-Saharan Africa, an estimation of 900,000 babies die as stillbirths during the last twelve weeks of pregnancy. It is estimated that babies who die before the onset of labour, or antepartum stillbirths, account for two-thirds of all stillbirths in countries where the mortality rate is greater than 22 per 1,000 births – nearly all African countries (WHO 2016:52).
WHO (2016:52) reports that stillbirths that occur during pregnancy have a number of causes, including maternal infections notably syphilis and pregnancy complications, but global estimates for factors contributing to these stillbirths are not available. New-borns are affected by problems during pregnancy including preterm birth and restricted foetal growth, as well as other factors affecting the baby’s development such as congenital infections and foetal alcohol syndrome.

Ndidi and Oseremen (2010:47-51) on their study to explore timing and reasons for antenatal care booking among women in a tertiary health care centre in Southern Nigeria argued that the vast majority of Nigerian women register for antenatal care late and that the determinants may differ from those found in developed countries. Seventy-three point six (73.6%) percent booked in the second trimester and 26.4% in the third trimester. The study discovered that the reasons given by pregnant women were rooted mainly in misconceptions and ignorance of the importance of ANC. The findings of this study suggest that most women book late because of a belief that there are no advantages in booking for antenatal care in the first three months of pregnancy and this is so because antenatal care is viewed primarily as curative rather than preventive in the study population. Research is needed to determine the best approaches for health education programmes to correct the misconceptions about antenatal care.

Temesgen, Solomon and Abdella (2014:93-99) in their study Timing and factors associated with first antenatal care booking among pregnant mothers in Gondar Town; North West, Ethiopia indicates that more than three-fifth of the women (65.6%) booked late due to ignorance or misconceptions of the purpose of, and right time to commence antenatal care. The focus of the study was mainly on the timing and factors associated with the first antenatal care, however the study revealed little knowledge about the factors contributing to late antenatal care”
Banda, Michelo and Hazemba (2012:29-30) on factors associated with late antenatal care attendance in selected rural and urban communities of copper belt province of Zambia states that “despite antenatal care being provided free of charge or sometimes at a minimal cost in Zambia, only 19% of women attended antenatal care by their fourth month of pregnancy as recommended by (WHO:21). Late antenatal care attendance remained high in both rural and urban districts indicating the need for intensified and more focused utilisation of resources. The study was aimed at increasing sensitisation of the importance of early attendance for high risk groups such as women with unplanned pregnancies, inadequate knowledge about ANC, cultural beliefs and women who are multiparous”.

Although all the studies cited were studying late antenatal care booking the common findings included women who booked after 14 weeks (Temesgen et al 2014:93-99; Banda et al 2012:29-30). They all indicated that the decision to initiate ANC early depended on many factors such as age of the mother, literacy, marital status and cultural beliefs. In a study done by Banda et al (2012:29) on factors associated with late antenatal care attendance in selected rural and urban communities of copper belt province of Zambia revealed that some women believed early antenatal care had no benefits.

According to WHO (2016:52), ANC provides a platform for important health-care functions within the continuum of reproductive health care, including health promotion, screening, diagnosis, and disease prevention. It has been established that by implementing timely and appropriate evidence-based practices, ANC can save lives (WHO 2016:53). Communication and support functions of ANC are key, not only to saving lives, but to improving lives, health care utilisation and the quality of care. Women’s positive experiences during ANC and childbirth can create foundations for healthy motherhood (WHO 2016:52).

1.3 STATEMENT OF THE RESEARCH PROBLEM

According to United Nations (UN) (2012:32) ANC is one of the means to reduce maternal mortality and morbidity with interventions and information that promote the health, wellbeing and survival of mothers and their babies. At the end of the Millennium Developmental Goals (MDGs) in 2015 it was clear that reduction of maternal mortality by two-third was not achieved in many developing countries including South Africa. The United Nations member countries agreed on the Sustainable Development Goals (SDGs)
to continue the endeavours of saving more lives (United Nations Sustainable Development Summit in September 2015 in New York). Good care during pregnancy is important for the health of the mother and the wellbeing of the unborn baby.

In South Africa early antenatal care is defined as the first antenatal visit that is less than 12 weeks of gestation (DHIS 2014-2015). Statistics show that more than seventy-nine percent (79%) of pregnant women in Mopani district present themselves at health care facilities for the first time after 12 weeks of gestation for antenatal care (DHIS 2014-2015). The timing for antenatal care is very late. Late antenatal care is associated with late detection of potential risks that can negatively affect the outcome of the pregnancy e.g. pregnancy induced hypertension (PIH) that can kill both mother and the foetus (South Africa 2016:71-74)

Mopani district is a predominantly rural with many households depending on social or child support grant District Health Plan (DHP) (2016-2017:17), for this reason early booking will ensure that pregnant women are provided with food supplements early to improve their nutritional status, a factor contributing to proper development of the unborn babies. Twenty-two percent of live births were low birth weights lower than 2 500 g, according to 2016/2017 DHIS statistics, sixty-eight percent of the mother’s book above 12 weeks.

Despite the fact that antenatal care is provided for free in all public health facilities in South Africa, the benefits of early antenatal care is not understood by the majority of pregnant women hence the high rate of late antenatal care booking. In order to understand the factors contributing to late antenatal care booking in Mopani District it was therefore essential to explore from the mother’s point of view the factors contributing to late antenatal care booking given the risks thereof and the benefits of early booking.

1.4 RESEARCH AIM/PURPOSE

The ultimate aim of the study was to explore and describe the factors contributing to late antenatal care booking in Mopani District public health facilities in order to recommend strategies to address the identified causes.

1.4.1 Research objectives

- Explore and describe the factors contributing to late antenatal care booking in
Recommend strategies to address the identified factors contributing to late antenatal care booking in Mopani district.

1.4.2 Research questions/hypotheses

What are the factors contributing to late antenatal care booking in Mopani district?

1.5 RESEARCH DESIGN AND METHOD

In trying to explore and describe the factors contributing to late antenatal care booking in Mopani District the researcher used a qualitative design focusing on a phenomenological approach. The phenomenological design was selected because it is suitable for the study as the researcher's interest was to enquire about a subjective phenomenon in the belief that critical truths about reality are grounded in people’s lived experiences (Polit & Beck 2012:494). In the context of this research the phenomenon was late antenatal care booking, while the truth researched were factors contributing to late antenatal care booking by pregnant women in Mopani District public facilities.

The target population was pregnant women who booked after 12 weeks attending antenatal care at the identified health care facilities. Purposive sampling was used in selecting participants as it is considered the most useful type of non-probability sampling to identify suitable individuals representative of the study population (Wagner, Kawulich & Garner 2012:130).

In-depth interviews were used to collect data from pregnant women who booked later than 12 weeks of pregnancy using an interview guide (Annexure 7). An audio tape was used to record the interview after the participants gave consent to the researcher to record the conversation; transcriptions were made to assist in development of themes. Field notes were also taken. The researcher was the only research instrument.

The barrier to communication was encountered with one participant speaking Shona, an interpreter who was the relative of the participant and was fluent in English assisted during the interview with that participant. The researcher is able to speak Sepedi, Xitsonga and English fluently. These languages are the most common languages spoken in Mopani
District. To enhance credibility and trustworthiness data was validated through member checking and triangulations and other methods and described in full in chapter 3. In qualitative studies data collection and analysis were done concurrently.

1.6 SCOPE OF THE STUDY

The study focused on the timing of antenatal care booking and enquired what informs the pregnant women to initiate the ANC at that gestational age. The study was conducted in ANC sections of four clinics rendering high antenatal care in Mopani district of Limpopo province. Participants were pregnant women attending ANC services at those health facilities. The researcher limited this research to women who consented to participate in the study and were visiting the clinics to initiate ANC or for follow-up visits. Pregnant women who were sick or did not consent to participate were excluded.

1.7 SIGNIFICANCE OF THE STUDY

The study aim to explore and describe the factors contributing to late antenatal care booking and this knowledge will assist policy makers and planners of community mobilisation strategies to develop interventions that will teach the importance of early antenatal booking. The themes developed during interviews with pregnant women will assist in shaping the design of the health education interventions.

1.8 DEFINITIONS OF KEY CONCEPTS

Antenatal care refers to the care given to pregnant women from the time conception is confirmed until the beginning of labour (Fraser, Cooper & Nolte 2014:231).
Late antenatal care booking is defined as booking after 12 weeks of gestation (WHO 2016:52). In this study late antenatal care booking refers to the initiation of ANC after 12 weeks of gestation at public health clinics in Mopani District.

Factors contributing to late antenatal care booking are described as the determinants of late antenatal care booking (Aung et al 2016:900).

Pregnant woman is when a woman carries a developing foetus in her uterus (The Free Dictionary 2015:23).

1.9 OPERATIONAL DEFINITIONS

- **Antenatal care** is the routine care offered to pregnant women from booking visit until delivery in the selected clinics in Mopani District.

- **Late antenatal care booking** is when pregnant women make first appearance at an antenatal clinic of Mopani District after 12 weeks of gestation.

- **Factors contributing to late antenatal care** refer to personal and system or provider FACTORS that delayed a pregnant woman from initiating ANC before 12 weeks of gestation.

- **A pregnant woman** refers to one of the pregnant women who visited an antenatal clinic in Mopani District.
1.10 STRUCTURE OF THE DISSERTATION

The study is organised in five chapters as described below:

Chapter 1: Orientation to the study

This chapter introduces and discusses the background of the research problem and explains a statement of the research problem, the aim of the study and objectives, and the definitions of key concepts.

Chapter 2: Literature review

In this chapter comprehensive review about the previous studies related to the topic is outlined. The review covers both local and international studies.

Chapter 3: Research design and methodology

In this chapter the research methodology outlines the research design, population, sampling, data collection methods and the trustworthiness of the research design and the instrument of data collection. Ethical considerations and data analysis procedures.

Chapter 4: Data presentation, analysis and interpretation

This chapter presents the results of the study, interprets them according to the set objectives of the study, and discusses them in relation to findings from other researches.

Chapter 5: Conclusions and recommendations

This chapter reports the conclusions of the study in relation to the set objectives, outlines the limitations encountered in carrying out the research, and presents recommendations based on the findings of the research.
1.11 CONCLUSION

Chapter 1 presented a brief introduction of the background to the study in relation to the importance of ANC to pregnant women, the recommended time to start ANC and how women initiate ANC in South Africa, sub-Saharan region and Internationally. The aim, objectives and methods of the study were outlined and the significance of the study was discussed. Key concepts that were used in the study were defined. The scope of the study was outlined.
CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The literature reviewed discusses trends in antenatal care attendance in South Africa, trends in antenatal care attendance in the sub-Saharan region, initiation of the first antenatal care globally, initiation of the first ANC visit, antenatal care attendance in rural versus urban areas, factors associated with initiating antenatal care, reasons given by women for late initiation of ANC and factors associated with timing of ANC.

The literature reviewed discusses trends in antenatal care attendance in South Africa, trends in antenatal care attendance in the sub-Saharan region, initiation of the first antenatal care globally, initiation of the first ANC visit, antenatal care attendance in rural versus urban areas, factors associated with initiating antenatal care, reasons given by women for late initiation of ANC and factors associated with timing of ANC.

