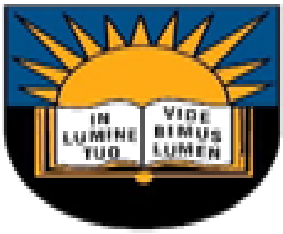

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BY

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MINI-DISSERTATION SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE: MASTERS OF PUBLIC HEALTH

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SUPERVISOR: PROFESSOR XT MALULEKE

DECLARATION

I, Kgalalelo Christine Montshiwa, hereby declare that the mini dissertation “Barriers to utilisation of antenatal care services in Bloemfontein, sub-district of Mangaung Metro, Free State, South Africa” submitted to the University of Fort Hare, Eastern Cape, is own independent work and has not been previously submitted by me or any other person to obtain credits or a qualification at any other institution. Where assistance was sought it has been adequately acknowledged. It is therefore the first time that this work is submitted at this university/faculty towards a Master’s Degree in Health Profession Education. Copyright of this document is hereby ceded to the University of Fort Hare.

03 March 2023

Kgalalelo Christine Montshiwa **Date**

DECLARATION ON ETHICS CLEARANCE

I, Kgalalelo Christine Montshiwa, student number 201928117, declare that I am fully aware of the University of Fort Hare's research ethics policy and have taken every precaution to comply with the regulations. Ethical clearance was granted from the University of Fort Hare's Health Research Ethics Committee (Reference Number #2021=06=06=MontshiwaKC) and permission to conduct the study was obtained from the Head of the Free State Department of Health Provincial office, before data collection.

03 March 2023

Kgalalelo Christine Montshiwa **Date**

DECLARATION ON PLAGIARISM

I, Kgalalelo Christine Montshiwa, student number 201928117, hereby declare that I am fully aware of the University of Fort Hare's plagiarism policy and have taken every precaution to comply with the regulations. All ideas and words that were inspired by other sources have been correctly and completely referenced.

03 March 2023

K**galalelo Christine Montshiwa** **Date**

DEDICATION

I here wish to dedicate this dissertation to my late mother, Seipati Margaret Moemedi, who was my pillar of strength and source of support. Her unwavering love and affection kept me focused; this would not have been possible without her sacrifices and prayers. To my daughters, Tsholofelo, Zandile, and my niece, Nthabeleng, family members and friends, thank you very much for your support and prayers. You have inspired me and helped me to attain my great desire to do my best in my education.

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LIST OF ACRONYMS AND ABBREVIATIONS

ANC	Antenatal Care
AIDS	Acquired Immune Deficiency Syndrome
ARVs	Antiretroviral Drugs
BANC	Basic Antenatal Care Plus
HIV	Human Immune Virus
IPT	Intermittent Preventative Treatment
PMTCT	Prevention of Mother-to-Child Transmission
PHC	Primary Health Care
RVD	Retrovirus Disease
SRH	Sexual Reproductive Health
STI	Sexually Transmitted Infections
SDG	Sustainable Developmental Goals
WHO	World Health Organisation
UNICEF	United Nations International Children's Emergency Fund

ABSTRACT

Background: Maternal and child mortality remain a global health problem, regardless of preventative measures put in place. Antenatal care is crucial to decrease maternal and child morbidity and mortality. However, in Bloemfontein, the sub-district of Mangaung Metro in the Free State, it has been identified that women utilise this kind of service sub-optimally. The study aimed to explore and describe barriers to the utilisation of antenatal care by pregnant women in the Bloemfontein sub-district of Mangaung Metro.

Methodology: This study was qualitative and used an explorative, descriptive design. Qualitative data was collected by using focus group discussions and key informants' interviews. Three focus group discussions with twenty-five pregnant and lactating mothers, aged between 18 and 49 years, were conducted. Participants took part in one focus group discussion at each healthcare facility. Four key informant interviews were conducted with four facility managers and one professional midwife who conducted ANC at the clinic at the time of the study in the three healthcare facilities. A thematic analysis process was used to analyse the collected qualitative data under each identified barrier. The STATA version 15 was used in the analysis of the demographic characteristics of the participants.

Results: Most of the participants indicated that they are aware of the importance of attending ANC appointments however, they have voiced that the delayed waiting times and staff attitudes contribute to how they feel about visiting a clinic early. Some of the participants mentioned that they have cultural barriers as they still believe that a traditional pregnant woman should not reveal her pregnancy in the early days but must rather wait until her stomach has grown significantly for her to visit the clinic. Two participants indicated that they had unplanned pregnancies and wanted to do an abortion, but their religious beliefs prevented them to choose to terminate their pregnancies. Economically, not all participants complained about their financial situation though the majority were unemployed and single. Participants from the Bloemspruit facility complained of transport as they stay far from the clinic and they are sometimes forced to walk alone which makes it difficult to attend all their booked sessions with their midwives.

Conclusion

The results of the study revealed that there are several factors contributing to late antenatal care attendance namely provider and personal factors contributing to late antenatal care attendance in the Bloemfontein sub-district of Mangaung Metro. Personal factors that were found to be contributing to late antenatal care booking were lack of transport, especially for Bloemspruit participants, unwanted pregnancy, lack of financial support, lack of partner support, cultural and religious beliefs, and lack of knowledge. Provider factors that were found to be contributing to late booking were lack of resources like tools of the trade, long waiting times, poor infrastructure, human resources, and midwives' attitudes.

Recommendations.

To deploy qualified midwives to conduct antenatal care clinics, to extend the service over the weekends as participants mentioned that they struggle to get time off from work during the week. Health promotion and community awareness campaigns on the importance of antenatal care may increase the utilisation of antenatal care services.

Keywords: ANC, barriers, postnatal, utilisation, accessibility, factors affecting and perceived barriers.

CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 Introduction

Pregnancy is a stage in women's lives where they need care and support from healthcare services and their families. Care and support from as early as possible, because pregnancy is a period of important physical and emotional changes. Regarding healthcare services, all pregnant women need to start antenatal care early and regularly to get the care and support they need to stay healthy during pregnancy. All pregnant women need to access high-quality ANC services during pregnancy to ensure that the mother and the unborn baby remain healthy throughout pregnancy, (Lagadec, Steinecker, Kapassi, Magnier, Chastang, Robert, Gaouaou, & Ibanez, 2018).

Quality ANC services are important for the health of the mother and the development of the unborn baby. It reduces the risk of adverse pregnancy outcomes, perinatal and postnatal complications, and infant mortality and morbidity. Quality ANC services provide well-planned programs for pregnant women and ensure that risky conditions are identified, and treated early and complications are prevented throughout the pregnancy and the birth of the baby. It is therefore important that all pregnant women attend ANC appointments and follow the program as planned for them (Alibekova, Huang & Chen, 2013). To ensure that all pregnant women receive quality care, the World Health Organisation (WHO) developed comprehensive recommendations on ANC for a positive pregnancy experience in 2016. These recommendations are goal-oriented and deliver evidence-based interventions that focus on the quality and content of care. This has led to the development of maternal care guidelines in many countries, including South Africa (Lattof, Moran, Kidula, Moller, Jayathilaka, Diaz & Tunçalp, 2020). According to the ANC guidelines stipulated by the WHO, pregnant women are required to attend at least eight ANC visits. According to WHO 2016, the first ANC visit should be done already in the first

trimester, subsequently followed by two visits in the second trimester and the last remaining five visits in the third trimester.

However, there are still many pregnant women globally who do not access ANC services. Data from 2020 suggests that only 87% of pregnant women had access to ANC services worldwide with very few of them that had their first antenatal visit in the first trimester or completing the recommended minimum of eight antenatal visits (UNICEF, 2021). Related challenges include inadequate quality of ANC services and non-attendance of the required number of ANC visits. These challenges contribute to the high increase in maternal mortality and morbidity in many low and middle-income countries. It is estimated that 25% of maternal deaths occur during pregnancy, with variability between countries depending on the quality of ANC services, the prevalence of unsafe abortion, violence, and diseases in the area. About 94% of these maternal deaths occur in low and lower-middle-income countries (WHO, 2019). Almost half of the maternal deaths were due to preventable or manageable conditions. These include pre-eclampsia, eclampsia, and antepartum haemorrhage, which are directly related to inadequacies in the quality and attendance of ANC during pregnancy. These conditions could have been prevented or managed during pregnancy if all pregnant women attended and received quality ANC services (Geller, Koch, Garland, MacDonald, Storey & Lawton, 2018). Sub-Saharan Africa and South Asia continue to maintain the lowest number of women to access ANC services despite the guidelines made available to all member countries by the WHO (UNICEF, 2021). Evidence has shown that globally 86% of pregnant women access ANC with a skilled professional at least once, while 65% of these pregnant women attended at least 4 visits. Only 52% of pregnant women in sub-Saharan Africa attend at least 4 visits (Adedokum & Yaya, 2020).

Many countries, including South Africa, have adopted the WHO guidelines and recommendations on ANC for a positive pregnancy experience. Such an experience ensures that all women prioritise accessing the available quality ANC services early in their pregnancy and continue to attend until the date of delivery. The World Health Organization works hard to ensure they achieve the sustainable development goal (SDG) targets which require 90% of pregnant women to attend four or more ANC visits (WHO, 2022).

However, in many of these countries pregnant women still fail to make use of the available ANC services due to various reasons. According to Mutowo, Yazbek, van der Wath, and Maree (2021), pregnant women do not prioritise ANC appointments due to a few factors, such as barriers that are related to maternal healthcare providers and maternal healthcare users. These factors include disrespect from the healthcare providers, lack of resources at the healthcare facility, inadequate knowledge of the importance of ANC, fear of HIV testing, poverty, household responsibilities, lack of family support, cultural, and religious beliefs. Although all maternal services are free, various studies have shown that many women do not access ANC services as they are required to do according to South African guidelines. This threatens the likelihood to achieve the SDG goal. To achieve this goal South Africa needs to address these barriers so that women and girls can boldly access their right to healthcare (Erasmus, Knight, & Dutton, 2020).

In 2020, the global maternal mortality ratio was 152 deaths per 100 000 live births. This number proves an increase from 151 deaths per 100 000 live births in 2019 which points to an estimated 810 women dying each day due to pregnancy and childbirth complications that are preventable or treatable. These complications include infectious diseases and complications during or after pregnancy and childbirth. For every woman who dies due to pregnancy-related causes, many more suffer from morbidity, disabilities, and ill health that can last a lifetime. The arrival of the COVID-19 pandemic caused major disruptions to health services that have exacerbated such risks, particularly for the most vulnerable families.

1.2 Study background

More than 300 000 women globally die each year during pregnancy and childbirth, predominantly as a result of pregnancy and birth-related complications (Alkema, Chou, Hogan, Zhang, Moller, Gemmill, Fat, Boerma, Temmerman, Mathers & Say, 2016). Scientific evidence has shown that the low utilisation of ANC services is influenced by several factors such as low maternal education, teenage pregnancies, multi-parity, unplanned pregnancies, and cultural factors (Hamata, 2014).

ANC services are health services provided by skilled health professionals to pregnant women before their babies are born. These services have shown to reduce maternal mortality and morbidity rates in various countries as indicated by (Barasa, Wanjoya & Waititu, 2019). It is one of the four pillars of safe motherhood and this was corroborated in the study by (Aduloju, Akintayo, Ade-Ojo, Awoleke, Aduloju & Ogundare, 2016). ANC services aim to prevent healthcare problems that affect both the foetus and the mother and to ensure that each newborn baby has a good start in life. It is one of the strategies to reduce maternal and child mortality. It offers health information and services that can significantly improve the health of women and their infants evidenced in a statement by (Nuraini & Parker, 2005). According to the WHO statistics on SDGs reported in 2017, maternal deaths and the utilisation of delivery care by midwives showed improvement in the reduction of maternal deaths in many countries (WHO, 2017).

Disparities in the utilisation of maternal healthcare services have been reported in many low and middle-income countries, which in most cases are due to financial or socio-economic barriers. In various developing regions women die due to preventable complications. These complications are often identifiable and treatable but go unnoticed due to a lack of access or attendance at ANC clinics (Fagbamigbe & Idemudia, 2015). Some of the barriers experienced by pregnant women who attempt to access healthcare facilities for ANC services have been identified by previous studies. The barriers range from financial limitations, experienced or perceived absence of a major health problem during pregnancy, difficulties in reaching a government healthcare facility in rural areas, restrictions from a husband or mother-in-law to visit a healthcare facility, also led to perceived lack of information about ANC services, or are too busy in performing household chores, and had no prior experience of ANC visits in previous pregnancies, which led to pregnant women to believe there is a shortage of experienced staff and/or services at the local clinic or community healthcare center(CHC) and limited working hours of the healthcare facility (Wilunda, Scanagatta, Putoto, Montalbetti, Segafredo, Takahashi, Mizerero, & Betrán, 2017; Kim, Choi, Oh, Moon, You, & Woo, 2019; Chimatiro, Hajison, Chipeta & Muula, 2019).

All South African clinics and CHCs are required to provide ANC services at any time a woman visits the clinic. However, inadequate utilisation of ANC services among pregnant women continues to exist. Substantial progress has been made to consolidate and increase efforts to expand maternal services beyond survival and ensure women have a positive pregnancy experience still exists (WHO, 2016). At the start of the SDGs era in 2016, pregnancy-related preventable morbidity and mortality remained noticeably high (WHO, 2016).

Several studies have reported multifactorial barriers responsible for the utilisation of ANC services in healthcare facilities in Africa. These include financial limitations, experienced or perceived absence of a major health problem during pregnancy, difficulties in reaching a government health facility in rural areas, and restrictions from family members to visit a health facility (Barasa, Wanjoya, Waititu, 2015; Battaglia, 2008). Other barriers cited were a perceived lack of information about ANC services, busy household chores, lack of prior experience of ANC visits in previous pregnancies, inexperienced or perceived non-availability of staff and/or services at the CHC, and limited working hours of the healthcare facility. Healthcare providers were of the view that a low maternal education level affected attendance, despite women not identifying this as a barrier. Several studies indicate that a woman's education level is considered a factor that affects ANC visits because education increases women's power, autonomy, and capability to make decisions (Ebonwu, Mambauer, Uys, Wainberg, Medina-Marino, 2018). To avoid or minimize the likelihood of this maternal problem occurring, different maternal healthcare services are provided through ANC services and have been implemented to benefit the mother and child (Simkhada, van Teijlingen, Porte& Simkhada, 2008; Bloom, Wypij, & Gupta, 2001; Muyunda, Makasa, Jacobs, Musonda & Michelo, 2016).

Pregnant women, lactating mothers, and children receive free healthcare services at all levels of care in South Africa to ensure access to healthcare services. Furthermore, maternal guidelines have been developed to reduce maternal deaths and improve the health outcomes of pregnant women. ANC aims to ensure the best possible pregnancy outcome for women and their babies by screening for potential pregnancy complications. However, most women attend their first ANC visit late in their pregnancy. They did not honour their return for ANC follow-up appointments,

which lead to perinatal and maternal complications. Similarly, Mangaung Metropolitan (Metro) experiences the same challenges. The late start and inability to attend the required number of ANC visits during pregnancy contribute to the high number of maternal deaths in South Africa. The maternal mortality ratio was estimated at 119 deaths per 100 000 live births in 2017 which is still a long way to reach the SDG target of 70 per 100 000 by 2030 (Sibiya, Ngxongo, Reddy, Ghuman, Borg, O'Connor, Haffejee & Govender, 2018). More evidence indicated that in Mangaung among the births before arrival (BBAs) at the health facilities, about 12.5% of mothers did not attend the antenatal clinic (Dywili, 2018).

Taking all of this into consideration, the continuing poor attendance and failure to meet the targets for ANC attendance at the district and Metro, provincial, and national, it was important to discover the reasons that prevent pregnant women from accessing the available ANC services in the Bloemfontein a sub-district of Mangaung metro.

1.3 Research problem

Antenatal care coverage in Bloemfontein, a sub-district of Mangaung, is low at the time of the study it was at 63.4% and the target 68%. Coverage was anticipated to be high as Bloemfontein is urban and facilities are near the communities. However, the targets were low, thus the researcher developed an interest to investigate the problem. It was further identified that Thabo Mofutsanyane district in the Free State, which is also one of the districts although it was not under the study was 63.7% and Mangaung Metro which was part of the study are among the worst performing districts in the country on antenatal 1st visits before 20 weeks while Xhariep is one of the best ten districts in the country at 74%. (Free State Department of Health annual performance plan, 2018). Pregnant women attend antenatal care services late, mostly starting during the second and third trimesters, and do not attend the follow-up ANC appointments. Some do not even register for ANC throughout their pregnancy and only visit the healthcare services during labour or after delivery as born/birth before arrival. Pregnant women tend to only seek professional help when complications arise during pregnancy or labour (Free State Department of Health Annual performance plan, 2018).

The low antenatal care coverage leads to challenges in the implementation of programs such as the (PMTCT) of Human Immunodeficiency Virus and Intermittent Preventive Treatment (IPT), which targets pregnant women. This may lead to an increase in HIV-positive newborns and maternal deaths. The barriers that contribute to the low utilisation of ANC healthcare facilities in the Mangaung Metro are unexplored. Therefore, the present study is designed to explore the underlying barriers to the utilisation of ANC healthcare facilities in the Bloemfontein sub-district. Such information is important to inform intervention strategies to improve the uptake of ANC healthcare facilities in the setting.

1.4 Significance of the study

The findings of the study may unravel the underlying socio-cultural, economic, and health knowledge related to ANC services and institutional barriers to the utilisation of ANC healthcare facilities in the Mangaung Metro. This information will be useful to inform policies in the formation of strategies to improve the uptake of the utilisation of ANC services in the sub-district and Mangaung Metro in general.

Maybe the recommendations when implemented may assist community healthcare workers who are used widely in primary healthcare re-engineering to develop strategies that could encourage pregnant women to attend ANC visits.

The outcomes as identified by the study objectives on provider factors to handle long waiting times and attitudes of nurses including infrastructure, knowledge on educating the community on the importance of antenatal care services, socio culture, to embrace different cultures that are being served at health facilities and economic factors, for having facilities which are near to the people, especially Bloemspruit and the demarcation to be reviewed also taking into account that the community is growing, may assist the Department of Health to improve the maternal and neonatal health as well as increase the ANC visits coverage among pregnant women, thereby increasing maternal health outcomes for mothers and their babies.

1.5 Aim of the study

The study aims to explore and describe barriers to the utilisation of antenatal care by pregnant women in the Bloemfontein sub-district of Mangaung Metro.

1.6 Objectives of the study

The objectives of the study were:

i. To explore the socio-cultural barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.
ii. To explore the economic barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.
iii. To explore health knowledge-related barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.
iv. To explore health institutional-related barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.

1.7 Research questions

- What are the underlying socio-cultural barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of Mangaung Metro?
- What are the underlying economic barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of Mangaung Metro?
- What are the underlying health knowledge-related barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of Mangaung Metro?
- What are the underlying health institutional related barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of Mangaung Metro?

1.8 Definitions and operationalisation of concepts

Antenatal Care (ANC) is defined by the World Health Organisation as the care provided by skilled healthcare professionals to pregnant women and adolescent girls to ensure the best health conditions for both mother and baby during pregnancy (WHO, 2016). For this study, the WHO definition is adopted and was used as defined above.

Antenatal care services are defined as medical care and procedures that are carried out for pregnant women. These include risk identification, prevention and management of pregnancy-related or concurrent diseases, and health education and health promotion (Ekabua & Njoku, 2011). In this study, the definition was used as defined above.

Barriers are defined as contributing factors that prevent pregnant women from using antenatal care services (Fabgamigbe & Idemuhdia, 2015). In this study, the term barrier also refers to limited access to utilise antenatal care services (Chhetri, 2015).

Utilisation in this study refers to the number of times that pregnant women make use of the service during their pregnancy.

1.9 Organisation of the study

This study is structured as follows:

CHAPTER ONE

Chapter one outlines and highlights the introduction of this study, the problem statement, the purpose of the study, the specific objectives related to the study, the research questions and significance of the study, delimitations and limitations, and lastly operational keys.

CHAPTER TWO

Chapter two is a literature review that indicates specific literature under investigation as per phenomena, global statistics indicate concerning causes of maternal deaths, attitudes, knowledge, socio-economic factors, and healthcare-associated with sociocultural factors.

CHAPTER THREE

This chapter discusses the research design, study setting, population and sampling, method of data collection, validity and reliability, analysis of data, and ethical considerations and measures used to ensure trustworthiness. In the process, the chapter constantly demonstrates the connection between appropriate research methods and the research objectives.

CHAPTER FOUR

Chapter four presents and discusses the findings of the study, linking the literature reviewed to the findings.

CHAPTER FIVE

Presentation of the study summary, limitations, conclusions, and recommendations based on the study findings.

1.10 Summary

Chapter one provides the background and orientation to this research study on barriers to the utilisation of ANC services in the Bloemfontein sub-district of Mangaung Metro in the Free State. ANC is one of the good indicators of a positive pregnancy outcome, however poor utilisation thereof is responsible for the high maternal morbidity and mortality in many countries, particularly poor communities. Quality ANC services reduce the risk of adverse pregnancy outcomes, perinatal and postnatal complications, and infant mortality and morbidity. Discussions were held on the aims, research questions, objectives, and significance of the study. Global overview, sub-Saharan Africa, and the current place of study in Bloemfontein were discussed barriers. Operational key terms were also defined. An outlay of all five chapters was explained.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter two presents literature related to ANC, factors that affect the utilisation of ANC services, and barriers to the utilisation of ANC. These are discussed from a global, African, sub-Saharan African, South Africa, and Free State Province perspective. The review of the literature focused on the four objectives of the study as topics; looking at global and national context, and the gaps that exist in the literature on the following:

- Socio-cultural barriers to utilisation of ANC services
- Economic barriers to utilisation of ANC services
- Health-related knowledge barriers to utilisation of ANC services
- Institutional barriers to utilisation of ANC services

The following electronic search databases were used: Google Scholar, Science Direct, Scopus, EMBASE, ERIC, Medline, Web Science, EBSCO host, PubMed, BIOMED Central, and African Journal Online. The basic search phrases that were included were: "antenatal care services" OR "barriers" OR "socio-cultural" OR "economic" OR “institutional” OR "pregnant women". Only peer-reviewed and relevant documents published in English were retrieved for review.

2.2 ANC worldwide

ANC is regarded as the most important service in healthcare that all pregnant women should have full access to. Full access, which can only be achieved by ANC clinics that respond to the needs of pregnant women, assesses the growth of the foetus, provides the required immunizations and tests for relevant conditions, address multiple conditions directly or indirectly related to pregnancy, and provide the required information and advice on pregnancy, childbirth and the postnatal period, including newborn care to pregnant women. The most effective way for ANC

clinics to do this is through the integration of programs and the availability of healthcare providers that have a wide range of skills (UNICEF, 2021; Lincetto, Mothebesoane-Anoh, Gomez & Munjanja, 2016).

A study conducted by Uldbjerg, Schramm, Kaducu, Ovuga, and Sademann (2020), suggests that ANC not only saves lives but is critical to improving the health status and quality of life of the family and community at large as women are the backbones of many families. The death of one woman leaves many health-related challenges and poverty in a family, particularly in the sub-Saharan region. Sub-Saharan Africa is carrying the largest portion of maternal deaths at 62%, an average of 510 deaths per 100 000 live births, and a lifetime risk of one out of thirty-six for a woman to die of maternal health causes (Namasivayam, Gonzalez, Delgado & Chi, 2017). Many programs and projects have been developed at different stages to try and address the burden of maternal mortality worldwide. All these programs and projects identified access to quality ANC by pregnant women to be the main preventative measure of maternal and neonatal deaths.

In the past decades, the WHO recommended that pregnant women should have four ANC visits during the period of their pregnancy. These were meant to assist member countries to ensure that no pregnancy causes harm to the mother and to keep the unborn child healthy during the antenatal period. During this period, pregnant women should also receive health education. However, due to the increased maternal and infant mortality rates in 2016, the WHO (2018) revised the recommendations and increased the ANC visits to eight visits for the entire pregnancy (WHO, 2018). Despite all these efforts, studies on ANC attendance show good and poor coverage in different regions of the world. It is estimated that six out of 10 mothers worldwide begin ANC in their first trimester. About 70% begin ANC in their first trimester in South Asia, Northern Africa, and other developing countries (Raynes-Greenow, 2017). In 2017 reports showed that only 52% of women attended at least four ANC visits. In sub-Saharan Africa, women attended four antenatal visits (UNICEF, 2017).

The utilisation of ANC services, according to the WHO guidelines, remains a challenge worldwide and maternal mortality continues to be a public health concern, hence its inclusion in the Sustainable Development Goals (SDGs) Framework of

2015. The SDGs' target 3.1 indicates that by 2030 the global maternal mortality ratio should be reduced to less than 70 per 100 000 live births. Target 3.2 indicates that by 2030 preventable deaths of new-borns and children under 5 years of age must have ended, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 livebirths and under-5 mortalities to at least as low as 25 per 1000 livebirths (Moller, Petzold, Chou & Say, 2017; United Nations, 2015). Many countries worldwide are working harder to achieve these SDGs.

2.3 ANC IN SUB-SAHARAN AFRICA

Estimates show that the regions with low rates of early ANC coverage have high maternal mortality. These regions were sub-Saharan Africa and Oceania with coverage of less than 25% in the year 2013 and high death rates during pregnancy and childbirth, stillbirths including infant mortality. Therefore, early ANC visits have the potential to improve pregnant women and children's health outcomes (WHO, 2022). Selebano & Ataguba (2021) mentioned in their study that although many countries are making progress toward achieving the global SDG targets, sub-Saharan Africa (SSA) is still lagging in meeting some of the set targets. The SSA bears the brunt of a relatively higher burden of maternal morbidity and mortality than other regions despite existing cost-effective interventions, which is also evident in this study where ANC services are offered for free and yet there is little improvement in the uptake of women using this service. Selebano & Ataguba (2021) did research that assessed antenatal care (ANC) service utilisation among women in the Southern African Development Community (SADC) countries, one of the four SSA regions. Specifically, it assessed socio-economic inequality in the number of ANC visits, use of no ANC service, between one and three ANC, visits, and at least four ANC visits, previously recommended by the World Health Organisation (WHO).

