FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO

by

MATHOLOANA ELIZABETH LENKOANE

submitted in accordance with the requirements for

the degree of

MASTER OF PUBLIC HEALTH

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: Dr. GC Boersema

CO-SUPERVISOR: Prof L Roets

February 2024

DEDICATION

I dedicate this study to all women of childbearing age in Lesotho. I also dedicate the work to my husband, my sister Mpho, as well as to my two boys (Tholoana and Tlotliso) for their assistance, support and encouragement. Their patience, love, and understanding throughout made it possible for me to complete my studies.

DECLARATION

DECLARATION

Name: Matholoana Elizabeth Lenkoane

Student number: 50015729

Degree: Master of Public Health

FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO

I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality-checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.

Lenkoane 22/02/2024

SIGNATURE **DATE**

ACKNOWLEDGEMENTS

I wish to express my appreciation and sincere gratitude to the following people for their support towards the completion of this dissertation:

I thank God for his grace that has brought me this far, even though there were battles along the way.

I acknowledge and thank the University of South Africa (UNISA) for giving me the opportunity to study for this Master of Public Health.

I express a special word of appreciation and thanks to my supervisor, Dr GC Boersema and co-supervisor, Prof L Roets, for their continuous guidance, inspiration and support. During times of difficulties, they motivated me towards the completion of my dissertation. You were my cheerleaders.

I express my unreserved special thanks to the Ministry of Health Lesotho for permitting me to conduct the research in the health centre within the country of Lesotho.

I also express my deepest appreciation to the District Health Management Team representative, Mrs Ntlale, who permitted me to conduct the study in their district.

I acknowledge the nurse in charge of the selected health centre for permitting me to conduct the study there.

A special thanks to all participants of the study for taking part. Your responses made the completion of this study a success.

I also express my deepest appreciation to my family, who supported and encouraged me during the study.

FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO

STUDENT NUMBER:	**50015729**
STUDENT:	**MATHOLOANA ELIZABETH LENKOANE**
DEGREE:	**MASTER OF PUBLIC HEALTH**
DEPARTMENT:	**HEALTH STUDIES, UNIVERSITY OF SOUTH AFRICA**
SUPERVISOR:	**Dr GC BOERSEMA**
CO-SUPERVISOR:	**PROF L ROETS**

ABSTRACT

Early antenatal care (ANC) attendance in the first trimester of pregnancy provides a unique opportunity for early identification of health concerns, prompt treatment and health education. There are several national and international research studies on the reasons for late ANC attendance. However, literature on the drivers for early ANC is limited, indicating the need for more contextualised research on factors motivating early ANC attendance.

A qualitative, explorative, descriptive study was conducted to explore and describe factors motivating women to attend ANC services before 16 weeks' gestation in a healthcare centre in Lesotho where 14 participants were purposely selected, and data collected through semi-structured interviews. Tesch's thematic analysis protocol was used to guide the analysis process.

Six themes were identified as the factors motivating early ANC attendance in Lesotho, namely, 1) confirmation of pregnancy, 2) concern for foetal wellbeing, 3) the need to optimise maternal well-being, 4) health education on early ANC attendance, 5) motivation from significant others and 6) motivation from social norms. The findings can advise the development of health education programs and interventions to strengthen the ANC service and to promote early ANC attendance.

Key concepts: Antenatal care; early antenatal care; late antenatal care; motivation; pregnancy; pregnant women; prenatal care.

Table of Contents

LIST OF TABLES

LIST OF ABBREVIATIONS AND ACRONYMS

ANC	Antenatal care
ART	Antiretroviral Therapy
DHIS2	District Health Information System2
HCG	Human Chorionic Gonadotrophin
HIV	Human Immunodeficiency Virus
MMR	Maternal mortality ratio
PHC	Primary Health Care
PMTCT	Prevention of mother-to-child transmission
SDG	Sustainable Development Goal
STI	Sexually transmitted infections
UNICEF	United Nations Children's Fund
UNISA	University of South Africa
UNFPA	United Nations Population Fund
WHO	World Health Organisation

CHAPTER 1: ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Maternal mortality persistently impacts women of childbearing age all through African region, representing a critical public health issue (World Health Organisation [WHO] 2023:1). The maternal mortality ratio (MMR) remains alarmingly high in the African region, contributing for more than two-thirds (69%) of maternal deaths worldwide (WHO, 2023:1). A significant percentage of these deaths were from pregnancy and childbirth complications and could have been prevented if pregnant women had access to high-quality antenatal care (ANC) (WHO, 2018:1). At the end of the Millennium Development Goals era in 2015, Lesotho had high rates of infant and maternal mortality, underscoring the ongoing challenge of reducing maternal mortality rates in the region (Ndayizigiye, Allan-Blitz, Dally, Abebe, Andom, Tlali, Gingras, Mokoena, Msuya, Nkundanyirazo, Mohlouoa, Mosebo, Motsamai, Mabathoana, Chetane, Ntlamelle, Curtain, Whelley, Birru, McBain, Andrea, Schwarz & Mukherjee 2022:2)

The use of ANC services significantly contributes to the decrease of maternal mortality and mobility (Abegaz & Habtewold 2019:2). Therefore, most countries developed and implemented national strategies towards safe motherhood, including prioritisation of early ANC (Abegaz & Habtewold 2019:2). ANC refers to “the care provided by skilled healthcare professionals to pregnant women and adolescent girls in order to ensure the best health condition for both mother and baby during pregnancy” (Tola, Negash, Sileshi & Wakgari 2021:2). The care includes screening for pregnancy problems, assessment of pregnancy risk, provision of information to pregnant women and support for women to make pregnancy and birth a positive life experience (Jinga, Mongwenyana, Moolla, Malete & Onoya 2019:1). Early ANC provided at Primary healthcare (PHC) is key to the success of maternal and child healthcare programs (Sibiya, Ngxongo, & Bhengu 2018:1) and one of the “four pillars” of safe motherhood. The other three pillars are clean and safe delivery, family planning and essential obstetric care (Ministry of Health Lesotho 2020:7). Access to ANC and facility-based

deliveries have been shown to improve maternal health outcomes (Ndayizigiye et al. 2022:8).

The WHO recommends a minimum of eight comprehensive, personalised ANC visits, of which the first visit should be before 16 weeks' gestation (referred to as early ANC) (WHO 2018:2). The subsequent ANC visits should be on gestational weeks 20, 26, 30, 34, 36, 38 and 40 (Ministry of Health Lesotho 2020:11). This WHO ANC model aims to provide pregnant women with person-centred and comprehensive services including the necessary tests, interventions, and psychosocial support. This support should be offered by healthcare providers with good clinical and interpersonal skills (WHO 2016:105).

According to the Lesotho Health Strategic Plan of 2017 to 2022, one in 30 women in Lesotho died of pregnancy and childbirth-related conditions. Such deaths could have been avoided (Ministry of Health Lesotho 2016:24). Most women delay in initiating attendance of ANC services. In 2016, about nine per cent did not attend at all (Ministry of Health Lesotho 2016:24). This could have been caused by limited access to important healthcare services during pregnancy and childbirth and lack of postpartum care, especially to those living in remote communities (Ministry of Health Lesotho 2016:9). The high maternal and child morbidity and mortality in Lesotho was of concern to the government and the lessening of maternal and child mortality featured among the top priority areas for the Ministry of Health Lesotho. To improve maternal and child health outcomes, the Ministry of Health Lesotho developed and implemented evidence-based maternal and child health services interventions to improve the quality of the service. One of these key maternal and newborn health invention was free-of-charge ANC services for all Basotho women as reported by United Nations Children Fund (WHO) (2019:17). PHC is the first point of entry into the healthcare delivery system of the country representing an ideal setting for the prevention of pregnancy complications by detecting high-risk pregnancies and offering early intervention and referral (Alrobiaee & Jahan 2022:16). If ANC is not attended early, opportunities are missed for improved health outcomes for mothers and their babies.

1.2 RESEARCH PROBLEM

The high maternal and child morbidity and mortality in Lesotho are of concern for the government, and the reduction of maternal and child mortality features among the top priority areas for the Ministry of Health Lesotho. To improve maternal and child health outcomes, the Ministry of Health Lesotho has enhanced the quality of maternal and child health services by developing and implementing evidence-based maternal and child health service interventions in the context of Universal Health Coverage. One of these key maternal and newborn health interventions is ANC (Ministry of Health Lesotho 2020:7).

Attending ANC early in pregnancy and continuing with ANC services throughout pregnancy can mitigate adverse pregnancy outcomes (Maluka, Joseph, Fitzgerald, Salim & Kamuzora 2020:1). ANC is a fundamental component of maternity care. Nevertheless, both quality of care provision and rates of attendance vary widely between and within countries (Downe, Finlayson, Tunçalp & Gülmezoglu 2019:1). ANC services offer an opportunity for critical healthcare functions, including healthcare promotion and prevention, screening and diagnosis of diseases. ANC services provide opportunities to detect and treat complications of pregnancy early and ensure preventive interventions (Maluka et al. 2020:1). Studies have reported several possible reasons for late ANC attendance, the most cited being sociodemographic attributes, a lack of healthcare providers and a high incidence of unwanted pregnancies (Maluka et al. 2020:2).

Globally, 82.6% of pregnant women have their initial ANC service during the second or last trimester of their pregnancy (Boraya, Githae & Atandi 2018:156). This late ANC attendance leads to approximately 515,000 deaths every year related to complications of pregnancy and childbirth (Boraya et al. 2018:156). According to Lesotho ANC guidelines, the first ANC contact should be as early as possible in the first trimester. The first contact with a pregnant woman in the ANC period may be when she seeks care to confirm the pregnancy following a missed menstrual period. However, many women will first seek ANC much later. Some cultural beliefs dictate that women conceal their probable pregnancy until such time the pregnancy signs are evident,

which is most times after 12 weeks of amenorrhea (Ministry of Health Lesotho 2020:11).

Maternal mortality rates in Lesotho are decreasing but are still labelled “very high” (566 per 100,000 live births) in comparison to the Sustainable Development Goal (SDG) maternal mortality target of 70 per 100,000 (WHO 2023:3). Progress in coverage of early ANC services has been achieved but coverage is far from universal and also differs within states and between income clusters (Moller, Petzold, Chou & Say 2017: e977; Ndayizigiye et al. 2022:1). UNICEF (2020: online) reports that in 2018, 91.4% of pregnant women (aged 15–49) in Lesotho attended at least one skilled ANC visit. Nationally, 76.6% had at least four ANC visits (UNICEF 2020: online). The rate, however, decreases for the poorest and those from rural areas, with 72.3% of the poorest attending four ANC visits (UNICEF 2020: online). Moller et al. (2017: e977) conducted a systematic analysis of early (first trimester) ANC coverage on global and regional levels. The study reports a global increase from 40.9% in 1990 to 58.6% in 2013. In 2013, the general coverage of early ANC in developing regions, such as Lesotho, was only 48.1% compared to 84.8% in developed countries. However, there was an increase of pregnant women attending their first ANC from 1,877 to 2,729 four years after implementing the National Health Reform in PHC clinics in four districts of Lesotho (Ndayizigiye et al. 2022:1).

Understanding the drivers of seeking initial ANC can inform the development of more effective ANC systems, given the varied opinions on when to initiate ANC. It could also assist in developing health education programs (Sibiya et al. 2018:3). The decision to seek ANC is influenced by many factors including structural, geographic, and socio-demographic elements (Sibiya et al. 2018:3). Delayed access to ANC is associated with increased rates of mother-to-child HIV transmission, whereas timely and appropriate ANC confers benefits such as reduced postnatal weight and shorter postnatal hospital stays (Smith, Burger & Black, 2019:512). However, literature on the factors motivating early ANC in Lesotho is limited, indicating the need for more contextualised research on factors motivating early ANC attendance.