2.2 ANTENATAL CARE ATTENDANCE IN SOUTH AFRICA

Despite the fact that antenatal care is offered freely in South Africa late booking is still a trend, with subsequent increase in the rates of maternal and neonatal morbidity and mortality. According to a study conducted by Ngomane & Mulaudzi (2012:30-38) indigenous beliefs that influence the delayed attendance of antenatal clinics by women in the Bohlabelo district in Limpopo, confirmed that the underutilisation of antenatal care services was prevalent, with only 2.9% of women initiating ANC before 12 weeks ,study led to the findings that late booking was associated with cultural beliefs as pregnancy need to be preserved with herbs and pregnant women will initiate ANC late in pregnancy to put their names on registers in case they have difficulties in their pregnancies.

In 2016 South Africa issued the third copy of guidelines for maternal care with the objective of guiding doctors and midwives who provide obstetric, surgical and anaesthetic services for pregnant women who are attended to at district clinics, health centres and hospitals where access to specialist services is limited (DoH 2016:34) Maternity care
including ANC is an integral component of primary health care and a free health service for pregnant women. Basic antenatal care – the identification of risk factors and early diagnosis of pregnancy complications appropriate management and health education is considered one of the pillars of safe motherhood based on the WHO safe motherhood initiative (DoH 2016:13).

South Africa has adopted the eight ANC visits as recommended by the WHO which aim to reduce maternal and perinatal morbidity and mortality by increasing the pregnant women’s contact with a health care provider from five to eight visits as outlined by (Gebhardt et al 2016:03). In 2008 South Africa adopted basic antenatal care as (BANC) the initiative of the WHO that recommended focused antenatal care with five visits.

Quality ANC can be achieved by implementing the following services: screening for pregnancy problems - assessing pregnancy risk - treating problems that may arise during the antenatal period - giving medication that may improve pregnancy outcome - provision of information, and preparing pregnant woman physically and psychologically for childbirth and parenthood (DoH 2015:34).

The first visit is recommended to be as soon as the woman misses her period that is before 12 weeks of gestation and it is important because that is when a woman receives a complete assessment of gestational age and the risk factors (DoH 2015:30). At the first antenatal visit to a healthcare facility, a pregnant woman is issued with an antenatal care card (DoH 2015:34). This card is the principal record of the pregnancy and is filled in whenever the woman goes for an ANC visit. After the first visit, the woman is considered to be booked for ANC. A full and relevant medical history is taken from the pregnant woman and includes:

- Current pregnancy; previous pregnancies; complications and outcomes.
- Medical problems; including psychiatric problems and previous operations; familial and genetic disorders; allergies; use of medications; use of alcohol and drugs.

A physical examination is done and is divided into three categories:

- Examination of the pregnancy, including inspection and palpitation of the pregnant uterus, with measurement of the symphysis-fundal height (SFH) in centimetres.
A general examination, which includes weight, height, heart rate, colour of mucus membranes, blood pressure, check for oedema, and palpitations for lymph nodes.

A systematic examination, which includes teeth, gums, breasts, thyroid, and heart and lung functions.

All pregnant women are given supplements of ferrous sulphate tablets to prevent anaemia, calcium tablets to prevent complications from pre-eclampsia, folic acid, and tetanus toxoid to prevent neonatal tetanus (DoH 2016:32). Pregnant women undergo essential screening investigations, which include syphilis serology, rhesus (D) blood group, haemoglobin (Hb) level, human immunodeficiency virus and protein and glucose level in urine (DoH 2016:32).

The final assessment should include:

- Checklist for risk factors (basic antenatal care clinic checklist) is used to classify if the pregnant women is high risk or low risk then a plan for further antenatal care and delivery at the appropriate level of care (DoH 2016:32).
- All pregnant women should be given the information about the following danger signs and be informed to report to the nearest health facility should they experience any of them (DOH 2016:32). Severe headache; abdominal pain; drainage of liquor from vagina; vaginal bleeding irrespective of amounts or/and reduced foetal movements.

Following the early booking visit preferably before 12 weeks the follow up visits are scheduled as follows: 20, 26, 28,32,34,38 and 41 if still pregnant. This is not applicable for pregnant women with risk factors or who develop risk factor during pregnancy their return visits are scheduled depending on their specific problems (DOH 2016:32). All women are registered to a programme called Mom Connect.

### 2.3 INITIATION OF THE FIRST ANTENATAL CARE VISIT

The WHO recommends that pregnant women should go for their first ANC visit in the first trimester (WHO 2016:101). This section discusses findings from previous researches on how pregnant women initiate ANC in South Africa, sub-Saharan Africa, and globally.
2.3.1 Trends of initiation of the first antenatal care visit in South Africa

Though ANC is provided for free in South Africa research indicates that pregnant women from both rural and urban areas present themselves later than 12 weeks in public health facilities. A study conducted at Ekurhuleni district at Gauteng Province indicate that this district recorded the lowest rate of 20.5% among all the districts in Gauteng of pregnant women who sought ANC before 20 weeks of gestation in 2011/2012 (Matyukira & Roos 2014:3). The results of the study show that 56.7% (n=51) of the pregnant women started ANC after the first three months and only 43.3% (n=39) initiated ANC in the first trimester.

A qualitative study conducted in Khayelitsha at Micheal Mapongwane antenatal clinic identified that the mean gestational age at booking was 26.4 weeks with a range from 20 to 34 weeks (De Vaal 2011:3). The results showed that a combination of personal and provider FACTORS contributed to late booking at that clinic. De Vaal (2011:3) discovered that the majority of late bookers were multigravidas, unmarried, and unemployed. According to this study, the personal FACTORS included ignorance of the purpose antenatal care, ignorance of ideal booking time, denial or late recognition of an unplanned pregnancy.

Solarin and Black (2013:360) explored women’s experience of public antenatal care (ANC) services and reasons for late antenatal care attendance in inner-city Johannesburg, South Africa, the results of this cross-sectional study revealed that median gestational age at first visit to the clinic was 5 months with the interquartile range (IQR) of 4-6 months, while median gestational age at first booking appointment was 6 months IQR 4–7 months.

A recent comparative study of utilisation of ANC services between the developed world and the developing world indicated that South African women in an urban setting tend to attend ANC late in pregnancy compared with their counterparts in the developed world. Pregnant women in Pretoria attended antenatal clinics late in their pregnancy (P<0.0001), with a median of 16 weeks from conception (range 4-27 weeks), unlike Birmingham women, with a median of 6 weeks from conception (range 0-17 weeks) (Openshaw, Hlwelekazi & Pretlove 2011:2).

2.3.2 Trends of initiation of antenatal care visit in sub-Saharan Africa

The facts shows that from the early 1990s to date WHO has developed guidelines on ANC recommending that the first antenatal care should be before 12 weeks ,in contrast the sub-Saharan region still experience late booking (WHO 2016:101). Various studies
were conducted in the sub-Saharan Africa that corroborates with the findings of (WHO 2016:101). Many pregnant women in sub-Saharan Africa tend to start ANC late, especially adolescent women, resulting in them not benefiting from preventative and curative measures (Gross, Alba, Glass, Schellenberg & Obrist 2012:2). In this cross-sectional study in south-eastern Tanzania results showed that 71% of pregnant women began ANC late with an average gestational age at initiation of ANC being 5.1 months (SD = 1.2, range 2-9).

Aduloju et al (2016:772) did a cross-sectional study involving 530 pregnant women was carried out at the booking clinic of the Ekiti State University Teaching Hospital, Ado-Ekiti, between September 03, 2013, and March 04, 2014. The focus of this study was gestational age at initiation of antenatal care in a tertiary hospital, south western Nigeria, the results indicated a prevalence of early booking in this study was 22.7%, and the mean gestational age at booking was 21.09 ± 6.98 weeks (Aduloju et al 2016:772).

Banda et al (2012:29) in their study factors associated with late antenatal care attendance in selected rural and urban communities of copper belt province of Zambia corroborates with the previous cited studies that late booking is prevalent in the sub-Saharan Africa. In their study seeking to identify factors associated with late ANC attendance in selected rural and urban communities of the Copper belt Province of Zambia, discovered that the prevalence of late ANC attendance was 72.0% (n=221) and 68.6% (n=210) in rural and urban districts respectively. However the two researchers agreed with the other cited studies that late booking was still a challenge in the sub-Saharan region. Seventy-three point six (73.6%) percent booked in the second trimester and 26.4% in the third trimester. More than three-fifth of the women (65.6%) booked late due to ignorance or misconceptions of the purpose of, and right time to commence antenatal care (Muhwava, Morojele & London et al 2014:9).

Gebremeskel, Yohannes and Admasu (2015:7) conducted a study in Ethiopia on timing of first antenatal care attendance and associated factors among pregnant women identified that that 82.6% of pregnant women initiated antenatal care late, this was due to the fact that majority of pregnant women had no education and only attained primary school. Another study conducted in Uganda by Kisuule, Kaye, Najjuka, Ssematimba, Arinda, Nakitende and Otim (2013:121) on timing and reasons for coming late for the first antenatal care visit by pregnant women in Mulago hospital revealed that women started
antenatal care at 29 weeks of gestation as they did not have problems with their pregnancies so they didn’t perceive early booking as a priority.

Another study was conducted by Onoh, Umeora, Agwu, Ezengwui, Ezenou and Onyebuchi (2012:173) on patterns and determinants of antenatal booking in Southeast Nigeria at Abakiliki, the women interviewed revealed that the reasons for late booking for antenatal care were lack of transport to health facilities, poor staff attitude, distance to the clinics and cultural beliefs, the majority of women booked late because they viewed antenatal care as curative than preventive.

2.3.3 Trends in Initiation of the first antenatal care visit globally.

Studies in the United Kingdom indicates that late booking is also common among certain ethnic groups despite the UK and Ireland guidelines stating that all pregnant women should have their first antenatal care appointment by 13 weeks of pregnancy. Haddrill and Rosalind (2012:978) in understanding why some women delay accessing antenatal care, and ultimately to improve such access and outcomes. Even though the sample comprised of women living with HIV the results showed that women living with HIV of African origin knowing their HIV status had a tendency of booking late.

Hatherall, Morris, Jamal, Sweeney, Wiggins, Kaur, Renton and Harden (2015:01) explored the factors which influenced the timing of the initiation of a package of publically funded antenatal care for pregnant women living in diverse urban setting. According to Hatherall et al (2012:01) antenatal care booking by pregnant women is perceived as a service for viable and continuing pregnancies, as a result the urgency in initiating antenatal care is not understood. This is usually true when set against competing responsibilities and commitments in women’s lives and for pregnancies with no apparent complications or any visible symptoms. Other Hindrances to accessing the package of antenatal care include difficulties in navigating the health service and referral system, which are difficult for women unable to speak English, and service provider delays in the processing of referrals. Young women and women with language FACTORS sometimes perceived antenatal care as relinquishing control, particularly preventing active engagement with care.”

Another study on the utilisation of ANC in the four countries in Ningxia in China by Ren
(2011:265) revealed that the majority of the women in the study started ANC in the second and third trimester of their pregnancy. According to the findings, 35.2% began ANC in the first trimester, 44.2% in the second trimester, and 20.6% in the last trimester (Ren 2011:e263). The study revealed that the quality of the antenatal care which the women received was low. It was necessary to rethink the current model of antenatal care, and to develop and standardise a new model of antenatal care.

Alshawish (2013:2) explored facilitators and FACTORS to care for Palestinian women in the United Kingdom (UK) to determine what provisions exist which are intended to facilitate access to healthcare services; factors that may demonstrate effective and positive change to health services and to make recommendations for improving the health service provision for Palestinian women in the UK. Four themes emerged from the findings of the qualitative interview, which were: ‘cultural variations’; ‘knowledge of the NHS and the UK health care system’; ‘health care services and their utilisation, focusing on maternal and child health care services’, and ‘communication, information provision and needs’.