2.4 ANC IN SOUTH AFRICA

In South Africa, the KwaZulu-Natal province reported that most women attended the antenatal clinic during their pregnancy, and 84% reported starting ANC in their first trimester (Horwood, Haskin, Vermaak, Phakathi, Subbaye & Doherty, 2015). According to Bamford (2013), most of the women are from rural and urban areas and

equally attend ANC visits. However, most initiated ANC late with less than 50% initiating at or before 16 weeks of gestational age. In a country faced with a high HIV/AIDS disease burden, early ANC initiation is crucial as it facilitates early HIV testing and subsequently, early ART initiation for eligible women. In a study conducted in South Africa by Cleary, Birch, Chimbindi, Silal, and McIntyre (2013) on the investigation of affordability, they discovered that unemployed women may be attending late due to the lack of affordability for transport and buying food which is related to visiting the clinic, despite the actual healthcare service being provided for free in South Africa for both mother and child. Transport has been identified as the biggest cost of ANC in the South African context. In their research in Mbombela municipality in Mpumalanga on the attitudes of pregnant women towards ANC services provided in primary healthcare (PHC) facilities (Drigo, Luvhengo, Lebese, & Makhado, 2020) stated that the lack of information and knowledge about sexual and reproductive health (SRH) and rights, contribute to women to delay or avoid attending ANC services. A contradictory statement was highlighted in the findings of a study conducted in Mpumalanga and Kwazulu-Natal according to the Executive Summary Amnesty International in 2014. Pregnant women had not received information about the importance and values of attending ANC in PHC facilities. Furthermore, it was stated that for many women, fear related to the lack of privacy and confidentiality within the PHC facilities often resulted in the unwillingness and not looking forward to visiting their local healthcare facilities. For this reason, they become reluctant to access healthcare facilities, which leads to delays in seeking ANC services. This is corroborated by Kaswa, Rupesinghe, and Longo-Mbenza (2018) who explored pregnant women's perspectives of late bookings of ANC services at Mbekweni CHC in the Eastern Cape Province of South Africa**.**

2.5 WORLDWIDE FACTORS ASSOCIATED WITH THE UTILISATION OF ANC SERVICES

In the past decades, the WHO recommended that pregnant women should attend four ANC visits during the period of pregnancy. However, due to the increased maternal and infant mortality rates in 2016 the WHO revised and adapted the recommendations to eight visits for the entire pregnancy (WHO, 2016). Despite all

the efforts in 2017 reports indicated that only 52% of women attended at least four ANC visits in Sub-Saharan Africa (UNICEF, 2017).

About 70% of pregnant women start ANC in their first trimester in South Asia, Northern Africa, and other developing countries (Moller, Petzold, Chou & Say, indicated in Lancet Global Health, 2017). Estimates show that regions with low rates of early ANC coverage have high maternal mortality. The identified regions were Sub-Saharan Africa and Oceania with coverage of less than 25% in 2013. It was evident in the high death rate in pregnancy, childbirth, and stillbirths which included infant mortality. It was suggested that early ANC visits could be linked to women and children's health outcomes. In South Africa in the province of KwaZulu-Natal, most women reported attending the antenatal clinic during their pregnancy. 84% reported starting ANC in the first trimester of their pregnancy (Horwood, et al., 2015).

The utilisation of ANC remains a challenge and maternal mortality is still a public health concern hence its inclusion in the SDGs Framework of 2015 (United Nations, 2015)

2.6 FACTORS IN SUB-SAHARAN AFRICA ASSOCIATED WITH UTILISATION OF ANC SERVICES

Studies on the attendance of ANC appointments show good and poor coverage in different regions of the world. It is estimated that six out of 10 mothers worldwide start ANC in their first trimester. About 70% of pregnant women start ANC in their first trimester in South Asia, Northern Africa, and other developing countries (Moller, Petzold, Chou, Say, 2017). Estimates show that regions with low rates of early ANC coverage have high maternal mortality. Regions identified were sub-Saharan Africa, Somalia, Congo, Chad, Guinea, Nigeria, and Ethiopia as indicated by Adedokun, and Yaya, (2020). It was evident in the high death rate during pregnancy, childbirth, and stillbirths including infant mortality in those regions. The author of the article suggested that early ANC visits could be linked to women and children's health outcomes. In South Africa in the province of KwaZulu-Natal, most women were

reported to attend the antenatal clinic during their pregnancy, and 84% are reported to start ANC in the first trimester (Horwood, et al., 2015).

The utilisation of antenatal care remains a challenge, and maternal mortality is still a public health concern hence its inclusion in the SDGs Framework of 2015 (United Nations, 2015).

2.7 FACTORS IN SOUTH AFRICA ASSOCIATED WITH UTILISATION OF ANC SERVICES

The first ANC visit is an important visit for a pregnant woman and their baby thus the whole consultation needs to be managed well. Women are vulnerable at this stage and their emotional well-being should be taken into consideration given different social backgrounds. Regardless of the progress made in the reduction of maternal deaths in South Africa, which were due to pregnancy-induced hypertension complications, the statistics remain high at 26 deaths per 100 000 live births in 2016. The South African health department modified its existing four visits ANC guidelines to align with the World Health Organisation (WHO) that made recommendations in 2016 for the amount of ANC visits. The recommendation of eight ANC contact sessions was implemented in April 2017 for all nine provinces in South Africa.

South Africa is a middle-income country with a population of more than 59 million (Mid-year population estimates, 2020). In 2017, sub-Saharan Africa had the highest estimated maternal mortality ratio worldwide at 542 deaths per 100 000 live births and stillbirths at 28.7 per 1000 total births estimated by several organizations (WHO, UNICEF, UNFPA, 2017). While progress has been made in sub-Saharan Africa, the SDGs and the United Nation's *Global strategy for women, children, and adolescents health (2016–2030)* seek to improve on gains and aim to reduce the global maternal mortality ratio to 70 deaths per 100 000 live births (WHO, UNICEF, UNFPA 2017). As stated by Koblinsky, Moyer, Calvert, and Campbell (2017), the availability of quality antenatal services is important to achieve these goals and improve the lives of both mothers and babies ANC is a key component of the continuation of care for women, babies, including their families, even in South Africa.

The nationwide scale-up of the utilisation of ANC services in South Africa introduced updated guidelines, Basic ANC Plus, which aims at the improvement of the quality of ANC through the provision of evidence-based interventions through the eight ANC visits. Out of the eight visits most were used during the third trimester. The collective aim was to improve pregnancy care, outcomes, and women's experiences, yielding an improvement in the screening and detection of pregnancy-related complications and, ultimately, to improve ANC quality for both mother and baby. The same sentiment was shared in a study conducted by Hofmeyr and Mentrop in 2015. The guidelines were introduced in all nine provinces in 2017 to curb maternal and neonatal mortality and morbidity which was on the rise, especially in the Free State. It was discovered that from 2007 to 2015 maternal mortality rate was 297.9 deaths per 100 000 live births, 214.6 deaths per 100 000 live births and 159 deaths per 100 000 live births are some of the rates recorded during this period. One death one too many, reports (Moodley, Fawcus, and Pattinson (2018). Accessibility of ANC was made possible for all pregnant women to access specialised services for free in all nine provinces of South Africa. However, under-utilisation is still experienced and still poses a threat to the possibility of a good outcome for both the mother and the baby. Barriers cited as a contributory factor by pregnant women to have access to all eight sessions as indicated. In this study, the barriers are explored by the researcher. As indicated in the district health barometer (2017/18), the first antenatal visit before 20 weeks was rated in 18 districts to be lower than the national average of 66.6%. Four of the five districts in the Free State were included in this number. Fourteen of the 18 districts were awarded a rate between 60.3% and 66.4%, three districts had rates around 59% and only Alfred Nzo in the Eastern Cape (EC) had a rate below 50% at 47.8%.

An integrated approach should be used so that detected problems can be managed. The following routine is recommended to be done during the first visit to the clinic: writing down the complete health history of the pregnant woman, clinical examinations, abdominal examination, counselling, HIV services, laboratory tests, and lastly health education. Health history is an important aspect and a key component to assessing a woman during pregnancy. By taking history into account the nurse midwife will be in a position to have a better understanding of her patient's challenges. It serves as a screening procedure for other illnesses which might be

noted and can be treated early to avoid potential future complications. The following should be taken into consideration: social and family history, personal history, past medical history, past surgical history, present medical history, and current medical history (Fawcett & Rhynas, 2012).

2.8 BARRIERS TO UTILISATION OF ANC SERVICES

Barriers are defined as factors that contribute to preventing pregnant women from using ANC services (Fabgamigbe & Idemuhdia, 2015). In this study, the term barrier also refers to limited access to utilise ANC services as defined by Chetri, (2015). This definition will be used as is in this study.

Antenatal care (ANC) utilisation has been regarded as one of the means to reduce the high maternal mortality rates in Sub-Saharan Africa as stated by Okedo-Alex, Akamike, Ezeanosike, and Uneke (2019) and Mekonnen, Dune, and Perz (2019). Adequate and timely ANC provides the opportunity for essential health tasks such as health promotion, screening and diagnosis, and disease prevention. Dulla, Daka, and Wakgari (2017) shared the same sentiments that it is a thorough healthcare assessment that helps to reduce the risk of stillbirths, preterm labour, and pregnancy-related complications. Therefore, women need to receive adequate and timely ANC services for a positive experience during their pregnancy. It is a global aim that all pregnant women should have a pleasant maternal experience.

In a study by Ragolane (2017) in the Mopani District of the Limpopo Province, the study explored, the barriers to the utilisation of ANC services amongst pregnant and found multiple factors that influenced access to ANC services amongst pregnant women. These include long waiting times, service-related barriers, socio-economic and socio-cultural barriers, and attitudes of healthcare workers. In this case, it was midwives who ran the clinic.

Studies exploring barriers to the utilisation of ANC have indicated that there are interrelated sets of barriers that affect the utilisation of ANC services, particularly in low and medium-economic countries (LIMIC). A study in Uganda suggested barriers to quality of care, long distances, lack of male partner support, lack of financial

resources, and cultural beliefs were cited by (Rumdrum, Oliffe & Brown, 2017). According to Lincetto *et al*, (2016) 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 acknowledged. In these cases, women continue to work hard and nutritional taboos may deprive them of essential nutrients, adding to potential nutritional deficiencies, particularly iron, protein, and certain vitamins.

Although some of the studies discovered that late (after 14 weeks of pregnancy) ANC bookings indicated that the decision to initiate ANC earlier depended on various factors such as the age of the mother, literacy, marital status, and cultural beliefs. This was highlighted by Gudayu, Woldeyohannes, and Abdo, (2014) as well as Banda, Michelo, and Hazemba (2012). Banda, *et al* (2012) revealed in their studies in Zambia that some women believed early ABC had no benefits. Ngomane and Mulaudzi (2012) found that indigenous beliefs influence the delayed attendance of antenatal clinics by women in the Bohlabela District in Mpumalanga. These included cultural beliefs as pregnancy needs 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. Cost is not considered a barrier as the clinic is freely available in South Africa. However, pregnant women still identified a series of barriers to attendance, including attitudes and socio-cultural beliefs, personal barriers, clinic factors, staff attitudes, and maternal education.

In a study that assesses the accessibility factors in a rural area, women did not initiate early ANC because of transport challenges due to lack of money and a long list of problems with the quality of the healthcare services (Nyathi, Tugli, Tshitangano & Mpofu, 2017). Financial problems were also noted as a barrier to the utilisation of maternal healthcare services in the Eastern Cape in South Africa by Tsawe and Susuman (2014) and Alabi, O'Mahony, Wright, and Ntsaba (2015). Similar findings were noted in Bangladesh, Cambodia, Cameroon, Nepal, Peru, Senegal, and Uganda (Saad-Haddad, DeJong, Terren, Restrepo-Mendez, Perin, Vaz, Holly, Amouzou, Barros, & Bryce, 2016).

Since 1994 the number of clinics that offer ANC services in South Africa has increased to improve access to healthcare services by all South Africans in both rural and urban areas. Maternity care, which includes the health of pregnant women, childbirth, and postpartum, is an integral component of primary healthcare and is provided without any costs (Department of Health, 2016). Despite the availability of ANC services in South Africa, the Bloemfontein sub-district experiences low uptake of the utilisation of ANC services (District Health Barometer 2018/19). South Africa has recorded high levels of ANC coverage. However, starting ANC later than 20 weeks of pregnancy remains a problem and has been documented in previous studies. A study conducted in an urban area in Zimbabwe by Mandoreba and Mokwena (2016) found that almost half of the women in the study initiated ANC late in their pregnancies, despite most of the women having secondary education and access to ANC services. In spite of everything there is still information lacking about women's ANC experiences who access it through public institutions.

Consulted literature on disrespect towards women displayed by nurses, was identified as having a negative effect on the utilisation of ANC services in Ghana and South Africa (Ganle, Parker, Fitzpatrick, & Otupiri, (2014); Tsawe & Susuman, 2014).

2.9 SOCIO-CULTURAL BARRIERS TO UTILISATION OF ANC SERVICES

There are problems identified which are closely related to socially vulnerable individuals (Victoria, Requejo, Barros, Berman, Bhutta & Boerma. 2015). However, the measures in place do not match the quality of services delivered during ANC visits as stated by Kanyangarara, Munos, and Walker (2017)**.** Studies that explore barriers to the utilisation of ANC indicated that there are interrelated sets of barriers that affect the utilisation of ANC services. A study in Uganda suggested that quality of care, long distance, lack of male partner support, lack of financial resources, and cultural beliefs were all cited as barriers by Rumdrum, Oliffe, and Brown, (2017). According to Lincetto, Mothebesoane-Anoh, Gomez, and Munjanja, (2016) 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 goes unacknowledged. In these cases, women continue to work hard and nutritional taboos may deprive them of essential nutrients,

adding to potential nutritional deficiencies, particularly iron, protein, and certain vitamins.

Cultural practices have a role in the determination of when a woman should start with ANC. It has been established in this study that some women do not start ANC early in their pregnancies as they wait for immediate family, husband as head of the family, mothers, or their mother-in-laws, to come and give them advice especially if it is their first pregnancy. The same beliefs were identified in a study conducted in Limpopo by Ragolane (2017). These beliefs lead to pregnancies being kept secret until it reaches three to four months when it is deemed to be safe to talk about their pregnancy status. These matched the findings of a study done by Dhaka, Van Teijlingen, Stephens, Dhakal, Simkhada, and Raja (2011) in Nepal that reported that women wait for their mother-in-laws to either give them advice or make the decision for them to start ANC. The belief that witchcraft could impact early pregnancy was reported to prevent women from starting ANC early in their pregnancy as most women were advised to hide their pregnancy and took traditional herbs to protect their pregnancy in its early stages. These findings support what was reported in a study by Ragolane (2017) in the Mopani district of Limpopo that most women were afraid to be bewitched if people were to discover that they were pregnant, especially during the early stages of pregnancy. Male involvement plays an important role in the encouragement of women to start ANC early in their pregnancy as some women do not start ANC early because their husbands refuse to accompany them. This has been corroborated by studies done in Malawi by Nyondo, Chimwaza, and Muula, (2014). Poor attitude of the healthcare workers prevents women from starting ANC early in their pregnancy. Disrespectful care has been reported in different settings and negatively impacts the quality of services as confirmed in a study done in Ghana, Kenya, and Malawi by Pell, Meñaca, Were, Afrah, Chatio, and Manda-Taylor, (2013). There was fear of judgment by their partners, school, friends, family, and community at large as two of the participants had already ended their relationship with their partners, while two other participants thought they will be judged by everyone because they were still in school.

2.10 ECONOMIC BARRIERS TO UTILISATION OF ANC SERVICES

Employment status was a huge factor that influenced unpleasant ANC visits which is consistent with previous findings as indicated in a study conducted in Rwanda by Manzi, Munyaneza, Mujawase, Banamwana, Sayinzoga, Thomson, and Ntaganira, (2014). Women who are employed might be more informed and have the financial independence to access healthcare, compared to unemployed women, as emphasized by Amo-Adjei and Tuoyire, (2016). Although some of the studies discovered that late ANC bookings, after 14 weeks of pregnancy, indicated that the decision to initiate ANC early in their pregnancy depended on many factors such as the age of the mother, literacy, marital status, and cultural beliefs (Gudayu, et al., 2014); Banda, Michelo & Hazemba, 2012). Banda *et al.,* (2012) in their study in Zambia revealed that some women believed early ANC had no benefits. Ngomane and Mulaudzi (2012) found that indigenous beliefs influenced the delayed attendance of antenatal clinics by women in the Bohlabela District in Limpopo. These included cultural beliefs as pregnancy needs to be preserved with herbs and pregnant women will initiate ANC late in pregnancy to put their names on registers in case they experience complications later on in their pregnancies. Cost is not a barrier as the clinic is freely available for maternal and child services in South Africa. However, pregnant women still identified the lack of finances as one of the barriers that keep them from accessing ANC in several studies conducted in different parts of South Africa (Nyathi, et al., 2017; Tsawe & Susuman, 2014; Alabi, *et al*., 2015).

2.11 EDUCATIONAL LEVEL OF PREGNANT WOMEN AS A BARRIER TO ANC

A study conducted in an urban area in Zimbabwe by Mandoreba and Mokwena (2016) found that almost half of the women in the study initiated ANC later on in their pregnancy despite most of the women having secondary education and access to ANC services. It is still not clear if it is due to the lack of formal education or the lack of information on the importance of ANC. Like in many communities, people with lower levels of education are often treated with disrespect. Women who experience disrespect are those with lower education. Hence, the disrespect towards women displayed by nurses has been identified by several studies as having a negative

effect on the utilisation of ANC services in various countries, including South Africa (Ganle, Parker, Fitzpatrick, & Otupiri, 2014; Tsawe & Susuman, 2014).

Since 1994 the number of clinics that offer ANC services in South Africa has increased to improve access to healthcare services by all South Africans in both rural and urban areas. Maternity care, which includes the health of a woman during pregnancy, childbirth, and postpartum, is seen as an integral component of primary healthcare service and is provided freely (Department of Health, 2016). South Africa has demonstrated high levels of ANC coverage. However, starting ANC later than 20 weeks of pregnancy remains a problem and has been documented in previous studies (District Health Barometer 2018/19). Despite the availability of ANC services in South Africa, the Bloemfontein sub-district of Mangaung Metro in the Free State province still experiences low uptake of the utilisation of ANC services. Although this is a rural area one cannot accept that women in this community have higher levels of education and would therefore not experience barriers related to their educational level.

2.12 HEALTH-RELATED KNOWLEDGE BARRIERS TO UTILISATION OF ANC SERVICES

Generally, women are overwhelmed by their pregnancy, especially if they conceived accidentally, they become shy and depressed to attend the clinic and even display depressive moods, and report fatigue all the time as the reason for not utilising ANC services. It is a common practice in most of the sub-Saharan region, as stated in other studies that were conducted in Kenya (Mason, Dellicour, & Ter Kuile, 2015). It was stated in another study done by Drigo, et al., (2020) in Mbombela, Mpumalanga Province 2020 that women have a fear to visit facilities as they are not sure whether nurses keep their diagnoses private and confidential. These women fear being stigmatized. This was corroborated by a study done in Malawi by Chigona (2018).

2.13 INSTITUTIONAL BARRIERS TO UTILISATION OF ANC SERVICES

Institutional barriers were mentioned when women were asked about the services they receive at healthcare facilities. Other studies have reported treatment

institutions where women work and the demand at work is a potential barrier to ANC utilisation (Kawungezi, AkiiBua, Aleni, Chitayi, Niwaha, and Kazibwe, 2015). A study conducted in Nigeria by Eke, Ossai, Eze, and Ogbannaya in 2021 indicated that the attitudes of healthcare workers contribute directly to institutional barriers and poor utilisation of ANC services. A study conducted in rural Tanzania found a strong relationship between the unavailability of healthcare institutions and maternal mortality. The lack of health institutions in pregnant women's local area makes it difficult for them to travel long distances to access their ANC services, which often leads to women accessing healthcare facilities when they already experience health complications. Sometimes they reach the facility too late to be saved (Hanson, Cox, Mbaruku, Manzi, Gabrysch & Schellenberg, 2015).

2.14 SUMMARY

ANC services and barriers that prevent pregnant women from different countries are discussed. In South Africa, ANC services are by law free to every woman and they should therefore feel free to attend and access it at any facility they wish to. However, different studies have pointed out some of the barriers that prevent pregnant women from attending these services. These studies provide evidence that barriers to the utilisation of ANC services are not only rooted in the individuals, but that there are various factors, including maternal healthcare providers related barriers, support system-related, cultural, and religious-related barriers, that hinder pregnant women to access ANC services. A multi-sector approach to enhance the utilisation of ANC services timely and regularly is recommended. This will assist different countries and healthcare facilities to meet their SDGs targets.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter outlined the perspective gained from various literature and documents on the context of barriers to the utilisation of ANC services. Chapter three deals with the research approach and methodology that was utilised to achieve the aim and objective of this study. It covers the research approach, study setting, population and sampling, method of data collection, the credibility of the study, analysis of data, and ethical considerations and measures used to ensure trustworthiness.

3.2 RESEARCH APPROACH

The study used the qualitative approach to explore and describe the underlying barriers to the utilisation of ANC services among pregnant women in the Bloemfontein sub-district. A qualitative research approach is a systematic collection, organization, and interpretation of textual information as indicated by Hammarberg, Kirkman, and de Lacey (2016). Furthermore, Goddard, & Melville, (2004) indicated that the inductive approach is used to generate insights and is expressed in language. It is often used in studies that aim to explore the meaning or further describe and promote an understanding of human experiences, such as in this study, where pregnant women could experience barriers in utilising ANC services (Creswell & Creswell, 2018).

3.3 Study design

Research design is defined by Polit and Beck (2017) as the plan for addressing a research question, including specifications to enhance the study's integrity. Polit and Beck (2017) went even further to say it is the investigation of phenomena, typically in an in-depth and holistic fashion, through the collection of narrative-rich materials that uses a flexible research design. The exploratory, descriptive, and contextual designs

were used. These research designs assist the researcher to explore the barriers to the utilisation of ANC service through focus group discussions (FGDs) with pregnant and key informant interviews (KIIs) with healthcare managers and professional nurses with midwifery who oversaw ANC services and answered the research questions. For this study report, this group is referred to as professional midwives.

3.4 Exploratory research design

The exploratory research design is useful to address a particular problem where there are high levels of uncertainty or when the problem is not well-understood and where there is very limited research on the subject matter. It also allows for rigor in qualitative research design (Rendle, Abramson, Garrett, Halley, & Dohan, 2019). Although the subject of barriers to the utilisation of ANC services by pregnant women has been explored by several researchers, very little of it was done in the Bloemfontein sub-district. A Study done by Ragolane (2017) in the Mopani district in Venda explored this subject among rural communities. Applying this research design in the Metropolitan area assisted the researcher to explore the barriers to the utilisation of ANC services by pregnant and post-natal women through focus group discussions with pregnant women and KII interviews with healthcare managers.

3.5 Descriptive research design

A descriptive research design refers to research studies in which phenomena are described or the relationships between them are assessed and more information is collected by describing the phenomena as explained by Burns & Grove, 2020 furthermore Polit & Beck (2012) describe the descriptive study design as a design that generates a hypothesis about the association between exposures and outcomes respectively and was set to describe the characteristics of groups that were being investigated. The goal of using this design in this study was to describe pregnant women's personal factors, socio-economic barriers, and healthcare services provision factors that prevent pregnant women from accessing and utilising the available ANC resources and services in the Bloemfontein Sub-District.

3.6 Contextual research design

A contextual research design entails exploring the study participants' natural environment and observing their behaviour or asking questions to find out more about the topic, their motivations, and how they perceived issues related to the topic of the study. It is a structured design that provides methods to collect data about participants in their area and to interpret and consolidate the data in a structured presentation. The contextual design takes considers the natural contexts in which individuals or groups function in order to provide an in-depth understanding of their experiences and challenges (Duda, Sabrina, Warburton, Carolyn, Black & Nissa. 2020). In this study the researcher chose to use the contextual research design because the study was conducted in a defined area - the ANC clinic where participants normally come for their ANC and postnatal check-ups in the Bloemfontein sub-district.

3.7 Study setting

A research setting is a location where a study is conducted (Burns, Grove & Gray, 2015). This study was conducted in the Bloemfontein sub-district of the Mangaung Metropolitan Municipality in the Free State Province. This land has an area of 6 284 square kilometers with a population of 598 000 as recorded in 2022 and a growth rate of 1.70% (STATSSA, 2022). The study was conducted in the primary healthcare facilities (PHC) in the Bloemfontein sub-district. There are 18 primary healthcare facilities, three public hospitals, and three private hospitals in this sub-district. Mangaung Metropolitan Municipality is comprised of four health sub-districts, namely Bloemfontein, Botshabelo, Naledi, and Thaba Nchu. This study was conducted at the Bloemfontein Sub-district of Mangaung Metro which is mainly urban with some pockets of rural areas. Like all urban areas in South Africa, Mangaung Metro has both developed and underdeveloped areas, including informal settlements.

The Metro has 313 set clinics and 122 mobile clinics. Many of these are located in Bloemfontein, Thaba Nchu, Naledi, and Botshabelo. Smaller towns have an average of between one to three clinics each. There are 36 state-owned hospitals and 26

private hospitals. All hospitals are located in Bloemfontein except for three which are in Thaba Nchu and Botshabelo. Out of the 18 PHC facilities that serve Bloemfontein sub-district, approximately 2510 pregnant women per annum, which translate to 70 pregnant women per month per facility and seven to nine pregnant women per day, use each of these facilities (DHIS Free State, 2018). Figure 3.1 illustrates the map of the Mangaung Metro to indicate the Bloemfontein health sub-districts (Local Municipalities). Google maps accessed June 2020.

Figure 3.1 From google maps. Map of the Mangaung Metro showing the different health sub-districts (Local Municipalities)

The health facilities offer ANC and six weeks of postnatal services. Some do not conduct deliveries, except in emergencies. Deliveries are routinely conducted in the PHC facilities that operate for 24 hours per day and seven days per week. For this study the Bloemfontein sub-district was selected because Bloemspruit is consulting

eighty-five (85) pregnant women per month, Gateway's headcount amounts to twenty-eight (28) ANC visits per month, whilst MUCPP which is a CHC is having a head count of seventy-eight (78) women who visit for their ANC and operates for 24 hours per day.

3.8 Population of the study

In research, the population is described as the number of participants the researcher is interested in (Polit & Beck, 2012). In this study, the target population was pregnant women that come for a follow-up visit and mothers that came for their six weeks check-ups, aged between 18 to 49 years that visited the PHC facilities in the Bloemfontein sub-district during the period of the study. These pregnant and lactating women were targeted because they are aware of what could facilitate or delay their access to ANC services. Although key informants are usually not considered to be the target group, they provide information about the participants that can assist the researcher in better comprehending the experiences of the target group. In this study, the PHC facility manager and professional midwives who provided the ANC services in the Bloemfontein sub-district were included as the researcher was of the meaning that the key informants could offer more reliable information to the study.