1.3 RESEARCH PURPOSE

The study aimed to explore and describe factors motivating women in Lesotho to attend ANC services before 16 weeks' gestation. These motivating factors can be influential in developing health education programs to promote early utilisation of ANC services in Lesotho.

1.4 RESEARCH OBJECTIVES

The objectives of this research study were to:

- Identify women's reasons for attending ANC services before 16 weeks' gestation.
- Explore and describe women's view of enablers to attending ANC before 16 weeks' gestation.
- Provide recommendations of possible interventions to facilitate early attendance of ANC services.

1.5 RESEARCH QUESTIONS

- What are the reasons for women to attend ANC services before 16 weeks' gestation?
- What are the enablers for attending ANC services before 16 weeks' gestation?
- Which interventions can be recommended to facilitate early attendance of ANC services?

1.6 CLARIFICATION OF CONCEPTS

Clarification is provided for the key terms in the study's title and objectives.

1.6.1 ANC

ANC refers to "the care provided by skilled healthcare professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy" (Tola et al. 2021:2). In this study, ANC is defined as the care provided at the health centre by professional nurses to pregnant women, in which professional nurses advocate for early ANC attendance.

1.6.2 Early ANC attendance

Early ANC is when pregnant women initiate ANC services at a gestational age of less than 16 weeks (Gebresilassie, Belete, Tilahun, Berhane & Gebresilassie 2019:2). For the purpose of this study, early ANC is referred to as the initiation of ANC services at a gestational age of less than 16 weeks.

1.6.3 Motivating factors

Motivating factors are the determinants that create desire to implement a decision (Riang'a, Nangulu & Broerse 2018:2). In this study, motivating factors will be the factors that persuade pregnant women to go to ANC early.

1.7 RESEARCH PARADIGM

A naturalistic paradigm was used in this study. Following a naturalistic paradigm, the researcher believes that there are various understandings of reality and that the aim of research is to comprehend how individuals create and construct reality within their specific circumstances (Polit & Beck 2017:11). The naturalistic paradigm will allow the researcher to gain an in-depth understanding of the factors motivating women within their context to attend ANC early.

Table 1.1 outlines the assumptions of the naturalistic paradigm and how they are applied in the study.

Table 1.1 Assumptions of the naturalistic paradigm

Value	Assumption	Application in the study
Ontology *(Nature of reality)*	Reality is subjective. The individual who participates in the study constructs the reality.	Open-ended questions will be used for data collection to enable participants to voice their reality based on the construction of their own subjective meaning.

Value	Assumption	Application in the study
Epistemology *(Source and validity of knowledge)*	Knowledge of reality is mentally constructed by individuals. Many constructions are possible.	The researcher interpreted participants' experiences and interpretations of their situations as they were and provided verbatim quotes in the text.
Axiology *(The role of values)*	Values are inevitable and desirable.	Participants' values influence their views, and participants were allowed to emphasise what they experienced as an important motivating factor without the researcher imposing her values.
Methodology *(The strategy of inquiry)*	Seeks in-depth understanding using purposive sampling and interviews to collect data on multiple realities.	Participants were selected purposively using eligibility criteria so that participants with the experiences were interviewed. Semi-structured interviews were conducted, and data were analysed inductively.

Compiled from Polit and Beck (2017:10)

1.8 RESEARCH DESIGN AND METHODS

The researcher used an explorative, descriptive, qualitative design since it allowed the researcher to present comprehensive descriptions of a phenomenon obtained through exploration (Polit & Beck 2017:479). Personal views of factors that motivate choices for early ANC attendance are subjective and require in-depth exploration. Furthermore, evidence on factors motivating early ANC attendance in Lesotho is unknown.

1.8.1 Study site selection

The selected study site is a health centre that is established by the government of Lesotho where PHC services, including ANC services, are provided. The researcher purposely selected the health centre because it was centrally located within its target

population, making it accessible to pregnant women. More pregnant women can be expected to attend ANC at this health centre compared to other health centres, which are less accessible in this district.

1.8.2 Study population

The study population comprised of women who had attended ANC services before 16 weeks of gestation at the selected health centre in Lesotho.

1.8.3 Sampling

Participants were sampled purposively using inclusion and exclusion criteria. Purposive sampling is appropriate as it enables the researcher to select participants according to inclusion criteria to sample those who have relevant experience with the phenomena (Creswell 2018:262). The sample size was determined by data saturation.

Participants were recruited for this study after obtaining permission from the College of Human Sciences Research Ethics Committee (Appendix 1). A full discussion of the recruitment process is explained in Chapter Three.

1.9 DATA COLLECTION

The researcher conducted individual face-to-face interviews using a semi-structured interview guide (Appendix 8). The interview was conducted in a private, clean room within the selected health centre. The Sesotho language was used to conduct the interviews as it was the mother tongue of the participants and the researcher. The interviews were audio-recorded with the participants' consent and verbatim transcribed. If the participant experienced any discomfort, she could have been referred to a professional counsellor at the health centre for free-of-charge counselling, but no participant experienced any discomfort during the study. Reflective notes were made directly following each interview to enhance the analysis.

1.10 DATA ANALYSIS

Data analysis is the process of searching for understanding the phenomenon under study by arranging and synthesising the collected information (Polit & Beck 2017:725). Every interview was transcribed and translated from Sesotho to English before data

analysis. The translation's accuracy was confirmed. The researcher inductively analysed the data following each interview. Tesch's thematic analysis protocol (Creswell 2018:271) was used to guide the analysis process. Data was extracted from the verbatim transcripts, organised and synthesised into smaller topics and grouped into themes and sub-themes. Data were co-coded until consensus on the themes and sub-themes was reached.

1.11 TRUSTWORTHINESS

To ensure the trustworthiness of the findings, Guba and Lincoln's 1989 principles of credibility, dependability, confirmability, transferability, and authenticity were adhered to. The application of the strategies is described in Chapter Three.

1.12 ETHICAL CONSIDERATIONS

The ethical principles in the Belmont Report of 1978 were used for their relevance to conduct research involving human participants. These ethical principles were beneficence, respect for persons, and justice (LoBiondo-Wood & Haber 2018:246). These principles are further discussed under the ethical considerations in Chapter Three.

The researcher was granted permission to conduct the study by the College of Human Sciences Research Ethics Committee (Ethics number: 50015729_CREC _CHS_2021). Permission was also granted by the Ministry of Health Lesotho (Appendix 2a and 2b) (REF: ID18-2021), the District Health Management Team of the selected district (Appendix 4) and the selected health centre's nurse in charge (Appendix 5).

1.13 SIGNIFICANCE OF THE STUDY

This study provided a deeper understanding of the factors motivating pregnant women to attend ANC services before 16 weeks' gestation. The factors motivating early ANC attendance can be integrated into strategies and policies to improve Lesotho's early ANC attendance rate. The factors can be used to develop educational programmes (as a strategy) to enhance early attendance of ANC to reduce maternal and neonatal morbidity and mortality related to pregnancy complications. The findings of this study

will promote public healthcare services by promoting pregnant women's health through early ANC attendance and early detection of pregnancy complications after the implementation of the study's recommendations. Many studies have been conducted on late attendance of ANC services, but factors that motivate women to start ANC services early have not been explored yet.

1.14 STRUCTURE OF THE DISSERTATION

The study is organised in five chapters. Table 1.2 outlines the content of the chapters.

Table 1.2 Content of the dissertation chapters, an outline

Chapters	Summary of content
Chapter 1: Orientation to the study	This chapter provides an overview of the study, including the background to the study, the research problem, the purpose, objectives, concept clarification and a summary of the research method.
Chapter 2: Literature review	This chapter explains the knowledge gap through a review of previous studies on the topic. The purpose was not to replace the literature control but to provide a background to the concepts and problem.
Chapter 3: Research design and methodology	This chapter describes the research design and methodology, including the population, sampling, data collection and analysis. The strategies applied for the trustworthiness of the research and the ethical considerations are discussed in detail.
Chapter 4: Data presentation, interpretation and literature control	This chapter presents the study findings, the interpretation of the findings, and their relevance within the larger body of existing knowledge.
Chapter 5: Conclusions, recommendations and limitations	This chapter concludes the study and indicates how the objectives were reached. The limitations are described and the recommendations made.

1.15 SUMMARY

This chapter provided an overview of the study, including the background, problem statement, purpose, and objectives. The choice of the paradigm and aligned explorative, descriptive qualitative research design were explained, and an overview of the methods was provided. An overview of the considerations for enhancing trustworthiness and the ethical considerations were explained. The significance of the study was discussed, and the structure of the dissertation was outlined. The following chapter will provide a literature discussion to show the knowledge gaps and context of the study.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

In the previous chapter, an overview of the study was provided comprising of the background, the problem statement, the study purpose and objectives. The reader was introduced to the research design, methods and dissertation structure. This current chapter offers a short review of the literature correlated to the research topic and does not replace the literature control within this qualitative study. The following topics are discussed: the importance of early ANC, maternal mortality rates, trends in ANC attendance, and reasons and implications of late ANC attendance. National and international studies were reviewed and are discussed in this chapter.

2.2 IMPORTANCE OF EARLY ANC

The prenatal period consists of the time from the initial day of the last normal menstrual period to the start of true labour (Brucker, Jivett, King, & Osborne 2019:1175). Attending ANC early is important to optimise the pregnant woman's health and the health of the developing foetus. The first visit starts a long-term trusting relationship between the client and her care provider. Therefore, adequate time should be allocated to the initial ANC visit to allow the pregnant woman and the healthcare provider to establish a good rapport. The five basic components of early prenatal visits are 1) timely and precise identification of gestational age, 2) recognition of the woman at risk for complications and ongoing risk assessment, 3) continuing assessment of foetal well-being, 4) health promotion through counselling and education and lastly 5) social support, follow-up care and referral for existing physical and psychosocial illness (Brucker et al. 2019:1171). These five components will be discussed in this section to show the importance of early ANC.

The Lesotho ANC guidelines indicated that early ANC aims to advance the health and experience of ANC of pregnant women and their babies by promoting evidence-based interventions and woman-centred and culturally appropriate care. It is expected that implementation of these Lesotho ANC guidelines in all settings where ANC is provided, namely, at PHC health centres and public and private hospitals, will increase the

quality of ANC service and lessen pregnancy-related maternal and neonatal morbidity and mortality in Lesotho (Ministry of Health Lesotho 2020:7, 8).

Early ANC benefits the pregnant women through preventative care and treatment of health problems (Ministry of Health Lesotho 2020:8). Countries were encouraged to create a positive experience for pregnant women as per the WHO's 2016 Global Recommendations for Routine ANC to increase their healthcare agendas beyond survival, focussing on human rights and maximizing health and the potential of their populations. The South African Department of Health guidelines recommend that pregnant women should pursue ANC services as early as possible (Jinga et al. 2019:2). As with other maternal and child health interventions, effective prevention of mother-to-child transmission (PMTCT) benefits from early ANC attendance. Initiating ANC early enables healthcare providers to educate and counsel pregnant women timely on potential complications and the anticipated physiological changes in pregnancy. Additionally, early ANC offers opportunities for preventative healthcare services, including HIV counselling and testing. However, in South Africa, it is common for individuals to seek ANC later than recommended (Nattey, Jinga, Mongwenyana, Mokhele, Mohomi, Fox & Onoya 2018:251).

2.2.1 Early and accurate identification of gestational age

Establishing the diagnosis of pregnancy and gestational age is an important objective of an initial ANC visit. If a pregnancy is confirmed, the woman's goals can be discussed. Nearly half of all pregnancies are unplanned, leading to instances where a woman may engage in ANC prior to making a choice regarding the continuation of her pregnancy (Brucker et al. 2019:1178). There are three possible paths a pregnant woman might consider: 1) continuing with the pregnancy and raising the child, 2) carrying pregnancy to term and placing the baby with an adoptive family, or 3) terminating the pregnancy. Hence, it is important to use open-ended questions to explore the woman's concerns, and intentions for the ongoing pregnancy, paying diligent attention to her responses. In cases where the individual decides to proceed with the pregnancy, the initial ANC consultation pivots to confirming pregnancy viability, estimating gestational age, identifying maternal health issues, and outlining the anticipated care trajectory (Brucker et al. 2019:1178).