Finlayson and Downe (2013:1) conducted a study on why do women fail to use antenatal care services in low and middle income countries, argued that the rate of maternal mortality appeared to be increasing in many low and middle income countries especially the sub-Saharan Africa, with the declined rates not meeting the Millennium Development Goals (MDGs). In 2016 new goals were set by United Nations aiming at ensuring healthy lives and promote well-being for all at all ages by 2030 called Sustainable Development Goal (SDGs).

2.4 ANTE-NATAL CARE ATTENDANCE IN RURAL VERSUS URBAN AREAS.

In South Africa the coverage of ANC is above 90%, however, the access to care is not uniform across urban and rural areas. It is common for pregnant women in rural areas to either initiate ANC in the third trimester weeks or do not book at all and present themselves when in labour (Tran et al 2012). Most rural areas are generally underdeveloped and tend to be medically underserved. The South African government has made tremendous efforts towards improvement of health services in rural areas since 1994. Access to health services has increased, however under staffing and shortage of equipment makes antenatal care services inaccessible (Muhwava et al 2014:18). Banda et al (2012:29) in their study seeking to identify factors associated with late ANC
attendance in selected rural and urban communities of the Copper belt Province of Zambia, discovered that the prevalence of late ANC attendance was seventy-two percent (72.0 %) (n=221) and 68.6% (n=210) in rural and urban districts respectively. However, the difference between two districts was statistically not significant [OR 0.851 (95% CI=0.6, 1.2), p=0.363]. In rural districts nulliparous women were 59% less likely to book late for antenatal care compared to multiparous women. Banda et al (2012:29) further discovered that women who fell pregnant unintentionally had a higher odds of starting ANC late in both rural [4.2 times (AOR4.258, 95% CI 1.631, 11.119)] and urban [3.1 times (AOR3.103, 95% CI 1.261, 7.641)] respectively.

2.5 FACTORS LINKED WITH ANTENATAL CARE ATTENDANCE

Factors such as health perceptions, feelings about the pregnancy (planned versus unplanned pregnancy), access to health facilities, parity and culture contribute to the timing of initiating antenatal care and subsequent visits (Kisuule et al 2013:2; Ndidi & Oseremen 2010:49, 50; Tran et al 2011:4).

2.5.1 Socio-demographic factors

Socio-demographic factors such as ethnicity, age, marital status and the level of education can influence the timing of ANC booking (Muhwava et al 2014:18). Teenage pregnant women usually initiate ANC late; this could be attributed to unplanned pregnancies and poor knowledge about symptoms of pregnancy. Older women may also delay ANC booking because of good obstetric history. Several studies focusing on association of ethnicity, culture, tradition and the initiation of antenatal care were conducted in different countries around the world.

Age of the pregnant women was mentioned as having direct bearing on the timing of initiating ANC. Aduloju et al (2016:774) argued that early booking was most common among women within 20–29 years with 28.6% while late booking was predominant among the teenagers (<19 years) which was 100%. In contrast Gross et al (2012:4, 6) found no evidence of delayed initiation of ANC by adolescents in south-eastern Tanzania when comparisons were made between adolescents and adults, although adolescent women initiated ANC slightly earlier than older women, with a mean of 5.0 months (SD=1.2, range 2-8). However, multiparous adolescents started ANC considerably later than their counterparts, with a mean of 5.5 months (SD 1.20, t=1.43, p=0.157).
Occupation was used as a predictor of early ANC in several studies. According to Mahwava et al (2014:75), women who are employed are more likely to initiate ANC early compared to the unemployed women (OR=1.6; p=0.024). In contrast the study conducted by Matyukira and Roos (2014:91) on knowledge and utilisation of antenatal care services by pregnant women at a clinic in Ekurhuleni, that pregnant women who had passed grade 11 up to post matric 56.3% booked late for antenatal care due to working conditions and were not able to go to clinic as it does not operate during weekends or closes before they knock off from work. The results of a study conducted by Mkhari and Mathibe-Neke (2016:41) to explore the factors contributing to late antenatal booking around Thulamahashe local area, Mpumalanga Province revealed that the majority of the respondents were not employed, but were predominantly housewives (n=105, 82.7%). Only (n=12, 9.4%) were civil servants and 7.9% were having personal businesses

2.5.2 Cultural beliefs and values

Ngomane and Mulaudzi (2012:28) argued that the pregnant women’s decision to initiate ANC depend also to spiritual and cultural beliefs, protection derived from concoctions made from herbs, performing rituals to inform the ancestors about the pregnancy, secrecy and other belief and practices makes initiating ANC less prioritised (Ngomane & Mulaudzi 2012:28). In other cultural practices in Africa, woman may not disclose her pregnancy to even close relatives with a fear of being bewitched (Gross et al 2012:3). According to Matyukira and Roos (2014:89) in their study to investigate knowledge of and utilisation of ANC services by pregnant women at a clinic in Ekurhuleni, the results revealed that the majority of Nguni and Sotho speaking women, 42% (n=37 out of 88 women) indicated that they agreed that ‘fear of disclosing pregnancy due to cultural reasons’ is a factor that may result in a woman initiating ANC late. This highly corroborate with the evidence from Ngomane and Mulaudzi (2012:28) and Gross et al (2012:2). Cultural beliefs and ideas about pregnancy can influence women to make a decision about when to start ANC or not to attend at all (Kisuule et al 2013:2).

Timing for initiating ANC is somehow related to marital status of pregnant women. In a study conducted by Aduloju et al (2016:774) it was discovered that a greater proportions (99%) of the respondents were married and 77.1% of them were also found to initiate antenatal care late. All (100%) of the single respondents booked late in this pregnancy. Marital status was found to be a predictor of the timing of initiating ANC by (Sunil, Spears,
Hook, Castillo and Torres 2010:138). The results of this study discovered that women who were living alone were 2.4 times more likely to initiate ANC late than those who were married. According to Mahwava et al (2014:9), being single and staying with a partner was associated with increased risk of late booking as compared to married women. However, Gross et al (2012:4) found no significant association between marital status and early or late timing of ANC (p =0.532).

Level of education also has an influence on the pregnant women’s timing to initiate ANC. Ren (2011:262) argued that younger mothers have more education and knowledge, and are more likely to accept modern healthcare, while older mothers depend more on experience of pregnancy and childbirth, and are less willing to attend formal ANC services. Neupane and Doku (2012:867) conducted a study on Nepalese women and discovered that pregnant women who were not educated had higher probability of attending ANC late and a seven times greater risk of not attending ANC at all than women with at least some education. Although Aduloju et al (2016:774) found that most of the respondents (83.6%) had tertiary education while late booking was more common in women with only primary education, there was no significant association between level of education and timing of antenatal care initiation, \( P=0.407 \).

2.5.3 Parity

Some studies proved that there is association between parity of the pregnant women and the timing of initiating ANC. The evidence from Aduloju et al (2016:774) indicate that (37.5%) of the women were nulliparous, and they also accounted for a high proportion (30.2%) of early antenatal booking while the higher parities (1-4; \( \geq 5 \)) accounted for most late bookings, 81.8% and 100%, respectively. Gross et al (2012:2) corroborate with Aduloju et al (2016:774) that there is a tendency of late booking among the women of high parity and argue that low utilisation of ANC services among women with high parity could be attributed to time management, limited resources in the family, and negative perceptions resulting from previous pregnancies. These researchers argue that there is a possibility that multiparous women have greater experience, which cause them to feel more confident during pregnancy and they ultimately view ANC as less important.

2.5.4 Unplanned pregnancy
Sunil et al (2010:138) argue that women who had wanted pregnancies had a 50 percent or lower risk of initiating ANC late in their pregnancies. Tariku, Melkamu and Kebede (2010:231) carried out a study in Addis Ababa, Ethiopia, these researchers found that women with planned pregnancies tended to book early (adjusted OR=1.87, 95% CI: 1.11-3.23). Women who planned to be pregnant were more likely to initiate ANC earlier than women with unplanned pregnancies (OR=1.8 p=0.013) (Mahwava et al 2014:76). The planning of pregnancy has a direct bearing to the timing of initiating ANC according to Sunil et al (2010:138), Tariku et al (2010:231) and Mahwava et al 2014:76).

### 2.6 REASONS GIVEN BY PREGNANT WOMEN FOR LATE BOOKING

Several studies were conducted to determine the reasons why pregnant women sought antenatal care late. In a study conducted by Matyukira and Roos (2014:67) the following reasons were given by pregnant women for initiating antenatal care late at a clinic in Ekurhuleni “41.2 % was not aware of pregnancy, 31.4% was not aware of when to start, 11.8 could not get time off from work, another 11.8% said had no time to go to clinic and 9.8% said it is not customary to make pregnancy public too early, 5.9% said it was not necessary and another 5.9% said they were lazy to attend ANC. Roberts, Sealy, Marshak, Manda-Taylor, Gleason and Mataya (2015:145) conducted a study in Malawi on the patient-provider relationship and antenatal care uptake at two referral hospitals revealed that pregnant women do not attend antenatal care early or do not attend at all as the nurses are always shouting and yelling at clients. According to Solarin and Black (2013:364) on women’s antenatal care booking experience in inner-city argued that a large proportion of pregnant women attend ANC late and the reasons given was the delay by health care workers in the provision of care and 40% of them booked late because they were told they were still early in the pregnancy and they ended being booked in their third trimester. The findings of the two studies indicate that there are both personal and provider FACTORS that impact negatively on the timing of initiating antenatal care.

Distance from the health facility was mentioned as another barrier to early antenatal care. According to Sakala (2011:34), on assessment of the FACTORS to the utilisation of antenatal care service in Kazungula district distance to health service was a barrier because walking to the clinic takes a lot of time and sometimes walking alone is also dangerous. However, the result of a study by Matyukira and Roos (2014:136) transport costs were identified as a factor that was associated with early initiation of ANC (at 10%
significance level). Respondents who paid more in the cost of transport to the antenatal clinic initiated ANC early (p < 0.05).

2.7 CONCLUSION

Previous literature from local and international studies was reviewed to inform the current research and identify gaps in the previous studies in order to contribute to the body of knowledge. Many studies aimed at establishing and describing the factors associated with late booking has increased over the years with a specific focus at socio-demographic factors including ethnicity, marital status, age, literacy level, income and access to health facilities (Pell, Menaca, Were, Afrah, Chatio, Manda-Tylor, Hamel, Hodgson, Tagbor, Kalilani, Ouma & Pool 2013:6, Gross et al 2012:2;Tran et al 2011:4 ;Ndidi & Oseremen 2010:49, 50). However, research on the factors contributing to late antenatal care booking is fairly new.

This chapter discussed the trends of antenatal care in South Africa, sub-Saharan Africa and trend of antenatal care in the international community. The performance of antenatal care in SA according to the set guidelines in maternity care. Arguments from previous studies were presented for factors contributing to late antenatal care. The challenge of late antenatal care is evident in both developed and developing countries despite the WHO recommending antenatal care as a pillar of safe motherhood.
CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

In this chapter the researcher describes how data was collected, when the data was collected and where data was collected. Explanation of the research design and methods used is provided which includes the study population and its eligibility criteria, sample size, sampling technique used, source and method of data collection, data analysis methods, validity and reliability of the research instrument and ethical considerations.