3.9 Sampling

Sampling is a process to select participants who will take part in a study (Burns & Grove, 2020). A two-stage sampling technique was applied to select pregnant women. Firstly, purposive sampling was used to select the three PHC facilities (one CHC and two clinics) namely Bloemspruit clinic with 85 headcounts, Gateway clinic with 28 headcounts, and MUCPP CHC with 78 headcounts. This health center and two clinics were selected because of their headcount of ANC patients in their records per month, provision of both antenatal and postnatal care, and that the health care center operated for 24 hours every day of the week. Secondly, purposive sampling was used to select pregnant women and mothers respectively who came for their antenatal care and six-week postnatal care check-up. The patient register at the PHC facility was used to select participants. The selected participants were pregnant

and post-natal women aged between 18 and 49 years who attended antenatal and postnatal clinics in the three selected PHC facilities (Gateway clinic, Bloemspruit clinic, and MUCPP CHC). For the KIIs, the PHC facility manager and professional midwives in charge of the ANC services were requested to participate in the study and agreed.

3.10 Sample size

The size of a sample in a qualitative approach is dependent on the data collection methods and data saturation (Vasileiou, Barnnet, Thorpe & Young, 2018). However, the researcher must ensure that the sample size is large enough for the qualitative analyses as mentioned that a larger group gives more rich data (Morse. 1991). In this study, the target sample size was 30 participants that consisted of equal numbers of ANC and postnatal care patients. The researcher purposively selected and requested 30 women from the PHC facilities to take part in the study. At the end of briefing sessions, that were held to inform the women about the study, only 25 women gave their consent to participate in the study as indicated in Table 3.1.

Table 3.1: Distribution of the study sample

PHC facility	Number of pregnant women	Number of postnatal women	Number of professional midwives
Bloemspruit clinic	6	2	1
Gateway clinic	7	3	1
MUCPP CHC	7	0	2
Total	20	5	4

Three FGDs with 25 participants were conducted, one in Bloemspruit clinic with eight participants (six pregnant & two postnatal women); one at Gateway clinic with ten participants (seven pregnant & three postnatal women), and one at MUCPP who had only seven pregnant women who served as participants.

Key informants were as follows: one professional midwife who was in charge of the clinic and ANC services, except in MUCPP CHC where two professional midwives participated (one in charge of the ANC services and one in charge of the CHC). The MUCPP CHC had a different arrangement from the other two participating clinics. It had a manager in charge of the facility who was also a professional midwife and another professional midwife who was in charge of ANC services. Hence the researcher found it important to include both of them as key informants in the study.

3.11 Inclusion criteria

Inclusion criteria are key characteristics that the prospective participants in the study should have to be included in the study (Creswell & Creswell, 2018). Pregnant women and mothers who came for their ANC and six-week postnatal care check-up appointments respectively were included in the study. The participants were 18 to 49 years and received ANC in the participating healthcare facility. The postnatal women received their ANC during their pregnancy in the participating healthcare facility at the time of the study.

3.12 Exclusion criteria

Exclusion criteria are a set of predefined characteristics that are used to identify research participants who will not be included or who will have to withdraw from a research study after being included (Creswell & Creswell, 2018).

Pregnant women and mothers that came for their six weeks postnatal check-up, and were critically ill or experienced health complications at the time of the study, were excluded from the study. All pregnant women who visited the CHCs for the first time, or had another clinic they attended elsewhere were not included. All women who were coming for their six-week postnatal check-up but did not receive their ANC in the participating healthcare facilities were excluded.

3.13 Recruitment process

Recruitment as defined by Manohar, MacMillan, Steiner-Lim, and Arora (2018), is a process involving the identification of potential participants. In this study, the researcher demonstrated the desire to promote and apply principles of beneficence. Participants were recruited when they visited the healthcare facilities in Bloemfontein namely Gateway, Bloemspruit, and MUCPP CHC. The study was explained to pregnant and postnatal women. Those that were interested in participating were listed down and informed that if they are selected they will be required to sign a consent form after the study is explained in detail to ensure that their participation is voluntary.

3.14 Data collection instruments

According to Creswell and Creswell (2018), research instruments are measurement tools that are designed by the researcher to obtain data for a particular research study. In this study, the research instruments were FGD and KII semi-structured guides found in Annexure C and Annexure E respectively. The guides had open-ended questions and probe questions to allow the researcher to collect more information. The open-ended questions allowed the participants to answer questions without the researcher guiding them.

The FGD guide was divided into two sections-Section A: Demographic information of the participants; and Section B, which were the discussion questions that addressed the different factors that influenced the attendance of ANC services. The KII had a series of questions that focused on the different factors that influenced the attendance of ANC by pregnant women. These factors addressed the purpose and objectives of the study, which were:

- Socio-cultural barriers to the utilisation of ANC services
- Economic barriers to the utilisation of ANC services
- Health knowledge of the barriers to the utilisation of ANC services
- Health facility institutional barriers to the utilisation of ANC services

Both FGD and KII guides were formulated in English and the FGD was translated into Sesotho by a professional translator to ensure that the guide is in the language

the participants can express themselves freely. The KII guide was not translated as English is the language of their work environment. A voice recorder was used to record conversations during FGD and KIIs. Paper-based information, including notes, was taken where possible during the discussions and interviews.

3.15 Preliminary exploration

A pilot study is defined as a trial run of the methodology and research instrument. The pilot study is conducted on a small number of participants to assess the adequacy and feasibility of the intended research (Nieswiadomy, 2012).

The pilot study in this research was done to assess the challenges and strengths of the methodology and data collection guides. It was conducted at Batho clinic in the Bloemfontein sub-District of Mangaung Metro. Six participants were interviewed. However, the results of the pilot study did not form part of the main study and were not published as it was only used as a guide to the researcher to improve the data collection tools. One FGD was conducted to test the guide developed by the researcher. The collected data from the pilot study was analysed but did not form part of the study. The purpose was merely to test the guides.

3.16 Data collection procedures

Data collection procedures are defined (Polit & Beck, 2012) as a technique that allows researchers to obtain sensitive information while guaranteeing privacy to participants. They encourage cooperation from participants and ensure high-quality data, that is reliable and trustworthy, is collected. Data collection procedures ensure that the collected information is rich and reliable to ensure that appropriate decisions are made for research.

After obtaining ethics clearance and permission to conduct the study, the researcher set up appointment times and dates with each PHC facility to introduce the study and discuss the processes that would be involved in the collection of data. The

researcher requested a quiet room, away from the wards, which is destruction free, for both interviews and FGDs.

The FGDs were the first ones to be conducted and completed. They were conducted in the preferred language of the participants. On the arranged day of the FGD, the researcher recruited participants from the pregnant and postnatal women that attended the clinic. All pregnant and post-natal women 18 to 49 years who had agreed to participate were gathered in the room that was allocated at the PHC facility. The researcher explained the research study in detail. The data collection process was also explained to an extent. The women were then given information sheets on what the study is about to read to ensure that they understood the study fully before participation, and were allowed to ask questions. Those that agreed to participate in the FGD were asked to sign the informed consent form. They gave permission and signed for the use of a voice recorder before the start of the FGDs. Those that decided not to participate were excused.

The FGDs were conducted in Sesotho only in two facilities and in one it was conducted in both Sesotho and English because one participant was Afrikaans speaking, but comfortable participating in English. In this FGD the researcher asked questions in both Sesotho and English and translated the responses. Some participants accommodated the Afrikaans-speaking participant by discussing issues in both languages. Each FGD was an average of an hour long and all discussions were audio recorded with the permission of the participants.

Key informant interviews were conducted one-on-one and each interview session lasted for an average of 45 minutes. KIIs were conducted in private and an audio recorder was used to record the discussions. The informed consent forms were signed before the interview and kept in a sealed envelope and later stored in a lockable cabinet for data analysis purposes. The interviews were conducted in English but participants were free to use the language that they felt most comfortable in to answer the questions. All electronic copies were encrypted and stored on a password-protected computer. The information was only available to the researcher and supervisor. All collected data was managed throughout the study by the university rules.

To start the discussions and interviews, the researcher used a central question which was, “What barriers are preventing you in the Bloemfontein sub-district of Mangaung Metro from utilising the ANC services in this facility?” Probing was done and mostly focused on the objectives of the study, follow-up questions and paraphrasing were used to deepen the discussions. An audiotape was used to record the conversations. Observations and field notes were noted during the 8discussions.

3.17 Data collection

Data collection is a systematic process where observations or measurements are collected to perform research. This is done by gaining first-hand information, knowledge, and original insights into the research problem. It allows the researcher to better understand the experiences of participants from the participants’ perspectives. It requires the researcher to obtain data that is holistic, rich, and traceable and allows themes and findings to emerge through careful analysis (Barrett & Twvcross, 2018). Creswell and Creswell (2018) describe data collection as the process that enables the researcher to collect and measure information on variables of interest in a systematic way and enables a researcher to answer the study research questions, test hypotheses and evaluate outcomes. The collected data must be accurate to maintain the integrity of the research, make informed decisions, and ensure quality assurance.

In this study, data was collected from three FGDs and four KIIs conducted in the three participating healthcare facilities. It was done in a systematic way that uses the identified factors that influence ANC attendance from each of the selected PHC facilities in the Bloemfontein sub-District. Getting data from FGDs and KIIs allowed for the triangulation of methods and data, which increased the credibility and validity of the results. Triangulation involves the use of multiple data collection methods to develop a comprehensive understanding of the problem and how each of the identified factors affects pregnant women in the Bloemfontein sub-district of Mangaung Metro. Triangulation is viewed as a qualitative research strategy that is

used to test validity through the convergence of information from different sources as corroborated by (Carter, Bryant-Lukosius, DiCenso, Blythe & Neville, 2014).

Data collection was conducted from July 2021 to August 2021. The rooms that were allocated for the researcher were quiet and away from the activities of the healthcare facilities to allow for privacy and for participants to take part without fear or any influence. The rooms had adequate lighting, tables, and comfortable chairs. The furniture was arranged in a circle to ensure eye-to-eye contact. Data was collected after all the participants had given their consent to participate in the study and for their discussion to be recorded. Before consenting to participate in the study information was given on the aim and objectives of the study which were explained in a language that was familiar in this case it was Sotho and only 1 participant from the gateway clinic needed consent to be explained in English. It was also explained to the participants that there is no monetary value to participating, and it was therefore made clear that it is voluntary. Participants were allowed to ask questions, which were then answered to their satisfaction, and all participants signed the consent without being coerced to participate.

3.18 Focus group discussion (FGD)

A focus group discussion is described by Creswell and Creswell (2018) as a group discussion between people who have been selected. The selected participants share certain characteristics such as similar perspectives that are relevant to the study or topic to be discussed. In this study, FGDs were conducted with the participants who had experienced ANC in one of the selected PHC facilities and had signed the informed consent. The FGD guide (Annexure C) was translated into Sesotho (Annexure D) and was used to collect data.

Before the start of each FGD, the researcher explained the study, its purpose, and the purpose of the consent form. The participants were again informed that participation was voluntary and participants can leave at any stage of the FGD if they felt uncomfortable. The confidentiality of the participants was assured and all information will be kept anonymous. Forms and consent will be kept in a lockable

cupboard by the researcher. They were also requested not to use their given names during the discussions or to write down their names or any identifier on the demographic information collection sheet which they completed before the start of the FGD.

The researcher facilitated the FGDs with the selected pregnant and postnatal women -that visited the clinic at the time of data collection. During data collection, the researcher allowed participants to talk about each topic and the issues that they experienced. When participants discussed problems that were not related to the topic, the researcher guided the participants back to the discussion. Tape recorder which was used during interviews, permission was sought from participants before use. The researcher recorded the participants' discussions as they related their experiences during the collection of data. At the end of the FGD, all notes were collected and put in one envelope. The tape recorder was immediately stored safely in a secure cupboard.

3.19 Key informant interview (KII)

Key informant interviews are in-depth interviews with individuals who have expert knowledge of the problem at hand or someone who has insight into what is going on in the community. Key informants are usually not the target group, but they provide information about the participants that can assist the researcher to understand the experiences of the target group. They are people who have in-depth information about the community and are willing to share information with researchers (Creswell & Creswell, 2018). A total of four KIIs (three PHC facility managers and one professional midwife responsible for the antenatal services in each of the selected PHC facilities) were conducted by using the key informant guide in Annexure E. In two of the participating clinics, the facility managers were responsible for ANC while in the CHC the PHC facility managers and professional midwives were responsible for the ANC services due to the high number of ANC patients they were seeing per day. PHC facilities managers were included as key informants, because of their in-depth information and knowledge about ANC services, their provision, and the challenges that pregnant women face to access them.

3.20 Measures of trustworthiness

Trustworthiness is defined as the degree to which others are convinced that the findings of a study can be trusted. It is used in the assessment of the validity and reliability of qualitative data (Creswell & Creswell, 2018). In this research, the following criteria of trustworthiness were used: dependability, conformability, credibility, and transferability. The criteria are discussed below.

In a qualitative study, trustworthiness is applied to ensure validity (Korstjens & Moser, 2018). Confirmability, dependability, transferability, and credibility are the four elements used to ensure the trustworthiness of the data. By confirmability, the researcher has ensured that the findings are the true results of the experiences and ideas of the study participants and not the results of her perceptions. This also reduces the effect of biases.

Credibility was achieved using triangulation of the data that was collected from the participants. The researcher kept personal and reflective notes of descriptions of collected data which provides an audit trail to ensure dependability which relies on the quality of the data collection and analysis, while direct quotations and narratives from participants about barriers to utilisation of ANC services ensured both transferability which has been the degree to which the study has made it possible for the researcher to apply the findings in the situation and to ensure authenticity.

3.21 Credibility

Credibility is defined as the focus of the research and also refers to confidence in how the data addresses the intended focus (Polit & Beck, 2012). It further refers to confidence in the accuracy of the data and interpretation thereof. Credibility involves two aspects: firstly, executing the study in a way that enhances the legitimacy of the findings, and secondly, taking steps to demonstrate credibility to external readers. It involves two or more methods of data collection to ensure that the data is accurate, relevant, and has a significant meaning. This criterion is concerned with the

establishment of the represented data of the information that participants provided, and that the interpretations of those data are not figments of the inquirer's imagination (Korstjens & Moser, 2018). To ensure this, the researcher used KIIs and FGD guides which were pre-tested during a pilot study at Batho clinic in the Bloemfontein sub-district to collect data and to also member-check to ensure that the researcher's interpretation was similar to those of the participants. The researcher sought the assistance of a coder to review the data collected and analysed it. After the analysis of the data, the researcher shared the findings with some of the participants to find out if the analysis reflects what they discussed.

3.22 Dependability

Dependability refers to the stability of data over time and conditions. Credibility cannot be attained in the absence of dependability, just as validity in quantitative research cannot be achieved in the absence of reliability (Korstjens & Moser, 2018). Dependability in this study was ensured by conducting data collection as planned, using the data collection tools correctly, and by audio recording the discussions. The audio recording and other materials which were collected, such as the field notes, were kept safely so that they could be compared to the final research report to ensure the trustworthiness of the research report. In this study, transcripts, expressions, and notes were used. After analysing the data, the researcher analysed the findings and matched wording manually, and developed into categorised themes.

3.23 Conformability

Polit and Beck (2012) describe conformability as objectivity. It can be seen as the potential for congruencies between two or more independent individuals about the data's accuracy, relevance, or meaning. This criterion is concerned with the establishment of the data that represents the information that was provided by the participants and that the researcher has interpreted those data findings and it was not mere figments of the inquirer's imagination. The participants were all exposed to the same questions and allowed to respond. In the FGDs, all participants were allowed to respond to the questions. Hearing different participants taking part in the discussions assisted the researcher during the transcription of data to get direct

quotes from the participants. A language expert was used to translate the data collection tool and transcription from one language to the other. The wording of the transcribed data was not changed as the researcher needed to match and classify it to develop themes and sub-themes. Data accurately represented the information provided by the participants.

3.24 Authenticity

Authenticity is described by Polit and Beck (2012) as the extent to which the researcher fairly and faithfully shows a range of different realities. The researcher enhances the multiple realities of participants by conveying their life experiences in their natural context. In this study, the researcher wrote what the participants expressed and only their views have been captured, not any other person's view which did not meet the inclusion criteria of the study. Therefore, all responses were quoted verbatim. The researcher ensured that all participants were identified by a number and described according to the inclusion criteria. The collected data were stored in a computer protected by a password and all collected data was encrypted to ensure that only the researcher could access it.

3.25 Transferability

Transferability, analogous to generalisation, has been defined by Polit and Beck (2012) as the extent to which qualitative findings can be transferred to (or have applicability in) other settings or groups. The responsibility of the investigator was to provide sufficient descriptive data in the research report so that consumers can evaluate the applicability of the data to other contexts.

The FGDs and KIIs provided a thick description of the experiences and challenges of the participants. The collected data were available to readers and other researchers to access and use to conduct a secondary analysis. Data were recorded on audiotape to ensure that the participants' narratives were captured in their original format. During analysis, the researcher requested someone with experience in

research to read randomly selected transcripts and identify major themes and categories so that readers may have a clear picture of the data.

3.26 Ethical considerations

In this study, human participants are involved and therefore ethical considerations are important (Creswell, 2009). The researcher must uphold principles of integrity, respect for human participants, and justice. Ethical clearance was obtained from the University of Fort Hare's Health Research Ethics Committee and permission to conduct the study was obtained from the Free State Department of Health prior data collection. Before data collection, an ethics clearance certificate was obtained from the University of Fort Hare's Health Research Ethics Committee (Reference Number #2021=06=06=MontshiwaKC). Permission to conduct the study was requested and obtained from the Free State Department of Health. At the facility level, permission to access the facility with participants was obtained from the facility manager, and the researcher was introduced to the surroundings of the ANC clinic and staff. Permission was granted to address the staff members of the participating clinics and CHC to ensure that they clearly understood and they have enough information to make an informed decision if they choose to participate. Participants were assured of maintaining confidentiality throughout the study period. Anonymity was ensured by allocating pseudo names and numbers to all forms to be completed that contained demographic data, illiterate women were assisted to complete their forms. Participants were requested not to write down their names or personal details anywhere and not to use their real names during the discussions.

3.27 Informed consent

Defining informed consent in qualitative research is when potential participants are given more information with regards to the study allowed to read the information sheet and ask questions that enabled the participants to make informed decisions on whether or not to participate in the study (Creswell & Creswell, 2018). Informed consent was obtained from all participants involved in the study before they participated in the FGDs and KIIs. Those who agreed to sign an informed consent letter were ensured confidentiality by the researcher as well as anonymity by giving

participants pseudo names to protect their identity. Participants were informed that they are free to withdraw from the study at any time they feel to do so. Permission to use a tape recorder was requested and obtained from all participants before the signing of the consent form.

Creswell and Creswell (2018) describe the principle of confidentiality, anonymity and privacy as a principle that entails the protection of the information that is given by participants regarding the study. Furthermore, the researcher has to build a trusting relationship with participants to achieve the principle. The researcher secured a room that is private and quiet in the clinic where FGDs and KIIs were conducted without disturbances. The researcher ensured that all collected information did not have identifiable information that could identify the participants by using a code number for each participant. The information will be kept in a safe locked cupboard and room. All electronic data and scanned information were saved in the computer protected by a password only known by the researcher and supervisor. Encryption was used when information was sent over the internet to the researcher's supervisor. Lastly, the researcher assigned the participants pseudo names during participation in the study to protect their identity. Data was stored according to the university protocols.

Enrolled participants were interviewed and participated in FGDs in the language they understood best which, in this case, was Sesotho and English.

3.26 Confidentiality

Confidentiality concerns agreements about how data are handled, whereas privacy is about people and their desire to limit access to themselves in ways that may or may not involve information. One way to think about it is that confidentiality applies to data, whereas privacy applies to people. Confidentiality in this study refers to the researcher's agreement to handle research data in a way that ensures that the obtained information, from and about research participants, was not improperly divulged. Individuals may be willing to only share information for research purposes with an understanding that the information will remain protected from disclosure

outside of the research setting or to unauthorized persons. A basic principle of research is to respect the human right of participants and their beneficence (Klitzman, 2013).

3.27 Anonymity

Anonymity in research, as defined by Polit and Beck (2017) means that the research subject is not named, including the research area. It has been used in this research to protect them from harm and embarrassment. Therefore, in this research participants were given pseudo-names in this regard. Anonymity means that there is no way for anyone, including the researcher, to personally identify participants in the study. Participants were reassured that their identity will stay unknown. However, data will be made available to the supervisor and the university on request.

3.28 Principle of respect

Respect is a fundamental principle of research. It is defined by Agianto (2016) as the recognition of a person as autonomous, unique, and free. It means to realise that each individual has the right to make their own decisions and declaration (World Medical Association, 2013). Each participant was given information about the research and was allowed the freedom to choose whether they wanted to participate in the study or not. It was made clear that their participation was voluntary and they would not be penalized in any way should they choose not to participate. Participants were informed that they had the right to withdraw from the study at any time during the study. The decision to participate was completely voluntary.

3.29 Principle of justice

The principle of justice is defined by the World Medical Association (2013) as an ethical obligation to fairly distribute the benefits and burdens of the research. The research established principles of justice through primary data collection. As mentioned above, the participants were protected from any potential harm that might have been caused unintentionally in the data collection process. The researcher

understood the participants and considered their time as well as other variables deemed important in the process. The researcher was punctual; the interviews started and ended at the agreed time. The collected data was kept private and confidential.

3.30 Privacy

Privacy, according to Sieber (2001) refers to persons and to their interest in controlling the access of others to themselves. No participant should ever be forced to reveal information to the researcher that the participant does not wish to reveal. A private interview room was provided to conduct the interviews. The collected data was kept in a private, lockable safe. The researcher has ensured that the participants remain anonymous throughout the study. Those that took part in the FGDs used pseudonyms during the discussion to ensure that their names were not recorded. The researcher constantly reassured the participants about their right to privacy throughout the data collection period.

3.30 Data analysis

Polit and Beck (2017) refer to data analysis as the systematic organisation and synthesis of research data, and the testing of a research hypothesis by using the data. This research study was descriptive in nature and therefore enabled the researcher to reduce, summarise and describe qualitative data that was obtained from empirical evidence. Collected data were analysed by using thematic analysis. The collected data were transcribed verbatim and translated into English for analysis. During the data analysis, the researcher transcribed the collected data immediately and familiarised herself with the transcribed scripts. The transcriptions were individually analysed to identify similarities, differences, and relationships. The transcriptions were then grouped into categories. The data were manually coded and organised into emerging themes under each topic. The researcher then sought to find the connection between emerging themes under each factor. Tesch's data analysis process was used to ensure that the analysis was done properly under each

factor. The analysis approach followed the eight steps proposed by Tesch (1992) in Theron (2015) and Bradley, Curry, and Devers (2007), as indicated below:

Data analysis was done by listening to the recordings of the participants' verbal descriptions. It was followed by verbatim transcription and translation into English. The researcher then went on with the process of data analysis by reading and re-reading the verbatim transcriptions under each heading in the tools in preparation to code the data. Coding is a means of categorising information. Data analysis required that the researcher became immersed in the data to identify significant statements and then extract them. The researcher assigned labels to each unit. Coding happened by labels (Theron, 2015; Bradley, et al., 2007). The qualitative data was analysed by using the following steps:

Getting a sense of the whole

All the verbatim transcriptions were carefully read and notes were made where necessary.

Read all collected data

All important points were written down. Quotes and similar responses were identified.

Picking the important topics

Clustering of similar topics was done and the topics were arranged into major or unique thoughts. The topics were selected to understand the underlying meaning, rather than the substance. Similar responses were grouped into themes and sub-themes.

Coding all data by applying selective coding

This step involved going back to data to abbreviate topics as codes. Codes were written next to the appropriate segment of the text.

Generation and descriptions of categories and themes

Descriptive wording for the topics was used to transform them into categories; all the while looking for ways to reduce grouping topics that relate to each other.

Grouping of interrelated themes

This step involved making a final decision on the abbreviation for each category and alphabetising codes.

Assembling data

Data were assembled into material that belonged to each category in one group to undertake the preliminary findings.

Recording

The themes were recorded based on the preliminary findings. The last step was guided by the preliminary findings. The collected data was given to a neutral person to re-code (Theron, 2015; Bradley, et al., 2007). The researcher and coder discussed the differences and reached a consensus where there were differences in coding. A letter from the coder is attached as Annexure I.

3.31 Limitations of the study

One of the intra-woven variables that affected the result of the study is the pregnant women who did not present themselves at the clinic during the study period, and those that were at the CHCs, but were too ill to participate in the study. Not all Bloemfontein sub-District communities were included in the study but only the three chosen facilities do not represent the whole district. The other factor was the likely issue of bias and dishonesty inherent in self-reporting. Due to resource limitations, the researcher has a sample size of 30 participants and out of the 30 participants, five had spoiled demographic forms that could not be used as part of the research. Therefore, this number does not represent the whole Bloemfontein community on barriers to the utilisation of ANC services. However, the study data gives a picture of what women experience as barriers to using services that are free and specifically designed for them.

3.32 Delimitations of the study

The study was conducted in the Bloemfontein sub-district of Mangaung Metro in the Free State Province to explore and describe barriers to ANC utilisation. Only the views of pregnant and post-natal women that attend ANC and follow-up appointments at the three health facilities at Mangaung Metro were included in the study.

3.33 Summary

The study has qualities of a qualitative, descriptive, and exploratory research design and was conducted in one CHC and two clinics in the Bloemfontein sub-District of Mangaung Metro in Free State. Purposive sampling was used to select the three PHC facilities that participated in the study. FGDs with pregnant and postnatal women and KIIs with the PHC facility staff members in charge of ANC were conducted. Data were analysed by using the thematic analysis approach. The study's trustworthiness was ensured as outlined and all ethical considerations were observed throughout the study as described. The research design, research population, sample selection, and reasons for choosing the qualitative research method were also explained.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF RESEARCH FINDINGS

4.1 Introduction

The methodology that was used to collect and analyse data was discussed in the previous chapter. In the current chapter, the results that were obtained from the research explore the barriers to the utilisation of ANC experienced by pregnant and post-natal women in the Bloemfontein sub-district of Mangaung Metro. The findings will be discussed as follows: demographic characteristics of the participants, followed by the themes and sub-themes that were developed under each factor. The demographic details of the participants are presented in tables and graphs. The Tech's thematic analysis was used to analyse the collected qualitative data under each identified barrier. It is required from the researcher of this study to outline a more comprehensive understanding of pregnant women's experiences and their reason for late access to ANC, even when this particular service is offered for free.

4.2 Demographic characteristics of the study participants

The demographic characteristics of the study participants are discussed under the following headings: number of participants per facility, age distribution, cultural background, marital status, place of residence, gravidae of participants, parity, and lastly the employment status of participants are discussed. Many studies have suggested that demographic, socio-economic, and geographic disparities have an impact on the utilisation of ANC, healthcare facility delivery, and postnatal care services (Seidu, 2021).