Early and accurate identification of the gestational age is key to determining when to perform various screening tests and assessments of the foetus and mother throughout pregnancy (Tufa, Tsegaye, & Seyoum 2020:658). Knowing the exact age of the pregnancy is important since it guides healthcare professionals to decide on the right steps to prevent preterm labour, to monitor foetal growth and determine when to induce labour. However, if the gestational age is estimated incorrectly, it could cause the inappropriate timing for tests, wrong understanding of test results, unnecessary treatments, or missing out on the needed care (Brucker et al. 2019:1181).

Healthcare providers should take a thorough history of every pregnant woman to determine the duration of pregnancy and to calculate the estimated date of delivery (Ministry of Health Lesotho 2020:13). History taking is important at any visit as it offers a chance to acquire information that may impact maternal and child health outcomes (Katowa-Mukwato, Kwaleyela, Mwiinga-Kalusopa, Musenge, Banda, Mutinta & Maimbolwa 2019:34). A first-trimester ultrasound is used to confirm the last normal menstrual period dating or to establish the gestational age for pregnant women without a known last normal menstrual period. The most precise first-trimester ultrasound measurement for assessing gestational age is the crown–rump length measurement. This dating technique can reduce the number of inductions of labour for post-date pregnancies and is cost-effective (Brucker et al. 2019:1183).

2.2.2 Identification of the woman at risk for complications and ongoing risk assessment

A complete history should be taken following pregnancy confirmation so that screening tests and physical examination can be tailored to assess pregnancy related complications and risks. Timely initiation of ANC provides the suitable moment for early assessment of amendable risk factors and pre-existing conditions (Jiwani, Amouzou-Aguirre, Carvajal, Chou, Keita, Moran, Requejo, Yaya, Vaz & Boerma 2020:1).

A comprehensive history taking encompasses a review of the pregnant women's medical and surgical conditions that pregnant woman currently and previously had, family, medical and genetic profiles, social circumstances, obstetric and gynaecological records, sexual health, and contraceptive use. All present medications and any known allergies should be identified and documented. Parts of the pregnant

woman's health history that might negatively influence the pregnancy's progression need to be discussed. Delicate topics, including experiences of intimate partner violence, history of sexual abuse and substance use, may need to be revisited in later appointments once a trusting relationship has been established (Brucker et al. 2019:1184).

During the initial ANC visit, a variety of tests and examinations are conducted. These include testing for HIV to assess the risk of transmitting the virus from mother to child, checking for syphilis, and offering supplements of iron and folic acid, which aid in lowering the chance of birth defects like neural tube defects. Additionally, pregnant women living in regions where malaria is common are provided with mosquito nets treated with insecticide (Boraya et al. 2018:156). Tetanus toxoid immunization is administered during pregnancy, which aids in protecting the mother from tetanus, and the immunity is also passed to the baby. A complete physical examination should be performed during the initial prenatal visit, including weight, height, vital signs, nutritional status, signs of anaemia, palpation for lumps in the breasts and nodes, an abdominal examination and auscultation of the heart (Brucker et al. 2019:1186). Oral health is imperative during pregnancy. Therefore, the physical inspection should include an assessment of the gingiva (Brucker et al. 2019:1186). The other important elements that should be included during the physical examination are abdominal and pelvic examination as well as auscultation for foetal heart tones (Brucker et al. 2019:1186).

Care should be respectful and person-centred at each ANC visit and good clinical practices should be provided. Good practices include the routine screening for risk factors such as hypertensive diseases, auscultation of the foetal heart sounds, and counselling on birth preparedness and postpartum family planning (WHO 2018:2). Table 2.1 provides a summary of routine tests recommended early in pregnancy.

Table 2.1 Tests recommended at the first ANC visit (Brucker et al. 2019:1188; Ministry of Health Lesotho 2020:15; WHO 2018:4).

Type of test	Importance of the test
Blood type, Rhesus type, antibody screen	Rhesus (D)-negative women who do not have alloantibodies are offered prophylactic anti-D immune globulin at 28 weeks to prevent alloimmunization. If Rhesus alloantibodies are present, the baseline titre will be used to monitor the condition.
Haemoglobin, haematocrit, mean corpuscular volume, platelets (usually ordered as a complete blood count)	A complete blood count will detect anaemia. The mean corpuscular volume will determine whether anaemia is microcytic, normocytic, or macrocytic. This information is used to identify appropriate tests for further evaluation of anaemia.
Hepatitis	Recommended for all women at an initial examination and then again in the third trimester for women who were not already screened prenatally, those who engage in behaviours that put them at high risk for infection, and those with signs or symptoms of hepatitis at the time of admission to the hospital for delivery.
HIV	Recommended for all women at an initial examination and then again in the third trimester for women at high risk for acquiring HIV.
Syphilis	Recommended for all women at an initial examination and then again in the third trimester for women with continued or new risk for STIs: Uninsured, living in poverty, sex worker, or use of illicit drugs, diagnosed with another STI, living in high-prevalence areas, not previously tested in pregnancy, had a positive test in the initial prenatal screen.

Type of test	Importance of the test
Urinalysis	Urinalysis for protein is performed to establish a baseline for comparison if renal function needs to be assessed later in pregnancy. Untreated bacteriuria increases the risk that a woman will develop pyelonephritis. Assess protein in urine to diagnose preeclampsia if there are proteins detected in the urine. Assess glucose in urine to diagnose diabetes: A urine glucose dipstick test is used to check for glucose in urine (glycosuria) in all pregnant women. Women found to have glucose in their urine should have confirmatory tests using a glucometer or have random blood sugar checked in a laboratory.

HIV= Human Immunodeficiency Virus

STI= Sexually Transmitted Infections

2.2.3 Ongoing assessment of foetal well-being

During pregnancy, it is imperative to assess foetal well-being early in pregnancy. Assessment and examination of foetal growth and welfare is an essential part of ANC (WHO 2018:6). This is done using an ultrasound scan, symphysis fundal height measurement and foetal heart rate auscultation (Ministry of Health Lesotho 2020:17). Early ultrasound to assess gestational age can increase discovery of foetal anomalies and multiple pregnancies, lessen induction of labour for post-term pregnancy, and improve pregnancy experience (WHO 2018:5).

One early ultrasound scan is suggested, if possible before 24 weeks' gestation (18 – 22 weeks' gestation), to estimate gestational age to decrease induction of labour for post-term pregnancy as pregnant women who are not post-term will wrongly be diagnosed as post-term pregnancies, to localise the pregnancy and detect foetal anomalies and multiple pregnancies. Every pregnant woman should have at least one ultrasound during pregnancy. Furthermore, early or late ultrasound examinations may

be done if necessary. There is no added advantage of further ultrasound scan when there is no indication (Ministry of Health Lesotho 2020:17).

Measuring the symphysis-fundal height with a tape measure is a widely used technique to evaluate foetal growth and identify intrauterine growth restriction. This method can also help in detecting conditions such as oligohydramnios, multiple pregnancies, polyhydramnios, and macrosomia (WHO 2018:6). In situations where a measuring tape is not accessible, abdominal palpation can be an alternative. Additionally, abdominal palpation should be used to examine other parameters of the pregnant uterus.

Monitoring the foetal heart rate is essential in all pregnancies. A foetal heart rate which is regarded as a normal rate should be 110–160 beats per minute, while an abnormal foetal heart rate is <110 beats per minute and >160 beats per minute. The health worker should enquire about foetal movement from 20 weeks' gestational age (Ministry of Health of Lesotho 2020:17). Initiating ANC early enhances the likelihood that pregnant women will attain the suggested number of ANC visits and services, as that is a vital key to measure of ANC quality. Comprehensive ANC improves the ongoing assessment and surveillance of maternal well-being and foetal development, contributes to favourable pregnancy outcomes, and encourages the adoption of healthy practices beyond childbirth. These practices include maintaining a healthy way of life and diet, engaging in family planning and breastfeeding (Al-Wutayd 2020:732).

2.2.4 Health promotion through counselling and education

The main objectives of ANC are early detection of diseases by assessment, the promotion of health, prevention of diseases which are common in pregnancy, management of diseases, preparation for birth as well as raising awareness of potential pregnancy complications (Boraya et al. 2018:155). Early ANC is the perfect phase for multidisciplinary healthcare providers to provide health promotion actions and establish a baseline knowledge of the pregnant woman's pre-existing health disorders (Moller et al. 2017: e977).

Before offering health education related to pregnancy, it is important to understand the pregnant woman's concerns. Most of the reasons that encouraged the health and

outcome of a woman's pregnancy originate outside the hospital or clinic (Brucker et al. 2019:1173). Health education regarding health promotion and health maintenance approaches is a core element of midwifery care for all pregnant women of all ages. Nevertheless, many women do not have the ability to access PHC services up until they are pregnant, and some health promotion strategies are particularly important for foetal health during pregnancy (Ministry of Health Lesotho 2020:25). Therefore, ANC is regarded as one of the most opportune times to speak about these health education topics.

Pregnant women with a history of tobacco use (previous and current) and exposure to second-hand smoke should be counselled immediately on the dangers of smoking in pregnancy and the need to stop smoking. Tobacco cessation interventions is important during pregnancy, and this can be achieved through offering counselling and psychosocial to pregnant women (Ministry of Health Lesotho 2020:25). It is also important that healthcare providers should provide counselling for alcohol and other substance abuse (WHO 2018:5).

During awareness raising on the significance of early ANC, healthcare providers should provide information on danger signs including, vaginal bleeding, convulsions, severe headache, contractions and pain before 37 weeks, fever, and premature rupture of membranes. Information on PMTCT should include the importance of taking the given antiretroviral therapy and breastfeeding exclusively (Katowa-Mukwato et al. 2019:36).

Lastly, health information materials for pregnant women and public members should be written in languages and formats available to them. Relevant and appropriate pregnancy related information and educational materials should always be available and accessible to the healthcare providers and to the community (WHO 2018:9).

2.2.5 Social support, follow-up care and referral

ANC does not only serve as a platform for physical health promotion, but also as an opportunity to provide social and psychological support necessary for healthy pregnancies and motherhood (Katowa-Mukwato et al. 2019:33; SDG 2017:64). Pregnant women were more inclined to attend ANC where they felt supported. This

support is often provided by other pregnant peers who provide practical assistance. This was especially true in contexts where the group ANC model was implemented, also in situations where women had the chance to form connections during ANC appointments (Downe et al. 2019:11).

Maternal deaths related to pre-eclampsia and eclampsia are avoidable through early ANC and appropriate services to the women identified with these pregnancy complications. This emphasises the importance of referral. Improving care for women throughout pregnancy and around delivery to avoid and treat pre-eclampsia and eclampsia is necessary to accomplishment the SDG health targets (WHO 2018:5).

The continuity of ANC services and linkages with the community can be achieved through outreaches and the provision of ANC-related interventions at the health posts. In Lesotho, the Village Health Workers are the main health providers at the community level and play a key role in promoting ANC at the community level. Village Health Workers should also follow-up on all women who fail to keep their scheduled ANC appointments and support them to utilize ANC services (Ministry of Health Lesotho 2020:35).

Identifying mental health disorders during pregnancy and long-term stress is an important component of ANC. These individuals should be referred for mental healthcare and social services (Brucker et al. 2019:1173). Pregnancy-related stress can intensify existing mental health issues. A primary predictor of post-delivery depression or mood disorders is a background of depression, anxiety, history of post-traumatic stress disorder, or other mental health challenges during pregnancy. Furthermore, it is advisable to actively explore the potential for intimate partner violence during ANC appointments to better identify and manage conditions potentially exacerbated by such violence, ensuring enhanced clinical assessment and care. This approach is viable only when there is an infrastructure for offering supportive responses (WHO 2018:6).