3.2 RESEARCH DESIGN

Research design refers to a structured approach followed by the researchers to answer particular questions. It is sometimes called the architecture of the study because the researcher’s choice of the study designs determines how populations are sampled and how data will be collected and analysed (Joubert and Ehrlich 2012:77). Polit and Beck (2012:741) describe research design as the overall plan of addressing a research question including specifications for enhancing a study’s integrity. The researcher followed a qualitative descriptive approach to explore and describe factors contributing to late antenatal care booking in Mopani District in Limpopo province.

The approach involved the process of bracketing whereby the researcher holds in abeyance preconceived beliefs and opinions about the phenomenon under study (Polit & Beck 2012:318).

The characteristics of qualitative research design include being flexible and allowing adjustment of new information during the course of data collection and this will enhance data saturation that will help in the development of themes (Polit & Beck 2012:534). It is easy to conduct this study for descriptive purpose and it is economical. Qualitative research design was regarded as the suitable design because it tends to be holistic, striving to understand the whole phenomenon; it requires the researcher to be intensely involved. The researcher becomes the research instrument as outlined by
(Polit & Beck 2012:487). It was relevant to the study because the objective of the study was to explore and describe the factors contributing to late antenatal care booking in Mopani District.

3.2.1 Qualitative research paradigms

The qualitative research paradigm can be applied in various disciplines such as anthropology, psychology, philosophy, sociology, sociolinguistic and history (Polit & Beck 2012:491). Qualitative studies use an emergent design that evolves as the researchers make ongoing decisions throughout the research process. Qualitative inquiry is flexible allowing researchers to adjust to new information during the course of data collection (Polit & Beck 2012:487). To achieve the objective of this study which was to explore and describe the factors contributing to late antenatal care booking in Mopani District; the researcher applied a phenomenological approach by conducting in-depth face to face interviews to understand the lived experiences of individual pregnant woman who booked for antenatal care after 12 weeks of gestation. Phenomenology is commonly used in philosophy and psychology as it focuses on lived experiences of humans (Polit & Beck 2012:491), the term ethology is described as biology of human behaviour and studies behaviour as it evolves naturally. It is against this background that the researcher used phenomenological approach to conduct this research.

3.3 RESEARCH METHODS

Research methods are techniques used by researchers to structure a study and to collect and analyse information relevant to the research question (Polit & Beck 2012:12). This section describes sampling, population of the study, the selection of the sample, data collection method, data collection instrument, validity, and reliability of the instrument, ethical considerations and data analysis.

3.3.1 Sampling
According to Polit and Beck (2012:282), sampling is the process of selecting a portion to represent the entire population of interest to the researcher.

3.3.1.1 Population

According to Burns and Grove (2015:508), population is all elements (people, objects, events or substances) that meet the sample criteria for inclusion in a study. In this study the population was all pregnant women attending antenatal care at public health facilities in Mopani district who met the criteria.

3.3.1.2 Sample selection

According Grove et al (2015:37) a sample is a unit of analysis selected from a population of the study. A subset of a population comprising those selected to participate in a study while sampling is the process of selecting a portion to represent the entire population according to Polit and Beck (2012:282). The sample of this study was selected from the women who visited the selected clinics in the Mopani District for antenatal care booking or follow-up between June 2017 and October 2017 who booked after 12 weeks of gestation.

The eligibility criteria for inclusion in the study were pregnant women attending antenatal care in the identified clinics of Mopani district, who booked after 12 weeks. Qualitative approach ideally needs a small sample but to allow data saturation twenty one participants were enrolled during the course of the study.

Purposive sampling called maximum variation sampling was used as an ideal method to ensure that participants with diverse perspective and backgrounds were interviewed with the aim of enriching the emerging conceptualisation (Polit & Beck 2012:517). Pregnant women with variations in terms of age, literacy level, marital status, parity, and other variations were selected for the study to ensure enrichment of knowledge on the research.
topic. Purposive sampling in qualitative study is not guided by the principle of generalizability but the goal was to provide contextualised understanding of human experience through intensive study of a particular case (Polit & Beck 2012:524). The sampling method of participants was convenience sampling called purposive sampling because pregnant women attended clinics at different dates and different times of the day.

3.3.1.3 Ethical issues related to sampling

The researcher received an ethical clearance (HSHDC/670/2017) to conduct the study from the UNISA Higher Degree Ethics Committee (Annexure 1). Permission to conduct the study was granted by the Research Ethics committee of Department of Limpopo Department of Health and the District Executive Manager of Mopani District (Annexures 3 and 4 respectively). Participants were recruited from four clinics in Mopani district rendering antenatal care to voluntarily participate. The participants who were visiting clinic for follow up ANC were selected from the queue while waiting to be attended to by midwives; this was to ensure reduce waiting time. However, those who were coming for the ANC booking were selected after they were booked by the midwives because the midwives needed to confirm the pregnancy and the gestational age first. To build rapport the researcher greeted and introduced herself to the participants and explained the aim and objectives of the study. The researcher further explained to the participants about their rights, participants signed a consent form, assent form and a confidentiality form which are ethically binding (Annexures 5, 6 and 8) documents to the researcher to protect the participants from harm.

3.3.2 Data collection

Data collection is gathering of information to address a research problem as outlined by Polit and Beck (2012:725).

3.3.2.1 Characteristics of data collection instrument

The researcher conducted in-depth face to face interviews with the aid of an interview guide with six open-ended questions (Annexure 7). The open-ended questions allowed participants to share their experiences of the pregnancy journey and the factors that influenced their timing of antenatal care booking. The Interview guide was written in
English only as the researcher was fluent and able to translate the questions to Sepedi or Tsonga depending on the language preferred by the participant. For one participant an interpreter who was the relative of the patient was used, the participant was a Zimbabwean national who spoke Shona only. The relative was fluent in English and Shona. Interviews were recorded on an audio recorder. Field notes were also taken.

Advantages of in-depth interview:

- It generally takes a form of discussion between the interviewer and interviewee on the research topic.
- The interviewer directed the discussion to some extent so that the required information can be obtained, but the participants were allowed to talk and cover the area in their own terms and their own perspective (Polit & Beck 2012:535).
- According to Wagner, Kawulich and Garner (2012:102), interview provides an opportunity to the researcher to clarify misunderstanding of a particular question throughout the interview process.
- Interviews tend to have a higher response rate as compared to filling questionnaire at home where it interferes with the participant personal time (Wagner et al 2012:102)

3.3.2.2 Data collection approach and method

The researcher used an in-depth face to face open-ended interview with the aid of an interview guide (Annexure 7) to collect data from twenty-one late bookers. An interview guide is a basic protocol or schedule that guides how the interview should be conducted and it is based on the research topic and the literature reviewed (Wagner et al 2012:133). The researcher arranged a suitable space within the facilities where there were no distractors such as noise. The area had a good source of light and ventilation to ensure that the participants felt free and safe.

Participants were interviewed in their local languages (Sepedi and Tsonga) or English for the participants who were foreigners and not fluent in the local languages. The interview was recorded on an audio recorder and later transcribed. Field notes were also taken. The interview lasted between 20 to 30 minutes per interview.
3.3.2.3 Developing and testing of data collection instrument

The researcher designed an interview guide with 6 open-ended questions. A grand tour question, where the researcher was asking a completely unstructured informal broad question about “When did you learn that you are pregnant and when did you book for antenatal care and why then?”. This question allowed the participants to share their experiences about antenatal care. Probing questions were then asked depending on the response to the grand tour question. The audio tapes used to record the interview were pretested with 3 participants for quality of the sound prior to the interviews to eliminate errors. Further testing of the audio tapes was performed at the end of each interview. Field notes were also taken to enhance triangulation during data analysis.

3.3.2.4 Data collection process

The aim and objectives of the study were explained to the participants. The Informed written consent (Annexure 5) was signed by all pregnant women who booked after 12 weeks and agreed to participate. The assent form was signed by the participant who was 15-years-old and the guardian signed the informed consent. Confidentiality and anonymity was assured and participants signed a confidentiality form (Annexure 6). The interview was recorded on an audio recorder after requesting permission from the participants and field notes were also taken during the interview. The verbatim record was later transcribed. Data saturation was reached with the 21st participant.

3.3.3 Data analysis

A data analysis is defined as the systematic organisation and synthesis of research data (Polit & Beck 2012:725). In keeping with the qualitative approach the data analysis was conducted simultaneously with the data collection. To ensure that the process of data analysis was easier the researcher kept all track of data collected by maintaining data at its original form, leaving audiotapes, transcripts and field notes unaltered by keeping them in a safe place. Data was analysed manually using the coding of words to develop categories or themes. Due to limited resources and funds the researcher opted for the manual coding of data to develop themes. The researcher developed thematic charts using an excel spread sheet after manually grouping the transcribed data into categories.
The researcher then evaluated the charts to identify common sub-themes and major themes were identified. Two major themes and nine sub themes were identified.
3.4 CREDIBILITY AND TRUSTWORTHINESS

In qualitative research paradigm the concern is with the credibility and trustworthiness of the data collected and not the internal and external validity. Credibility is defined as the confidence that the researcher and the user of research can have in the truth of the findings of the study (Wagner et al 2012:256)

Lincoln and Guba's model (1985 as cited by Creswell 2013:248) was used in this study to enhance trustworthiness. Wagner et al (2012:256) define trustworthiness as a determination that a qualitative study is rigorous enough and high quality. The same authors further explain that the trustworthiness of a qualitative study is determined by the extent to which it is dependable, confirmable, credible and transferable. It is worth noting that these criteria are inter-related and the more confirmable and dependable a study is, the more credible it is (Wagner et al ,2012:256) .The steps that were taken by the researcher in order to enhance the credibility of this study include the following:

3.4.1 Prolonged engagement

Prolonged engagement involves investing sufficient time in the data collection process. The researcher spent sufficient time (20-30 minutes) interacting with the participants in order to develop a rich understanding of their reasons for booking late for antenatal care.

3.4.2 Member checking

Member checks refers to the process through which the researcher confirms that the research findings and interpretations exactly reflect the perception and experience of the participants by getting their opinion (Rebar et al 2011:154). In this study, members check was performed during the interview by reading out what was documented in the field note to the participants and confirming that was what they wanted to share. Probing questions were used to confirm that the researcher got participant’s responses.
3.4.3 Dependability

In order to enhance the dependability in this study, the researcher maintained an audit trail in which the research design, methods of data collection and analysis implemented were documented as described earlier in this chapter.

3.4.4 Confirmability

The researcher as an advance midwife by profession and a deputy manager for maternal health in Mopani district had preconceived beliefs about the factors contributing to late booking. To enhance confirmability the researcher applied bracketing which is described by Polit and Beck (2012:318) as holding in abeyance preconceived beliefs and opinions about the phenomenon under study. The researcher ensured that the findings were grounded in data and not on previous knowledge about the topic by applying bracketing process.

3.4.5 Transferability

To ensure the transferability of research, the researcher provided the background information to establish the context of the study and a detailed description of the phenomenon to allow comparisons to be made.

3.5 ETHICAL CONSIDERATION

This section describes the procedure followed by the researcher to obtain approval to conduct the study, to protect the participants and maintain the trustworthiness and credibility of the study. According to De Vos and Strydom (2011:476), ethics can be defined as “a set of widely accepted moral principles that offer rules for, and behavioural expectations of, the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researcher's assistants and students”. According to Polit and Beck (2012:727), ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligation to the study participants. Research ethics are defined as norms for conduct that distinguish between acceptable and unacceptable behaviour when doing research (Tappen 2011:173).
The researcher in conducting of this study avoided ethical dilemmas by following these ethical considerations.