4.2.1 Number of participants per facility

Figure 4.1 indicates the amount and percentages of participants (antenatal and postnatal patients) in the three participating facilities. Among twenty-five participants that participated in the FGDs, ten were from the Gateway clinic, eight were from the Bloemspruit clinic and seven were from the MUCPP community health center (CHC). Four key informants were identified- one from each clinic and two from the CHC. The

inclusion of the clinic managers as key informants in this study enabled the researcher to collect dense information about the barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro. It enabled the researcher to investigate its implications within the facilities, based on their experiences as they are the only group of healthcare workers that are not working on a rotation basis. Their experiences played a significant role in the validation of the findings of the research and to increase its reliability.

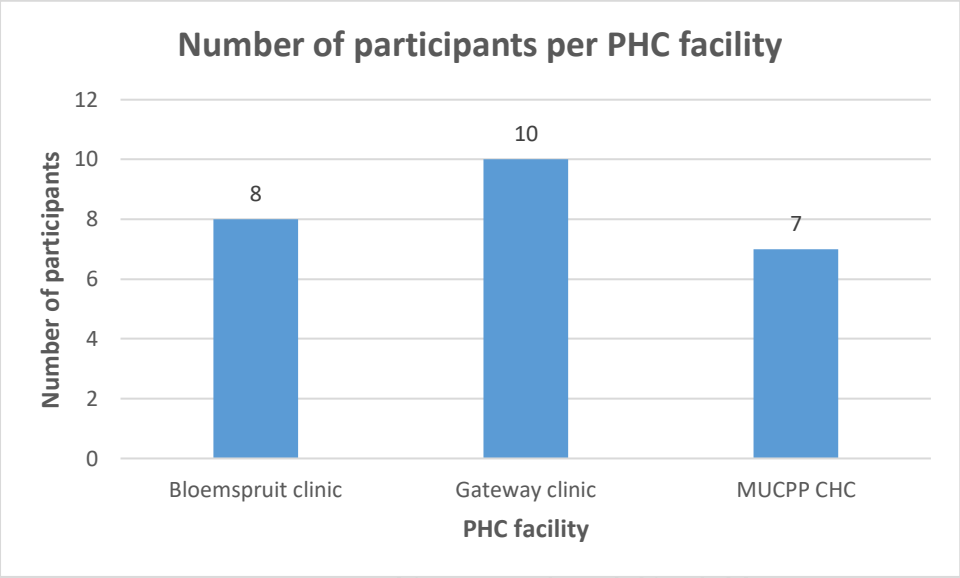


Figure 4.1 Distribution of participants in the participating facilities (n=25)

4.2.2 Age distribution of the participants

Table 4.1: Ages of participants (n=25)

Age in years	Frequency	Percentage
18	2	8%
22	10	40%
26	4	16%
29	1	4%
30	5	20%
34	2	8%
41	1	4%

Mean age 25.76 years

All the participants were within the reproductive age, which is between the ages of 15 and 49 years, as defined and used by a health indicator by the United Nations in

2019. There were only two late-teenage women, aged 18 years. Ten participants were aged 22 years; four were 26 years old; one was 29 years old; five were 30 years old; two were 34 years old and only one was 41 years old. The mean age of the participants was 25.76 years. There were no teenage participants who were of early childbearing age (15 to under 17 years) category as defined by UNICEF (2021).

According to Aduloju *et al.,* (2016) the age of the pregnant woman has a direct bearing on the timing of pregnancy and the initiation of ANC. There is also a correspondence between the age of the pregnant woman and birth challenges. The category consisting of teenage girls is among pregnant women that have low ANC attendance, and late ANC attendance starters, and contribute to a higher percentage of maternal and neonatal morbidity and mortality globally. Early access to and attendance of the required number of ANC visits is crucial to reduce the risks that are associated with adolescent pregnancy through screening, prevention, and management of risk factors for maternal mortality and poor health outcomes among adolescents. It is equally important that the ANC services that are offered to this age group, and all other age groups, should be of high quality (Sewpaul, Crutzen, Dukhi, Sekgala & Reddy, 2021). A study by Al in 2020 conducted in Saudi Arabia found no association between age and attendance of ANC. However, there was also no association between inadequate and late ANC and age or education level (Al-Wutayd, 2020).

Maternal conditions, including complications, during pregnancy and childbirth, are among the top causes of disability-adjusted life years (DALYs) and lead causes of death among girls aged 15 to 19 years old globally. Two of the participants were part of this age group. Teenage girls often access ANC later in their pregnancies because of late recognition of pregnancy and because they are still making decisions about the pregnancy. This age group faces higher risks of eclampsia, puerperal endometritis, and systemic infections than women aged 20 to 24 years, which is the age group that had ten participants in this study. Babies of teenage mothers face higher risks of low birth weight, preterm delivery, and severe neonatal conditions (UNICEF, 2021; WHO, 2022). Similarly, teenage girls, and women aged 35 years

and over are faced with higher risks of pregnancy and birth-related complications (Kenney, 2020).

4.2.3 Ethnicity of participants

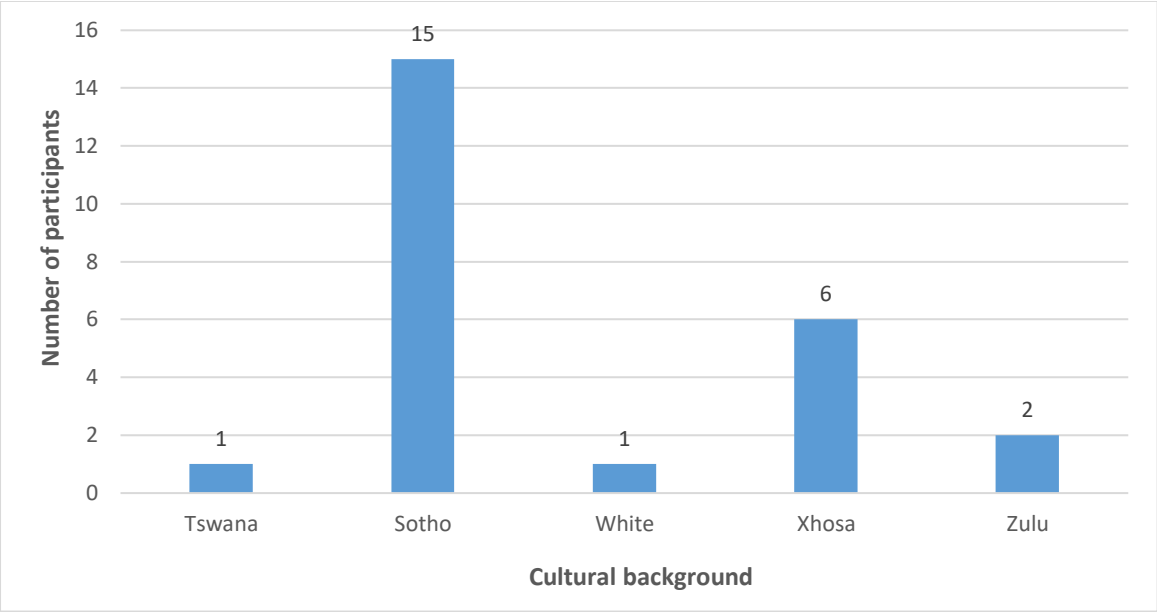


Figure 4.2 Ethnicity of participants (n=25)

Participants who took part in the study belonged to four cultural groups, also referred to as ethnicity. As indicated in figure 4.2, fifteen of the participants were Sotho speaking, six were Xhosa, two were Zulu, one was Tswana and one was Afrikaans speaking. Bloemfontein houses different types of cultural groups due to its urban geographical location. Different cultures have different values, beliefs, and practices. A woman's cultural background can affect her needs and expectations during pregnancy and childbirth. Hence the healthcare provider needs to be aware of the patient's cultural background to ensure that all of their patients are comfortable and look forward to their next clinic visit (Aziato, Odai & Omenyo, 2016).

Cultural beliefs and practices can influence ANC, childbirth experiences, and the way of taking care of the baby postnatal. It is a professional midwife's responsibility to have a basic understanding of patient's needs and to effectively communicate in a way that makes the patient feel comfortable. The healthcare provider needs to understand and respect various cultural practices. This will assist midwives to inspire

change among pregnant women and the community about possible harm related to some of the cultural practices. Various cultural beliefs and practices prevent pregnant and lactating women from consuming certain foods which could result in a lack of certain important nutrients and minerals (Yarney, 2019). For example, the importance of a good balance diet during pregnancy can be part of health education programs offered to pregnant women during ANC as well as public health programs in the community to influence change in this regard.

The midwives to be aware of the different cultures of the pregnant women they are serving. Their awareness and understanding of these different cultures will assist midwives to understand their patient's needs and find ways to influence them to avoid certain practices that could be of harm to both mother and child. Some cultural practices delay women from starting ANC as recommended due to mobility restrictions for pregnant women during their first trimester. This prevents women from accessing ANC in their first trimester of pregnancy. These restrictions may even cause delays in seeking timely care during obstetric emergencies. Health education should address the importance of early access to ANC (Omer, Zakar, Zakar & Fischer, 2021).

4.2.4 Marital status of participants

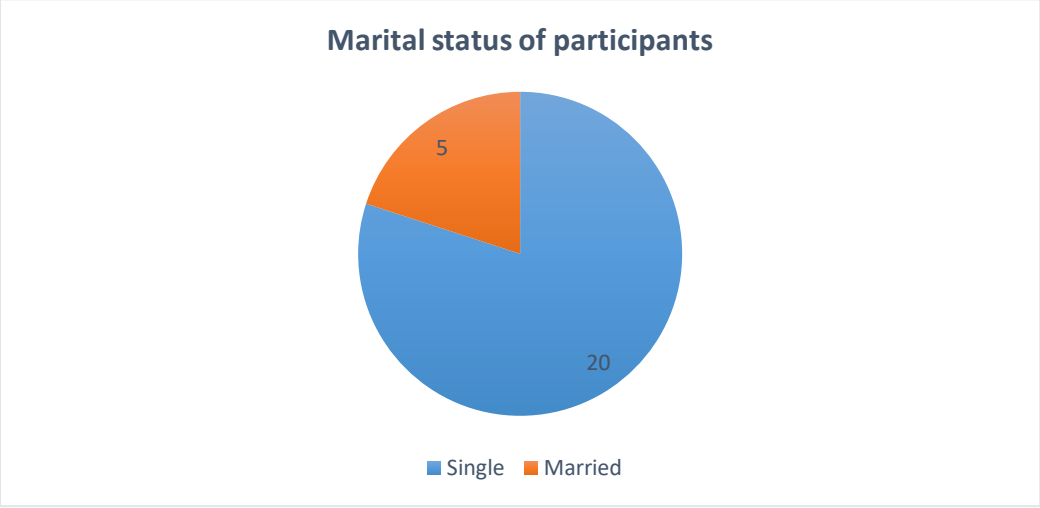


Figure 4.3: Marital status of participants

Twenty of the participants, who serve as the majority, identified themselves as single, while only five participants considered themselves married during the time of the study. The marital status of the South African female population indicates that 48% of all females in South Africa are single while more than 50% of all mothers are considered to be single (Galal, 2022a). According to Stats SA (2021), more than 60% of the registered births in 2020 had no information about the father, as Section 10 of the births and deaths Act prohibits unmarried fathers to have their information on the birth certificate of a child. This could be an indication that more than 60% of pregnant women in 2020 were single.

There is evidence that marital status has an impact on the outcome of a pregnancy. Barr and Marugg (2019) argue that marriage is often associated with improved pregnancy outcomes as it is believed that the fathers support and assist the mothers to cope with pregnancy challenges, in comparison with when single women have to face these challenges without some form of support. Unmarried women are at a higher risk for preterm delivery, babies that are small for their gestational age, and neonatal intensive care unit admission, than married women. They are more vulnerable to socio-economic insecurity, material hardship, and social dislocation, which often have negative consequences that affect their health status both directly and indirectly.

Evidence indicates that marriage can be beneficial, but also the quality of the relationship between the mother and father of the child. Whether they are married or unmarried may influence the outcome of the pregnancy. Pregnant women in poor-quality relationships often have depressive symptoms. However, unmarried women who have quality family support might not have the negative consequences of being unmarried, and single pregnant woman alluded to the above-mentioned statement. It is therefore important that midwives should be aware of the marital status of their patients to support them accordingly (Bloch, Webb, Mathews, Dennis, Bennett & Culhane, 2010).

4.2.5 Residential areas of the participants

Twenty-three participants, who serve as the majority of participants, indicated that they stay in the urban area, while two participants indicated that they were from a rural area. As already indicated, the Metro includes developed and underdeveloped areas. The underdeveloped areas of the Metro include informal settlements and rural areas. This could mean that there are huge differences in the socio-economic status of the community in this Metro.

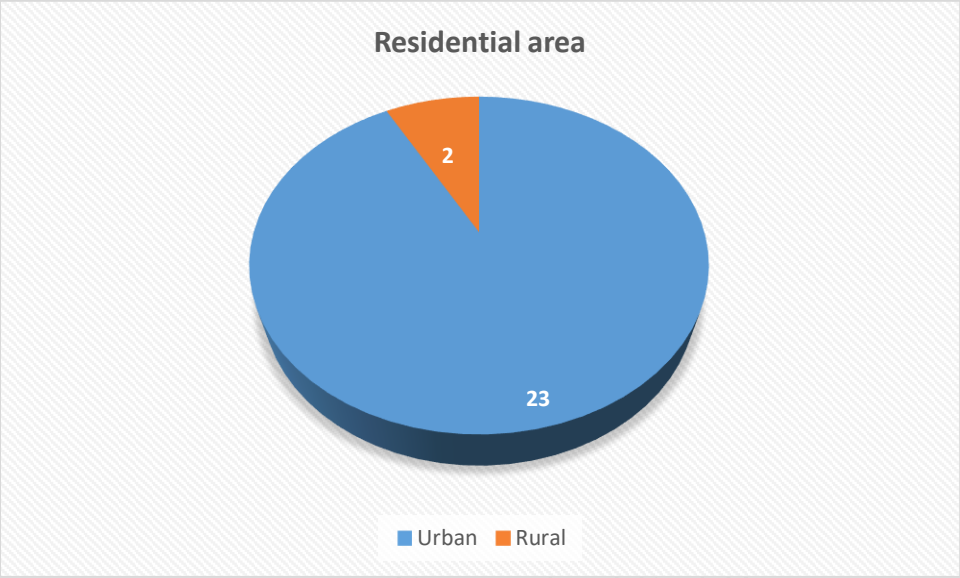


Figure 4.4 Residential area (n=25)

A pregnant women's place of residence - urban area, rural area, or informal settlement - can affect their access to and use of ANC. Previous studies were conducted by Zile, Rezeberga, Lazdane, and Gavare (2019), Wulandari, Laksono, and Rohmah, (2021), and Eke. Ossai, Azuogu, Agu, and Ogbonnaya (2021) showed differences between the urban and rural areas in knowledge, attitude, and practices of women towards ANC. The disparities between urban and rural areas may be contributing to the differences in ANC utilisation.

4.2.6 Number of pregnancies of the participants (Gravidae)

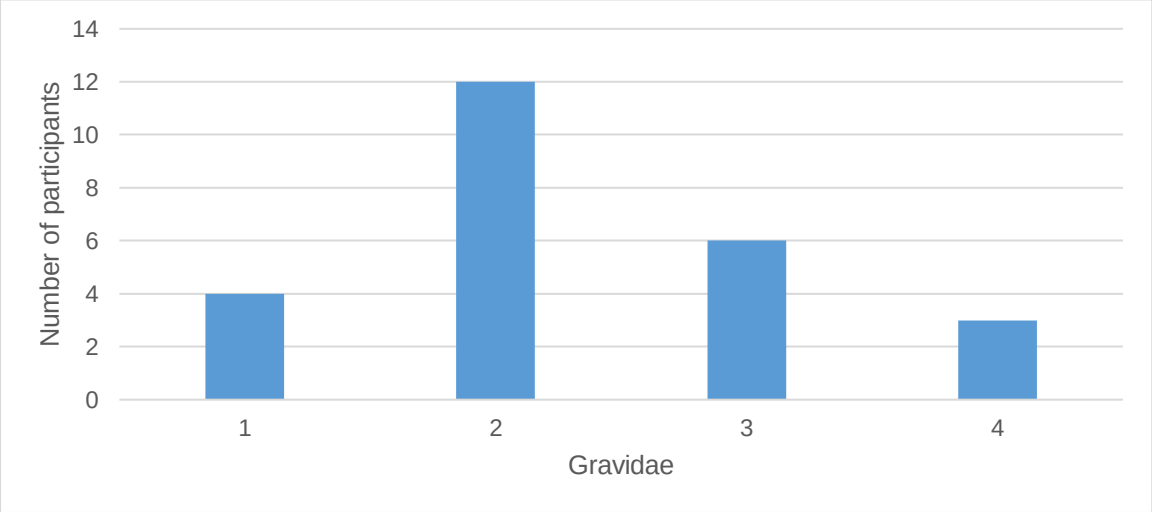


Figure 4.5 Gravidae of participants (n=25)

Figure 4.5 shows the pattern of gravidae of participants, which is the number of times participants have been pregnant. The Gravida two participants were the highest in the number of pregnancies (12) followed by Gravida three which were six participants. Those that had gotten pregnant for the first time (primigravidae) were only four participants and three participants who had four pregnancies (Gravida four). There were no participants who had more than four pregnancies.

4.2.7 Participants' number of children (Parity)

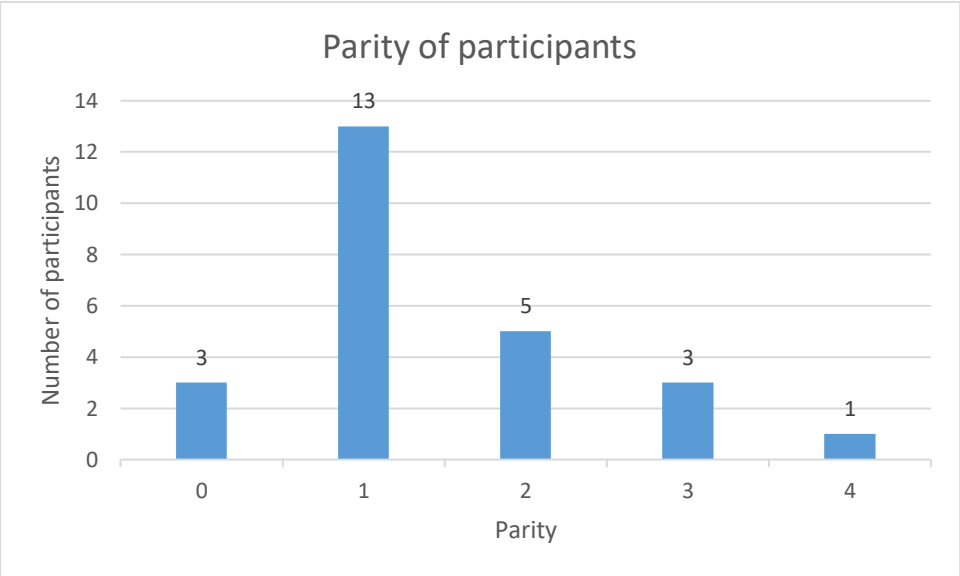


Figure 4.6 Parity of participants (n=25)

Figure 4.6 indicates that thirteen of the participants had only one child, followed by five participants who had two children (Para 2). Participants with three children (Para 3) were three and those with no children (Para 0) were also three in number. There was only one participant who had four children (Para 4). The majority (21) of the participants had two children or fewer. The average number of children of the participants (mean) was 1.32 children per woman. This is less than the estimated fertility rate of South African women which was estimated at 2.35 children per woman in 2021 (Galal, 2022b; Macrotrends, 2022).

Parity can influence the early initiation of ANC. Teenagers, who are pregnant for the first time (Para 0), are likely to delay ANC because of late recognition of pregnancy and decisions about whether to keep or terminate the pregnancy if the pregnancy was unplanned. In a study conducted in Kenya, multi-parous women were more likely to initiate ANC earlier, compared to grand multi-parous women. Some women with children delayed access to ANC due to their previous experiences, time management, and scarce resources in big families, which include money for transport to the clinic (Wekesa, Wanjihia, Makokha, Lihana, Ngeresa, Kaneko & Karama, 2018).

4.2.8 Socio-economic status of participants

Table 4.2 shows the socio-economic status of participants. The table includes the region, educational level, employment status, and employment status of their partners.

Table 4.2. Socio-economic status of participants (n=25)

Variables	Frequency	Percentage
Religion		
Anglican	3	12%
Catholic	6	24%
Lutheran	0	0%
NGK church	6	24%

Other	10	40%
Total	**25**	**100**
Educational level		
No education	0	0%
Primary	1	4%
Secondary	10	40%
Tertiary	14	56%
Total	**25**	**100%**
Employment status		
Employed	5	20%
Unemployed	12	48%
Self-employed	1	4%
Part-time	4	16%
At school	3	12%
Total	**25**	**100%**
Employment status of partner		
Self-employed	8	32%
Part-time	4	16%
Employed	11	44%
Farming	1	4%
At school	1	4%
Total	**25**	**100%**

4.2.9 Religion of participants

Seventeen of the participants indicated that they belong to a Christian church. It was found that six of the participants belonged to a Catholic church, six participants attended NGK churches, three were Anglicans and ten belonged to other churches which participants indicated under 'other (specify)' on the demographic information sheet. However, only two out of the ten participants specified their churches one belonged to the Zion Christian Church (ZCC) and one belonged to the Methodist church. There were no participants that belonged to the Lutheran church.

According to Solankea, Oladosub, Akinloc, and Olanisebe (2015), religious affiliations expose pregnant women to religious beliefs or practices that could shape their reproductive health decisions. Religious beliefs and practices play an important role in coping with and recovering from pregnancy-related challenges. There is a need for healthcare providers to comprehend their patient's faith and the use of religious artifacts that some patients use during pregnancy, delivery, and after delivery (Aziato, *et al*., 2016). In Hembling, McEwan, Mohammed, Passaniti, Aryee, and Saaka's study in 2017 they found that there were no significant religious influences that prevented women to access maternal services. Their study demonstrated that training and mobilising faith-based and lay leaders may result in positive changes to the timing and frequency of ANC behaviours of pregnant women in rural, underserved communities.

4.2.10 Educational level of participants

Table 4.2 indicates that fourteen of the participants had education at a tertiary level while ten had education at the secondary level and one had education at primary level. None of the participants had no education. This could be related to the level of South African youth literacy which was estimated at 95% in 2018 and women's primary completion rate estimated at 82.651% in 2015 (Galal, 2021). The education level influence on the use of ANC. Women with primary educational level are more likely to attend ANC than illiterate women (Kawungezi, AkiiBua, Aleni, Chitayi, Niwaha, Kazibwe, Sunya, Mumbere, Mutesi, Tukei, Kasangaki & Nakubulwa, 2015). This has also been highlighted by a study conducted by Ahmed and Manzoor (2019), about the mother's educational status and income which can have a substantial impact on ANC utilisation which affects ANC coverage in many countries. In their study, Muyunda, *et al*., (2016) found that higher educational attainment is associated with optimal antenatal care visits.

4.2.11The employment status of participants

The employment status of participants varied, as indicated in Table 4.2. Twelve of the participants were unemployed, nine were employed - five full-time, and four participants were employed on an apart-time basis. One participant was self-employed. Three participants indicated that they attended school. Employment and occupation type has an impact on the attendance of ANC as some women work far

from the healthcare facilities and can only attend ANC when they are off duty. Another factor to keep in mind is that pregnant and lactating women's workplaces can be potential hazards to their health. It is therefore important for midwives to be aware of the employment status of the pregnant women and the type of work they do to determine whether they are working in a safe environment (Akhtar, Khan, & Afzal, 2018). Unemployment among pregnant women must be closely monitored because it is strongly associated with an increased risk of maternal morbidity and mortality. Unemployment has been linked to both physical and mental health problems and with a higher suicide rate than their employed counterparts (Raatikainen, Heiskanen & Heinonen, 2006). Unemployment is a barrier to ANC attendance as some women, particularly unmarried women, might not have money to attend their ANC appointments. An association between employment and inadequate antenatal contact was also found in a study conducted in Saudi Arabia (Al-Wutayd, 2020).

4.2.12 Employment status of participants' partners

Twenty-four out of 25 total participants were involved in some form of economic activity, except for one who was still attending school. Fifteen of the participants' partners were employed, eleven on full-time basis and four on part-time basis. Nine of the participants' partners were self-employed – one of them being involved in the farming industry.

A study in Nepal found that pregnant women with employed partners, or who came from families with higher income, had early ANC initiation and higher attendance of ANC services. Partner and family support often lead to early initiation and attendance of ANC. It is therefore important to motivate husbands and other family members, to support pregnant women for the sake of better health for mother and baby (Pandey & Karki, 2014).

4.3 Themes development under each barrier

This section discusses the themes related to the barriers to utilisation of ANC by pregnant women in Bloemfontein sub-District by using the already identified barriers in literature that were used as study objectives, as the barriers to ANC have already been identified by various studies in the literature. This study uses the already

identified barriers to develop themes under each barrier that prevent pregnant women from accessing ANC services as indicated in table 4.3. The barriers used to discuss the themes are as follows:

i. Socio-cultural barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.
ii. Economic barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.
iii. Health-knowledge-related barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.
iv. Health institution-related barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.

The responses of the participants were analysed into categories. These categories then formed themes under each heading.

Table 4.3: Development of themes of the study

Theme	Categories	Participant responses & number of respondents
Socio-cultural barriers to utilisation of ANC health facilities in the Bloemfontein sub-District.		
Cultural beliefs and practices related to pregnancy concealment	Pregnancy is concealed due to fear of witchcraft and bad/evil spirits.	*As a black person, pregnancy is a secret and can only be revealed when it shows .(4 participants from MUCPP FGD)*
		I believe in witchcraft therefore I only attend the clinic when my tummy starts to show. I don't want to walk or cross dark spirits which will affect my baby, or even myself. (2 participants from MUCPP and 1 from Bloemspruit FGD).
		We are afraid of witchcraft and walking over bad spirits in the location, and getting to meet people who had miscarried as it is a bad omen. (4participants from Bloemspruit FGD).
		I was aware of ANC early visits but was afraid of witchcraft and walking over bad spirits (1 participant from gateway FGD).
		I was not allowed to start ANC before the pregnancy showed. (2 participants from MUCPP FGD).
	Fear of rejection and lack of support by partner and family	*I was scared I might be rejected by the father of the baby. (1 participant from MUCPP FGD).*
		We had an unwanted pregnancy & my partner had limited interest in the welfare of the growing foetus.
		My partner said that he is trying to make a living and cannot afford to sit the whole day at the clinic but rather go look for other jobs. (2 participants from gateway clinic and 4 from MUCPP respectively).