2.3 MATERNAL MORTALITY RATES

The majority (94%) of the global maternal deaths in 2017 were in lower-income countries. In the SDG regions, the burden was the highest in sub-Saharan Africa, with

196,000 deaths (WHO 2021:33). Far too many women still suffer and die from serious health issues during pregnancy and childbirth. Almost all of these deaths occurred in low- and middle-income countries, with almost two thirds (64%) occurring in the African Region (WHO 2018:4). Reducing maternal mortality crucially depends upon ensuring that women have access to quality care before, during and after childbirth. WHO recommends that pregnant women initiate first antenatal care contact in the first trimester of pregnancy referred to as early antenatal care. During early ANC visits prompt screening tests and assessment to detect complications like pregnancy induced hypertension and diabetes mellitus are essential. This allows timely treatment initiation to aid in reducing stillbirths (Mulondo 2020:788).

MMR in South Africa, a neighbouring country of Lesotho, is declining, but it remains high in comparison to other lower-income countries with comparable public health expenditure levels. Unlike many other lower-income countries, a high proportion of births (85.9%) occur in healthcare facilities in South Africa (Smith et al. 2019:513).

Maternal mortality rates in Lesotho are decreasing but are still labelled “very high” (566 per 100,000 live births) as compared to the SGD target 3.1 of reducing the global maternal mortality ratio to less than 70 per 100,000 live births by 2030 (WHO 2023:3). This could have been caused by the limitation of the important healthcare services throughout pregnancy, labour and lack of postpartum care, especially for those living in remote communities (Ministry of Health Lesotho 2016:9). Complications for the period of pregnancy or succeeding pregnancy and childbirth can lead to death, but these complications are mostly preventable. Some risk factors might be present before pregnancy but complicated during pregnancy, particularly if they were not managed early in pregnancy. The attendance of early ANC and repetitive contact between the pregnant woman and the ANC services render many chances to access evidence-based services likely to improve maternal, foetal, and neonatal health and survival (Ministry of Health Lesotho 2020:2).

2.4 TRENDS IN ANC ATTENDANCE

Progress in coverage of early ANC services has been accomplished, but coverage is far from widespread and differs within states and between income clusters. This was discovered during a systematic analysis showing that ANC coverage on global and

regional levels indicated a global increase from 40.9% in 1990 to 58.6% in 2013 (Moller et al. 2017: s977). Substantial differences were observed in low-income countries with early ANC coverage at 24.0% compared to 48.1% in developing countries (Moller et al. 2017: e981).

The United Nations Children's Fund (UNICEF) (2020: online) reports that in 2018, 91.4% of pregnant women (aged 15–49) in Lesotho attended a minimum of one skilled ANC visit. Nationally, 76.6% had at least four ANC visits (UNICEF 2020: online). However, the rate decreases for the poorest and those from rural areas, with 72.3% of the poorest attending four ANC visits. It is not known whether these visits were in the first trimester.

A decline could be seen in the early attendance of ANC in the specific district of interest in Lesotho (Mafeteng). The Lesotho Ministry of Health's Data Health Information Systems (DHIS2) reported that 1,341 pregnant women attended ANC in 2021, of whom 33% initiated ANC in the first trimester. In 2022, merely 28% of 2,743 pregnant women, initiated ANC in the first trimester throughout the selected district (DHIS2 2023: online). According to the selected health centre's records (DHIS2 2023: online), in 2020, only 126 pregnant women out of 545 (23%) presented for initial ANC services before 16 weeks' gestation. The same percentage (23%) attended ANC early in 2021, and in 2022, early ANC attendance dropped to 18%, with 40 pregnant women out of 225 attending ANC early.

In most developing countries or low-resource countries, women fail to complete the suggested minimum of four ANC visits, and adherence to the advised core content for ANC often falls short for various reasons. These reasons could include limited accessibility and availability, poor interactions between providers and clients, and insufficient facility resources, such as a shortage of equipment, medications, and absence of qualified professionals. It may also be due to problems in individual factors, including the level of education, wealth, religion, parity, age, and marital status (Berehe & Modibia 2020:2). Despite the suggested guideline of pregnant women to start ANC early, a large percentage of pregnant women in lower-income countries attend the first ANC visit only after 16 weeks' gestation (Boraya et al. 2018:156).

2.5 REASONS FOR LATE ATTENDANCE

There are a variety of reasons for late ANC attendance reported in studies. These reasons include but are not limited to 1) women's opinion that pregnancy is a normal occurrence that does not necessitate any intervention, 2) perceptions that first-trimester ANC visits are only for those suffering ill-health conditions, 3) a lack of awareness regarding the importance of early attendance, 4) long waiting times and 5) the fear of being tested for HIV (Boraya et al. 2018:158; Khanlou & Pilkington 2015:330). Additionally, some women only discover their pregnancy late.

Women often attend ANC late when they perceive pregnancy as a normal phenomenon. According to Khanlou and Pilkington (2015:330), pregnancy is viewed in non-Western countries, such as Lesotho, as a typical physiological occurrence that does not necessitate any services from health professionals and ANC is often considered unnecessary. Throughout the reproduction period, the elder women of the family provide training, guidance and assistance during pregnancy and childbirth. Furthermore, mothers whose health was well, were found to initiate ANC services later in pregnancy than those with illness (Boraya et al. 2018:156).

Some pregnant women think that the first-trimester ANC visits were merely for those suffering from ill health conditions such as backache, headache, and HIV/AIDS during pregnancy. In Malawi, it was not regarded important to attend ANC in the first-trimester because the doctors would not be able to palpate anything (Nyando, Makombe, Mboma, Mwakilama & Nyirenda 2023:2). According to Phafoli, Van Aswegen & Alberts (2016:17), a delay to attend ANC was a major concern among pregnant teenagers in Lesotho. Factors that influenced delay in early ANC attendance were the absence of knowledge concerning the significance of early ANC attendance, the boyfriend's denial of the pregnancy, the fact that sex outside of marriage in Lesotho is forbidden and structural factors related to service delivery. This consequently resulted to delays in receiving treatment for pregnancy complications. Health system-level elements like non-existence of age-appropriate services for adolescents and negative approaches of healthcare providers may also discourage adolescents from trying to find ANC services (Hackett, Lenters, Vandermorris, LaFleur, Newton, Ndeki & Zlotkin 2019:2).

The lack of awareness regarding the significance of early pregnancy care, transportation problems, and extended waiting times can contribute to late ANC attendance (Teshale & Tesema 2020:1). Some pregnant women perceived that long waiting times at ANC clinics do not benefit them because they make a living through small-scale businesses such as vendor shops. It was a perceived as a loss to spend the entire day without selling their products, and they kept on postponing ANC (Nyando et al. 2023:12). In Kenya, a study indicated that late ANC attendance was caused by long waiting times, limited access to the ANC services, ignorance towards ANC initiation and unmarried women's fear of stigmatisation (Boraya et al. 2018:156).

In South Africa, maternal and child healthcare services are delivered at no cost to the pregnant women. Nonetheless, the use of ANC services continues to pose a significant public health issue with 96% of pregnant women seeking ANC services only after the first 12 weeks of pregnancy. The attitude of women towards ANC is a significant determinant for seeking ANC. Some women who was pregnant do not perceive ANC services as necessary and consequently delay their first visit, despite awareness that regular assessment of maternal well-being during pregnancy by midwives can reduce maternal and neonatal morbidity and enhance their health and wellbeing (Mulondo 2020:791).

In addition to misperceptions on early ANC attendance, numerous economic and infrastructure obstacles were found to cause low early ANC attendance rates in African countries such as Malawi. Therefore, working on information gaps and solving barriers caused by economic, infrastructure and healthcare delivery can increase women's early ANC visits. Future research should conduct studies with pregnant women from diverse socioeconomic backgrounds to enhance an understanding of the diversity in barriers to early ANC attendance (Nyando et al. 2023:3).

Fear of being tested for HIV discouraged many women not to attend ANC services earlier. The stigma related to HIV could decrease women's social status, resulting in men denying the pregnancies (Nyando et al. 2023:3). Other acknowledged factors for delayed attendance of ANC were maternal educational level, husband education, age, parity, type of pregnancy, unemployment, lack of knowledge or misconceptions about

the objective of ANC, marital status, socioeconomic status, financial constraints, and complications with the last delivery or pregnancy (Tola et al. 2021:1).

Another factor which contributed to late ANC attendance was inadequate partner support. Therefore, few pregnant women who were married attended ANC in the first trimester. Male partner participation in pregnancy care seemed to have an effect on healthcare utilization. Pregnant women in Malawi said that they were not sufficiently supported by their partners as pregnant women wanted their spouses to offer them money for transport and snacks so that they could attend ANC early (Nyando et al. 2023:16).

2.6 IMPLICATIONS OF LATE ANC ATTENDANCE

Globally, late ANC attendance leads to approximately 515,000 deaths annually due to pregnancy and childbirth-related problems (Boraya et al. 2018:156). Late attendance predisposes pregnant women to late assessment, diagnosis and treatment of preventable disorders which might affect the pregnancy outcome. Examples are anaemia and pre-eclampsia (Nyando et al. 2023:3). Delayed and less frequent use of ANC is accompanying with poor infant outcomes like preterm delivery, low birth weight and small size for gestational age infants (Mulondo 2020:792). Late ANC attendance is also connected with greater rates of mother-to-child HIV transmission (Smith et al. 2019:512). In contrast, timely and frequent ANC service offer chances to encourage healthy pregnancies and motivate women to deliver in health facilities, thus minimising threats for obstetric problems and maternal mortality (Gill, Machekano, Isavwa, Ahimsibwe & Oyebanji 2015: e33).

2.7 SUMMARY

ANC aims to maintain healthy pregnancy outcomes by accurately and consistently observing maternal and child health. Pre-existing medical conditions, risk factors, and adverse health behaviours should be identified early in pregnancy using a range of medical, educational, and nutritional interventions. This chapter discussed the importance of early ANC attendance, essential components of early ANC visits, maternal mortality rates, trends in ANC utilization, reasons for late ANC initiation and its implications. In the next chapter, the research design and methods are described.

CHAPTER 3: RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

The previous chapter provided a report on reviewed literature including the significance of early ANC attendance, essential components of early ANC visits, maternal mortality rates, trends in ANC utilisation, causes and implications of late ANC initiation. In this chapter, the researcher describes the research paradigm, design, and methods used to answer the research questions. The chapter describes the study population, sampling technique, data collection and data analysis methods, the strategies used to enhance the trustworthiness of the findings and the ethical considerations.

3.2 RESEARCH PARADIGM

A research paradigm is a way in which people respond to basic philosophical questions and is characterised in terms of specific ontological, epistemological and methodological assumptions (Brink, Van der Walt & Van Rensburg 2018:19). According to Creswell (2018:46), some qualitative researchers use a naturalistic approach, meaning that qualitative researchers study phenomenon as it occurs in its natural setting. The researchers explored and attempted to understand phenomena in terms of the meanings people conveyed to them. To study a phenomenon, qualitative researchers use an emerging qualitative approach to data collection and use inductive analysis processes (Creswell 2018:46). A naturalistic paradigm was used in this study and the ontological, epistemological, axiological and methodological assumptions of the naturalistic paradigm were discussed.

3.2.1 Ontology

Ontology refers to the philosophy dealing with the nature of reality (Polit & Beck 2017:10). A naturalistic paradigm, reality is not a permanent entity but rather a creation of the lived experience of people participating in the research. Human beings construct meaning as they engage with the world (Creswell 2018:46). Reality occurs within a context, and numerous constructions are possible. The naturalistic paradigm also

focuses on the specific contexts in which people live and work to understand the historical and cultural setting of participants. The voices and interpretations of study participants are essential for understanding the phenomenon of interest (Polit & Beck 2017:10).