The researcher obtained an ethical clearance certificate from the Research and Ethics Committee at UNISA Department of Health Studies Higher Degree Committee (annexure1). Approval to conduct the study was given by the Research ethics committee of the Limpopo Province Department of Health (annexure 3). The permission to enter the facilities and conduct the study was granted by the District Executive Manager of Mopani District (annexure 4). The ethical principles followed by the researcher to protect the participants from harm were as follows:

3.5.1 Autonomy

According to Joubert and Ehrlich (2012:32) autonomy is defined as respect for persons which incorporates two ethical convictions, first that individuals should be treated as autonomous agents and secondly that persons with diminished autonomy are entitled to protection. To apply this principle the researcher ensured that all participants are informed of their rights including the right to refuse to participate and that their refusal will not deny them their right to quality care. All participants signed the informed consent and the participant’s age was checked to ensure that participants younger than 18 years signed an assent form and their parent/guardian signed they agree to participate. The cultural beliefs of the participants were respected. The researcher ensured that personal details of participants such as name, address and file number are not recorded in the field notes and the audio tape.

3.5.2 Beneficence and non-maleficence

Persons are to be treated in an ethical manner and not merely by respecting their decisions and protecting them from harm, but also striving to safeguard their well-being (Joubert and Ehrlich 2012:33). In corroboration with the above statement. Brink, Van der Wal and Van Rensburg (2012:35) state that researchers need to secure the well-being of the participants who has the right to protection from physical, psychological, emotional, spiritual, economic, social, legal, discomfort and harm. The research was conducted in a safe environment and the information shared was kept confidential and was never be used against the participants. All participants signed a confidentiality binding form.
3.5.3 Scientific integrity of the researcher

To enhance scientific integrity the researcher avoided research misconduct. According to Burns and Grove (2015:122), research misconduct is falsification or plagiarism in processing, fabrication, performing or reviewing research or in reporting research results. Wagner et al (2012:256) define plagiarism as “failing to provide the sources of text taken from literature, articles, or the internet in a written report, further indicate that plagiarism is stealing”. To avoid plagiarism the researcher has provided references and acknowledged all sources of the literature reviewed.

According to Polit and Beck (2012:169), fabrication involves making up data or study results, and falsification involves manipulating research materials, equipment or processes. It also involves changing or omitting data. The researcher has ensured that data collection was conducted without errors and data analysis done appropriately.

3.6 CONCLUSION

Chapter 3 presented the research methodology followed by the researcher that includes research design, sampling, data collection, validity and reliability, data analysis and ethical considerations. The analysis of the research findings are presented in chapter 4.
CHAPTER 4

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF THE RESEARCH FINDINGS

4.1 INTRODUCTION

The ultimate aim of the study was to explore and describe the factors contributing to late antenatal care booking in Mopani District public health facilities in order to recommend strategies to address the identified factors. Chapter 4 presents the analysis and interpretation of the findings in response to the research question “What are the factors contributing to late antenatal care booking in Mopani district?”

4.2 DATA MANAGEMENT AND ANALYSIS

A data analysis is defined as the systematic organisation and synthesis of research data (Polit & Beck 2012:725). In keeping with the qualitative approach the data analysis was conducted simultaneously with data collection. To ease the process of data analysis, the researcher kept all track of data collected by maintaining data at its original form, ensuring that audiotapes, transcripts and field notes unaltered by keeping them in a safe place. The collected data was read and then transcribed word for word to confirm trustworthiness of the data. Data was analysed manually using the coding of words to develop categories or themes. The researcher developed thematic charts using an excel spread sheet after manually grouping the transcribed data into categories. The researcher then evaluated the charts to identify common sub-themes and related quotations as shown in the table 4.2 below.

According to Wagner et al (2012:231), thematic analysis is a generally used approach in analysing qualitative data that involves the identification of themes or patterns in data. After data analysis, the researcher was able to establish and list the factors mentioned by participants as factors contributing to late antenatal care booking in Mopani District. The factors were grouped into main categories of personal and provider factors as described in (De Vaal 2011:07).
4.3 RESEARCH FINDING

This section presents the findings from in-depth interviews conducted with 21 participants at four public health clinics in Mopani District between June 2017 to October 2017.

4.3.1 Sample characteristics

Socio-demographic factors such as ethnicity, age, marital status and the level of education can influence the timing of ANC booking (Muhwava et al 2014:18).

The demographic profile of participants was considered significant as seen in the literature reviewed to have an influence in the timing of initiating ANC. The age, parity, literacy level, marital status, distance to the clinic, occupation, religious beliefs, cultural beliefs and nationality were explored to determine their impact on the timing of ANC booking.

4.3.1.1 Age

The findings of the study indicate that the age of participants ranged between 15 and 37 years. Two participants were between 15 and 20 years old, seven were between 21 and 25 years, three were between 26 to 30 years and seven were between 31 and 35 years old and two were between 36 and 40 years old. This was mostly because the age between 20 to 37 is the expected child bearing age. The results concur with (Muhwava et al 2014:18; De Vaal 2011:3).
4.3.1.2 Marital status

Four of the twenty-one (21) participants were married, one participant stayed with a partner and 16 participants were single.

4.3.1.3 Level of education

Four (4) participants had obtained tertiary education, the educational qualification of the other seventeen participants ranged between grade 8 and grade 12.
4.3.1.4 Religion

Twenty (20) participants were of Christian religion and one (1) believed in ancestral worship.

4.3.1.5 Occupation

Sixteen (16) of the twenty-one (21) participants were unemployed while four of them were studying at tertiary institutions, however, there was one participant working in a farm.
4.3.1.6 Nationality

The majority of participants were South African nationals while two (2) were Zimbabwean nationals who arrived in South Africa in 2017. One (1) participant was white born in South Africa.

![Figure 4.5 Participants’ distribution by occupation (N=21)](image)

<table>
<thead>
<tr>
<th>Participants’ distribution by occupation</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>unemployed</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>still studying</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>farm worker</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.3.1.7 Parity

Three participants were primigravid women, two grand multiparous and 16 were multiparous women.

![Figure 4.6 Participants’ distribution by nationality (N=21)](image)
4.3.1.8 Gestational age at booking

Gestational age at booking ranged between 13 and 32 weeks with a mean gestational age of 18.2 weeks.

**Table 4.1 Frequency distribution table of gestational age at booking (N=21)**

<table>
<thead>
<tr>
<th>Gestational age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-15 weeks</td>
<td>04</td>
<td>19.0</td>
</tr>
<tr>
<td>16-20 weeks</td>
<td>08</td>
<td>38.0</td>
</tr>
<tr>
<td>21-24 weeks</td>
<td>04</td>
<td>19.0</td>
</tr>
<tr>
<td>25-30 weeks</td>
<td>03</td>
<td>14.3</td>
</tr>
<tr>
<td>&gt;30 weeks</td>
<td>02</td>
<td>9.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
4.3.1.9 **Mode of transport to visit clinic**

Majority of the participants used public transport to visit the clinics. Two (2) participants resided close to clinic and needed no transport. One (1) participant used own transport.

4.3.1.10 **Home language**

The majority of the participants spoke Sepedi as their home language, one (1) spoke English while two (2) participants were Shona speaking individuals with one being fluent in English.
4.3.1.11 HIV status

Five (5) participants were HIV positive already on HAART while sixteen (16) of them were HIV negative.

4.3.1.12 History of previous illness and pregnancy complications

A few participants mentioned medical problems during a previous pregnancy or delivery, and four (4) had a previous caesarean section. For some the medical problem was the
reason for not initiating antenatal care. Three participants had lost their babies in the last pregnancy.

Three (3) women had visited prior to initiating ANC at the clinic to either confirm pregnancy or due to ill health where pregnancy was diagnosed.

Table 4.2   The themes and sub-themes that emerged from the interviews

<table>
<thead>
<tr>
<th>Major themes</th>
<th>Sub-themes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal factors</strong></td>
<td>Unplanned and unaccepted pregnancy</td>
</tr>
<tr>
<td></td>
<td>Lack of support</td>
</tr>
<tr>
<td></td>
<td>Late recognition of pregnancy</td>
</tr>
<tr>
<td></td>
<td>Cultural and religious beliefs</td>
</tr>
<tr>
<td></td>
<td>Ignorance of the importance of antenatal care</td>
</tr>
<tr>
<td></td>
<td>Fear</td>
</tr>
<tr>
<td><strong>System or provider factors</strong></td>
<td>Long waiting time</td>
</tr>
<tr>
<td></td>
<td>Midwives’ attitude</td>
</tr>
<tr>
<td></td>
<td>Lack of resources</td>
</tr>
</tbody>
</table>

4.4  PERSONAL FACTORS

4.4.1  Unplanned and unaccepted pregnancy

It was shocking to the researcher to identify that nineteen of the twenty-one participants did not plan their pregnancies including the married women. The delay to initiate ANC was somehow linked to delay in accepting the pregnancy.

“I discovered the pregnancy in April 2017, but I was not happy about it because I did not want a baby as I am still a student.” (Participant 4)

Three participants perceived their pregnancy as a stressor and was impacting their future negatively.

“Mam, I did not want a baby because I already have four children and am not married and working in a farm. I delayed booking because I did not accept the pregnancy earlier.” (Participant 6)
Ignorance of amenorrhea for 3 months despite non-use of contraceptive led one woman to book late as the pregnancy was discovered after collapsing and being hospitalised.

“I discovered that I was pregnant at 13 weeks because I collapsed and was taken to hospital and that is how I knew, I was not happy about it because I did not want another child, I have two kids delivered by Caesarean section. I told the doctors about my decision they told me it was not safe because of the previous operations, my boyfriend also discouraged me saying we already had two children why abort this one.” (Participant 14)

For some the pregnancy was perceived as a mistake and interfering with personal goals.

“I discovered I am pregnant in February 2017 but was stressed because it was a mistake and did not plan to have a baby at 21 years.” (Participant 7)

For some participants initiating ANC early could mean accepting the unwanted pregnancy.

“I knew I was pregnant from 6 weeks but kept hoping that it was not true, I am an orphan with 2 children already, who is going to help me. I accepted the pregnancy at 7 months when I felt the baby move and people started noticing. If I came early that could mean I accepted the pregnancy but was hoping I could abort naturally, I fear God and could not go for termination at the hospital.” (Participant 9)

Affordability or financial constraints were also contributory factor for women to book late for antenatal care.

“As I have said before, I have four children, unmarried and farm worker, I cannot afford to raise five children, honestly I wanted to terminate but I got scared, what if God takes me, who will take care of my children.” (Participant 6)

One participant mentioned she hate the pregnancy as it was a result of rape, indicating challenges caused by rape to the victims and lack of access to Choice on Termination of pregnancy in countries where TOP is not legalised.
“I was raped but, what else could I have done? Where I come from (Zimbabwe) abortion is prohibited, I am young only 15 and has quit schooling and arrived in South Africa two weeks ago and now 6 months pregnant.” (Participant 11)

4.4.2 Lack of support

Being in an unstable relationship and lack of support led one participant to book late.

“I was stressed when discovering the pregnancy because I separated with my boyfriend a month before I knew I was pregnant, he was abusive and was in love with other women, I did not know how to tell him. It took long for me to accept the pregnancy hence I booked today.” (Participant 9)

For one participant she decided to quit her job because the employer cannot give her time off to visit the clinic.