		It was an unwanted pregnancy and my partner had limited interest in the welfare of the growing foetus. (1 participant from Gateway FGD).
	Fear of being judged	*I was afraid that my family will reject me. (2 participants from MUCPP FGD).*
		We broke up before I knew I was pregnant and was afraid to be accused of cheating. (2 participants from Bloemspruit FGD).
		I had fear of rejection and being judged by my family because I got pregnant while at school. (2 participants from MUCPP FGD)
		Fear that everybody will judge me because I was still at school. (2 participants from Bloemspruit FGD).
		Fear that everybody will judge me because I was still at school. (2 participants from Bloemspruit and MUCPP FGD respectively).
	Christian belief against TOP	*I wanted TOP but my Christian beliefs did not allow it. (1participant from Bloemspruit FGD).*
Knowledge about ANC	Lack of knowledge regarding the importance of attending clinic	*I believed that clinic should be started when you are 3-5 months pregnant. (20)*
		I think we should attend all nine months of pregnancy just for safety. (2 participants from gateway and 3 from MUCPP FGD)
		There is no way to encourage pregnant women to start early attending ANC according to the ANC guidelines because we only see pregnant women that present themselves at the clinic with their pregnancy already showing and advanced. (1 KII from gateway clinic).
		I did not know when to start attending ANC. (5 participants from Bloemspruit FGD.)

		I think I can attend from seven months when my tummy is showing. (1 participant from Bloemspruit and 1 from gateway FGD).
		I am only attending so I can have a card because if I don't during delivery time nurses will be scolding me. (1 participant from MUCPP FGD).
		I attend the clinic, because I had a miscarriage previously and was told I had hypertension, so I don't want to experience the same. I want my child to be safe, so I do understand the importance of attending. (1 participant from the gateway clinicy, 2 from Bloemspruit, and 1 from MUCPP FGD).
		I think we should attend all nine months of pregnancy just for safety. (2 participants from Bloemspruit and 3 from MUCPP FGD).
		Although we teach women about attending all the required ANC visits, many of them will miss one or two visits for different reasons. It is really difficult. (2 midwives from gateway clinic KIIs).
		I think I can attend from seven months when my tummy is showing. (2 participants from Bloemspruit clinic FGD).
		I think we should attend all nine months of pregnancy just for safety. (2 participants from Bloemspruit and 3 from MUCPP FGD).
		I attend the clinic because I had a miscarriage previously and was told I had hypertension, so I don't want to experience the same I want my child to be safe, so I do understand the importance of attending. (1 participant from gateway clinic, 1 from MUCPP, and 2 from Bloemspruit FGD

		respectively).
		I am only attending so I can have a card because if you don't at delivery time nurses will be scolding me. (1 participant from MUCPP FGD).
Challenges faced by health workers to encourage pregnant women to keep their appointments and attend the ANC appointments as recommended	Late booking due to inadequate information about when to start ANC	*Many pregnant women, particularly the prime-ups, do not know of when to start ANC unless they come & confirm their pregnancy. (KII, 2 of them from Bloemspruit clinic).*
		We have problems with pregnant women from Lesotho. They often come when they are at an advanced stage or even in labour without booking. This makes it hard because you don't know what to expect.
		Although we teach women about attending all the required ANC visits, many of them will miss one or two visits for different reasons. It is really difficult. (KII x 2 midwives from Bloemspruit clinic).
		There is no way to encourage pregnant women to start early attending ANC according to the ANC guidelines because we only see pregnant women that present themselves at the clinic with their pregnancy already showing or advanced. (KII and only 1 midwife from gateway clinic).
		In our clinics, we tend to foreign pregnant women that come at different stages of their pregnancies. They lack identity documents as they are afraid they will be sent back especially clients that are originally from Lesotho. This causes delays in getting a card to work with them because of the language

		barrier. (Both KII were from Bloemspruit clinic).
		As a nurse sometimes language is the barrier, but I have an assistant nurse who is interpreting for me when the need arises. (KII x1 midwife from Bloemspruit clinic)
		Pregnant women have fear of the unknown, particularly those with unplanned pregnancies, and other first-timers often raise issues of concern and delay their booking based on what they heard not knowing the dangers of pregnancy when they delay their bookings. (KII x 1 midwife from MUCPP clinic)
Economic barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-District.		
Transportation challenges	Lack of transport & transport money	*I am dependent on my parents financially so it was difficult to ask for transport money from them. (3 participants from MUCPP FGD)*
		I discovered at three weeks that I am pregnant, and I was sent back to also be seen after a month. When I came again for a follow-up on the given date, I was tested for pregnancy and again was given a month date. It was not pleasant for me as I don't have money for all the time to come, and I wait the whole day and even the little food I bring, it gets finished and I get hungry. (1 participant from MUCPP FGD)
		Some of us do not have money to buy food. We try and bring our food from home, because of the long waiting that we do in his clinic.
Health-knowledge about barriers in the utilisation of ANC by pregnant women in the Bloemfontein sub-District.		
Health knowledge as encouragement and barrier for ANC utilisation	Health education program	*Pregnant women must start attending a clinic at around 20 weeks to make sure that the mother and the baby child are safe and healthy according to my knowledge.*

		When we visit the clinic there is a session in the morning where they teach us about our health, I always come early because I have learned a lot about how to keep myself healthy. (1 participant from gateway clinic FGD)
		Pregnant women must start attending a clinic at around 20 weeks to make sure that the mother and the baby child are safe and healthy according to my knowledge. When we visit the clinic there is a session in the morning where they teach us about our health, I always come early because I have learned a lot about how to keep myself healthy. (1 participant from MUCPP clinic FGD)
		I like this session especially when they teach and show us pictures of how babies develop inside us. It makes me feel special even though people judge me. It makes me enjoy my baby's movements and feel happy. (1 participant from gateway FGD)
		I use to avoid taking the tablets that they give us at the clinic when throw them away before I get home. The day they taught us about what tablets do in our body and the baby, I started taking them & feel sorry that I threw them away. Maybe somehow my baby is affected by my behaviour. (1 participant from MUCPP FGD)
		Sometimes you start the clinic without knowing that you are sick and the results tell them that you have HIV. To me that is good. They even tell you that you do not have to tell people about it. (3 all participants were from MUCPP FGD)
		The older women tell us their experiences, some are scary and some are good. They even tell us who is a good nurse and bad

		nurse we should avoid. (2 participants from Bloemspruit clinic and 2 from MUCPP FGD respectively)
		Sometimes I feel sad. I have no one to talk to about the baby in my tummy because my partner has disappeared from our lives, but when I get to the clinic I feel better because people talk freely about their pregnancies and experiences. (1 participant from MUCPP FGD)
		They teach us about the diseases they are testing us for and why. (2 gateway participants and 6 participants MUCPP FGD)
	Learning fatigue and used as examples	*My friends and I come late to avoid these lessons because I have been hearing the same things since we started getting children. (4 participants from MUCPP FGD).*
		To encourage other patients, they sometimes use us as a good example of persons living with HIV & show them how healthy you are without asking. They forget that HIV is confidential. Sometimes they ask you to tell them how you look after yourself without asking you if you want to do that. (2 MUCPP participants).
		ANC nurses do not use HIV ambassadors they use us without our permission. I don't want the community to know my status. I think this is wrong because when they test, they tell us we are not obligated to tell anyone our status. But they tell people. I am afraid my family will soon know about it before I am ready to inform them. (4 participants from MUCPP FGD)
	Mistrust health workers' ability to maintain confidentiality	*I don't want people to know about my HIV status and I fear nurses are talking*

		about my HIV status with other patients and their friends. They have no confidentiality. (3 Bloemspruit and 3 MUCPP participant during FGD)
		I am contending about whether I should test for HIV and STI and what will happen after testing. (1 participant from MUCPP FGD).
Health institutional related barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-District.		
Long travel distance to the healthcare facility	Transportation and financial challenges	*The clinic is far from people as the area is growing due to new developments and informal settlements. This is against the WHO distance that states that the clinic should be 5km away from people. Patients particularly from the new informal settlements have to walk long distances to come to the clinic as there is no public transport from their areas. (KII x 1 midwife from Bloemspruit clinic).*
		The transport and finances are a problem leading to poor attendance. (KIIx2 midwife from Bloemspruit and 1 from MUCPP).
		We travel from Lesotho or stay with relatives in South Africa to access the clinic and we use different transport to get to the clinic and spend a lot of money.
		I do not have any transport. I walk alone to the clinic.
		It is difficult when you are still at school to ask for money to go to the clinic when you are still under their care and you also want to attend ANC.
	Long waiting times	*We were once told to wait as the nurse midwife who was supposed to see us pregnant women was busy with postnatal follow-up and minor ailments. (4 participants from MUCPP FGD).*
		We arrive early at the clinic; however, we

		wait the whole day to be attended to. Nurse-midwives leave us and go for a long tea break and lunch. (10 participants were a mix of all the 3 facilities).
		The area where we work at the infrastructure is bad and there are no taxis and we have to walk to the clinic and it is far from where we live approximately 10 kilometers. (KII x1 midwife from Bloemspruit clinic).
		In the area that we live in, there are no taxis and we have to walk to the clinic. It is not quite safe for pregnant women to walk long distances alone. (FGD x1 participant from Bloemspruit clinic)
		The area demarcation has caused so many challenges as it has displaced other people from areas near to them to the furthest clinic, which is now a problem to attend as it comes with costs. (KII x1 midwife from MUCPP clinic)
		The clinic is far from people as the area is growing due to new developments and informal settlements. This is against the WHO distance that states that the clinic should be 5km away from people. Patients particularly from the new informal settlements have to walk long distances to come to the clinic as there is no public transport from their areas. (KII x 1 midwife from Bloemspruit clinic)
		I do not have any transport. I walk alone to the clinic. (1 participant FGD from Bloemspruit).
		When you have not disclosed to the family that you are pregnant it is difficult to ask for money to visit ANC. (MUCPP FGD x5 participants).
Poor attitudes of the	Bad behaviours from the	*Nurses are very badly behaved. They*

healthcare workers	healthcare workers	*scold us like babies and delay in helping us. We arrive early at the clinic only to wait the whole day and many times, we will be sent back without the necessary help. (10 participants from MUCPP, 4 from gateway clinic, and 5 from Bloemspruit clinic.)*
	Lack of respect by the healthcare workers	*The health care workers disrespect us and call us names because we do not have IDs.(FGD from Bloemspruit clinic).*
		The older women tell us about their experiences and who are the bad nurses. It helps us to understand the situations when they occur like labour pains. (4 participants from MUCPP FGD).
		They tell us we are stinking as at times we don't have soap to bath. It's not like we like to walk around unbathed but circumstances are bad. (6 all participants were from MUCPP FGD).
		The barrier I have is that the clinic is not accessible over the weekend and the negative treatment we get from healthcare workers. (1 participant from MUCPP FGD).
		You must pray that there is no new booking because our sister takes too much time with new pregnant women while we all wait. (3 participants from Bloemspruit clinic FGD).
		To make sure that as a mother I am safe and my baby is safe and healthy I should attend the clinic as soon as I find out am are pregnant, but the way we are treated makes it difficult for some of us to do so because we have to cross the border. (1 participant from gateway clinic FGD).
		Some of us arrived here at the clinic at 08:30am and we sit the whole day until 15h00-16h00. You know that time we are tired and hungry. So, they just do a quick

		check & let you go. (1 participant from MUCPP FGD).
		Lack of Identity documents makes the waiting long as they are afraid they will be sent back especially clients that are originally from Lesotho. (KII x midwife and a nurse at Bloemspruit clinic). The area that we live in & our patients come from is new, there are no taxis. Some of us like patients have to walk to the clinic because there are no taxis. We get here tired before we even start working. It is also not safe for pregnant women to walk such long distances alone. They sometimes have to wait for each other.
		As a nurse sometimes language is the barrier as we have patients from Lesotho but I have an assistant nurse who is interpreting for me when the need arises. (KII x1 midwife from Bloemspruit clinic).
	Some healthcare workers treat patients well	*We don't come from the same family background some of us struggle with necessities, but they will tell the whole clinic that we stink and did not bathe. It is not like we want to walk around without bathing, but we don't have soap all the time, so they are mocking us. (2 participants from MUCPP FGD).*
		Not all healthcare workers are bad. In our clinic, I am considered the friendliest and preferred nurse by patients. I am often overloaded with patients as they come to the ANC when they know it is my week to be on duty. (KII x 1 midwife from Bloemspruit clinic)
		All pregnant and post-natal women have the right to be afforded respect, care, and dignity. The care which is provided to them should be provided in a respectful and dignified manner. As

		the person in charge of this facility when I ask ANC patients about their delays most of them mention one thing that prevents them from visiting healthcare facilities for early ANC booking the attitudes of nurses. (KII X 1 midwife from gateway clinic).
		I enjoy doing the ANC clinic but I don't enjoy doing three people's job. I however, enjoy seeing patients happy with healthy babies even those referred with complications coming back healthy and well without any loss. We have to see patients as they come. The bookings are full until January 2022 and therefore even those that comes early we give them later dates as there is nothing I can do. For me starting clinic as early as possible like around 16 weeks to book for sonar and start ARV for those who are RVD positive for early viral suppression, and to pick up hypertension, do baseline bloods as needed is very important. (KII X 1 midwife from Bloemspruit clinic).
Inadequate human resources increase patient' waiting time	Long waiting times	*When we arrive at the clinic we wait while they are still doing other things and they will be running around and some will be on their cell phones laughing. You don't know whether they are actually busy or not. When they come to us we are already tired of standing in one place.(participant from MUCPP FGD).*
		The booking system needs more time. It is not easy to do it if you are working with other health care problems and at the same time working on the ANC visits. (KII x1 midwife from MUCPP)
		1st booking is time consuming if only they can be seen first or have someone

		dedicated to them only. (KII x1 midwife from gateway clinic).
		We lack tools of trade like measuring tapes and pregnancy wheels. (KII x2 midwives from MUCPP.)
	Mistrust healthcare workers' ability to maintain confidentiality	*I don't want people to know about my HIV status and I fear nurses are talking about us. They have no confidentiality. (6 participants from Bloemspruit and MUCPP 3 of each facility).*
		Patient don't come on time due to lack of knowledge, teenagers are ashamed to come early, the come late and mostly are from Lesotho and don't have time to come to the clinic many times, and have a perception that the staff have bad attitudes. (KII x1 midwife from Bloemspruit clinic.)
	Communication challenges when working with foreign patients	*Some of the women say they did not know they are pregnant until they saw a growing stomach or felt foetal movements. Others are in denial as when they bring the babies for follow up you realise they are pregnant again. One patient who was bringing her baby for 12 months follow up was pregnant and already 6cm dilated at the time. (KII x1 midwife from Bloemspruit clinic).*
		For services to be improved staff should be augmented, as there is one nurse who is to do both antenatal and post-natal clinic, which takes time especially when there are first visits. We don't have tools of trade like obstetric wheels, it will be nice to have them for accuracy. Infrastructure is also a problem, the park home that is used is very cold in winter and very hot in summer. Maternal case records are also needed for us to do the job well. (KII x1 midwife at Bloemspruit clinic)
		Community healthcare workers should identify pregnant women in our

		communities and encourage them to book early. (KII x1 midwife at gateway clinic).
Things to improve on to ensure better care for the ANC patients	Ensure that communities are aware of when to start ANC	*Our community health worker teaches about early bookings and the benefits of it but as we said there are cultural restrictions that women face that prevent them from accessing the clinic. So this health education does not help. I don't think there is anything that we can do to improve this situation especially because there is serious shortage of staff in our clinic. (KII x1 midwife at gateway clinic).*
	Improve access to the clinic & reduce waiting time	*If human resource can be increased and antenatal services to be open for 7days a week as other patient or pregnant mothers have reported already that they cannot get time off from work to attend the clinic. (KII x 1 midwife at MUCPP).*
		Our area is far from the community it serves and they need transport to help them travel to the clinic. we have raised this issue in the clinic community we are waiting for their feedback. (KII Bloemspruit midwife).
	Training of healthcare workers on good attitudes.	*Nurses must learn to do their best and give* patient centred care *(KII Bloemspruit midwife).*
		I agree we are short staffed but that should not make nurses to be rude to patients. It is not right. Patients' rights are violated every day. What can you do? Nothing! (KII MUCPP midwife).
		Our policies confuse us. They want us to attend to all the patients, but there is no over time if you work beyond your working ours. We can't claim! So why bother at 16h00 you tell them to come tomorrow. (midwife at MUCPP) .
		Our clinic is supposed to be 24 hours but

		due to shortage of staff it is impossible. (KII at MUCPP).

4.4 Discussion on themes formulated

4.4.1 Socio-cultural barriers to utilisation of ANC health facilities in the Bloemfontein sub-District

The socio-cultural barriers to utilisation of ANC services in the participating healthcare facilities were cultural beliefs and practices, fear of rejection and judgement, deficient knowledge about TOP and lacking knowledge about ANC.

4.4.1.1 Cultural beliefs and practices that are related to concealment of pregnancy

A number of participants indicated that they delayed accessing ANC due to their cultural beliefs and practices. These cultural beliefs and practices encouraged them to conceal their pregnancies. Their culture required them to keep their pregnancy a secret until it can be seen. This is due to fear of what they believe are witch craft and bad spirits. Some of the participants indicated:

> *As a black person, pregnancy is a secret and can only be revealed when it shows. This was reports by 4 participants from MUCPP FGD.*

> *We are afraid of witch craft and walking over bad spirit in the location, and getting to meet people who had miscarried as it is a bad omen. (2 participants from FGD, MUCCP and bloemspruit.*

> *I belief in witch craft exists and therefore I only attend the clinic when my tummy starts to show. I don't want to walk or cross dark spirits which will affect my baby or even myself. (3 participants from Bloemspruit clinic)*

One of the participants indicated that the belief to conceal a pregnancy, together with the fear of witch craft, make it difficult for her to start ANC early in her pregnancy:

> *I was aware of ANC early visits but afraid of witch craft and walking over bad spirit. This was raised by a participant from MUCPP clinic*

While other participants (2) indicated that they were prevented from attending ANC early in their pregnancies:

> *I was not allowed to start ANC before the pregnancy showed. (1 from gateway and MUCPP respectively)*

The fear of witch craft during pregnancy has been reported by many researchers. In their study Haddad, *et al* (2016) found that the fears of being bewitching delayed pregnant women to access HIV testing and by doing so, putting themselves and their babies at risk. According to Chimatiro *et al* (2018) hiding a pregnancy in early months contributes to low ANC attendance during the first trimester. In early pregnancy, some pregnant women take traditional medicine that they believe protects the pregnancy from witch craft with no knowledge of the contents and the medicine's impact on the pregnancy.

Ansong, Asampong and Adongo (2022) argue that although socio-cultural beliefs and practices are wide spread in many cultures, they cover ANC through childbirth to the postnatal period and not all of them should be considered harmful. The harmless cultural practices should be accepted and used to improve ANC attendance, delivery and postnatal care. The acceptance of harmless social practices during labour improves trust between the healthcare service provider and the community.

The community must be made aware of the harmful effects of some cultural beliefs and practices to ensure that pregnant women are prevented and protected from taking part in them. It is important that healthcare workers inform communities the harmful practices long before young women become pregnant, or there is a family that is a pregnant. Education on cultural beliefs that are related to pregnancy must form part of community health education programmes to ensure that all age groups are reached and informed (Ansong, *et al*, 2022).

Another issue that was raised with regards to cultural beliefs was the involvement of pregnant women's partners during their visit to ANC as midwives encouraged them to bring their partners along. Out of the 25 participants only six reported that their partners were involved in their pregnancy and often accompanied them to the

healthcare facilities. 19 indicated that they did not receive any support from their partners. As some of them indicated:

> *My partner said that he is trying to make a living and cannot afford to sit the whole day at the clinic but rather go look for other jobs. (6 participants from MUCPP FGD)*

This finding is contrary to statements made in a study by Chimatiro *et al*., (2018) where Malawian women did not attend the clinic alone. This is due to the fact that the clinic does not attend to unmarried pregnant women. Those that are unmarried need a letter from the head chief of the village. Due to this, pregnant women start ANC late.

A study in Sudan indicated that pregnant women were restricted by their husbands from attending ANC, because they did not want their wives to travel to healthcare facilities without them being there to ensure security. These men were not readily available to accompany their wives because of different reasons. Some men did not see the necessity to attend ANC because in previous years their mothers safely gave birth to them without attending any ANC (Wilunda, *et al.*, 2017).

When both partners are present at antenatal care clinic appointments, the chance of experiencing delays in utilisation of ANC and in making decisions where emergency healthcare is needed, is prevented and limited, as women are dependent on their husband to make decision on their behalf in Tanzania, as argued by (Gibore, Bali, & Kibusi, 2019). Despite the call to involve men in ANC, a current study in South Africa has shown that many women still indicated some reluctance to attend ANC with their partners as their intention when participating is not well understood by both women and men. The healthcare facilities that participated in this study lacked the facilities to accommodate men as the pregnant women complained about lack of space to sit. The facilities were not couple-friendly. Various women had no partners to accompany them as they indicated that they disappeared once they learnt about their pregnancies. They had no partner to accompany them to ANC appointments.

Although partner involvement provides physical and emotional support during pregnancy, in many healthcare facilities healthcare providers do not usually have discussions with the partners about maternal health issues. In other words, healthcare providers do not fully consider them in the care of their pregnant partner. It is important when encouraging male partner involvement that issues of religion, occupation, ethnicity, time spent waiting for ANC and men's perception about the attitude of healthcare providers toward them as male partners who accompanied their female partner will also come into play. It is therefore important that health education lessons that are given during ANC include and empower men with essential information in order for them to have a meaningful involvement in ANC services. Healthcare providers should accommodate them as part of the patients they deal with in the ANC clinic. They should not be ignored but rather encouraged to attend and be present when they examine their partners. This will empower them to better understand the reasons for ANC attendance (Gibore, et al, 2019).

4.4.1.2 Fear of rejection and judgement

Some participants delayed accessing ANC services because of fear for judgement from their partners, families and schools. Two of the participants were afraid that their partners will reject them when they realise that they were pregnant because they had not planned for the pregnancy and their partners might not be interested in the baby. One of the participants who was a student stated:

> *I was scared might be rejected by the father of the baby. (1 participant from Bloemspruit)*

Another Bloemspruit participant said:

> *It was an unwanted pregnancy and my partner had limited interest in the welfare of the growing foetus.*

Furthermore, two participants at MUCPP FGD who were still at school said they feared rejection from their families.

> *I had fear of rejection by my family because I got pregnant while at school.*

We broke up before I knew I was pregnant and was afraid to be accused of cheating. (2 participants at Bloemspruit FGD)

Fear that everybody will judge me, because I was still at school, said the participant at MUCPP FGD.

The fear of rejection and judgement is common among unmarried women and adolescents. This is due to the belief that pregnancies among adolescents are related to their deviant, irresponsible and shameful behaviours. These beliefs make adolescents fearful of their families' reaction, the community, school, and even the ANC facilities (Erasmus, Knight & Dutton, 2020).

4.4.1.3 Christian beliefs related to TOP

One of the participants indicated that she was considering termination of pregnancy (TOP) but because of her religious belief as a Christian, she had to decide against the idea and continue with her unplanned pregnancy. This often leads to a problem between mother and child and increases the possibility of relationship problems in the future or even child abandonment. This delayed her from attending ANC during the first trimester of her pregnancy.

I wanted TOP but my Christian beliefs did not allow. (1 participant at Bloemspruit FGD)

Many pregnant women delay accessing TOP services because of lack of knowledge, indecision and failure to receive the service due to the absence of a TOP provider at the healthcare facilities. Delay in accessing TOP often lead women to not get the abortion done because of the maturity of the pregnancy. Evidence shows that suspicion of pregnancy, confirmation of pregnancy and deciding to have TOP delay the timing of ANC. This is influenced by the complex decisions women have to make during pregnancy starting from acceptance of the pregnancy itself to acknowledging the need for ANC (Mizana, Woyecha & Abdu, 2020; Jinga, Mongwenyana, Moolla, Malete & Onoya, 2019). Frohwirth, Coleman and Moore, (2018), argued that there is a correlation between religious beliefs, abortion attitudes, behaviours and the stigma

related to TOP. Religion often causes abortion stigma manifestations and management strategies related to the healthcare providers' religion. This often delays women from accessing the services that they need and ANC services needed for a healthy pregnancy outcome

4.4.1.4 Knowledge about ANC

Educational knowledge on pregnancy and sexual reproductive health related methods is vital. Every woman should be educated on her available options in order to make informed decisions. It is imperative to offer education as it plays a major role in the influencing of healthcare services to pregnant and post-natal women so that they can understand the importance of attending ANC (Ugbor, Wayas, Onyinye, Nwanosike & Dominic, 2017).

Out of the combined number of (28) participants for all three facilities, twenty (20) of the participants had limited knowledge on when to start ANC and on the amount of visits they are recommended to attend.

I think I can attend from seven months when my tummy is showing. (2 MUCPP participants)

I am only attending so I can have a card, because if you don't at delivery time nurses will be scolding at me. (1 participant from MUCPP)

I attend clinic, because I had a miscarriage previously and was told I had hypertension, so I don't want to experience the same. I want my child to be safe, so I do understand the importance of attending. (1 gateway, 1 MUCPP and 2 Bloemspruit participants from respective FGD).

I think we should attend all nine months of pregnancy just for safety. (3 participants from Bloemspruit and 2 from MUCPP)

Two KIIs indicated the challenges they face to encourage pregnant women to keep their appointments and attend the ANC appointments as required:

Although we teach women about attending all the required ANC visits, many of them will miss one or two visits for different reasons. It is really difficult. (midwives from gateway and MUCPP)

Another KII indicated that they see a pregnant woman when they present themselves at the clinic at any stage of their pregnancies.

There is no way to encourage pregnant women to start early attending ANC according to the ANC guidelines, because we only see pregnant women that present themselves at the clinic with their pregnancy already showing and advance. (midwife from Bloemspruit)

These findings are similar to those reported by Drigo, *et al*., (2020) in their study in Mpumalanga province South Africa where they found that pregnant women were unsure of when to start to attend ANC visits. Titaley, Dibley and Roberts (2010) stated that the lack of knowledge with regards to a healthy pregnancy and the importance of ANC during pregnancy have been reported as the hindering factors for low number of access to ANC services in Indonesia.

4.3.1 Economic barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-District

4.3.1.1 Transportation challenges

Since ANC services are free in South Africa participants only mentioned challenges that they face in getting to the healthcare facilities. Challenges included a lack of transport due to lack of money, lack of money to buy food as they spend long hours at the clinic during their visit.

I am dependant on my parents financially so it was difficult to ask for transport money from them. (2 participants from MUCPP and 1 from Bloemspruit FGD)

I discovered at three weeks that I am pregnant, I was sent back to also be seen after a month. When I came again for follow-up on the given date. I was tested

for pregnancy and again was given a month date. It was not pleasant for me as I don't have money for all the time to come, and I wait the whole day and even the little food I bring, it gets finished and I get hungry. (1 participant from MUCPP FGD).