In qualitative research, the researcher studies the phenomenon in its natural setting by trying to understand the voices and experiences of the participants. The overarching aim of a qualitative approach is to interpret phenomena within the context of the meaning that people express without attempting to infer causation (Edmonds & Kennedy 2017:142). In this study, the researcher used open-ended questions during data collection to enable participants to describe their reality based on the construction of their subjective meaning, and the researcher merged participants' experiences according to their similarities to create themes and sub-themes to learn about the phenomenon under study.

3.2.2 Epistemology

Epistemology is the philosophy concerned with the nature of knowledge (Polit & Beck 2017:10). Knowledge is an individual's mental construction of reality, and many constructions are possible. The researcher interacts with those being researched, and findings are the creation of the interactive process (Polit & Beck 2017:10). In this study, the participants explained the phenomenon under study based on their own experiences, and the researcher validated participants' data by repeating what each participant said or by rephrasing what the participant narrated.

3.2.3 Axiology

Axiology refers to the role of values in the inquiry (Polit & Beck 2017:10). Values are inevitable and desirable. Researchers should recognise that their own values and backgrounds shape their interpretation. Therefore, researchers should guard against their personal, cultural and historical experiences affecting their interpretation of data (Creswell 2018:46). Researchers' positions, privileges, perspectives and interactions are taken into account as an inherent part of the research reality (Polit & Beck 2017:476). The researcher did not impose her values and perceptions on the participants but quoted participants' responses directly. The researcher ensured that

the interpretation of data was not affected by the researcher's experience through personal reflection and bracketing.

3.3.4 Methodology

Research methodology refers to best techniques and research methods that the researcher uses to obtain the evidence (Polit & Beck 2017:10). Qualitative studies use an emergent design that evolves as the researchers make ongoing decisions throughout the research process (Creswell 2018:258). In this study, an in-depth understanding was gained using purposive sampling to identify persons who experienced the phenomena. Semi-structured interviews were used for data collection. Therefore, insight emerged from participants' experiences. The researcher was part of the research process as she collected and analysed data.

3.3 RESEARCH DESIGN

A research design is an overall plan for addressing a research question, including the strategies for enhancing a study's integrity (Polit & Beck 2017:743). Research designs are types of inquiries within qualitative, quantitative and mixed methods approaches that provide specific direction for the research study (Creswell 2018:12). The type of design directs the selection of a population, procedures for sampling, methods of measurement, and plans for data collection and analysis. The researcher used a qualitative, explorative, descriptive design in this study.

Aligned with Naturalism, a descriptive qualitative research design aims to describe a population, situation or phenomenon accurately and systematically in its context (Brink et al. 2018:104). This descriptive design can answer what, where, when and how questions but not why questions (a subjective perspective). In a descriptive design, the researcher does not manipulate any variables and makes no effort to determine the relationship between variables. Therefore, an explorative approach was also adopted to answer the 'why' question. In other words, why do the participants attend ANC early (the motivating factors)? An explorative design allows for the investigation of the full nature of the phenomenon and the presentation of comprehensive summaries of a phenomenon (Polit & Beck 2017:15). In-depth exploration was

required to explore and describe the personal experiences and motivational factors for attending ANC early.

3.4 RESEARCH METHOD

Research methods are “the techniques used to structure a study and to gather and analyse information in a systematic fashion” (Polit & Beck 2017:743). In this section, the study site, study population, sampling, recruitment, data collection method, and data analysis were described.

3.4.1 Study site selection

Early ANC services are provided at maternal and child health departments at all three levels of the Lesotho healthcare system, which are the primary, secondary, and tertiary levels of healthcare services. This study was conducted at one public health centre in Mafeteng in the urban South of Lesotho which is in a primary level of care. The researcher purposely selected the health centre because it was centrally located within its target population, making it accessible to pregnant women. More pregnant women can be expected to attend ANC and attend ANC early at this health centre compared to other health centres, which are less accessible. At this selected study site ANC services adheres to the ANC guidelines of Ministry of Health Lesotho (Ministry of Health Lesotho 2020:9) which indicated that ANC services should respect the privacy, dignity and confidentiality of pregnant women. During ANC consultations services the following services should be provided: prevention, alleviation of symptoms, management of health problems (including those directly related to pregnancy) and health education. Health education can include advice for a healthy pregnancy, childbirth, and postnatal recovery, including care of the newborn, promotion of early exclusive breastfeeding and assistance with deciding on future pregnancies in order to improve pregnancy outcomes (Ministry of Health Lesotho 2020:9). Most pregnant women (approximately 80%) receive their ANC services at the PHC level that is at the health centres (Ministry of Health Lesotho 2016:17). Therefore, rich information about factors that can motivate pregnant women to attend ANC can be obtained from women attending ANC at the health centres. The Ministry of Health Lesotho’s Data Health Information Systems (DHIS2) reported in this selected study site that approximately 200-500 pregnant women attend first ANC services in a year at this selected study site

with an average of 21% attending before 16 weeks' gestation. Most of the time surpassing their set annual target of 211 (DHIS2 2023:online).

3.4.2 Study Population

According to Brink et al. (2018:116), a research target population is a well-defined set of the entire group of persons or objects that is of interest to the researcher. The target population is the entire group that the researcher is interested in, while the accessible population is the population that meets the target population criteria and is available for study (Brink et al. 2018:116). In this study, the target population were women who attended ANC services before 16 weeks' gestation at Lesotho health centres, and the accessible population were women who started ANC services before 16 weeks' gestation at the selected health centre.

3.4.3 Sampling

According to Polit and Beck (2017:743), a sample is a subsection of a population and sampling is the technique used to select the sample. This study used purposive sampling according to inclusion and exclusion criteria. Purposive sampling is appropriate as it enables the researcher to select participants with experience of the phenomena, which allows for a deeper understanding of the phenomenon (Creswell 2018:262; Grove & Gray 2019:107).

3.4.3.1 Inclusion criteria:

- Pregnant women who have attended ANC services at the selected health centre before or on their first 16 weeks' gestation for their current pregnancy.
- The women should be currently pregnant at the time of data collection so that they can provide rich data based on their recent experiences.
- Pregnant women older than 18 years of age and who were able to provide informed consent for themselves.

3.4.3.2 Exclusion criteria:

- Pregnant women who were unable to provide informed consent due to cognitive impairment, language barriers, or any other factors that compromises their ability to understand the study procedures and implications.
- Pregnant women below the age of 18 years.
- Individuals who had a vested interest in the study outcomes or a significant relationship with the researchers that would compromise impartiality.

The sample size is the number of people who participate in a study (Polit & Beck 2017:743). The guiding principle when considering sample size in this study was the depth of data and whether adding more participants would increase the understanding of the phenomenon. Data saturation occurs when newly collected data is similar to what has already been collected. Data saturation is evident when concepts are understandable and well-described, and patterns or themes of a theory emerge (Grove & Gray 2019:321). In this study, data saturation was reached after the researcher had conducted 12 interviews. Two more interviews were conducted to confirm the data saturation.

3.4.4 Recruitment

The researcher collected data for this study after obtaining permission from the College of Human Sciences Research Ethics Committee (Appendix 1) and gatekeepers of the selected health centre. The District Health Management Team representative and nurse in charge of the selected health centre granted permission to conduct this study after the Ministry of Health Lesotho granted permission to do so (Appendix 2a and Appendix 2b). A copy of the permission letters was presented to prospective participants as well as the information sheet explaining the study and requesting prospective participants to participate in the study (Appendix 6).

Two professional nurses working at the mother and child health department in the selected health centre were trained by the researcher to assist with introducing the study to potential participants for recruitment after they had been given permission letters to conduct the study. The researcher gave the two professional nurses an

information sheet on the study and explained the inclusion and exclusion criteria of the study to them so that the two professional nurses could recruit and refer the potential participants to the researcher. The potential participants were provided with the information sheet (Appendix 6) and asked to indicate if they were willing to participate in the study. The researcher waited at the ANC department for potential participants so that the researcher could be linked to potential participants by the two professional nurses. Then, the researcher accompanied the potential participants to a room prepared for face-to-face interviews. The interview room was next to the ANC department to enable easy movement of participants from the ANC department to the interview room. The researcher further explained the study and made an appointment for the face-to-face interview at a time convenient to the prospective participants after their ANC services, and after the researcher had checked that the prospective participants met the inclusion criteria. This was done each day during recruitment until saturation was reached.

The researcher visited the health centre at the date and time agreed with the participant for the interview. To ensure that participants were well informed, the researcher asked them to briefly explain in their own words how they understood the purpose of the study. Prospective participants who agreed to participate in the study signed the informed consent form in the presence of the researcher, and a professional nurse witnessed the signing of the informed consent form in the private room allocated to the researcher for the interviews. This process of recruitment and interviewing was repeated until data saturation was reached.

3.5 DATA COLLECTION

Data collection is the process of “gathering of information to address a research problem” (Polit & Beck 2017:725). Following the exploratory interviews, the researcher decided to conduct semi-structured interviews instead of unstructured interviews because the responses that the researcher got did not yield in-depth data. Probing questions were also used to explore the meaning of responses. Probes are questions asked to participants to acquire a detailed information and more understanding about a particular response (Grove & Gray 2019:109).

The advantage of semi-structured interviews was that the interviewer directed the discussion to some extent to obtain the required information, but the participants could elaborate on their perspectives. Face-to-face interviews provide an opportunity to clarify misunderstandings of a particular question throughout the interview process, and face-to-face interviews have a higher response rate than questionnaires. A face-to-face interview data-collection method is relatively inexpensive, and non-verbal cues can be observed (Nieswiadomy & Bailey 2018:212).

3.5.1 Characteristics of the interview guide

The interview guide (Appendix 8) consisted of two sections. Section A included demographic questions to understand the participants' background, and Section B consisted of nine semi-structured questions. The researcher translated the interview guide into Sesotho because Sesotho was the participants' mother tongue, and a research consultant checked the accuracy of the translation of the interview guide. The translator was a skilled research educator with a Masters' of Science in Sociology and a speciality in Philosophy. He was proficient in Sesotho and English, as Sesotho was his mother tongue, and he became proficient in academic writing in English during his academic career. He was also a research consultant. Refer to Appendix 10.

3.5.2 Exploratory interviews

The researcher performed exploratory interviews to practice interview skills, refine the interview guide and test the interview logistics and the audio recording quality. The researcher arranged a suitable time with the participants when there were no distractions such as noise. Interviews were conducted in a private room in the health centre where participants felt safe and comfortable. Participants were interviewed after their ANC services at the selected health centre to prevent disruption of ANC services. They were interviewed in either Sesotho or English, depending on their preference. After requesting permission from the participants, the interview was recorded on an audio recorder and later transcribed and translated. Reflective notes on interview skills were made. Additionally, non-verbal communication during the interviews was noted. The researcher first used three open-ended questions, with follow-up probe questions for the first three interviews. After both supervisors independently completed the assessment of the transcribed exploratory interviews, the researcher learned that rich

information was not obtained. Therefore, nine semi-structured questions were designed, and another five exploratory interviews were conducted which yield enough data. The findings of the exploratory interviews were not included in the findings of official samples. The semi-structured questions produced rich data, and the data gathering commenced. All the transcripts were de-identified and kept in safe storage to ensure confidentiality.

3.5.3 Data collection approach and method

Data was collected by the researcher through face-to-face interviews using the refined semi-structured interview guide (Appendix 8). The face-to-face interview started with a brief explanation of the study, and the researcher interviewed participants in a safe, quiet and private place where questions could be answered without disturbance and responses could be kept confidential. Participants were made aware that their participation in the study was voluntary and that they could withdraw at any time. Interviews were audio recorded after the participants gave permission. Each interview took between 30–40 minutes. All the interviews were conducted in Sesotho because all participants preferred to be interviewed in Sesotho. Probing questions were used to explore responses in-depth and gain an understanding of the motivating factors. The researcher wrote reflective field notes after each face-to-face interview on impressions of the interview to enhance the depth of analysis. Reflective field notes document a qualitative researcher's personal experience and reflections (Polit & Beck 2017:742). The researcher analysed the data provided by participants during the interview for its depth, and if the information provided was not enough, the researcher used probing questions to get more data on the phenomenon in the next interviews. Interviews were conducted with 12 participants until data saturation. Thereafter, two more interviews were conducted to confirm the data saturation. No participant experienced any discomfort, and there was no need for referral to the health centre's professional counsellor.