“I could not get time off, at work my employer refuses to give time off to visit a clinic during the week. Seeing that time is gone am now 6 months I decided to quit the job to be able to start antenatal care. I had high blood pressure in my last pregnancy, I was worried it can affect me again, unfortunately I was not allowed.” (Participant 17)

4.4.3 Late recognition of pregnancy

One participant experienced Irregular menstrual cycle before and did not think that she was pregnant.

“I used to jump one or two months without menses, so I thought it was the usual story until I felt the baby move at 4 months, I was also prophesied at church that I am pregnant but did not believe. I only booked at four months …” Participant 12)

4.4.4 Ignorance of the importance of antenatal care attendance

Two participants perceived ANC as important for screening of sickness to both mother and baby but did not think there is a specific time to book.
“Is it not necessary for all pregnant women to book?, so that one gets checked for any sickness like HIV to ensure the baby is safe but I don't think there is a specific time.” (Participant 5)

“I know that pregnant women should book at clinic, but if one book early it means you will attend ANC many times, I heard that from some women in the community. I decided I will start at 5 months.” (Participant 10)

“I suspected I could be pregnant in March 2017 because I was having nausea and excessive salivation but I did not want to believe it was pregnancy, I delivered a stillbirth in my last pregnancy. I only started last month when I was six months to register for the card, because in my last pregnancy I attended ANC from two months but look what happened, it does not help.” (Participant 3)

Two participants indicated that booking should take place once pregnancy is confirmed by sonar because pregnancy tests are not reliable.

“After I missed my first period I bought a home pregnancy test and it was invalid and bought the second one it became positive I did not believe it, I waited to have money to visit the doctor for confirmation by sonar, that is when I believed and only visited the clinic at 4 Months.” (Participant 13)

One participant perceived ANC as important only to be able to get help fast during labour.

“I have a lot of things to do at home, I do house chores, take child to crèche and must come back and cook, so I have no time ,I had to come because I am eight months and so that I will be helped fast during delivery.” (Participant 18)

“I did not see my menses for two months, and visited the doctor first, to check me. He confirmed, then 2 months later I visited the clinic.” (Participant 16)

“I was not feeling well, and decided to visit a doctor. He told me I was 8 weeks pregnant; I decided to come to the clinic at 5 months because I still had the medication from the doctor.” (Participant 5)

Some participant believed that antenatal care should be attended where the pregnant women will deliver.
“I discovered pregnancy when I was in Gauteng province but could not book there because when I come home (Limpopo) the nurses may tell me to go and deliver where I booked.” (Participant 14)

### 4.4.5 Cultural and religious beliefs

“If I was not a Christian I could have terminated, I am currently under the care of my parents, they are still paying for my studies, I was scared that if they discover they will stop me from schooling, but they saw me before told them … that is why I booked late.” (Participant 19)

One woman sought permission to book from elders after they have visited traditional healers.

“It is our custom in my family to report that you are pregnant to elders before booking at the clinic because they should get guidance from traditional healer about how I should behave during pregnancy to ensure that the pregnancy is safe.” (Participant 20)

Due to cultural beliefs some participants believe the pregnant women will be safe if they are taken care of by elderly people because of their previous experience.

“When I discovered that I was pregnant, I was with my husband in Gauteng Province, I came back to Limpopo province to stay with the elders who will guide me about pregnancy because men don’t know how to help when the problem comes … Elder women has experience they told me to book at when I start feeling the baby move.” (Participant 21)

### 4.4.6 Fear

Another participant booked late due to contemplating TOP due to fear of rejection by family.

“If I was not a Christian I could have terminated, I am currently under the care of my parents, they are still paying for my studies, I was scared that if they discover
they will stop me from schooling, but they saw me before I told them … that is why I booked late” (Participant 19)

Fear of being pregnant and previous unsuccessful pregnancies led few participants to deny the pregnancy and ultimately avoided early confirmation of pregnancy.

“I stopped menstruating in January 2017, and I got scared because I had two miscarriages at 3 months and did not think this pregnancy will make it to four months.” (Participant 2)

4.5 SYSTEM OR PROVIDER FACTORS

4.5.1 Long waiting times

Perceived long waiting time affected the timing of initiating booking ANC for majority of participants.

“It does not help, to start ANC at the clinic because we wait from 07h00-16h00 without being helped, we end up being hungry while waiting in the queue.” (Participant 14)

“I remembered the long queue I used to take in my first pregnancy I decided that now I will come when pregnancy is advanced.” (Participant 18)

“If I had a medical aid I would not attend public clinics because they take long to help us, when you come late they shout why you are coming late but still when you come early it take the whole day. I suggest that they should not mix the pregnant women coming for follow-ups with the first timers.”(Participant no 13)

4.5.2 Midwives’ attitude

Some participants booked late because they were turned away by nurses either due to negative attitude or laziness.
“I came here at 8 weeks to test for pregnancy; they said I am pregnant but advised me to come after three months because they cannot feel anything.” (Participant 12)

“I was here last month, the nurses said I should go back because it was already late and told me to return the following day, I did not have money to come back.” (Participant 1)

4.5.3 Lack of resources

Availability of ultrasound was perceived necessary by some participants and this caused them to consult the general practitioner before booking at the clinic.

“I suspected I could be pregnant because did not see my periods, I then visited the private doctor for confirmation, he showed me the my baby on the machine and heard the sound of the heartbeat, you know from that moment I connected with my baby, hope the public clinics could have that machine it really helps.” (Participant 7)

“After I missed my first period I bought a home pregnancy test and it was invalid and bought the second one it became positive I did not believe it, I waited to have money to visit the doctor for confirmation by sonar, that is when I believed and only visited the clinic at 4 months.” (Participant 13)

Mobile clinics not rendering ANC contributed to decision to book late by some participants.

“I visited the mobile clinic visiting my area, but the nurses told me to visit a fixed clinic which is very far from my village, I waited until I raised money to travel to this clinic, I spent R90.00 per day to visit the clinic …” (Participant 18)

Other participants believe that ANC is useless without supplements.

“I wanted to book before three months but I heard that the clinics do not have the vitamins and other medication given to pregnant women, I decided to buy from the chemist.” (Participant 15)

Some participant thought ANC done by nurses in early pregnancy is of poor quality.
“Someone told me that the nurses do not feel the baby before 5 months, so I thought I will come at 5 months.” (Participant 15)

4.6 DISCUSSION OF RESEARCH FINDINGS

The purpose of this study was to explore and describe the factors contributing to late antenatal care booking in Mopani district. The results reflected the personal and provider factors that contribute to late booking. There were unique personal and provider factors mentioned by participants. There were also common experiences from different participants.

WHO (2016:52) guidelines recommend that ANC booking should commence before 12 weeks of gestation, the findings of this study indicated a mean gestational age of 18.2 weeks which can be described as very late booking. Delay in accepting the pregnancy was another factor associated with late booking in this study this concurs with (De Vaal 2011:11). Ignorance of the ideal time to book was evident in this study and concurred with previous literature. A study by Matyukira and Roos (2014:67) on reasons given by late bookers revealed that 31.4% was not aware of when to start due to possible lack of knowledge or ignorance.

The majority of the participants were above 20 years of age which is considered the normal child bearing age, of concern was that family planning was not a common phenomenon in this participants as revealed by the high rate of unplanned pregnancies in this participants. The results concurs with Sunil et al (2010:138), Mahwava et al (2014:76) that planning of pregnancy has a direct bearing to the timing of initiating ANC.

The results reflected that four out of twenty-one participants were married and one staying with a partner with sixteen participants being single. Though the study was not quantitative there were more single women than married in the study which may concur with the studies conducted by Sunil et al (2010:138), who revealed that women who were living alone were 2.4 times more likely to initiate ANC late than those who were married. Mahwava et al (2014:75) concluded that being single and staying with a partner was associated with increased risk of late booking as compared to married women. It was also
interesting to note that even married women did not plan their pregnancy even though the pregnancy was later accepted.

Religion was also identified to have an influence in women's decision to utilise services such Termination of Pregnancy, as two participants considered TOP but could not undergo it due to religious beliefs. On the same note the results revealed that traditional beliefs and practices has an impact on the timing of initiating ANC, This highly corroborate with the evidence from the (Ngomane & Mulaudzi 2012:30-38; Gross et al 2012:2; Mkhari & Mathibe-Neke 2016:2). Cultural beliefs and ideas about pregnancy can influence women to make a decision about when to start ANC or not to attend at all (Tran et al 2011:4; Ndidi & Oseremen 2010:49, 50).

Factors such as long waiting period, lack of ultrasound, Perceived knowledge about poorly skilled nurses and being turned away from the clinic were among the causes revealed as provider factors to early antenatal care in this study. The findings of this study were in agreement with the previous studies. For example, Solarin and Black (2013:364) on women’s antenatal care booking experience in inner-city argued that a large proportion of pregnant women attend ANC late and the reasons given was the delay by health care workers in the provision of care and 40% of them booked late because they were told they were still early in the pregnancy and they ended being booked in their third trimester. The study found that lack of resources such as ultrasound at public clinics was a provider barrier to early booking. The same finding was reported by (De Vaal 2011:11).

Occupation was also found as barrier to initiating ANC by two participants. One participant had to quit her job due to the employer refusing to provide time off to attend ANC and contributed to her booking late, at the same time it was interesting to the researcher to realise that the majority of the participants were unemployed but failed to book early. The same results were revealed in a study conducted by Mahwava et al (2014:75) that women who are employed are more likely to initiate ANC early compared to the unemployed women (OR=1.6 p=0.024). The results of a study conducted by Mkhari and Mathibe-Neke (2016:41) to explore the factors contributing to late antenatal booking around Thulamahashe local area, Mpumalanga Province also revealed that the majority of the respondents were not employed, but were predominantly housewives (n=105, 82.7%). Only (n=12, 9.4%) were civil servants and 7.9% were having personal businesses.
The results further revealed that perceived poor skills of midwives and shortage of prenatal supplements was a barrier to early booking for some participants. In general poor quality of services was a contributing factor to late booking. The results concur with the findings of De Vaal (2011:11) who revealed that pregnant women at Michael Mapongwana clinic booked late because of the perceived poor quality of care at that clinic.

Attending a general practitioner prior to booking at the clinic was also established in this study as a barrier to early booking at public health hospital. Three participants attested to this.

The results of this study revealed that sexual abuse like rape has a negative impact on antenatal care booking due to rejection of the pregnancy and would have terminated the pregnancy. The experience of this woman reflected the challenges faced by women who fall pregnant due to rape or incest. There was no literature that has mentioned rape as barrier to early booking previously.

The results also revealed that though some participants were living with HIV and already on Highly Active Antiretroviral Treatment (HAART) they did not see early booking as important, this was reflected by other participants who mentioned knowing their HIV status prior to falling pregnant and collecting treatment at the clinic monthly but were reluctant to book. This is supported by a study conducted by Haddrill and Rosalind (2012:978) which aimed to understand why some women delay accessing antenatal care, and ultimately to improve such access and outcomes.