Another challenge pregnant women face due to the long hours they spend at the clinic is a lack of food or money to buy food when they do not have money.

Some of us do not have money to buy food. We try and bring our food own from home because of the long waiting that we do in his clinic. (all 5 participants were from MUCPP FGD).

An association between employment and inadequate antenatal contacts was also found in a study conducted in Saudi Arabia (Al-Wutayd, 2020). The issue of lack of money was raised in a study conducted in Nepal by Lama and Krishna (2014) who found that although the Nepal government provide free ANC services, clinics and CHCs do not have X-ray machines. Antenatal patients are sometimes referred to hospitals that are far from their communities and then they need money to get to the facility.

4.3.2 Health-knowledge related barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-District

The health-knowledge that participants received from the clinic during their ANC visits was experienced differently by the participants. Some were encouraged to visit the clinic early to attend the health education lessons, because it teaches them how to live a healthy life. Others purposely came late to avoid the sessions because they found it boring to listen to the same lessons for all their pregnancies. Some of the benefits of the health education lessons indicated by the participants were the following:

When we visit the clinic there is a session in the morning where they teach us about our health, I always come early because I have learnt a lot about how to keep myself healthy. (1 participant from gateway).

Another participant learnt the importance of taking the prenatal tablets they give them from at the health education lessons. The participants' answers also indicated that some healthcare workers do not explain the treatment they are giving to pregnant women.

> *I use to avoid taking the tablets that they give us at the clinic. I used to throw them away. The day they taught us about what they do in our body and the baby I started taking them & feel sorry that I threw them away. (1 participant from MUCPP FGD).*

For some participants the health education lessons helped them gain knowledge about the tests that are done during ANC and the reasons for doing them. This informs them more about the diseases they have but were unaware of. The following participants from MUCPP FGD indicated that:

> *They teach us about the diseases they are testing us for and why. (8)*

> *Sometimes you start clinic without knowing that you are sick and the results tell them that you have HIV. To me that is good. They even tell you that you do not have to tell people about it. (3)*

Some participants were concerned that the healthcare providers are incapable to keep their test results confidential. As some of the participants indicated:

> *I don't want people to know about my HIV status and I fear nurses are talking about us. They have no confidentiality. (6)*

Some participants view the ANC clinic environment as a place that allows them to share their challenges and experiences. Some of the participants who were teenage mothers indicated:

> *The older women tell us their experiences. It helps us to understand situation when they occur like labour pains. (3 participants from MUCPP and 1 participant from Bloemspruit).*

One pregnant teenager from Bloemspruit viewed other pregnant women at the antenatal care clinic as her support system as she had no one to share her experiences with.

> *Sometimes I feel sad because I have no one to talk to about the baby in my tummy because my partner has disappeared from our lives, but when I get to the clinic I feel better because people talk about their experiences. (view of one participant from Bloemspruit clinic)*

Pregnancy education and education with regards to sexual reproductive health related methods are vital topics to be informed about. Every woman should be educated on options they have in order to make informed decision. It is imperative to offer education so that women and men who are interested can understand the importance of attending ANC (Ugbor, *et al*., 2017). Twenty (20) participants in this study lacked knowledge on when to start ANC and on the amount of visits they are expected to attend.

These findings correlated with reports by Drigo, *et al*., (2020) in their study in Mpumalanga province South Africa. Titaley, *et al*., (2010) also stated that lack of knowledge about healthy pregnancy and the importance of ANC during pregnancy have been reported as the hindering factors for low number of pregnant women accessing ANC services in Indonesia. Lama and Krishna (2014) argue that illiteracy and the lack of awareness were barriers for not utilising the maternal healthcare services because they do not know the advantages of utilising available healthcare. There is a need for healthcare services to raise awareness about ANC in all communities, including rural and remote communities, because they might not be aware of the available services and their benefits to their health. Those women should be encouraged to visit the available health facilities as soon as they suspect that they are pregnant to confirm their pregnancy and commence ANC early as required.

4.3.3 Health institutional related barriers to the utilisation of ANC by pregnant women in the Bloemfontein sub-District

Health institution barriers included long travel distance, bad attitudes of healthcare workers, long waiting times and inadequate human resources.

4.3.3.1 Long travel distance

There were 25 participants in this study and six of them, especially those who were seen from Bloemspruit clinic, complained about the distance they had to travel to the clinic for their ANC appointments. The long distance to the clinic leads to long travel time which is a discouragement if you are travelling alone. Eight of the participants indicated:

> *The area that we live in, the infrastructure is bad and there are no taxis and we have to walk to the clinic and it is far from where we live approximately 10 kilometres. (All 8 participants were from Bloemspruit clinic).*

A KII who was a midwife conducting antenatal care clinic at the time of interview and data collection also reiterated that the area is constantly under development with new squatter camps erecting which makes it difficult for her patients to honour their appointments.

> *The area that we live in, the infrastructure is bad and there are no taxis and we have to walk to the clinic. It's not quite safe for pregnant women to walk long distances alone. (1 Bloemspruit participant at the FGD).*

> *The area demarcation has caused so much challenges as it has displaced other people from areas near to them to far clinic, which is now a problem to attend as it comes with costs. (KII x1 midwife from MUCPP clinic)*

Another KII from another clinic indicated the distance challenge that some of the pregnant women from the local informal settlements face as the area continues to grow.

The clinic is far from people as the area is growing due to new developments and informal settlements. This is against the WHO distance that states that the clinic should be 5km away from people. Patients particularly from the new informal settlements have to walk long distance to come to the clinic as there is no public transport from their areas. (KII x 1 midwife from Bloemspruit)

The transport and finances are the problem leading to poor attendance. (KIIx3 midwives from)

Lack of identity documents as they are afraid they will be sent back especially clients that are originally from Lesotho. (KIIx2 midwives from Bloemspruit clinic)

Another participant from Bloemspruit FGD indicated:

I do not have any transport. I walk alone to the clinic. (1 participant from Bloemspruit clinic).

Five participants reported that they had not disclosed their pregnancies to their families as they are still in school which makes it difficult for them to ask for money to travel to the clinic for ANC appointments. Their feared their parents' reactions as they were still in financial care of their parents.

4.3.3.2 Bad attitudes of the healthcare workers

Poor attitude of healthcare workers was mentioned by all the participants. They mentioned that healthcare workers' attitudes were unacceptable and made it difficult for them to want to go back when they assessed the services they received the last time they visited the clinic. Nineteen participants agreed to the same argued statement on bad attitudes of healthcare workers

This was emphasised by participant #12 who mentioned that they were sometimes treated badly by nurses.

They scream at us like babies, they have no respect for us. They are not friendly.

Participant #2 from gateway FGD indicated that there was lack of professionalism among the healthcare providers:

Nurses are very bad behaved, they scold us like babies and delay in helping us. We arrive early at the clinic only to wait the whole day and many at times, we will be send back without the necessary help. (19)

We don't come from same family background some of us struggle with necessities, but they will tell the whole clinic that we stink and did not bath. It is not like we want to walk around without bathing, but we don't have soap all the time, so they are mocking us. (2)

Pregnant women must start attending clinic at around 20 weeks to make sure that the mother and the baby child are safe and healthy according to my knowledge. The barrier I have is that the clinic is not accessible over weekend and the negative treatment we get from healthcare workers. (1 participant from gateway clinic FGD).

During the discussions, one participant who came for her post-natal follow-up (Bloemspruit FGD), said:

I came to the clinic at one month after I discovered that I missed my period, and the health care works asked me why I came early. She also asked me if I plan the pregnancy. I was given a return date of after a month again. I did not like it because I am not working and don't have money for up and down and not getting assisted.

There is no dedicated space for us. We stand on our feet, some of us are hypertensive and legs get swollen up.

Participant #21 Bloemspruit FGD who came for her post-natal visit, also confirmed she came when she was seven months pregnant as she was in another area and said she was afraid to access services but rather preferred to attend a clinic where she felt comfortable.

One KII, when asked about the complaints of patients, related to the bad attitudes of the nurses and stated:

Not all healthcare workers are bad. In our clinic I am considered the friendliest and preferred nurse by patients. I am often overloaded with patients as they come to the ANC when they know it is my week to be on duty. (KII Bloemspruit clinic)

MUCPP KII indicated:

All pregnant and post-natal women have the right to be afforded respect, care and dignity. The care which is provided to them should be provided in a respectful and dignified manner. As the person in-charge of this facility when I ask ANC patients about their delays most of them mention one thing that prevent them from visiting healthcare facilities for early ANC booking as the attitudes of nurses.

Bloemspruit KII indicated:

I enjoy doing ANC clinic but I don't enjoy doing three people's job. I however, enjoy seeing patients happy with healthy babies even those referred with complications coming back healthy and well without any loss. We have to see patients as they come. The bookings are full until January 2022 and therefore even those that comes early we give them later dates as there is nothing I can do. She further indicated that participants starting clinic as early as possible like around 16 weeks she manages to book sonar appointments and start ARV for those who are RVD positive for early viral suppression, and to pick up hypertension, do baseline bloods as needed is very important.

4.3.3.3 Long waiting times

In addition to the healthcare workers' attitude problems, various pregnant and post-natal women (n=15) mentioned that the long waiting times in healthcare facilities prevented them to visit ANC facilities and therefore they delayed to seek maternal healthcare. They do not have time to wait for long hours at the healthcare facilities as

they had other responsibilities apart from going to the clinic. In all the three healthcare facilities that were included in the study, the pregnant women were very disappointed with the time they had to spend before they were assisted by a midwife.

> *Long waiting times also cited as one of the barriers by participant #12, she said they arrive at the clinic 08:30am and sit the whole day until 15h00-16h00 when they are tired and hungry.*
> *For a person to do all investigation leading to patients waiting a long time at the clinic before they are assisted.*

A study by Alibhai, Ziegler, Meddings, Batung and Luginaah (2022) indicates that lack of resources, shortened operational hours, long waiting times and a lack of trust in healthcare providers, all serve as barriers that prevent women from accessing quality ANC. Alibhai, et al., (2022), further indicated that healthcare providers have been described by women as incompetent and as having negative attitudes towards patients in the ANC clinics.

4.3.3.4 Inadequate human resource

When KIIs were presented with the pregnant and postnatal complaints during ANC visits and asked if there was anything that could be done to improve ANC services in their clinics, they indicated the following:

Key informant number #2 from gateway clinic indicated that if human resource can be increased and antenatal services to be open for seven days a week as other patient or pregnant mothers have reported already that they cannot get time off from work to attend the clinic.

Another key informant indicated that first time pregnant women come to the clinic with fear due to the stories they hear from those that have experienced or perceived challenges at the clinic.

> *Pregnant women have fear of the unknown, particularly those with unplanned pregnancies and other first timers often raise issues of concern and delay their*

booking based on what they heard not knowing the dangers of pregnancy when they delay their bookings.

Another issue raised by another KII was the booking system.

The booking system needs more time. It is not easy to do it if you are working with other health care problems and at the same time working on the ANC visits.

First, booking is time consuming if only they can be seen first or have someone dedicated to them only.

The lack and shortage of healthcare resources, including staff, have been mentioned in a study conducted by Alibhai, Ziegler, Meddings, Batung & Luginaah,(2022) as a barrier to access ANC services as it makes it difficult to provide high quality ANC and therefore have negative impacts on ANC utilisation .

4.3.3.5 Communication challenges

The participating clinics take care of women from different areas, including other countries. The key informants often had language challenges and used interpreters to communicate with the patients. The following are some of the issues raised by the KIIs:

As a nurse, sometimes language is the barrier but I have an assistant nurse who is interpreting for me when the need arises. (KII x1 Bloemspruit clinic)

Patients don't come in time due to lack of knowledge, teenagers are ashamed to come early, the come late and mostly are from Lesotho and don't have time to come to the clinic many times, and have a perception that the staff have bad attitudes. (KII Bloemspruit clinic)

Some of the women say they did not know they are pregnant until they saw a growing stomach or felt foetal movements. Others are in denial as when they bring the babies for follow up you realise they are pregnant again. One patient

who was bringing her baby for 12 months follow up was pregnant and already 6cm dilated at the time. (KII Bloemspruit clinic)

Some healthcare professionals are unaware of the importance of their way to communication which was a factor that contributed to women not attending the clinic in due times. Interventions to improve attendance must be multi-faceted rather than to focus on individual women alone. Despite significant attempts to provide maternal healthcare services in low and middle income countries to meet the sustainable development goals, huge challenges that prevent women to access maternal healthcare services, particularly among the socially vulnerable individuals, still persist (Victoria, et al., 2015). Measures put in place in many healthcare facilities do not match the quality of services delivered during ANC visits (Kanyangarara, Munos & Walker, 2017)**.**

Barriers experienced by women that attend ANC appointments must be addressed in order to increase attendance rates. There is a need to improve the attitudes and communication skills of healthcare workers. In-service training on communication skills and the Batho pele process must be conducted to remind nurses of their role in ANC (Maluleke., Hongoro., Labadarios., Ncayiyana., Freeman., Zungu., Mbelle., Reddy., Shisana., Douglas., Nyembezi., Chola., Sewpaul., Mokhele., Meiring., Weir-Smith., Petersen., Manyaapelo., Ngobeni., Mahlangu., Khan., Zama., Mona., Panyaza., Kheswa., Dlamini., Zulu., Dlamini & Naidoo, 2018). It is recommended that there should be performance-based financing schemes, which could be implemented to encourage better performance among the ANC providers and that could potentially demerit bad healthcare providers' performance based on patients' evaluations. Financial incentives for the best performing healthcare facilities that provide high quality, patient-centred ANC, could be launched. It must be ensured that the money received by the facility is used to hire additional staff and that necessary equipment is purchased. This will further enhance the provision of quality of care in high performing facilities. It will encourage other facilities to improve their ANC services and by doing so reduce maternal and neonatal morbidity and mortality (Alibhai, *et al.,* 2022).

4.3.4 Improvement points ensure better care for the ANC patients

When key informants were asked about points that needed improvement in their healthcare facilities, to ensure that their clients are comfortable, they responded that ANC visits should be started with as recommended and that the mother and baby are safe. They mentioned the following:

> *For services to be improved, staff should be augmented, as the only nurse who is to do both antenatal and post-natal clinic, which takes time especially when you have a first visit. We don't have tools of trade like obstetric wheels, it will be nice to have for accuracy. Infrastructure is also a problem, the park home in use is very cold in winter and very hot in summer. Maternal case records are also needed for us to do the job well. (KII from all participating facilities)*

Key informants in the three facilities stated their needs in their respective facilities. They did not mention anything strategic points on how to improve the nurses' attitudes. Although the lack of equipment can contribute to bad attitudes among nurses, it is important for the nurses to be approachable and to do their work as it is required from them. They should respect the rights of their patients despite any possible differences there might be between them. The programmes to reduce maternal mortality in South Africa should be implemented at all levels of maternal care. This will increase pregnant women's trust in healthcare providers, improve ANC attendance and the quality of prenatal care that is offered to women of all age groups, without fear of judgement or ill-treatment. It is important that ANC health education should include the rights of women and their rights as patients within a facility to ensure that they will be able to fight for their rights if they are violated (Maluleke, *et al*., 2018).

According to Alibhai, *et al.,* (2022) things that should be done to improve ANC services and attendance are referred to as "enabling factors". Enabling factors include financial and organisational issues such as conflict resolution, structural resources, safety, distance from ANC resources, perceived poor quality of ANC and lastly, socio-economic status. There is a need to assist pregnant women with transport to reach healthcare facilities and to ensure that healthcare facilities are within safe walking distance for pregnant women.

There is therefore a need for a multi-sectoral approach to promote ANC utilisation in the Bloemfontein sub-District. Among other interventions to address the identified barriers, there is a need to improve sharing of health information among women of child bearing age on the benefits of attending the recommended amount of ANC visits according to WHO (2016). Ongoing workshops and in-service training for midwives to improve quality of care and to strengthen community outreach programs must be conducted to increase access to maternal healthcare services. Healthcare practitioners should acknowledge their role and attitude and practices play of it on women's preferences of healthcare facilities. They must also find ways to incorporate pregnant women's opinions, feelings, as well as social, culture, religious practices. Ways to incorporate these aspects as part of the provision of holistic ANC service should be explored.

4.4 Summary

This chapter highlighted the barriers that affect women's utilisation of ANC and mentioned suggestions made by the healthcare providers on ways to improve ANC utilisation in the Bloemfontein sub-District as being multi-faceted. The discussion of the barriers followed the headings based on the barriers that were explored according to the objectives of the study: The socio-cultural barriers, economic barriers; health-knowledge related barriers and health institution barriers to the utilisation of ANC healthcare facilities in the Bloemfontein sub-district. Barriers to ANC was identified and do exist on personal, socio-cultural, socio-economic and health service levels. Practice-based interventions may involve changes in times or location of offered services and to explore changes to how staff communicate with women.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY

5.1 Introduction

Chapter five offers a brief summary of the study, its aim and objectives. It discusses the conclusions and recommendations based on the objectives of the study and findings thereof.

5.2 Summary of the study

South Africa, like many other countries in the world, offer free maternal healthcare services in order to minimise the high maternal mortality rates worldwide through high ANC coverage. Inadequate utilisation of ANC services among pregnant women continue to exist despite the efforts that are made. Several studies have reported a number of barriers responsible for the under-utilisation of ANC services in healthcare facilities in Africa. Different maternal healthcare programs have been implemented to curb maternal deaths but poor ANC attendance and failure to meet the targets for ANC attendance at the district and Metro, on provincial as well as national level, continue to occur in South Africa. It was therefore important to discover the reasons that prevent pregnant women to access the available ANC services in the Bloemfontein sub-district as ANC coverage in Bloemfontein sub-district of Mangaung was considered low in the 2018 Free State Department of Health annual performance report. Pregnant women attend ANC services late in their pregnancies and do not attend the follow up ANC appointments as recommended.

The study aimed to explore and describe barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro, based on the following objectives:

i. to explore the socio-cultural barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro;

ii. to explore the economic barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro;
iii. to explore health-knowledge related barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro;
iv. to explore health institutional related barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district of Mangaung Metro.

Three FGDs and four KIIs were used to collect data from the three participating PHC facilities. Quantitative analysis of the demographic background of the participants was done. Thematic analysis of the qualitative data collected was conducted. A total of 25 participants participated in the FGDs and four key informants were interviewed. The mean age of the pregnant and postnatal women that participated in the FGDs was 25.76 years. Only five participants considered themselves married and only two participants were from the rural areas. There were no participants that had more than four pregnancies and the majority of participants were of Christian religion.

The thematic analysis related to the barriers to utilisation of ANC by pregnant women in Bloemfontein sub-district was conducted under the prior identified barriers in existing literature that were used as study objectives. The participant responses from each factor were analysed into categories. Categories formed themes under each identified barrier.

- The socio-cultural barriers to utilisation of ANC services in the participating healthcare facilities were cultural beliefs and practices, fear of rejection and judgement, deficient knowledge about TOP and deficient knowledge about ANC.
- Economic barriers to utilisation of ANC by pregnant women in the Bloemfontein sub-district mainly included transportation challenges due to unavailability of public transport in some areas, lack of money for transport and lack of food due to unemployment.
- The health-knowledge that participants were received from the clinic during their ANC visits were viewed by some participants as fruitful and encouraged pregnant women to start ANC clinic visits early and to attend health education lessons that educates them about healthy living. Others were purposely

coming late to avoid the health education lessons, because they were bored and tired of listening to the same lessons.

- Health institution barriers included long travel distance, poor attitudes of healthcare workers and communication skills, long waiting times and inadequate human resources. The KIIs indicated points that need improvement in their respective healthcare facilities to ensure that their clients are comfortable, start ANC visits early and ensure positive pregnancy outcomes for both mother and baby.

5.3 Conclusions of the study

The objectives of the study were to explore the barriers to utilisation of ANC services in Bloemfontein sub-district of Mangaung Metro. Themes and sub-themes were discussed as they developed from chapter four's study findings. The finding about the socio-cultural barriers to utilisation of ANC by pregnant women, was that religious beliefs affected the initiation of ANC early in pregnancies as participants mentioned that when they found out they were pregnant they delayed seeking care because they considered an abortion but ultimately decided against it and went to the clinic for ANC. Witch craft was also one of the contributing factors for delaying ANC visits. Participants made it clear that they rather wanted to wait until they were showing.

The economic barriers to utilisation of ANC by pregnant and post-natal women, women mentioned that unemployment had a huge impact on deciding to initiate ANC on time. Unemployed pregnant women are unable to make financial decisions because they are dependent on other people, like family members.

Health-knowledge related barriers to utilisation of ANC by pregnant women were not really distinctive as the women were aware of the importance to attend a clinic, however, there were other contributing factors like not knowing exactly when to start the ANC clinic visits and participants lacked knowledge of how many visits they are expected to attend.

Health institutional related barriers to the utilisation of ANC by pregnant women as emerged in the themes and sub-themes were the attitudes of nurses. Therefore, it is imperative for nurses to be able to give education and have customer care etiquette in order for them to have better relationship with their patients. Long walking distance was raised as a barrier by participants who do not live within walking distance as recommended by the WHO.

5.4 Recommendations

According to the findings from this study, it is recommended that there should be improvement on health knowledge of pregnant and post-natal women regarding ANC to breach the barriers identified. There should be materials, such as pamphlets or brochures and other forms of media, for example television and radio, should be made available to pregnant women to enhance their knowledge and raise awareness about the importance of ANC services; health education regarding ANC services must be available to pregnant and post-natal women. Teenagers, who are of child bearing age, should be offered healthcare education every day in the waiting areas of healthcare facilities. The healthcare workers should promote active participation of pregnant and post-natal women, including teenagers. Promotion of sexual reproductive health should be emphasised during the health education sessions and opportunities should be provided to ask questions so that they can identify the level of the women's health knowledge.

Socio cultural and religious beliefs were also identified as barriers to utilisation of ANC therefore it is suggested to include traditional healers in the follow up research study. It was identified that some of the participants have socio-cultural barriers and they sought assistance from healers by means of herbs that they could drink to protect their pregnancy. Fostering good relationship with traditional healers will improve how women interpret the care they receive at healthcare facilities

Institutional barriers identified to be addressed by having refresher workshops and in-house training should be conducted for healthcare workers to improve their skills and to their observed weaknesses which were linked as barriers to utilisation of ANC services. Maternal health is important and the services should be specialised. There

should be a dedicated clinic for ANC and it should operate during weekends as it is evident through the FGDs with participants that they are not given off days by their employers to attend the clinic during the week - which was also one of the barriers for late reporting for ANC. More skilled staff should be employed and must be dedicated to manage ANC clinics well. Guidelines recommend that starting time for ANC is preferably before 12 weeks. HIV is one of the contributing factors to mortality. After exhausting all other options, it is advised to initiate ANC around 10 weeks of pregnancy to avoid maternal and infant mortality and to meet the requirements of the SDG and to have better outcomes in the future.

It is evident that when a patient tested positive for HIV, they can immediately start with ARVs. ARVs are not used to treat or manage all other potentially related pregnancy complications. However, this study was more focused on barriers so that future researchers can explore the possibility to change the policy and guidelines on ANC. As a country South Africa has never reached 100% coverage under the current guidelines. Perceptions have not changed or been amended to suit the country in its own context.

South Africa has a unique setting and the healthcare system should benefit the local people and not impose what is happening in other countries which. Other countries have a different setting, however other researchers found that there are global barriers to utilisation of ANC services and it does not only apply to South Africa.

Practices of the past still prevail post 1994. All the barriers are still experienced by the larger community as good quality healthcare benefits the minority who can afford private healthcare while 86% are seen at public healthcare facilities.

Findings and recommendations from this study will be kept at the University of Fort Hare in the library and other copies will be submitted to the Department of Health in the Free State Province. The researcher will present the findings of the study at national and international conferences and seminars. Articles will be published in peer-reviewed and accredited national and international journals.

5.5 Summary

This was a qualitative explorative, contextual and descriptive study design on barriers to utilisation of ANC services. The study has revealed that women in the Bloemfontein area are faced with various challenges to access maternal healthcare services. Only a fraction of these women are able to go at an early stage in their pregnancies for their ANC visit as stipulated in the maternal guidelines. The study identified barriers to utilisation of ANC, for example, lack of knowledge, cultural beliefs and attitudes of healthcare workers and long waiting times. Some raised issues of transport as the facilities are far from them, especially in the Bloemspruit area**.** The results can inform policy makers to develop strategies to increase service uptake in such settings based on local evidence. By doing so, they will assist the government to improve indicators related to maternal health - especially ANC services, to reduce the morbidity and mortality rate of pregnant women and/or their babies. The use of qualitative methods enabled the researcher to explore and understand barriers that are experienced by both pregnant and post-natal women in utilising ANC and the delivery of ANC services in Bloemfontein sub-district of Mangaung Metro Free State.

REFERENCES

Adedokun, S.T., & Yaya, S. (2020). Correlates of antenatal care utilization among women of reproductive age in sub-Saharan Africa: evidence from multinomial analysis of demographic and health surveys (2010–2018) from 31 countries. *Arch Public Health* 78:134. https://doi.org/10.1186/s13690-020-00516-w

Aduloju, O.P., Akintayo, A.A., Ade-Ojo, I.P., Awoleke, J.O, Aduloju. T., & Ogundare, O.R. (2016). Gestational age at initiation of antenatal care in a tertiary hospital, Southwestern Nigeria. Niger *J Clin Pract*, 19:772-7.

Akhtar T., Khan M.A., & Afzal S., (2018). Women during pregnancy; workplace factors and their effects. *Professional Med J,* 25(3):440-447.

Amo-Adjei J., & Anamaale Tuoyire D. (2016) Effects of planned, mistimed and unwanted pregnancies on the use of prenatal health services in sub-Saharan Africa: a multicountry analysis of Demographic and Health Survey data. Trop Med Int Health. (12):1552-1561. doi: 10.1111/tmi.12788. Epub 2016 Oct 20. PMID: 27671922.

Alabi, A., O'Mahony, D., Wright, G & Ntsaba, M. (2015). Why are babies born before arrival at health facilities in King Sabata Dalindyebo Local Municipality, Eastern Cape,

South Africa? A qualitative study. African Journal of Primary Health Care & Family Medicine. 7. 10.4102/phcfm.v7i1.881.

Alibhai, K.M., Ziegler, B.R., Meddings, L., Batung, E., & Luginaah, I. (2022). Factors impacting antenatal care utilization: a systematic review of 37 fragile and conflict-affected situations. *Confl Health,* 16**:** 33. https://doi.org/10.1186/s13031-022-00459-9.

Alibekova R, Huang JP, Chen YH. Adequate prenatal care reduces the risk of adverse pregnancy outcomes in women with history of infertility: a nationwide population-based study. PLoS One. 2013 Dec 17;8(12):e84237. doi: 10.1371/journal.pone.0084237. PMID: 24358347; PMCID: PMC3866182.