3.6 DATA ANALYSIS

Audio recordings were transcribed by the research consultant shortly after each interview, and the researcher verified the accuracy of the transcriptions by listening to the audio-recordings while reading through the transcripts. After that, the transcribed

Sesotho interviews were translated into English, which the researcher verified by listening to the interview to check that the translation still portrayed the original interview. The transcriber was a skilled research educator with a Masters' of Science in Sociology and a speciality in Philosophy. He was proficient in Sesotho and English, as Sesotho was his mother tongue, and he became proficient in academic writing in English during his academic career. He was also a research consultant (Appendix 10).

In keeping with the qualitative approach, the data analysis was conducted simultaneously with the data collection.

The demographic data was analysed through descriptive statistics, in which frequencies and percentages were used to analyse and describe the demographic data. Thematic analysis was used to analyse the data and focus on identifying patterns of meaning within the data. Coding is the primary process for developing themes by identifying items of analytic interest in the data and tagging these with a coding label. In qualitative research, coding involves identifying and indexing recurring words, themes, or concepts within data (Polit & Beck 2017:722).

The researcher used iterative coding cycles to conceptualize the findings into meaningful themes and sub-themes. The steps of Tesch's thematic analysis protocol were followed as described by Creswell (2018:271).

Step 1: Get a sense of the whole and prepare data for analysis. The researcher analysed all the transcriptions carefully and got the meaning of the data provided during data collection. After that, the researcher started organising and preparing data for analysis by sorting data to get a general sense of what the participants were saying and also referring to reflective notes. Similar factors which motivated participants were grouped to form initial themes.

Step 2: Analyse one interview. The most interesting interview was analysed in-depth first. It was the transcript of the interview with Participant Four. Many factors hindered the participant from attending ANC early, but she finally rose above her situation and decided to attend ANC early. The researcher manually coded the interview by applying different colours to code the themes and sub-themes emerging from the interview.

Emerging codes were given representing phrases. After completing the analyses for seven participants, the researcher started Step 3.

Step 3: Create a list of topics. The researcher went through coded transcripts and clustered similar codes into topics.

Step 4: Coding the transcripts. The researcher abbreviated the topics as codes and wrote the codes next to the appropriate text segments, observing if new codes emerged. Different colours were applied to the participant's transcripts to represent specific codes. After manually grouping the transcribed data into colour-coded data segments, the researcher developed charts using an Excel spreadsheet.

Step 5: Categorisation and interrelationships. The researcher found the most descriptive wording for the categories. Interrelationships and similarities were identified, and some categories were merged. The overarching themes and sub-themes were identified.

A co-coder was used to ensure the rigour of the study. The co-coder was a skilled research educator with a Master's of Science in Sociology and a speciality in Philosophy. He was an expert in research as he had worked on several research studies as a co-coder. The researcher and co-coder had an initial meeting where the purpose of the study was discussed (see Appendix 10). After the data was coded and analysed independently by the researcher and co-coder, they met to discuss the findings and reached a consensus on the themes and sub-themes that emerged.

Step 6: Refine categorisation and recode. Final themes and sub-themes were discussed and explained by comparing findings with previous studies. During this iterative process, which was conducted with the support of the two supervisors and co-coder, six themes and their sub-themes were identified and labelled. Transcripts were reread and coded if needed to confirm themes and sub-themes. The confirmed themes and sub-themes were interpreted and compared with the literature.

3.7 TRUSTWORTHINESS

Trustworthiness is the extent in which the qualitative researcher has confidence in the data and analyses. The Guba and Lincoln (1989) principles of credibility, dependability,

confirmability, transferability, and authenticity were adhered to, to enhance the trustworthiness of the findings (Polit & Beck 2017:747).

3.7.1 Credibility

Credibility refers to the trust in the truth of research findings (Polit & Beck 2017:724). Credibility was enhanced by becoming proficient in interviewing participants after conducting eight exploratory interviews. The researcher spent 30–40 minutes with one participant during interviews. Furthermore, probing questions were used to elicit in-depth responses from participants to ensure that participants' meanings were understood. Data was collected until data saturation was reached. The researcher had prolonged engagement with participants and with the data during the iterative analysis process. The researcher was involved in all phases of the study, allowing for an in-depth understanding.

Member-checking and co-coding were used to enhance credibility. Member-checking is "a method of validating the credibility of qualitative data through debriefings and discussions with informants" (Polit & Beck 2017:734). The researcher used member-check during the interviews and frequently repeated the participant's replies so that participants could confirm if the researcher heard what they said. Co-coding enhanced credibility because co-coding allowed the researcher to develop comprehensive and mutually exclusive themes and sub-themes.

3.7.2 Dependability

Dependability is the stability or reliability of data over time and under different conditions (Polit & Beck 2017:726). This was achieved by allowing the supervisors to check that the research designs, methods of data collection and analysis were documented in detail to aid the replication of the study at another time. This auditing aided in ascertaining that the research process used by the researcher in the study was acceptable and dependable.

3.7.3 Confirmability

Confirmability is a criterion for trustworthiness referring to objectivity or neutrality of the interpretation, and data should represent the information participants provided

(Polit & Beck 2017:723). In this study, the researcher used bracketing to avoid the influence of preconceived beliefs and opinions about the phenomenon on the interpretation, ascertaining that findings were grounded in the collected data. Findings, conclusions and recommendations were in alignment with the findings. Transcripts, audio recordings and reflective notes were stored as evidence of the raw data.

3.7.4 Transferability

Transferability is “the extent to which qualitative findings can be transferred to other settings or groups” (Polit & Beck 2017:560). The researcher provided sufficient descriptive data on the context, demographic characteristics of participants and the findings so that readers could evaluate the applicability of data to another context.

3.7.5 Authenticity

Authenticity is “the extent to which qualitative researchers fairly and faithfully show a range of different realities in data collection, analysis and interpretation” (Polit & Beck 2017:560). The researcher fairly and faithfully showed a range of realities in this study by using participant quotes to develop themes and sub-themes. Authenticity emerges in a report when it conveys the feeling tone of participants’ views. Authenticity can be established by context-rich and meaningful descriptions (Brink et al. 2018:124). The researcher ensured authenticity by using the participants’ mother tongue so that the participants’ experiences could be understood, and the researcher presented direct, translated quotations from the participants to support the interpretation of the data.

3.8 ETHICAL CONSIDERATIONS

Throughout the research process, participants’ well-being was protected by adhering to research ethical considerations. Ethical clearance was granted by the UNISA, College of Human Sciences, Research Ethics Review Committee (Appendix 1) and permission to conduct this study was obtained from the Ministry of Health Lesotho (Appendix 3a and 3b), the Mafeteng District Health Management Team representative (Appendix 4) as well as the Nurse in Charge of the selected health centre (Appendix 5).

3.8.1 Beneficence

According to LoBiondo-Wood and Haber (2018:247), ‘’beneficence is an obligation to do no harm and maximise possible benefits. Persons are treated in an ethical manner, decisions are respected, they are protected from harm, and efforts are made to secure their well-being”. Participants were informed about the risks which were likely to occur and the benefits of the study. The potential risk of harm to participants was outweighed by the likelihood of benefits for other pregnant women in the future. In this study, anticipated risks that participants might experience was minor discomfort caused by the interview questions as the questions could elicit memories of previous traumatic experiences. Participants who might experience discomfort and needed support would have been referred, free of charge, to the counsellor available in the selected health centre. However, none experienced discomfort. Participants did not benefit directly, but the findings of this study can be used to develop education programmes or inform policy to benefit pregnant women in the future. Therefore, participants can benefit from this study by having a sense of achievement in knowing that their participation could assist in potentially reducing maternal and newborn morbidity and mortality related to pregnancy complications, as these could be prevented by early ANC attendance.

3.8.2 Respect for persons

This principle indicates that people’s autonomy and right to choose whether or not to participate in research should be respected (Grove & Gray 2019:132). Subjects from vulnerable populations, including pregnant women, may also need safeguards enacted to protect the principle of respect for persons (Grove & Gray 2019:132). The researcher adhered to this principle by selecting participants older than 18 who could make informed choices. Participants signed informed consent to participate in the study. The consent forms were stored in a locked cabinet at the researcher’s home. Pregnant women accessing ANC services were vulnerable to feeling like they should participate in health research studies to please their healthcare workers. As a result, the researcher explained that participation in this study was voluntary and that they could withdraw at any time without negative consequences.

The data was collected in a private, clean room, and the room was prepared before the interview by the researcher to ensure that the room was able to provide privacy to

ensure confidentiality, that it was clean, had enough light, adhered to COVID-19 recommendations and was noise free.

To maintain confidentiality, all identifiers were removed from the data, and participants were referred to using a numerical code (e.g., P1). The purpose for which the data was to be used was explained to participants, and any anticipated secondary use of the data for publication was also discussed. Audio-recordings and electronic participants data were stored in a password-protected computer folder, hard-paper copies were stored in a lockable cabinet, and backups for electronic data files were made. The data will be stored for five years and then destroyed. Only the researcher, research consultant and supervisors of the study had access to the data, and they signed a confidentiality agreement (Appendix 9).

3.8.3 Justice

The principle of justice refers to a participant's right to fair selection and treatment (Grove & Gray 2019:132). The researcher selected the study's participants fairly for reasons directly related to the research problem. Non-discriminatory inclusion criteria were used to sample participants purposively. The researcher respected and honoured agreements made with participants. For example, the researcher had to wait for a convenient time before conducting data collection. The researcher probed for more information using questions that respected participants' cultures and values to gain insight into the studied phenomenon. The researcher also avoided discrimination among participants by treating all participants equally during data collection.

3.9 SUMMARY

Chapter Three presented the research methodology used to answer the research questions. The researcher used an exploratory, descriptive, qualitative research design to explore and describe participants' personal experiences and opinions. The sampling process, data collection through face-to-face interviews, and the thematic analysis were discussed. The strategies to enhance trustworthiness and application of the ethical considerations were explained in this chapter. The research findings are presented and discussed in the next chapter.

CHAPTER 4: PRESENTATION AND INTERPRETATION OF THE FINDINGS

4.1 INTRODUCTION

The research methodology, including the thematic analysis method, was discussed in the previous chapter. In this chapter, the findings are presented and integrated with the existing body of knowledge. The demographic data is presented first, followed by the thematic data in themes and sub-themes. For each sub-theme, supporting direct participant quotes are provided in italics, followed by an interpretation and discussion of the findings while also integrating the literature on the topic. The chapter concludes with a summary.

4.2 DEMOGRAPHIC DATA

The demographic data presented in Table 4.1 provided valuable information about the 14 participants' circumstances.