According to Haddrill and Rosalind (2012:978), women of African origin living with HIV has a tendency to book late. The results revealed that lack of support from a boyfriend or partner influenced some participants to book late, these results are in agreement with findings of De Vaal (2011:10) on late booking at the Michael Mapongwana antenatal clinic, Khayelitsha - understanding the reasons, also concluded that lack of a supportive boyfriend was a barrier to early antenatal care. The study conducted by Osungdabe and Ayinde (2014:5) on maternal complication prevention in Southwest Nigeria stated that 32% of the respondents who booked late for antenatal care were single and lacked partner support. Unavailability of ANC services in mobile clinics was identified as having influenced some participants to book late.
The same results reflected the cost of travelling to a faraway clinic that delayed participants from booking for ANC early. It further indicated the inequalities of services provided in fixed clinics and mobile clinics in Mopani district. The results are supported by the findings from Ewnetu, Assegid and Wondafrash (2015:2) on factors associated with late antenatal care initiation in an Ethiopian clinic that revealed that longer travelling time and greater distance to health facilities in rural areas constituted the greatest factors to antenatal care utilisation. However in this same study participants staying within walking distance or those who paid less also booked late, this was in agreement with the findings of Mkhari and Mathibe-Neke (2016:41) to explore the factors contributing to late antenatal booking around Thulamahashe local area, Mpumalanga Province the majority of respondents (n=59, 46.5%) were at a walking distance. The results of the study further revealed that for some participants ANC was not a priority. This was mentioned by some participants who prioritised house chores and other responsibilities rather than booking for ANC early. This is supported by (Hatherall et al 2012:978) who revealed that “initial care-seeking by pregnant women is influenced by the perception that the package of antenatal care offered by the National Health Service is for viable and continuing pregnancies, as well as little perceived urgency in initiating antenatal care. This is particularly true when set against competing responsibilities and commitments in women’s lives and for pregnancies with no apparent complications or disconcerting symptoms. A study conducted in Uganda by Kawungezi, Akiibua, Aleni, Chitayi, Niwaha, Kazibwe, Sunya, Mumbere, Mutesi, Tukei, Kasangaki & Nakubulwa (2015:133) on attendance and utilisation of antenatal care (ANC) services stated that most women spend most of their 53% of their time caring for children, collecting water or fuel, doing household chores and trade than their own health concur with this study.

Lack of knowledge about the functions and systems of the Department of Health had influenced some participants to book late as they had to move from Gauteng Province to Limpopo to book for ANC as they are originally from Limpopo province thinking that they will not be welcome to deliver in Limpopo if they did not book in this Province.

4.7 CONCLUSION

Chapter 4 presented the analysis, the results and interpretation of the results. The themes developed were presented and interpreted including direct quotations from participants.
Chapter 5 presents the summary, conclusions, limitations and recommendations to address challenges of late antenatal care booking.
CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION
Chapter 5 presents the purpose of the study, objectives, and research methods, overview of the results, conclusion based on research objectives, recommendations, limitations of the study, future research and conclusions.

5.2 PURPOSE OF THE STUDY
The ultimate aim of the study was to explore and describe the factors contributing to late antenatal care booking in Mopani District public health facilities in order to recommend strategies to address the identified factors.

5.2.1 Objectives

- To explore and describe the factors contributing to late antenatal care booking in Mopani district.
- To recommend strategies to address the identified factors contributing to late antenatal care booking in Mopani district.

The research question was:

- What are the factors contributing to late antenatal care booking in Mopani District?

5.3 STUDY METHODS
The researcher obtained the ethical clearance certificate from the UNISA Higher Degree Ethics Committee prior to conducting the study (Annexure1). Permission to conduct the study was granted by the Research Ethics Committee of Department of Limpopo, Department of Health and approval was granted by the District Executive Manager of Mopani District (Annexures 3 and 4) respectively.

In-depth interviews were conducted with twenty-one pregnant women who booked after 12 weeks of gestation through the use of an interview guide. The study was conducted in
four public health facilities rendering 24 hours services in Mopani District of Limpopo province.

5.4 CONCLUSIONS BASED ON THE FINDINGS

The results presented in chapter 4 indicated that the objectives of the study were achieved, which were to: Explore and describe the factors contributing to late antenatal care booking at Mopani District and to recommend strategies to address the identified factors.

WHO (2016:52) recommends ANC booking to commence before 12 weeks of gestation, the results of this study indicated a mean gestational age of 18.2 weeks which cannot be described as borderline late booking. Delay in accepting the pregnancy was another theme associated with late booking in this study, which concurs with (De Vaal 2011:11). Ignorance of the ideal time to book was evident in this study and concurred with previous literature. Matyukira and Roos (2014:67) on reasons given by late bookers revealed that 31.4% was not aware of when to begin antenatal care.

The study further indicated that the majority of participants understood the benefits of antenatal care however they were not sure about the ideal time to initiate it. Few participants indicated that booking should happen at three months. The recommendation from the Maternal Care Guideline say that women should visit the health care facility as soon as she suspects pregnancy, even as early as they miss the first menstrual period (DoH 2015:34).

Personal factors contributing to late antenatal care such as unplanned pregnancy was mentioned by many participants as the hindrance to early antenatal care booking as pregnant women will be denying the pregnancy symptoms or considering termination of pregnancy.

Religious and cultural beliefs influenced women to initiate ANC later than 12 weeks which is recommended by (WHO 2016:21). Religion was also identified to have an influence in women's decision to utilise services such termination of pregnancy, the subtheme established was that some participants considered TOP but could not undergo it due to religious beliefs. On the same note the results revealed that traditional beliefs and practices has an impact on the timing of initiating ANC, This highly corroborate with the evidence from the study by Ngomane and Mulaudzi (2012:30-38) and Gross et al (2012:2). Cultural beliefs and ideas about
pregnancy can influence women to make a decision about when to start ANC or not to attend at all (Kisuule et al 2013:2; Tran et al 2011:4; Ndidi & Oseremen 2010:49, 50).

The study further found that visiting a general practitioner (GP) prior to booking at the public clinic was preferred by some of the participants for various reasons including confirmation of pregnancy, consultation for other ailments and for ultrasound. This practice indicates the trust some participants had to the private sector as compared with the public health sector.

Factors such as long waiting period and being turned away from the clinic were provider factors leading to women booking late, the same findings were from a study conducted in Nigeria by Sanda (2014:103) on media awareness and utilization of antenatal care services by pregnant women in Kano State which confirms that unfriendly attitude by health care workers discourages pregnant women to start antenatal care earlier and also made them lose faith in modern medical services, they resorted to traditional sources which they believe are more available and more friendly and later attend clinics at advanced stages. Another study confirming these findings was conducted by Mkhari and Mathibe-Neke (2016:57) while exploring the factors contributing to late antenatal booking around Thulamahashe local area, Mpumalanga Province that reported that clinic operating hours and long waiting time contributed to late antenatal care booking.

Although some participants were living with HIV and already on HAART they did not see early booking as a priority, this was reflected by other participants who mentioned knowing their HIV status prior to falling pregnant and collecting treatment at the clinic monthly but were reluctant to book. This was further supported by the findings of a study conducted by Haddrill and Rosalind (2012:978). The aim of the study was to understand why some women delay accessing antenatal care, and ultimately to improve such access and outcomes. The sample comprised of pregnant women living with HIV, however the results showed that pregnant women of African origin living with HIV had a tendency of booking late.

Lack of support from a boyfriend or partner influenced some participants to book late, these results are in agreement with results from De Vaal (2011:10) on late booking at the antenatal clinic at Khayelitsha, the study further concluded that lack of a supportive partner was a barrier to early antenatal care. According to the study conducted by
Osungdabe and Ayinde (2014:5) on maternal complication prevention: evidence from a cross-control study in Southwest Nigeria stated that 32% of the respondents who booked late for antenatal care were single and lacked partner support. In trying to understand how the cost of travelling to a faraway clinic delayed participants from booking early, travelling long distance was associated with late booking as a result of unavailability of ANC services in mobile clinics which compelled pregnant women to raise funds in order to visit fixed clinics. It further exposes the inequalities of services provided in fixed clinics and mobile clinics in Mopani district. The results are supported by the findings from Ewnetu et al (2015:2) on factors associated with late antenatal care initiation in an Ethiopian clinic that revealed that longer travelling time and greater distance to health facilities in rural areas constituted the greatest FACTORS to antenatal care utilization. However, in this same study participants staying within walking distance or those who paid less also booked late, this was in agreement with the findings of Mkhari and Mathibe-Neke (2016:41) to explore the factors contributing to late antenatal booking around Thulamahashe local area, Mpumalanga Province the majority of respondents (n=59, 46.5%) were staying at a walking distance to the clinic.

Some participants thought ANC was not a priority in pregnancy management. The same findings were identified by Kawungezi et al (2015:133) on attendance and utilization of antenatal care (ANC) services who stated that most women spent 53% of their time caring for children, collecting water or fuel, doing household chores and trade than their own health. This is supported by (Hatherall et al 2012:978) who revealed that “initial care-seeking by pregnant women is influenced by the perception that the package of antenatal care offered by the National Health Service is for viable and continuing pregnancies, as well as little perceived urgency in initiating antenatal care.

Occupation was also found as a negative factor to initiating ANC in some participants, one participant had to quit her job due to the employer refusing to provide time off to attend ANC and contributed to her booking late, at the same time it was interesting to the researcher to realise that the majority of the participants were unemployed but failed to book early. The same results were revealed in a study conducted by Mahwava et al (2014:75) that women who are employed are more likely to initiate ANC early compared to the unemployed women (OR=1.6, p=0.024).
Perceived poor skills of nurses and shortage of prenatal supplements was another contributing factor to late booking for some participants. The results concur with the findings of De Vaal (2011:11) who identified that some pregnant women booked late because of the perceived poor quality of care at that clinic.

5.5 RECOMMENDATIONS

Based on the findings of the study, the researcher recommends the following strategies to address the identified factors contributing to late antenatal care booking in Mopani district.

The South African Nursing Council (SANC) should review the curriculum of basic midwifery to include psychosocial aspects of maternity care such as respectful maternity care to equip midwives with the necessary skills of caring for pregnant women and their families.

The Department of Health should implement the following:

- Strengthen reproductive health information including contraceptive services through various media platforms such, radio talks, television, pamphlets, IEC materials written in local languages.
- Ensure that the indicator to monitor late booking is aligned with current maternal care guidelines and WHO’s (2016) guidelines which regards early booking as less than 12 weeks and not less than 20 weeks as indicated in District Health Information System (DHIS).
- Promote preconception services at all clinics to ensure women and their partners are educated on the importance of early booking prior to conception.
- Consider appointing and training Ward Based Outreach Teams (WBOTS) on key messages to raise awareness on early antenatal care booking as these cadres are able to reach people at household level.
- Roll out the ideal clinic realisation that promotes fast-queue for pregnant women to reduce patient waiting time.
- Ensure constant supply of prenatal supplements in public health facilities should be prioritised as it has a potential to regain the trust of pregnant women in the public sector.
- Ensure that mobile clinics have enough midwives and appropriate equipment to
ensure that ANC is provided in the far to reach areas including farms.