Alkema, L., Chou, D., Hogan, D., Zhang, S., Moller, A.B., Gemmill, A., Fat, D.M., Boerma, T., Temmerman, M., Mathers, C., & Say, L. (2016). Global, regional, and national levels and trends in maternal mortality between 1990 and 2015,

with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. *Lancet,* 387 (10017), 462–

Agianto, A. (2016). Understanding ethical principles in nursing research. *Belitung Nursing Journal*, 2(2): 22–24. https://doi.org/10.33546/bnj.10

Al-Wutayd, O. (2020). Inadequate and late antenatal contacts among saudi mothers: a hospital-based cross-sectional study. *Int J Womens Health.*12: 731–738.

Ahmed, H., & Manzoor, I. (2019). Knowledge about the importance of antenatal care among females of child bearing age living in a suburban community of Lahore. *Pak J Med Sci.* 35(5): 1344–1348.

Amnesty International Struggle for Maternal Health: Barriers to Antenatal Care in South Africa, Executive Summary Amnesty International (2014). https://www.amnesty.org/download/Documents/4000/afr530062014en.pdf.

Ansong, J., Asampong, E., & Adongo, P.B. (2022). Socio-cultural beliefs and practices during pregnancy, child birth, and postnatal period: A qualitative study in Southern Ghana, Cogent *Public Health,* 9:1.

Aziato, L., Odai, P.N.A., & Omenyo, C.N. (2016). Religious beliefs and practices in pregnancy and labour: an inductive qualitative study among post-partum women in Ghana. *BMC Pregnancy Childbirth,* 16:138. https://doi.org/10.1186/s12884-016-0920-1

Bamford, L. *Maternal, newborn and child health*. In: Padarath. A, English R. South African Health Review (2012/13). Durban: Health Systems Trust.

Basic Antenatal Care (BANC) package in South Africa- motivation to increase the routine number of antenatal visits. (2007). Department of Health, South Africa.

Banda, I., Michelo, C., & Hazemba, A. (2012). Factors assosiated with late antental care attendance in selected rural and urban communities of copperbelt province of Zambia. *Med J Zambia*, 39(3): 29-36.

Barasa, K.S., Wanjoya, A.K., & Waititu, A.G. (2015). Analysis of determinants of antenatal care services utilization in Nairobi County Using Logistic Regression.

Barr, J.J., & Marugg, L. (2019). Impact of Marriage on Birth Outcomes: Pregnancy Risk Assessment Monitoring System, 2012–2014. *The Linacre Quarterly*. 86(2-3):225-230.

Battaglia, M.P. (2008). Non Probability Sampling . Encyclopedia of Survey Research Methods. SAGE.

Barrett, D., & Twvcross, A. (2018). Data collection in qualitative research. *Evidence Based Nursing*, 21(3):63-62. Available at: https://ebn.bmj.com/content/ebnurs/21/3/63.full.pdf (accessed 10 March 2022).

Bloom, S., Wypij, D., das Gupta, M. (2001). Dimensions of women's autonomy and the influence on maternal health care utilization in a north Indian city. Demography 38 (1), 67–78.*BMJ Editorial. Sa. Best age for childbearing remains 20-35 - Delaying risks heartbreak, say experts. BMJ 331:* 588-9

Bloch, J.R., Webb, D.A., Mathews, L., Dennis, E.F., Bennett, I.M., & Culhane, J.F. (2010). Beyond marital status: the quality of the mother-father relationship and its influence on reproductive health behaviour's and outcomes among unmarried low income pregnant women. *Maternal and child health journal*, 14(5), 726–734. https://doi.org/10.1007/s10995-009-0509-7

Bradley, E.H., Curry, LA., Devers, K.J. (2007) Qualitative data analysis for health services research: developing taxonomy, themes, and theory. Health Serv 42:1758–72. CrossRef PubMedWeb of ScienceGoogle Scholar

Burns, N., & Grove, S.K. (2020). The practice of nursing research: Appraisal, synthesis and generation of evidence (9th ed.). Texas: Elsevier/Sanders.

Burns, N., Grove, S., & Gray, J. (2015). Understanding Nursing Research: Building an Evidence-Based Practice (6th ed.). St Louis, MO: Elsevier Saunders.

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J., Neville, A.J. (2014) The use of triangulation in qualitative research. Oncol Nurs Forum.;41(5):545-7. doi: 10.1188/14.ONF.545-547. PMID: 25158659.

Chigona, K.M. (2018) Nurse support for young adults during a first antiretroviral therapy visit at an urban primary health care clinic in Malawi

Chelogoi, D. N., Jonyo, F., & Amadi, H. (2020). The Influence of Socio-Cultural Factors in Access to Healthcare in Kenya: A Case of Nairobi County, Kenya. *Open Journal of Social Sciences,* 8, 328-347. https://doi.org/10.4236/jss.2020.85023

Chhetri, G. (2015). Health seeking behaviour of pregnant women in Banke District, Nepal. Master (Department of Geography) Thesis. Trondheim: Norwegian University of Science and Technology.

Chimatiro, C.S., Hajison, P., Chipeta, E., & Muula, A.S. (2018). Understanding barriers preventing pregnant women from starting antenatal clinic in the first trimester of pregnancy in Ntcheu District-Malawi. Reproductive Health**.**

Cleary, S., Birch, S., Chimbindi, N., Silal, S., & McIntyre, D. (2013). Investigating the Affordability of Key Health Services in South Africa. *Soc Sci Med*.

Creswell, J.W., & Creswell, J.D. (2018). Research design: qualitative, quantitative, and mixed methods approaches. 5th edition. Los Angeles: SAGE.

Creswell, J.W. (2009). Research design: Qualitative, quantitative, and mixed methods approaches 3rd edition. Los Angeles: SAGE.

Department of Health. (2016). Guidelines for maternal care in South Africa: A manual for clinics, community health centres and district hospitals. 4th edition. Pretoria: National Department of Health.

District Health Information System, Free State Department of Health (2019). Pretoria, South Africa.

District Health Barometer (2017/18). National Health Department, Pretoria, South Africa. Health System Trust.

Duda, S.,Warburton, C.,& Black, N. (2020). Contextual Research. 10.1007/978-3-030-49059-1_3.

Drigo, L., Luvhengo, M., Lebese, R.T., & Makhado, L. (2020). Attitudes of Pregnant Women Towards Antenatal Care Services Provided in Primary Health Care Facilities of Mbombela Municipality, Mpumalanga Province, South Africa. *The Open Public Health Journal*.

Dywili, S.T.I. (2018). Identifying the target groups for the educational outreach to reduce BBAs in Mangaung. University of the Free State.

Dulla, D., Daka, D., & Wakgari, N. (2017). Antenatal Care Utilization and Its Associated Factors among Pregnant Women in Boricha District, Southern Ethiopia. *Diversity and equality in health and care, 14*.

Ebonwu, J., Mambauer, A., Uys, M., Wainberg, M., & Medina-Marino, A. (2018). Determinants of late antenatal care presentation in rural and peri-urban communities in South Africa: a cross-sectional study.

Ekabua, J., Ekabua, K., & Njoku, C. (2011). Proposed framework for making focused antenatal care services available: Obstetrics and Gyneacology Nigeria.

Eke, P., Ossai, E., Eze, I., & Ogbonnaya, L. (2021). Exploring providers' perceived barriers to utilization of antenatal and delivery services in urban and rural communities of Ebonyi state, Nigeria: A qualitative study. PloS one. 16. e0252024. 10.1371/journal.pone.0252024.

Eke, P.C., Ossai, E.N., Azuogu, B.N., Agu, P.A., & Ogbonnaya, L.U. (2021) Rural-urban differences in utilization of antenatal and delivery services in Ebonyi State, Nigeria. *Niger J Clin Pract*. 24(6):925-936. doi: 10.4103/njcp.njcp_629_19.

Erasmus, M.O., Knight, L., & Dutton, J. (2020). Barriers to accessing maternal health care amongst pregnant adolescents in South Africa: a qualitative study. I*nternational Journal of Public Health*, 65:469-476

Etikan, I., Musa, S.A., & Alkassim, R.S. (2016). Model. *American Journal of Theoretical and Applied statistics.* 4(5):322-328. Doi:10.11648/j.ajas.20150405.12.

Fagbamigbe, A.F., & Idemudia, E.S. (2015). Barriers to antenatal care use in Nigeria: evidences from non-users and implications for maternal health programming. *BMC Pregnancy Childbirth* 15 (1): 95.

Fawcett, T., & Rhynas, S. (2012). Taking a patient history: the role of the nurse. *NursingStandard*, *26*(24),41+. https://link.gale.com/apps/doc/A282215094/HRCA?u=anon~f7f7427a&sid=googleScholar&xid=1651c49c

Free State Department of health annual performance report, (2017/18) Financial year. Retrieved from: www.fshealth.gov.za

Frohwirth, L., Coleman, M., & Moore, A.M. (2018). Managing religion and morality within the abortion experience: qualitative interviews with women obtaining abortions in the U.S. *World Med Health Policy,* 10(4):381-400.

Galal, S. (2022a). Distribution of population in South Africa 2020, by marital status. Statista. Retrieved from: https://www.statista.com/statistics/1114298/distribution-of-population-in-south-africa-by-marital-status/ (accessed 29 May 2022).

Galal, S. (2022b). Demographics of South Africa - statistics & facts. Statistica. Retrieved from: https://www.statista.com/topics/7956/demographics-of-south-africa/ (accessed 29 May 2022).

Galal, S. (2021). Education in South Africa - statistics & facts. Statista. Retrieved from: https://www.statista.com/topics/8314/education-in-south-africa/#topicHeader__wrapper (accessed 29 May 2022).

Ganle, J. K., Parker, M., Fitzpatrick, R., & Otupiri, E. (2014). A qualitative study of health system barriers to accessibility and utilization of maternal and newborn healthcare services in Ghana after user-fee abolition. *BMC Pregnancy Childbirth,* 14:425.

Geller, S. E., Koch, A. R., Garland, C. E., MacDonald, E. J., Storey, F., & Lawton, B. (2018). A global view of severe maternal morbidity: Moving beyond maternal mortality. *Reproductive Health*, 15(1): 98.

Gibore, N.S., Bali, T.A.L. & Kibusi, S.M. (2019). Factors influencing men's involvement in antenatal care services: a cross-sectional study in a low resource setting, Central Tanzania. *Reprod Health,* 16**:**52. https://doi.org/10.1186/s12978-019-0721-x

Goddard, W. & Melville, S. (2004) "Research Methodology: An Introduction" 2nd edition, Blackwell Publishing

Gudayu, T.W., Woldeyohannes, S.M. & Abdo, A.A. (2014). Timing and factors associated with first antenatal care booking among pregnant mothers in Gondar Town; North West Ethiopia. *BMC Pregnancy Childbirth* 14:287

Haddad, D.N., Makin, J.D., Pattinson, R.C., & Forsyth, B.W. (2016). Barriers to early prenatal care in South Africa*. Int. J. Gynaecology Obstet.* 132(1):64-7*.*

Hamata, N. (2014). *Maternal and Peri-neonatal deaths reviews (MPNDR) report for Omaheke Health Directorate, Ministry of Health and Social Services (MoHSS),* Windhoek, Namibia: MoHSS.

Hanson, C., Cox, J., Mbaruku, G., Manzi, F., Gabrysch, S., Schellenberg, D., Tanner, M., Ronsmans, C., & Schellenberg, J.(2015) Maternal mortality and distance to facility-based obstetric care in rural southern Tanzania: a secondary analysis of cross-sectional census data in 226 000 households. Lancet Glob Health. (7):e387-95. doi: 10.1016/S2214-109X(15)00048-0. Epub 2015 May 21. PMID: 26004775.

Hammarberg,K., Kirkman, M., de Lacey,S.(2016) Qualitative research methods: when to use them and how to judge them, *Human Reproduction*. 31(3):498–501, https://doi.org/10.1093/humrep/dev334

Hazmi, J.M.A., Habib, H.M., Sebeih, S.H., Khan, M.I., Elmaghrabi, S.A., Tharwat, R.J., Alshinqity, S.S., Aljohani, A.M., & Mahmoud, N.H., (2017). Awareness of antenatal care importance among Saudi pregnant women in Madina. 5(1): 1727-1745

Hembling, J., McEwan, E., Mohammed, A., Passaniti, A., Aryee, P.A., & Saaka, M. (2017). Mobilising faith-based and lay leaders to address antenatal care outcomes in northern Ghana, *Development in Practice,* 27:5, 634-645. https://www.tandfonline.com/doi/pdf/10.1080/09614524.2017.1327028?needAccess=true

Horwood, C., Haskins, L., Vermaak, K., Phakathi, S., Subbaye, R., & Doherty, T. (2015) Prevention of mother to child transmission of HIV (PMTCT) programme in KwaZulu-Natal, South Africa: an evaluation of PMTCT implementation and integration into routine maternal, child and women's health services.

Jacobs, C., Moshabela, M., Maswenyeho, S., Lambo, N., & Michelo, C. (2017). Predictors of antenatal care, skilled birth attendance, and postnatal care utilization among the remote and poorest rural communities of Zambia: a multilevel analysis. *Front Public Health*, 5:11.

Jacobs, C., Michelo, C.,& Moshabela, M. (2018). Why do women in the most remote and poorest areas of Zambia predominantly attend only one antenatal care visit with a skilled provider? *A qualitative inquiry .BMC* 18(409):8-9.

Jalal, S., & Shah, N.A. (2011).Antenatal Care (ANC) seeking behaviour among women living in an urban squatter settlement: results from an ethnographic study. *IJPH* 8(3):261–7.

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

Kanyangarara, M., Munos, M.K., & Walker, N. (2017). Quality of antenatal care services provision in health facilities across sub-Saharan African: evidence from nationally representative health facility assessment. *J Glob Health,* 7(2):021101. doi:http://dx.doi.org/10.7189/jogh.07.021101 PMID:29163936

Kawungezi, P. C., AkiiBua, D., Aleni, C., Chitayi, M., Niwaha, A., Kazibwe, A., Sunya, E., Mumbere, E. W., Mutesi, C., Tukei, C., Kasangaki, A., & Nakubulwa, S. (2015). Attendance and utilization of antenatal care (ANC)

services: Multi-Centre study in Upcountry Areas of Uganda. *Open journal of preventive medicine*, 5(3):132–142. https://doi.org/10.4236/ojpm.2015.53016

Kaswa, R., Rupesinghe, G.F.D., & Longo-Mbenza, B. (2018) Exploring the pregnant women's perspective of late booking of antenatal care services at Attitudes of Pregnant Women Towards Antenatal the Open Public Health Journal, 13: 575 Mbekweni Health Centre in Eastern Cape, South Africa. *Afr J Prim Health Care Fam Med 2018*; 10(1): e1-9. http://dx.doi.org/10.4102/phcfm.v10i1.1300] [PMID: 30035599

Kenney, L. (2020). *Is having a baby over 35 as risky as we thought: doctors discuss "high-risk" pregnancies*. California: SELF. Retrieve from: https://www.self.com/story/high-risk-pregnancy-what-women-35-over-need-to-know. (Accessed 24 July 2021)

Kim, K.H., Choi, J.W., Oh, J., Moon, J., You, S., & Woo, Y. (2019). What are the barriers to antenatal care utilization in Rufisque District, Senegal: *A bottleneck analysis journal of Korean medical science*, 34(7):e62. https://doi.org/10.3346/jkms.2019.34.e62.

Klitzman, R. (2012). How IRBs view and make decisions about coercion and undue influence. Journal of medical ethics. 39. 10.1136/medethics-2011-100439.

Korstjens, I., & Moser, A., (2018) Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing, European. *Journal of General Practice*, 24(1): 120-124, DOI: 10.1080/13814788.2017.1375092

Lagadec, N., Steinecker, M., Kapassi, A. *et al.* Factors influencing the quality of life of pregnant women: a systematic review. *BMC Pregnancy Childbirth* **18**, 455 (2018). https://doi.org/10.1186/s12884-018-2087-4

Lama, S., & Krishna, A.K.I. (2014). Barriers in utilization of maternal health care services: perceptions of rural women in Eastern Nepal. *Kathmandu University Medical Journal,* 12(4)48:253.

Lattof, S.R, Moran AC, Kidula N, et al Implementation of the new WHO antenatal care model for a positive pregnancy experience: a monitoring framework BMJ Global Health 2020;5:e002605.

Lawson G.W, Keirse, M.J. Reflections on the maternal mortality millennium goal. *Birth*. 40(2):96-102.

Lincetto, O., Mothebesoane-Anoh, S., Gomez, P., & Munjanja, S. (2016). Opportunities for Africa's New-borns. Antenatal Care: Practical data, policy

and programmatic support for newborn care in Africa. www.who.int/entity/pmnch/media/publications/aonsectionIII_2.pdf

Low, P., Paterson, J., Wouldes, T., Carter, S., Williams, M., & Percival, T. (2005). Factors affecting antenatal care attendance by mothers of Pacific infants living in New Zealand. *N Z Med J.* 118(1216): U1489.

Macrotrends. (2022). South Africa Fertility Rate 1950-2022. Macrotrends. Retrieved from:https://www.macrotrends.net/countries/ZAF/south-africa/fertility-rate'>South Africa Fertility Rate 1950-2022. www.macrotrends.net. Retrieved: 2022-06-01. (Accessed 17 July 2022).

Manzi, A., Munyaneza, F., Mujawase, F., Banamwana, L., Sayinzoga, F., Thomson, D.R., Ntaganira, J., & Hedt-Gauthier, B.L. (2014). Assessing predictors of delayed antenatal care visits in Rwanda: a secondary analysis of Rwanda demographic and health survey 2010. *BMC Pregnancy Childbirth*. 28(14):290. doi: 10.1186/1471-2393-14-290.

Mokhele, T., Meiring, L., Weir-Smith, G., Petersen, Z., Manyaapelo, T., Ngobeni, A., Mahlangu, N., Khan, G., Zama, S., Mona, G., Panyaza, Z., Kheswa, N., Dlamini, Z., Zulu, T., Dlamini, P., & Naidoo, P. (2018) *Monitoring maternal and child morbidity and mortality in South Africa: strengthening surveillance strategies.* CapeTown:HSRC Press. http://hdl.handle.net/20.500.11910/12038

Mandoreba, T., & Mokwena, K. (2016). Factors associated with late antenatal booking in Harare. *PULA: Botswana Journal of African Studies*, 30(1):131-138.

Mason, L., Dellicour, S., Ter Kuile, F., Ouma, P., Phillips-Howard, P., Were, F, Laserson, K., Desai, M. (2015) Barriers and facilitators to antenatal and delivery care in western Kenya: a qualitative study. *BMC Pregnancy Childbirth.* 13(15):26. doi: 10.1186/s12884-015-0453-z.

Manohar, N., MacMillan, F., Steiner-Lim, G., & Arora, A. (2018). Recruitment of Research Participants. 10.1007/978-981-10-2779-6_75-1.

Massyn, N., Pillay, Y., & Padarath, A., District Health Barometer (2017/18). Published by 34 Essex Terrace. Health System Trust. South Africa.

Mekonnen, T., Dune, T. & Perz, J. (2019) Maternal health service utilisation of adolescent women in sub-Saharan Africa: a systematic scoping review. *BMC Pregnancy Childbirth* **19**, 366. https://doi.org/10.1186/s12884-019-2501-6

Melchert, T.P. (2020). *Foundations of Health Service Psychology* 2nd Edition. London: Elsevier Academic Press.

Mizana, B.A., Woyecha, T., & Abdu, S. (2020). Delay in decision and determinants for safe abortion among women at health facilities in south West Ethiopia: facility based cross sectional study. *Int J Equity Health,* 19:7.

Mkhari, M. M., & Mathibe-Neke, J. (2016). *Factors contributing to late antenatal care booking at Thulamahashe local area at Bushbuckridge sub-district in Mpumalanga Province*. University of South Africa: Pretoria.

Mutowo, J., Yazbek, M., van der Wath, A., & Carin Maree, C. (2021). Barriers to using antenatal care services in a rural district in Zimbabwe. *International Journal of Africa Nursing Sciences,*15: 2214-1391. https://doi.org/10.1016/j.ijans.2021.100319.

Mohamed Shaker El-Sayed Azzaz, A., Martínez-Maestre, M.A, & Torrejón-Cardoso, R. (2017). Antenatal care visits during pregnancy and their effect on maternal and foetal outcomes in pre-eclamptic patients. *J Obstetrics and Gynaecology Research,* 42(9):1102-1110

Moller, A. B., Petzold, M., Chou, D., & Say, L. (2017). Early antenatal care visit: a systematic analysis of regional and global levels and trends of coverage from 1990 to 2013. *The Lancet. Global health*, *5*(10), e977–e983. Available at: https://www.thelancet.com/action/showPdf?pii=S2214-109X%2817%2930325-X (accessed 14 March 2022).

Moodley, J., Fawcus, S., & Pattinson, R.C. (2018). Improvements in maternal mortality in South Africa. *South African Medical Journal, 108*, 4-8.

Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data collection and analysis. *European Journal of General Practice*, 24(1):9-18.

Morse, J. M. (1991). Strategies for sampling. In J. M. Morse (Ed.), Qualitative nursing research: A contemporary dialogue (pp. 127-145). Newbury Park, CA: Sage. M

Muyunda, B., Makasa, M., Jacobs, C., Musonda, P., & Michelo, C. (2016). Higher educational attainment associated with optimal antenatal care visits among child- bearing women in Zambia*. Front. Public Health,* 4:127.

Namasivayam, A., Arcos González P., Castro Delgado R., & Chi P.C. (2017). The Effect of Armed Conflict on the Utilization of Maternal Health Services in Uganda: A Population-based Study. *PLoS Curr*. 3:9.

Nebeb, G., Salgedo, W., & Alemayehu, Y. (2015). Antenatal care utilization in Debre Tabor, north West Ethiopia. *Gynecol Obstet Sunnyvale*: 5:12 http://dx.doi.org/10.4172/2161-0932.1000339

Ngomane, S., & Mulaudzi, F.M. (2012). Indigenous beliefs and practices that influence the delayed attendance of antenatal clinics by women in the Bohlabela district in Limpopo. Midwifery; (28):30-38.

Nieswiadomy, R.M. (2012). *Foundations of Nursing Research*. Boston: Pearson.

Nuraini. E., & Parker, E. (2005). Improving knowledge of antenatal care (ANC) among pregnant women: a field trial in central Java, Indonesia. *Asia Pac J Public Health.* 17(1):3-8. doi: 10.1177/101053950501700102.

Nursing and Midwifery Board of Australia. C*ode of Professional Conduct for Nurses in Australia*. Melbourne: Nursing and Midwifery Board of Australia

Nisar, Y.B., Alam, A., Aurangzeb, B.,& Dibley, M.J.(2014). Perceptions of antenatal iron-folic acid supplements in urban and rural Pakistan: a qualitative study. *BMC Pregnancy and Childbirth.* 14:344.

Nyathi, L., Tugli, A.K., Tshitangano, T.G., & Mpofu, M. (2017). Investigating the accessibility factors that influence antenatal care services utilisation in Mangwe district, Zimbabwe. *Afr J Prim Health Care Fam Med*. 9(1): e1-e5.

Nyondo, A.L., Chimwaza, A.F. & Muula, A.S. (2014) Exploring the relevance of male involvement in the prevention of mother to child transmission of HIV services in Blantyre, Malawi. *BMC Int Health Hum Rights* 14: 30 (2014). https://doi.org/10.1186/s12914-014-0030-y

Okedo-Alex, I., Akamike, I., Ezeanosike, O., & Uneke, C. (2019). Determinants of antenatal care utilisation in sub-Saharan Africa: A systematic review. *BMJ*, 9: e031890. 10.1136/bmjopen-2019-031890.

Omer, S., Zakar, R., Zakar, M.Z., & Fischer, F. (2021). The influence of social and cultural practices on maternal mortality: a qualitative study from South Punjab, Pakistan. *Reprod Health* (18)**:**97 Available at: https://reproductive-health-journal.biomedcentral.com/track/pdf/10.1186/s12978-021-01151-6.pdf (accessed 26 May 2022).

Pandey, S., & Karki, S. (2014). Socio-economic and demographic determinants of antenatal care services utilization in Central Nepal. *International journal of MCH and AIDS*, *2*(2): 212–219.

Patton, M.Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice*. 4th ed. Thousand Oaks, California: SAGE Publications, Inc.

Pearson, N., Naylor, PJ., Ashe, M.C. *et al.* Guidance for conducting feasibility and pilot studies for implementation trials. *Pilot Feasibility Stud* **6**, 167 (2020). https://doi.org/10.1186/s40814-020-00634-w

Pell, C., Meñaca, A., Were, F., Afrah, N.A., Chatio, S., Manda-Taylor, L., Hamel, M.J., Hodgson, A., Tagbor, H., Kalilani, L., Ouma P., & Pool, R. Factors affecting antenatal care attendance: results from qualitative studies in Ghana, Kenya and Malawi. *PLoS One. 2013;8(1):e53747. doi: 10.1371/journal.pone.0053747. Epub 2013 Jan 15. PMID: 23335973; PMCID: PMC3546008.*

Phiri, S.N., Fylkesnes, K., Ruano, A.L., & Moland, K.M. (2014). Born before arrival': user and provider perspectives on health facility childbirths in Kapiri Mposhi district, Zambia. *Biomed Central Pregnancy and Childbirth,* 14(323).

Polit, D.F., & Beck, C.T. (2017). *Nursing research: Generating and assessing evidence for nursing practice*. 10th edition. Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins.

Polit, D.F. & Beck, C.T. (2012). N*ursing research: Generating and assessing evidence for nursing practice*. 9th edition. Philadelphia: JB Lippincott.

Raatikainen, K., Heiskanen, N., & Heinonen, S. (2006). Does unemployment in family affect pregnancy outcome in conditions of high quality maternity care? *BMC Public Health* 6(46). https://doi.org/10.1186/1471-2458-6-46

Ragolane, V.J. (2017) Factors contributing to late antenatal care booking in Mopani District of Limpopo Province, University of South Africa, Pretoria, http://hdl.handle.net/10500/25028

Raynes-Greenow, C. (2017). Gaps and challenges underpinning the first analysis of global coverage of early antenatal care. Lancet Glob Health. 2017 Oct;5(10):e949-e950. doi: 10.1016/S2214-109X(17)30346-7. PMID: 28911752.

Rendle, K. A., Abramson, C. M., Garrett, S. B., Halley, M. C., & Dohan, D. (2019). Beyond exploratory: a tailored framework for designing and assessing qualitative health research. *BMJ*, 9(8):e030123. https://doi.org/10.1136/bmjopen-2019-030123

Rudrum, S., Oliffe, J.L., & Brown, H. (2017). Antenatal care and couples' HIV testing in rural northern Uganda: a gender relations analysis. *Men's Health.* 11(4):811-822.