Table 4.1 Demographic information of participants

Participant	Age (years)	Educational level	Employment status	Gravidity	Parity	Gestational age at first ANC
Participant 1	35	Grade 9	Unemployed	Second pregnancy	1	8 Weeks
Participant 2	21	High school certificate	Unemployed	First pregnancy	0	8 Weeks
Participant 3	29	Grade 11	Employed	Second pregnancy	1	4 Weeks
Participant 4	32	Diploma	Employed	Second pregnancy	1	9 Weeks
Participant 5	38	Grade 10	Unemployed	Third pregnancy	1	8 Weeks
Participant 6	27	Grade 9	Unemployed	Second pregnancy	1	4 Weeks
Participant 7	23	Grade 9	Employed	Fourth pregnancy	3	9 Weeks
Participant 8	25	Diploma	Unemployed	First pregnancy	0	7 Weeks
Participant 9	25	Grade 9	Unemployed	Second pregnancy	1	8 Weeks

Participant	Age (years)	Educational level	Employment status	Gravidity	Parity	Gestational age at first ANC
Participant 10	22	Grade 8	Unemployed	First pregnancy	0	4 Weeks
Participant 11	25	Currently studying for a Diploma	Unemployed	Third pregnancy	1	7 Weeks
Participant 12	27	Grade 10	Unemployed	Second pregnancy	1	4 Weeks
Participant 13	39	Degree	Employed	Sixth pregnancy	2	5 Weeks
Participant 14	36	Diploma	Employed	Second pregnancy	0	4 Weeks

The participants were between 21 and 39 years of age. The wide age range showed that age might not have played any significant role or influenced participants' decision to attend ANC early. This is supported by Smith et al. (2019:515), who found no major differences in the distribution of age categories of late compared to early ANC attenders. However, age could potentially influence the decision to attend early because older pregnant mothers may be susceptible to certain health conditions as well as pregnancy complications and may, consequently, be encouraged to initiate ANC early (Seidu, Ameyaw, Sambah, Baatiema, Oduro, Budu, Appiahand & Ahinkorah 2022:9).

Eight participants (58%) had to drop out of school before completing their high school and had the highest qualification in Grades eight, nine, 10 or 11. The other six participants (42%) completed Grade 12, four of whom studied towards or completed a diploma, and one had a degree. None of the participants had only primary-level education. Educated women are more likely to gain or understand the difficulties related to delayed first ANC attendance than those without proper education (Teshale & Tesema 2020:8).

Most of the participants, 64% (n=9), were not employed at the period of the interviews. However, 36% (n=5) of the participants were self-employed or employed by someone else. In this study, employment status did not significantly influence early attendance of ANC as participants recruited from a government-funded healthcare facility, whether

employed or unemployed, could access ANC for free. Similarly, Smith et al. (2019:515) report that employment status did not influence the timing of ANC attendance.

The majority of participants (n=11), 71%, were multiparous, but for 21% (n=3) of the participants, it was their first pregnancy. For these three participants, previous pregnancy experiences could not have been a motivating factor for early attendance. This contradicts Teshale and Tesema (2020:10), who conducted a study in Ethiopia on the prevalence and associated factors of delayed first ANC among reproductive-age women in Ethiopia, which found that primiparous women attended ANC earlier than multiparous women. In their study, they found that multiparous women felt that they already had the necessary knowledge. They already recognised what things would occur throughout pregnancy and delivery and did not have time to attend ANC early due to caring for their other children. Similarly, women in Limpopo, with more pregnancies and healthy babies, were reluctant to attend ANC early (Mulondo 2020:792). These women proclaimed that they habitually attend after the second trimester, saying that they had experience in deal with the usual minor disorders of pregnancy (Mulondo 2020:792).

All participants attended ANC early, as evidenced by their gestation at the first visit, between four and nine weeks' gestation. In addition to confirming early ANC attendance, the gravity and parity showed that four participants (28.5%) experienced pregnancy loss in their previous pregnancies. The loss of a previous pregnancy has been shown in the outcomes of this study to influence the decision to attend ANC early. This correlated with the findings of Nyando et al. (2023:4), who found that pregnant women with poor obstetric histories, including prior tubal pregnancy, neonatal death, backache and headache, prompted them to start ANC early for proper assessment.

4.3 THEMATIC DATA

Six themes were developed from the data as the factors motivating early ANC attendance, namely, 1) confirmation of pregnancy, 2) concern for foetal wellbeing, 3) the need to optimise maternal wellbeing, 4) health education on early ANC attendance, 5) motivation from significant others and 6) motivation from social norms. Table 4.2 gives an overview of the themes, sub-themes and participants' quotes.

Table 4.2 Overview of the themes and sub-themes

Theme	Sub-themes	Quotes
Confirmation of pregnancy (4.3.1)	Planned pregnancy (4.3.1.1)	*"Because we planned this pregnancy, as soon as I suspected that I was pregnant I was motivated to do [a] pregnancy test and attend ANC ..." (P1)* *"I was motivated to attend ANC early to proof [prove] to my husband that I was pregnant because I wanted my husband to understand that I was pregnant. As I was feeling happy, this feeling motivated me to attend ANC immediately because I was seeing that, I was now pregnant with the planned baby that we wanted with my husband and I wanted my baby to be healthy." (P3)* *"I and my husband have been trying to have a baby for nine years, so as soon as I suspected that I might be pregnant I did [a] home pregnancy test so that I can attend ANC early…" (P13)*
	Experiencing signs and symptoms of pregnancy (4.3.1.2)	*"…in my previous pregnancy I experienced similar signs that was why I suspected that I was pregnant when I experienced them, that motivated me to attend ANC as I knew that I was pregnant." (P1)* *"I experienced pregnancy signs or symptoms such as tingling of the breasts and missed period these made me suspicious that I might be pregnant therefore, because of these signs I bought [a] pregnancy test and attended ANC." (P2).* *"…my pregnancy signs motivated me to attend ANC. If I did not have any of pregnancy signs I could not have known that I was pregnant because I know some people who did not experience pregnancy sign[s] and just discover[ed] very late that they were pregnant hence attended ANC late." (P6)*

Theme	Sub-themes	Quotes
	Planning the future (4.3.1.3)	*"I had to ascertain whether I was pregnant or not so that when I start my studies at university I can be of good health. Hence I was motivated by my new venture to attend ANC early so that I can be helped with my pregnancy before I start my studies." (P2)* *"…because I had to discuss my pregnancy with my husband as our financial status was not enough to cater for our family and we had to prepare by saving money for the coming baby. We even though[t] of terminating this pregnancy…" (P4)* *"In my first pregnancy I lost my baby when I was eight months pregnant because it was said that my uterus was unable to keep my pregnancy to term, so I was advised to attend ANC early and confirm my pregnancy so that my uterus can be sutured therefore that motivated me to attend ANC early so that I can be referred to a Gynecologist." (P14)*
Concern for foetal wellbeing (4.3.2)	Monitor the baby's health (4.3.2.1)	*"… if my baby's foetal growth is not monitoring [monitored] early in pregnancy, I thought that I will deliver [an] under-weight baby as a result that motivated me to attend ANC early." (P8)* *"I attended ANC early because I wanted my baby to be assessed if it was growing well and baby's heart beat assessed because in my previous pregnancy I was told that it was important for [the] nurse to monitor the baby during pregnancy." (P9)* *"I never had an opportunity to carry my first baby to term therefore I attended ANC early so that in my current pregnancy my baby can be closely monitored if it was growing well." (P14)*
	Optimising baby's health (4.3.2.2)	*"…this motivated me to attend ANC early so that my baby's bones can be well-formed to prevent abnormalities and that early ANC attendance will help me to have a healthy baby." (P3)*

Theme	Sub-themes	Quotes
		"I attended ANC after I had accepted my pregnancy after I had counselled myself and take[en] charge of my situation because I felt that if I continue[d] stressing about my pregnancy my baby's health was going to be affected." (P4) *"I attended ANC early so that the health of my baby can be optimised as I had experienced recurrent miscarriages..." (P13)*
	Fear of losing the baby (4.3.2.3)	*"I was motivated to attend ANC early by the need to be screened for Syphilis as it can cause the baby to have malformed body parts or be born without other body parts." (P11)* *"I have been pregnant for five times but have only one living child therefore when I became pregnant I had [a] fear that I might lose this pregnancy too as a result I attended ANC early so that my pregnancy can be preserved." (P13)* *"I attended ANC early because I had lost my first pregnancy when I was eight months pregnant and I was advised to attend ANC early so that my uterus can be closed to prevent loss of another pregnancy." (P14)*
	Prevention of mother-to-child HIV transmission (4.3.2.4)	*"Knowing my HIV status motivated me to attend ANC early in this current pregnancy as I now knew that there are some laboratory investigations that I was supposed to do to determine my chances of infecting my baby with HIV." (P3)* *"I was living with HIV positive partner while I was HIV negative hence I wanted to attend ANC early so that my HIV status can be monitored so that my baby can be protected from being infected with HIV." (P7)* *"I wanted to be tested for HIV so that HIV can be prevented from infecting my baby by starting ARVs early in pregnancy." (P11)*

Theme	Sub-themes	Quotes
The need to optimise maternal wellbeing (4.3.3)	Management of normal pregnancy signs and symptoms (4.3.3.1)	*"Vomiting was intolerable and that made me to go to the clinic for assistance and attend ANC, so those symptoms helped me to attend the ANC early so that the symptoms can be managed." (P5)* *"…painful breasts and nausea motivated me to attend ANC early as they made me aware that I had to test for pregnancy after I suspected that I might be pregnant and they motivated me to seek treatment for them as I was feeling ill." (P9)* *"I was vomiting and had abdominal pains [which] motivated me to attend ANC early as I wanted those signs to be managed." (P10)*
	Management and treatment of health risks associated with pregnancy (4.3.3.2)	*"I was now pregnant with the unplanned baby, this increased my blood pressure and I started having swollen painful feet, therefore this motivated me to seek medical help and start ANC." (P4)* *"In my previous pregnancy I was told that I had a uterine fibroid and high blood pressure so when my pregnancy was confirmed, I attended ANC early so that my conditions can be managed to prevent them from impacting my pregnancy negatively." (P13)* *"I was informed that I have an incompetent cervix therefore this motivated me to attend ANC early so that my cervix can be sutured to help me carry my pregnancy to term." (P14)*
Health education on early ANC attendance (4.3.4)	Health education from social media platforms (4.3.4.1)	*"I have heard about the importance of early ANC services on a radio so now that I was pregnant I did remember all those advices [sic] about the importance of early ANC attendance, and those advises [sic] motivated me in attending ANC early." (P5)* *"I once learned that it was important to attend ANC early from a local radio therefore that motivated me to attend ANC early in this pregnancy." (P11)*

Theme	Sub-themes	Quotes
		"I regularly read and listen to social media platforms on health matters including be-nefits of attending ANC early hence that motivated me to attend ANC early in all my pregnancies." (P13)
	Advice from healthcare workers (4.3.4.2)	*"Another person who motivated me was a Village Health Worker who lives near me, I told her that I suspect that I might be pregnant and she advised me to buy [a] pregnancy test or test for pregnancy at [the health center] and encouraged me to attend ANC immediately." (P7)* *"My mother-in-law was a village health worker, she advised me to do pregnancy test and attend ANC early as soon as she knew that I was suspecting that I might be pregnant." (P12)* *"I was motivated by health education from nurses and doctors that I received after I had lost my previous pregnancy which said that I should attend ANC early so that I can be helped with incompetent cervix." (P14)*
Motivation from significant others (4.3.5)	Motivation from friends (4.3.5.1)	*"My friend motivated me to attend ANC early by advising me to do [a] pregnancy test and when the test was positive she further advised me to inform my parents and boyfriend about my pregnancy status. She also advised me to attend ANC immediately. I followed her advice because I believed her as she was my age-maid who had first-hand pregnancy experience, therefore I was hoping that early ANC attendance will help me to have a healthy baby like my friend's babies." (P2)* *"My friend who was also my colleague motivated me to attend ANC early by advising me to do [a] pregnancy test and when the test was positive she further advised me to inform my husband about my pregnancy status. She also advised me to accept my pregnancy and attend ANC early." (P4)*