- Introduce prenatal classes and encourage birth companionship to allow pregnant women to have support throughout their pregnancy and during labour.
- Training health care providers on “workers for change” workshop will improve the patient-nurse relationships by changing the negative attitude of nurses.
- Ensure availability of ultrasound services at health centre level has a potential to reduce late booking at public facilities
- Conduct regular updates to midwives on basic antenatal care (BANC) and essential steps in managing obstetric emergencies (ESMOE) will improve the midwifery skills.
- Ensure provision of psychological support to women with unplanned pregnancies due to various reasons including rape will reduce stigma and subsequent hatred to the pregnancy.
- Involvement of men in sexual reproductive health campaigns (men’s forums) will raise awareness about the support needed by women while they are pregnant.
- Strengthen integration of family planning in the ARV-site to ensure that HIV positive patients prevent unwanted pregnancies.
- Inclusion of contraceptive service in the package of integrated school health services will provide opportunity for youth to use contraceptives and avoid unplanned pregnancies and promote studying.
- Roll-out of youth-friendly services to all public facilities will attract pregnant youth to book early.
- Ensure that antenatal care is provided daily to ensure that pregnant women attend ANC their convenient time.
- Strengthen provision of different modalities of contraceptives will offer variety of options to women of child bearing age with subsequent prevention of unplanned pregnancies.
- Encouraging pregnant women already registered on mom connect to share the benefits of this service with people at community level including other pregnant women will encourage others to book early in order to receive the same benefits.

Operational managers of clinics should:

- Conduct regular client satisfaction survey to evaluate quality of antenatal care
provided to pregnant women.
- Ensure adequate supply of essential drugs needed for pregnant women.
- Ensure the implementation of ANC classes and birth companions for pregnant women.
- Conduct audits of ANC cards and provide mentorship to poorly skilled midwives.

Health care providers should do the following:

- Treat pregnant women with respect and dignity.
- Implement fast queue for pregnant women to reduce long waiting period.

5.6 LIMITATIONS OF THE STUDY

- Due to limited resources the researcher conveniently sampled accessible facilities and this might have limited the information obtained as geographical area can also influence the timing of initiating ANC.
- The study was conducted in four out of 105 clinics of Mopani District making it difficult to consider the results as being transferable to other settings.
- Inability of the researcher to speak Shona affected the communication with one participant and led to the use of the participant's relative as an interpreter.

5.7 FUTURE RESEARCH

- Future qualitative studies exploring the enablers and FACTORS to early antenatal care booking in other public health facilities within Mopani District.
- A repeat study within the same facilities after 3 years to assess the impact of the recommendations made in this study in improving early ANC booking.

5.8 CONCLUSION

Chapter 5 summarised and discussed the results of this study. The objective of the study was to explore and describe the factors contributing to late antenatal care booking at Mopani district and to recommend strategies to address the identified factors. The conclusions from the study have brought awareness into real life experiences of pregnant
women who book late. Personal and provider factors were explored and described. The identified gap is that there are few studies conducted about antenatal care booking in Mopani district. Recommendations based on the study findings to address the identified factors were made and limitations of the study were highlighted.
LIST OF REFERENCES


DoH see Department of Health.


WHO see World Health Organization.


ANNEXURES
Annexure 1: Ethical clearance certificate

RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES
REC-012714-039 (NHERC)
1 March 2017

HSHDC/670/2017
Mrs VJ Ragolane
Student: 5534-403-8
Supervisor: Dr JM Mathibe-Neke
Qualification: PhD
Joint Supervisor: -

Dear Mrs VJ Ragolane

Decision: Ethics Approval

Name: Mrs VJ Ragolane
Proposal: Causes of late antenatal care booking in Mopani District.
Qualification: MPCHS94

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted for the duration of the research period as indicated in your application.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on 1 March 2017.

The proposed research may now commence with the proviso that:
1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.
3) The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

4) [Stipulate any reporting requirements if applicable].

Note:
The reference numbers [top middle and right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Research Ethics Committee: Department of Health Studies.

Kind regards,

Prof L. Roets
CHAIRPERSON
roetsl@unisa.ac.za

Prof MM Moleki
ACADEMIC CHAIRPERSON
molekmm@unisa.ac.za
Dear Sir/Madam

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH

I, Ragolane Victoria Joyce, a student at UNISA for Masters in Public Health hereby request permission to conduct research at Tzaneen clinic, Sekgopo clinic, Namakgale B clinic and Kgapan clinic. The topic is “Factors contributing to Late Antenatal care booking in Mopani District”. I strongly believe that the results of the study will benefit those facilities, District and the entire Province.

Attached, please find the research proposal for your information and the ethical clearance certificate from Higher Degrees Committee of UNISA.

Data will be obtained from pregnant women attending antenatal care at the selected clinics. Participation is voluntary and confidentiality and anonymity will be maintained throughout the research process.

Correspondence may be done through the following contact details: Cell number 0782784784, email address: katlegojoyce@webmail.co.za. The research will be supervised by Dr JM Mathibe-Neke, and can be contacted on the following number during office hours 012 429 6443 or email mathijm@unisa.ac.za.

Kind regards

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

Ragolane VJ (Mrs)
Annexure 3: Request for permission to conduct research: Mopani District Office

Mopani District Office
Private Bag X608
Giyani
0826

Dear Sir/Madam

APPLICATION FOR PERMISSION TO CONDUCT RESEARCH

I, **Ragolane Victoria Joyce**, a student at UNISA for Masters in Public Health hereby request permission to conduct research at Tzaneen clinic, Sekgopo clinic, Namakgale B clinic and Kgapane clinic. The topic is “Factors contributing to Late Antenatal care booking in Mopani District. I strongly believe that the results of the study will benefit those facilities, District and the entire Province.

Attached, please find the research proposal for your information and the ethical clearance certificate from higher degrees committee of UNISA. Approval to conduct the study has been given by Limpopo Department of Health.

Data will be obtained from pregnant women attending antenatal care at the selected clinics. Participation is voluntary and confidentiality and anonymity will be maintained throughout the research process.

Correspondence may be done through the following contact details: Cell number 0782784784, email address: katlegojoyce@webmail.co.za. The research will be supervised by Dr JM Mathibe-Neke, and can be contacted on the following number during office hours 012 429 6443 or email mathijm@unisa.ac.za.

Kind regards

.........................
Ragolane VJ (Mrs)
Annexure 4: Permission from Department of Health, Limpopo Provincial Government to conduct the study

Enquiries: Latif Shamila (015 293 6650)  
Ragolane VJ  
UNISA  

Greetings,

RE: Causes of late Antenatal Care Booking in Mopani District, Limpopo Province

The above matter refers.

1. Permission to conduct the above mentioned study is hereby granted.
2. Kindly be informed that:-
   - Research must be loaded on the NHRD site (http://nhrd.hst.org.za) by the researcher.
   - Further arrangement should be made with the targeted institutions, after consultation with the District Executive Manager.
   - In the course of your study there should be no action that disrupts the services.
   - After completion of the study, it is mandatory that the findings should be submitted to the Department to serve as a resource.
   - The researcher should be prepared to assist in the interpretation and implementation of the study recommendation where possible.
   - The above approval is valid for a 3 year period.
   - If the proposal has been amended, a new approval should be sought from the Department of Health.
   - Kindly note, that the Department can withdraw the approval at any time.

Your cooperation will be highly appreciated.

[Signature]
Head of Department

[Date: 10/04/2017]
Annexure 5: Information and consent form

Dear participants

Title of the study: factors contributing to factors to late antenatal care booking in Mopani District

Introduction: My name is Victoria Joyce Ragolane. I am a registered student for a Master of Public health degree at the University of South Africa (UNISA) under the supervision of Dr M Mathibe-Neke, in the department of Health Studies.

Purpose of the study: To explore and describe the factors contributing to late antenatal care booking in Mopani district public health facilities. The study findings will help to identify gaps and strengthen early antenatal care booking and make recommendations to reduce maternal and child illnesses and complications. The findings will therefore guide Mopani district Department of health in addressing the related factors in order to save mothers and babies.

Costs: Your participation in the study will be free of charge. The study will only require limited time to answer the questions that will be administered by the interviewer during your antenatal care visit to the public clinic or hospital.

Rights of the participants: As a participant you have a right to agree to participate and to withdraw from the study. Refusing to participate will not prevent you from receiving the services. Personal identification information of participants will be kept confidential. Variables such as maternal age, parity, literacy level, employment status, religion will be measured during analysis and dissemination of results to stake holders.

Approval to conduct this study has been granted by the UNISA Higher Degree Ethics Committee and permission was granted by the provincial department of health and Mopani District Executive Manager. If you have any enquiries of your rights as a participant and the study, feel free to contact the supervisor, Dr JM Mathibe-Neke at 012 429 6443 during office hours.
The interview will take about 20-30 minutes to complete. All the information you provide will be kept confidential and will not be linked to your name.

Participation in this survey is voluntary and no imbursement will be offered to participants, however, we hope that you will participate in this survey since your experiences are important.

I___________________________________ have read and understood the content of this information and consent form.

I agree to participate in the study ______________

I do not agree to participate in the study __________

1 Name of participant _______________________________________

   Signature of participant ________________________ Date ___________

2 Name of interviewer _________________________________________

   Signature of interviewer _____________________ Date ____________
Annexure 6: Assent form

Warm Greetings!

My Name is Victoria Joyce Ragolane (researcher) and I am a student doing a research study at university of South Africa.

To be a part of this study you will need to fill in this form, to say that you want to take part in this study.

Statement of Agreement to Participate in the Research Study:

I hereby confirm that I have been informed by the researcher, ____________ (Victoria Joyce Ragolane), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: HSHDC/670/2017

- I have also received, read and understood the above information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, and responses will be included into a study report without using my name anywhere in the study report.
- I am aware that my voice will be recorded during the interview.
- In view of the requirements of research, I agree that the information collected during this study can be published
- I may, at any stage, drop out of the study, without discrimination.
- I have had enough opportunity to ask questions and (of my own free will) declare myself ready to take part in the study.
- I understand that important new findings developed during the course of this research which may relate to my participation will be made available to me.

________________________ ___________ _______ _________________________
I, _____________ (name of researcher) hereby 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 7: Interview guide

Topic: Factors Contributing to Late Antenatal Care Booking In Mopani District

A “Grand tour” question. When did you learn that your pregnant and when did you book for antenatal care and why then?”.

____________________________________________________________________
____________________________________________________________________

1 Was there anyone who encouraged you to book? If so, how are you related to that person?

____________________________________________________________________
____________________________________________________________________

2 Do you think it’s important for pregnant women to book for ANC and at what stage of pregnancy? If yes why? If no why?

____________________________________________________________________
____________________________________________________________________

3 What mode of transport do you use for the clinic visits and how much money does it cost you?

____________________________________________________________________
____________________________________________________________________

4 Who accompanies you to the clinic and what is your relationship with that person?

____________________________________________________________________
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

5 May you kindly describe the care you received during your ANC visits at this clinic?

____________________________________________________________________
Annexure 8: Confidentiality binding form

Research project: FACTORS CONTRIBUTING TO LATE ANTENATAL CARE BOOKING IN MOPANI DISTRICT

Agreement between …………………………………………………… the researcher and ………………………………………………………. the participant.

I, Victoria Joyce Ragolane, a student at university of South Africa pursuing Masters of Public Health will like to enter into a discussion relating to the issues pertaining to late antenatal care booking.

During the discussion the disclosure of confidential information may be necessary. To ensure that the disclosed information is treated in confidentiality it is here agreed as follows:

- Information may be used for authorised purposes only.
- Information disclosed hereunder will at all times remain the property of the researcher.
- The researcher shall not disclose information to any other party than UNISA Ethics Committee.
- The researcher shall not make commercial use of information during such time that it remains confidential.
- The researcher agrees to take steps reasonably necessary to protect the secrecy of the confidential information and to prevent it from falling into public domain or into possession of unauthorised person.

This confidentiality binding information constitutes the entire agreement between the researcher and the participant.

The researcher

________________________________________  the participant

________________________________________

Name                  Name

________________________________________

Signature             Signature

________________________________________

Date                  Date