Rwabufigiri, B.N., Mukamurigo, J., Thomson, D.R., Hedt- Gautier, B.L., & Semasaka, J.P.S. (2016). Factors associated with postnatal utilisation in Rwanda: A secondary analysis of 2010 Demographic and Health Survey data. *BMC Pregnancy and Childbirth*, 16(122): 1–8.

Saad- Haddad, G., DeJong, J., Terren, N., Restrepo-Mendez, M.C., Perin, J., Vaz, L., Holly, N., Amouzou, A., Barros, A.J.D., & Bryce, J. (2016). Patterns and determinants of antenatal care utilization: analysis of national survey data in seven countdown countries. *Journal of Global Health*, 6:(1):1-20.

Selebano, K.M., & Ataguba, J.E. (2021). Decomposing socio-economic inequalities in antenatal care utilisation in 12 Southern African Development Community countries. *SSM Popul Health*. 17:101004. doi: 10.1016/j.ssmph.2021.101004. PMID: 34988282; *PMCID*: PMC8703074.

Sieber, J.E. (2001). Privacy and confidentiality: As related to human research in social and behavioural science. In: National Bioethics Advisory Commission [NBAC]. Ethical and Policy Issues in Research Involving Human Participants. Volume II: Commissioned Papers. Rockville, MD: National Bioethics Advisory Commission [NBAC]; 2001: N1-N50.

Say, L., Chou, D., Gemmill, A., Tunçalp, Ö., Moller, A.B., Daniels, J., Gülmezoglu, A.M., Temmerman, M., & Alkema, L. (2014). Global causes of maternal death: a WHO systematic analysis. *Lancet Glob. Health* 2(6), e323–e333.

Sewpaul, R., Crutzen, R., Dukhi, N., Sekgala, D., & Reddy, P. (2021). A mixed reception: perceptions of pregnant adolescents' experiences with health care workers in Cape Town, South Africa. *Reproductive Health* 18**:**167. Available at:https://reproductivehealthjournal.biomedcentral.com/track/pdf/10.1186/s12978-021-01211-x.pdf (accessed 16 March 2022).

Seidu, A.A., (2021). Factors associated with early antenatal care attendance among women in Papua New Guinea: a population-based cross-sectional study. *Archives of public health = Archives belges de sante publique*, 79(1), 70. https://doi.org/10.1186/s13690-021-00592-6

Sibiya, M.N., Ngxongo, T.S.P., Reddy P., Ghuman S., Borg, D., O'Connor L., Haffejee, F., & Govender N. (2018). *AJPHES,* (24):2:181 – 192.

Simkhada, B., van Teijlingen, ER., Porte, R. M.,& Simkhada, P.(2008). Factors affecting the utilization of antenatal care in developing countries: systematic review of the literature. *Journal of Advanced Nursing*, 61(3):244-260.

Dhaka, S., van Teijlingen, E.R., Simkhada, P.P., Dhakal, K.B., Stephens, J., Chapman, G.N., & Raja, E.A. (2011). Antenatal care among women in rural Nepal: A community-based study. *J of Rural Nursing & Health Care,* 11(2):76-87.

Solankea, B.L., Oladosub, O.A., Akinloc, A., & Olanisebed, S.O. (2015). Religion as a Social determinant of maternal health care service utilisation in Nigeria. *African Population Studies,* 29(2):1868.

Stats SA. *(2021). Recorded live births: media release.* Pretoria: Stats SA

Tesch, R. (1992) Qualitative research analysis types and software tools. New York: The Farmer Press.

Titaley, C.R., Dibley, M.J., & Roberts, C.L. (2010). Factors associated with underutilization of antenatal care services in Indonesia: results of Indonesia demographic and health survey 2002/2003 and 2007. *BMC Public Health* 102010:485

Theron, P.M. (2015). Coding and data analysis during qualitative empirical research in Practical Theology. *In die Skriflig* 49(3):1880-1889. http://dx.doi.org/10.4102/ids.v49i3.1880

Tsawe, M., & Susuman, A.S. (2014). Determinants of Access to and Use of Maternal Health Care Services in the Eastern Cape, South Africa: A Quantitative and Qualitative Investigation. BMC Research Notes. 10.1186/1756-0500-7-723.

Ugbor, I., Wayas, K.D., Onyinye, M., Nwanosike, M. & Dominic, U. (2017). The socio-economic factors that determine women utilization of healthcare services in Nigeria. *International Journal of Asian social science international Journal 7 (5):359-364.*

Uldbjerg, C. S., Schramm, S., Kaducu, F., Ovuga, E., & Sodemann, M. (2020). Perceived barriers to utilization of antenatal care services in northern Uganda: A qualitative study. *Sexual & Reproductive HealthCare,* 23:100464. https://doi.org/10.1016/j.srhc.2019.100464

UNICEF, (2021). Antenatal care. New York: UNICEF. Available at: https://data.unicef.org/topic/maternal-health/antenatal-care/ (accessed 14 March 2022).

UNICEF, World Health Organization, The World Bank, United Nations. (2014). UN Inter-Agency Group for Child Mortality Estimation. Levels & Trends in Child Mortality Report 2014. New York: UNICEF.

UNICEF. (2017). Antenatal care & Maternal health. New York: UNICEF. Available: https:// data. unicef. org/ topic/ maternal- health/ antenatal- care.

United Nations. (2019). Global progress in satisfying the need for family planning: Population facts. New York: United Nations. Available at: https://www.un.org/en/development/desa/population/publications/pdf/popfacts/PopFacts_2019-3.pdf (accessed 26 May 2022).

United Nations. (2015). *Sustainable development goals.* United Nations Department of Economic and Social Affairs. New York: United Nations. Available at: https://sustainabledevelopment.un.org/index.html (accessed 11 September 2020).

Vasileiou, K., Barnnet, J., Thorpe, S., & Young. T. (2018). Charecterising and justifying sample sizesufficieny in intrview- based studie]s:Sustematic analysis of qualitative health research over a 15 year period. *BMC Med Res Methodol,* 18:148.

Victoria, C.G., Requejo, J.H., Barros, A.J.D., Berman, P., Bhutta, Z., Boerman, T., Countdown to (2015). A decade of tracking progress for maternal, newborn, and child survival. *Lancet,* 14,3879(10032):2049-59. Retrieved from: http://dx.doi.org/10.1016/S0140-6736(15)00519-X-PMID:26477328 (accessed 16 ay 2022.

Walfish, M., Neuman, A.,& Wlody, D., (2009). Maternal haemorrhage. *Br. J. Anaesth*. 103 (suppl_1): i47–i56.

Watson, S. (2018). When Can You Get Pregnant and What's the Best Age to Have a Baby? *Healthline Newsletter.*

Wekesa, N.M., Wanjihia, V., Makokha, A., Lihana, R.W., Ngeresa, J.A., Kaneko, S., & Karama, M. (2018). High parity and low education are predictors of late antenatal care initiation among women in maternal and child health clinics in Kwale County, Kenya. *Journal of Health, Medicine and Nursing,* 50: 1-12.

Wilson, M., Patterson, K., Nkalubo, J., Lwasa, S., Namanya, D., & Twesigomwe, S. (2019). Assessing the determinants of antenatal care adherence for Indigenous and non-Indigenous women in Southwestern Uganda. Midwifery, 78:16-24.

WHO (2022). More women worldwide receive early antenatal care, but great inequalities remain. Geneva: WHO. Available at: https://www.who.int/reproductivehealth/early-anc-worldwide/en/ (accessed 14 March 2022).

WHO. (2018) WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience: Summary: World Health Organization.

WHO (2017). World health statistics. Monitoring health for the SDGs, sustainable development goals. Geneva: WHO.

WHO. (2016). WHO recommendations on antenatal care for a positive pregnancy experience. Geneva: WHO. Available at: https://apps.who.int/iris/bitstream/handle/10665/250796/9789241549912-eng.pdf (accessed 10 April 2021).

Wilunda, C., Scanagatta, C., Putoto, G., Montalbetti, F., Segafredo, G., Takahashi, R., Mizerero, S.A., & Betrán, A.P. (2017). Barriers to utilisation of antenatal care services in South Sudan: a qualitative study in Rumbek North County. *Reproductive Health.*14(1):65. DOI: 10.1186/s12978-017-0327-0.

World Medical Association. (2013) Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects. *European Journal of Emergency Medicine*, 8(3):221-223.

Wulandari, R.D., Laksono, A.D. & Rohmah, N. (2021). Urban-rural disparities of antenatal care in South East Asia: a case study in the Philippines and Indonesia. *BMC Public Health* , 1221. https://doi.org/10.1186/s12889-021-11318-2

Yarney, L. (2019). Does knowledge on socio-cultural factors associated with maternal mortality affect maternal health decisions? A cross-sectional study of

the Greater Accra region of Ghana. *BMC Pregnancy Childbirth,* 19:47. https://doi.org/10.1186/s12884-019-2197-7

Zamawe, C., Banda, M., & Dube, A. (2015). The effect of mass media campaign on Men's participation in maternal health: A cross-sectional study in Malawi. *Reproductive Health,* 12:31. doi: 10.1186/s12978-015-0020-0.

Zile, I., Rezeberga, D., Lazdane, G., & Gavare, I. (2019). Comparison of antenatal care factors and pregnancy outcome in rural and urban context. *Int. Conf. Society. Health. Welfare*. https://www.shs-conferences.org/articles/shsconf/pdf/2019/09/shsconf_shw2019_02007.pdf

ANNEXURE A: INFORMATION SHEET

ANNEXURE A

University of Fort Hare
Together in Excellence

Staff, UFH residents, visitors and students

UFH FHREC Stamp

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT: BARRIERS TO UTILIZATION OF ANTENATEL CARE SERVICES IN BLOEMFONTEIN SUB-DISTRICT OF MANGAUNG METRO.

PRINCIPAL INVESTIGATOR: KGALALELO CHRISTINE MONTSHIWA

ADDRESS: 75 LILY VALE ESTATE, RAYTON, BLOEMFONTEIN

CONTACT NUMBER: 0636877839

You are invited to take part in this research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you did agree to take part.

This study has been approved by the **University of Fort Hare Faculty of Health Sciences Research Ethics Committee (UFH HREC) (Ref No:…….)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records.

*

The objectives of this research are:

- *To explore the socio-cultural barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of the Mangaung Metro.*
- *To explore the economic barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of the Mangaung Metro.*
- *To explore health-knowledge related barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of the Mangaung Metro.*
- *To explore health institutional related barriers to the utilisation of ANC health facilities in the Bloemfontein sub-district of the Mangaung Metro.*

Why have you been invited to participate?

- *You have been invited to participate because you qualify as per inclusion criteria of the study.*
- *You have also complied with the following inclusion criteria: Women who are pregnant and postnatal mothers who are at the clinic for their six weeks' postnatal check-ups. They must be18-49 years of age, and are visiting the health facility for their antenatal or postnatal follow-ups.*

What will your responsibilities be?

- *You will be expected to: Voluntarily give informed consent the study before they participate in interviews and focus group discussions.*
  - ✓ *Complete questionnaire and participate in focus group discussions*

Will you benefit from taking part in this research?

- *There are no direct benefits for you as a participant.*
- *The indirect benefit will be: to assist programs within the Free State Province Department of Health in developing solutions to identified problems and challenges that prevent pregnant and postnatal women from accessing available ANC services. The knowledge will also assist staff at hospitals and health centres in promoting and improving awareness programs about the importance of community access to antenatal care.*
- *Study results will enable community health workers who are commonly involved in re-engineering of primary health care to establish approaches that would allow pregnant women to make all four visits to antenatal care.*

Are there risks involved in your taking part in this research?

- *There are no risks to this study.*

Who will have access to the data?

- *Anonymity will be maintained through: Interviews will be conducted privately, and anonymity will be maintained, as no forms will require the participant to write their names or personal details.*
- *Confidentiality will be ensured as the researcher will ensure confidentiality and anonymity by giving participants pseudo names to protect their identity. Participants will also be informed that they can withdraw from study anytime they feel they don't want to participate.*

Data will be stored: The tape recorder and the informed consent forms will be filed in a lockable cabinet for data analysis purposes. A room which is free from destruction at the facility will be request to conduct both FGDs and key informant interviews.

What will happen with the data/samples?

- *This is a once off collection of data. Findings from this study and suggestions will be held in the library at Fort Hare University, and more copies will be sent to the Free State Province Department of Health. The researcher will also present the study results at conferences and workshops nationally and globally. Also articles will be published in peer-reviewed and accredited national and international journals.*

Will I be paid to take part in this study and are there any costs involved?

No. You will/will not be paid to take part in the study. There will thus be no costs involved for you, if you do take part. However, your participation is valuable.

Who can you contact for additional information regarding the study?

The primary investigator KGALALELO CHRISTINE MONTSHIWA can be contacted during office hours at (051 4081821), or on his cellular phone at (0636877839). Should you have any questions regarding the ethical aspects of the study, you can contact the Acting Chairperson of the UFH HREC, Prof Leon van Niekerk, during office hours at leonvn@ufh.ac.za or tel. no: +27 (0) 40 602 2435.

How will you know about the findings?

- The findings of the research will be shared with you by the department of health Free State. Findings from this study and suggestions will be held in the library at Fort Hare University, and more copies will be sent to the Free State Province Department of health.

Declaration by participant

By signing below, I agree to take part in a research study titled: **BARRIERS TO UTILISATION OF ANTENATAL CARE SERVICES IN BLOEMFONTEIN, SUB-DISTRICT OF MANGAUNG METRO.**

I declare that:

- I have read this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.

- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (*place*) .....…..…….. on (*date*) ……...…….. 20....

Do you agree to participate in this study? (Mark your answer with an X)

Yes, I consent	
No	

ANNEXURE B: APLICATION LETTER TO CONDUCT THE STUDY FREE STATE DEPARTMENT OF HEALTH

75 Lily Vale Estate
Shelly vale
Bloemfontein
9301

16 March 2021

Doctor Motau
Free State Department of Health
Bophelo House
Corner Charlotte Maxheke and Charles street
Bloemfontein
9301

Dear Doctor Motau

APPLICATION FOR CONDUCTING RESEARCH IN THE FREE STATE PROVINCE (BLOEMFONTEIN SUB-DISTRICT OF MANGAUNG METRO)

I am Kgalalelo Christine Montshiwa, studying Masters in Public Health at the University of the Fort Hare East London Campus ASELPH Programme. The title of the research topic is: Barriers to utilisation of antenatal care services in Bloemfontein sub-District of Mangaung Metro Free State Province of South Africa. The purpose of the study is to explore barriers to utilisation of antenatal care services in the Bloemfontein sub-District of the Mangaung Metro.

I am writing this letter requesting permission to conduct a research study in Bloemfontein for pregnant women and those who arrive until six weeks for a postnatal visit of 3 days. Application for permission to conduct the study will be made at the Health Sciences Research Ethics Committee, Health Sciences Faculty and Fort Hare University.

We hope that this request will be granted with your approval.

Sincerely
Montshiwa KC

ANNEXURE C: FOCUS GROUP DISCUSSIONS GUIDE

SECTION A: PARTICIPANT'S DEMOGRAPHIC INFORMATION

1. How old are you?

(a) 18-21

(b) 22-25

(c) 26-29

(d) 30-33

(e) 34-37

(f) 38-41

(g) 42-49

2. What is your marital status?

(a) Married

(b) Single

(c) Divorced

(d) Widowed

(e) Separated

3. Where are you residing?

Urban or rural area

_____

4. What is your cultural background?

(a) Tswana

(b) Sotho

(c) Coloured

(d) White

(e) Xhosa

(f) Zulu

5. What is your religion?

(a) Catholic

(b) Lutheran

(c) Anglican

(d)NGK Church

(d) Others (Specify).....

6. Have you ever attended school?

(a) Yes

(b) No

7. If yes, what is your highest level of education?

(a) Junior primary

(b) Senior Primary

(c) Secondary

(d) Tertiary

(e) Not attended school

8. What do you do for a living?

(a) Unemployed

(b) Self-employed

(c) Part-time job

(d) Fully Employed

(e) Farming

(f) At school

9. What does your husband/boyfriend/parent do for a living?

(a) Unemployed

(b) Self-employed

(c) Part-time job

(d) Fully employed

(e) Farming

(f) Schooling

10. How many times did you get pregnant?

(a) None

(b) One

(c) Two

(d) Three

(e) Four

(f) More than four

11. How many children are alive?

(a) None

(b) One

(c) Two

(d) Three

(e) Four

(f) More than four

SECTION B: FOCUS GROUP DISCUSSION GUIDING QUESTIONS

1. In your view what are the barriers to antenatal care services?

   Probe

   Is it important to attend antenatal care services and why?

   In your view, at what stage of pregnancy should a woman start attending ANC and why?

   At what stage of pregnancy do healthcare professionals want you to start attending ANC? Why?

   What are barriers that prevent you from attending antenatal care services?

2. What makes it difficult for you to attend antenatal care service?

3. Is the health care facility accessible to you?

4. Do you have transport to go to health facility to attend ANC?

5. Do you know the importance of attending antenatal care services?

6. Are there any socio-cultural barriers that you would like to discuss in this forum?

ANNEXURE D: FOCUS GROUP DISCUSSIONS GUIDE: SESOTHO

DIPOTSO KA SESOTHO HO BAIMANA/ BAKGATJHANE.

PARTICIPANT'S DEMOGRAPHIC INFORMATION

1. Na o nale mengwaga e kae?

(a) 18-21

(b) 22-25

(c) 26-29

(d) 30-33

(e) 34-37

(f) 38-41

(g) 42-49

2. Bo emo jwa gago ba lenyalo?

(a) Ke nyetswe

(b) Ha ke a nyalwa

(c) ke hladile

(d) Moswelwa

3. O dula tulong efe?

Toropong kapa Motseng?

_____

4. Le bua se kae lapeng ka setso?

(a) Tswana

(b) Sotho

(c) Coloured

(d) lekhowa

(e) Xhosa

(f) Zulu

5. Le tsena kereke efe lapeng?

(a) Katolike

(b) Lutere

(c) Anglican

(d) Fora / Uniting

(d) Tse dingwe (Tlhalosa).....

6. A o tsene sekolo?

(a) Eya

(b) Nyaa

7. O fleets ka mophato ofe?

(a) Poraemari

(b) Sekondary

(c) Univesithi

(e) Ga ke a tsena sekolo

8. Na ebe o a sebetsa?

(a) Eya/ Nyaa

9. Molekane wag ago ene o a sebetsa ?

(a) Eya/ Nyaa

10. O bile Mokgachane ha kae bophelong ba gago?

(a) None

(b) Hangwe

(c) Ha bedi

(d) Ha raro

(e) Ha nne

(f) Ho feta

11. O nale ban aba ba kae ka palo ba phelang?

(a) Letho

(b) A le notshi

(c) Ba babedi

(d) Ba bararo

(e) Ba le bane

(f) Ba fetang nne

1. Ho ya ka kutlwisiso ya hao, na ho na le melemo efe ha moimana a tsamaya kliniki kapa a e ya ntlong ya kokelo ya baimana?

Phuputso

Na ho bohlokwa ho tsamaya kliniki (kapa ho ya ntlong ya kokelo ya baimana) ha o imme/ o le mmeleng? Hobaneng o re jwalo?

Ho ya ka tsebo ya hao moimana o tlameha ho qala neng ho tsamaya kliniki (kapa ho ya ntlong ya kokelo ya baimana)? Hobaneng o re jwalo?

Basebetsi ba bophelo bo botle ba kgothalletsa hore moimana a tsamaye kliniki (kapa a etele ntlo ya kokelo ya baimana) ho tloha nakong e fe ya boimana? Hobaneng o re jwalo?

2. Ke eng e o sitisang ho tsamaya kliniki (kapa ho ya ntlong ya kokelo ya baimana)?

3. Na ntlo ya kokelo e haufi, kapa e a fumaneha moo o dulang?

4. Na o na le koloi ya ho ya kliniking (kapa ho ya ntlong ya kokelo ya baimana)?

5. E be o tseba bohlokwa ba ho ya ntlong ya kokelo ya baimana?

6. E be ho na le ho hong ho amanang le setso e sitana le meetlo tseo o ka ratang ho bua ka tsona mabapi le boimana ba hao?

ANNEXURE E: KEY INFORMANT INTERVIEW GUIDE

1. What are the barriers to ANC in your culture, based on your knowledge and experience?

2. kindly tell me of barriers experienced by pregnant women in using ANC services?
3. What are the advantages of attending ANC?

4. Is there anything that should be done to improve ANC services in your community?

5. Kindly share any experiences of pregnant women not seeking ANC services?

6. What are your thoughts about ANC service usage in your area or clinic?

ANNEXURE F: ETHICAL CLEARANCE CERTIFICATE

University of Fort Hare
Together in Excellence

HEALTH RESEARCH ETHICS COMMITTEE

P.O Box 1054
East London 5200
Tel: +27 (0) 43 704 7368
E-mail: dgoon@ufh.ac.za

ETHICAL CLEARANCE CERTIFICATE
REC-100118-054

Certificate Reference Number:	**Ref #2021=0406=MontshiwaKC**
Project title:	Barriers to utilization of antenatal care services in Mangaung Metro, Free State Province, South Africa
Nature of Project:	Masters of Public Health
Principal Researcher:	Montshiwa KC
Student Number:	201928117
Supervisor:	Prof XT Maluleke

On behalf of the University of Fort Hare Health Research Ethics Committee (HREC), I hereby give ethical approval in respect of the undertakings contained in the above-mentioned project and research instruments(s). Should any other instruments be used, these require separate authorization. The Researcher may therefore commence with the research as from the date of this certificate, using the reference number indicated above.

Please note that the HREC must be informed immediately of

- Any material change in the conditions or undertakings mentioned in the document
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research

The Principal Researcher must report to the HREC in the prescribed format, where applicable, annually, and at the end of the project, in respect of ethical compliance.

The HREC retains the right to

- Withdraw or amend this Ethical Clearance Certificate if
  - Any unethical principles or practices are revealed or suspected
  - relevant information has been withheld or misrepresented
  - regulatory changes of whatsoever nature so require
  - the conditions contained in the Certificate have not been adhered to

- Request access to any information or data at any time during the course or after completion of the project.
- In addition to the need to comply with the highest level of ethical conduct principal investigators must report back annually as an evaluation and monitoring mechanism on the progress being made by the research. Such a report must be sent to HREC monitoring@ufh.ac.za.

ANNEXURE G: HEALTH ETHICS COMMITTEE CERTIFICATE

University of Fort Hare
Together in Excellence

HEALTH RESEARCH ETHICS COMMITTEE

P.O Box 1054
East London 5200
Tel: +27 (0) 43 704 7368
E-mail: dgoon@ufh.ac.za

The Ethics Committee wishes you well in your research endeavours.

Yours sincerely

Professor DT Goon
Chairperson: HREC
24th June 2021

ANNEXURE H: DEPARTMENT OF HEALTH PERMISSION LETTER

health
Department of Health
FREE STATE PROVINCE

20 July 2021

Ms. KC Montshiwa
Master's in Public Health
University of Fort Hare

Dear Ms. KC Montshiwa

Subject: Barriers to utilization of antenatal care services in Bloemfontein Sub-district of Mangaung Metro.

- Please ensure that you read the whole document, Permission is hereby granted for the above — mentioned research on the following conditions:
- Participation in the study must be voluntary
- A written consent from each participant must be obtained.
- Serious adverse events to be reported to the Free State department of health and/ or termination of the study
- Ascertain that your data collection exercise neither interferes with the day to day running of Freedom Square Clinic, MUCPP CHC and National Hospital Gateway Clinic nor the performance of duties by the respondents or health care workers.
- Confidentiality of information will be ensured and please do not obtain information regarding the identity of the participants.
- Research results and a complete report should be made available to the Free State Department of Health on completion of the study (a hard copy plus a soft copy).
- Progress report must be presented not later than one year after approval of the project to the Ethics Committee of the University of Fort Hare and to Free State Department of Health.
- Any amendments, extension or other modifications to the protocol or investigators must be submitted to the Ethics Committee of Fort Hare and to Free State Department of Health.
- Conditions stated in your Ethical Approval letter should be adhered to and a final copy of the Ethics Clearance Certificate should be submitted to sebeelats @ fshealth.gov.za before you commence with the study
- No financial liability will be placed on the Free State Department of Health
- Please discuss your study with Institution Manager on commencement for logistical arrangements see 2 nd page for contact details.
- Department of Health to be fully indemnified from any harm that participants and staff experiences in the study

e-mail:khusemj@fshealth.gov.za@fshealth.gov.za/chikobvup@fshealth.gov.za
www.fs.gov.za

- As part of feedback you will be required to present your study findings/results at the Free State Provincial health research day

Trust you find the above in order.

Kind Regards

Mr. MNG Mahlatsi
ACTING HEAD:
HEALTH Date:
21/07/2021

Head: Health
PO Box 227, Bloemfontein, 9300
4th Floor, Executive Suite, Bophelo House, cnr Maiüand and, Harvey Road, Bloemfontein
Tel: (051) 408 1646 Fax: (051) 408 1556

ANNEXURE I: CODER'S CERTIFICATE

A CERTIFICATE FOR CONFIRMING INDEPENDENT CO- CODING OF ANALYSED DATA.

Student's Name: Kgalalelo Montshiwa

From: AN Mbatha

Address: No: 65 Mc Pherson Street

Ginsberg, King William's Town

5601

Cell: 0837491478/ 076 991 3637.

E-mail Address: adeliciambatha@gmail.com

CERTIFICATE OF CO-CODED WORK: FOR MASTERS STUDENT:

This is to certify that I co-coded the work that was sent to me by the student K.C Montshiwa Student Number 201928117

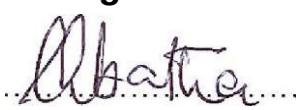
This is acceptable as no more than one researcher's can present the coded data exactly in the same words. I wish to indicate that I have expertise in doing this kind of work

I have done it for several students' Masters Studies due to my background knowledge of the different designs within qualitative research approach.

I have been utilised by the Nursing Science Department of University of Fort Hare and few students from other universities to perform this kind of work and I have always done it satisfactorily and successfully.

INDEPENDENT CO-CODER: AN Mbatha Doctoral Candidate waiting for a date of graduation from UNISA.

1 Signature: A.N.Mbatha Date 05/07/2022



ANNEXURE J: LANGUAGE EDITING CERTIFICATE

Francine Barnard

Bachelor of Education in Foundation Phase Teaching

(University of the Free State-2019)

Translation, text editing and proofreading

PO Box 35002
Faunasig
9325
francinegrobler@gmail.com

This is to certify that the following document has been language edited:

Barriers to utilisation of antenatal care services in Bloemfontein, sub-District of Mangaung Metro, Free State Province of South Africa

Author: Kgalalelo Christine Montshiwa
Nature of document: Master's Degree in Public Health at the University of the Fort Hare, East London
Date of this certification: 5 September 2022

MMF Barnard