Theme	Sub-themes	Quotes
		"…my friend's suspicions made me suspect that I might be pregnant as a result I took my friend's advice to test for pregnancy, if it was not for her I could not have attended ANC early because I was not aware that I was pregnant." (P8)
	Motivation from family (4.3.5.2)	*"I attended ANC immediately because my parents and grandmother motivated me to attend ANC early by accepting my pregnancy and encouraging me to accept my pregnancy. They told me that I should start my ANC services early so that I can be screened for conditions that can affect me or my baby. My grandmother also volunteered to accompany me to my first ANC therefore this motivated me to attend ANC early." (P2)* *"My sister motivated me to attend ANC early by saying that [a] painful breast is also one sign of pregnancy hence I should test for pregnancy and start ANC." (P9)* *"My mother motivated me to attend ANC early to prevent HIV transmission to my baby as my mother feared that I might infect my baby with HIV." (P11)*
	Motivation from husband/ partner (4.3.5.3)	*"My husband motivated me to attend ANC early by giving me transport money to the health center so that I can do [a] pregnancy test and attend ANC services. He was very supportive to me and advised me to attend ANC early so that any medical conditions that I might have can be controlled and managed timely." (P1)* *"…my husband also motivated me to attend ANC after we had conducted pregnancy test at home and he also supported me to move from South Africa to Lesotho to attend ANC early." (P9)* *"As we had discussed with my husband the nurses and doctor's advice after I lost my first pregnancy, in this pregnancy my husband emphasized the need for me to attend ANC early*

Theme	Sub-themes	Quotes
		and went with me to attend my first ANC visit to show me his support so that real[ly] motivated me to attend ANC early." (P14)
Motivation from social norms (4.3.6)	Influence of cultural practices (4.3.6.1)	*"My cultural practice motivated me to attend ANC early as we had agreed with my husband that we should hide my pregnancy so that we can run away from our family tradition that I was supposed to perform when I was pregnant and attending ANC early was going to help me know when I was going to give birth in order to hide my pregnancy gestation from other people who can possible [possibly] attack my pregnancy using traditional herbs." (P3)* *"…my cultural practice that motivated me to attend ANC early was that in my family there is a tradition that needs to be done when a pregnant woman was seven months pregnant. I wanted to ascertain my gestation so that my cultural practices can be implemented at the right gestation." (P10)* *"I am not a quitter that is my culture therefore that helped and motivated me that God will give me another baby even after many miscarriages. That motivated me to attend ANC early hoping to have positive pregnancy outcomes." (P13)*
	The need for expression and understanding (4.3.6.2)	*"I had noticed that ANC services were provided by Basotho nurses so this motivated me to attend ANC early because I am a Mosotho so this enabled me to freely express myself to nurses at ANC because they understood my language and they will respect[ed] my culture as I knew that I was allowed to express myself in my mother tongue and my cultural beliefs were always respected." (P1)* *"…my cultural practice that motivated me to attend ANC early was that I knew that I will be served by nurses who understands [sic] my culture as I was respected by nurses in my*

Theme	Sub-themes	Quotes
		previous pregnancy even though I was ashamed of [the] traditional dress code of pregnant women in my clan." (P4) *"I was hurting after losing my first pregnancy but when I felt pregnant again I knew that I can trust my nurses at [the health center] with this pregnancy as they were sympathizing with me in my loss and I knew that they will provide me with ANC services which will address my needs therefore that motivated me to attend ANC early." (P14)*
	Myths about pregnancy (4.3.6.3)	*"… I had so many myths about pregnancy from my peers and that created fear in me, therefore I wanted to learn about pregnancy from nurses so that I can be ready to have my baby without any fear hence that motivated [me] to attend ANC early." (P2)* *"I have discovered that health education that I might give to myself or the one from other people might be wrong as a result I wanted to ensure that I have appropriate health education about pregnancy." (P8)* *"…there are myths that pregnant women do not need to attend ANC services at all and they can deliver safely their babies at home, as for me I do not believe such things as a result I attended ANC early." (P11)*

4.3.1 Confirmation of pregnancy

Confirmation of pregnancy was recognized as a factor motivating all participants to attend ANC early, even though participants had various reasons for pregnancy confirmation. Three sub-themes were developed as the reasons for pregnancy confirmation, which are 1) planned pregnancy, 2) experiencing signs and symptoms of pregnancy, and 3) planning the future.

4.3.1.1 Planned pregnancy

A planned pregnancy was a motivator for early ANC attendance because women who planned their pregnancies were eager to confirm their pregnancy. Some participants planned their pregnancy and wanted to confirm it as early as possible, and several wished to share the news of the pregnancy with their partners.

> *"As I was feeling happy, this feeling motivated me to attend ANC immediately because I was seeing that, I was now pregnant with the planned baby that we wanted with my husband and I wanted my baby to be healthy." (P3)*

> *"I and my husband have been trying to have a baby for nine years, so as soon as I suspected that I might be pregnant I did [a] home pregnancy test so that I can attend ANC early…" (P13)*

> *"As soon as I suspected that I might be pregnant, we agreed with my husband to confirm my pregnancy and after pregnancy confirmation I was motivated to attend ANC early because we had lost our first baby." (P14)*

Some participants have been longing to have a baby for a very long time and had planned to have this pregnancy. Therefore, as soon as they suspected that they might be pregnant, they did a home pregnancy test using a human chorionic gonadotrophin (HCG) test to confirm their pregnancy to enable them to attend ANC early. Also, some participants were motivated by the need to confirm that their planned pregnancy was really happening because some participant had just lost their first baby. Therefore, they wanted to confirm their pregnancy and attend ANC early.

“Because we planned this pregnancy, as soon as I suspected that I was pregnant I was motivated to do [a] pregnancy test and attend ANC. I was very happy when my pregnancy was confirmed because we have been trying to have a baby with my husband for many years … for about seven years.” (P1)

“I was pleased and happy by the fact that I had planned that pregnancy because my child passed on four years back and we were now trying to have another baby. I accepted that I am pregnant and that motivated me to attend ANC early.” (P5)

Some participants were motivated by feeling happy after their pregnancy test was positive, as they had been planning to have a baby with their partners. They were motivated by positive feelings to attend ANC early, before 16 weeks’ gestation. Participants were motivated to attend ANC early by their positive reaction towards their pregnancy, which was demonstrated by feeling happy with the pregnancy because they had been struggling to become pregnant. Therefore, they wanted to confirm their pregnancy and access ANC services.

Pregnant women who intended to be pregnant in this study were found to be motivated to attend ANC early because they were happy that they were pregnant. Therefore, the findings of this study were in line with another previously conducted qualitative study by Mulondo (2020:791), who states that planned pregnancy motivated most participants to attend ANC early because they were looking forward to being pregnant and they were prepared to do anything including attending ANC early so that they can have positive pregnancy outcomes. The opposite could also be true since a woman with an unintended pregnancy might not seek proper care for their pregnancy and might not be eager to get any facts related to ANC from healthcare professionals, their peers or friends. High rates of unplanned pregnancies occur in South Africa due to the reluctance to use family planning, and this could contribute to the low rates of early ANC attendance (Teshale & Tesema 2020:10). This is supported by findings of Macleod and Reynolds (2021:803) who state that in some areas in Lesotho, family planning services were absent at health facilities owned by the Roman Catholic Church. Unplanned pregnancy was also established to be the predictor of late ANC initiation. The possibility of pregnant women with intended pregnancies to book timely

was about three times higher linked to those who had an unintended pregnancy. Additionally, women who did not plan their pregnancy might not know that they are pregnant, and they could be late for their first ANC booking. Furthermore, even if they knew that they were pregnant early, they might not be interested in the pregnancy and fail to book ANC timely (Gebresilassie et al. 2019:7). In South Africa, pregnant women who attended late for ANC services stated various reasons like unwanted or unplanned pregnancy, the number of pregnancies or children and cultural beliefs (Mulondo 2020:791). Some pregnant women who participated in this study did not plan their current pregnancy, but they were motivated by other factors to attend ANC early, and their opinion of the severity and susceptibility of having a health condition was potentially greater than the unplanned pregnancy barrier.

4.3.1.2 Experiencing signs and symptoms of pregnancy

Pregnant women experience physical, mental, and social changes in different ways. Experiencing symptoms of pregnancy in the early weeks of pregnancy are common and can include vomiting, nausea, missed menses, abdominal pain or discomfort. Pregnant women often identify or sense that they were pregnant once they experienced pregnancy related abnormalities such as blood spotting, vomiting, poor appetite, abdominal pain or lower back pain (Riang'a et al. 2018:17). Early detection of pregnancy is helpful for reproductive health and autonomy. These pregnancy signs and symptoms made some of the participants realize that they might be pregnant and motivated them to attend ANC early.

> *"… my pregnancy signs motivated me to attend ANC. If I did not have any of [the] pregnancy signs I could not have known that I was pregnant because I know some people who did not experience pregnancy sign[s] and just discover[ed] very late that they were pregnant hence attended ANC late." (P6)*

> *"I suspected that I was pregnant when I was experiencing vomiting and abdominal pains hence that motivated me to do [a] pregnancy test in the health center and attended [attend] ANC services." (P10)*

“After I had missed my menstrual period I became aware that I should test for pregnancy and when the results were positive that motivated me to attend ANC early” (P11).

Some participants stated that they had noticed that some women do not experience any pregnancy signs and symptoms; therefore, that can cause them to delay attending ANC services. Early ANC booking was motivated by health conditions that women experienced during their current pregnancy. This was confirmed by findings which indicated that pregnant women with health conditions were three times more likely to initiate ANC early than those without problems (Gebresilassie et al. 2019:10).

Experiencing pregnancy signs and symptoms early in pregnancy made it possible for most participants in this study to realise that they might be pregnant. As a result, that motivated participants to ascertain if they were pregnant by doing an HCG pregnancy test. Because of this, they could get pregnancy confirmation early and attend ANC. This is reinforced by a study conducted by Smith et al. (2019:518), which noted that women may not have the essential information to distinguish the signs of pregnancy, or there may be biological or behavioural motives why it is perplexing to identify pregnancy. These women did not recognise the symptoms of pregnancy or were not capable to link physical signs or experiences to the apprehension of pregnancy but suspected pregnancy and wanted to confirm it at the health centre.

Detecting pregnancy timely allows for entry into prenatal care in the recommended first trimester. It allows for risk lessening activities enhancing healthy foetal development (Ralph, Foster, Barar, Corinne & Rocca 2022:10). Late acknowledgement of pregnancy has formerly been recognised as a probable reason for late access. However, early identification of pregnancy signs and symptoms enables women to attend ANC early in their pregnancy (Smith et al. 2019:518). Women might then delay attending ANC like women on family planning, particularly the injectable method because they may experience amenorrhea regularly. These women often suspect that they were pregnant by feeling foetal movement or during a consultation (Mulondo 2020:791).

4.3.1.3 Planning the future

Planning the future entailed planning financial readiness for some participants. They had to confirm their pregnancy to start working on their budget because they did not have enough money to take care of themselves. Some participants wanted to begin their university studies. For other participants, it was important to attend ANC early so that they could plan for a surgical procedure, which would help them prevent recurrent miscarriages and get a referral for the surgical procedure. In contrast, one participant wanted to confirm her pregnancy so that she and her husband could discuss whether they should continue with the pregnancy or terminate it.

> *"I had to ascertain whether I was pregnant or not so that when I start[ed] my studies at university I can [would] be of good health. Hence I was motivated by my new venture to attend ANC early so that I can be helped with my pregnancy before I start my studies." (P2)*

> *"…because I had to discuss my pregnancy with my husband as our financial status was not enough to cater for our family and we had to prepare by saving money for the coming baby. We even thought of terminating this pregnancy…" (P4)*

> *"In my first pregnancy I lost my baby when I was eight months pregnant because it was said that my uterus was unable to keep my pregnancy to term, so I was advised to attend ANC early and confirm my pregnancy so that my uterus can [could] be sutured therefore that motivated me to attend ANC early so that I can be referred to a Gynecologist." (P14)*

Some participants confirmed their pregnancy early in order to plan for their future. Participants wanted to do things that would help them preserve their pregnancy, such as surgical closure of the cervix to prevent miscarriages. Some participants wanted to know the impact of their pregnancy on their plans to enrol in university so that they could be assisted with their pregnancy early. When they eventually started their studies at university, they would already be assessed for any pregnancy complications. Early management of those pregnancy complications would prevent the complications from hindering them from continuing with what they had already

planned for their lives. Planning for the future as a motivator for early ANC attendance was also identified by Okedo et al. (2019:9), who stated that women with mistimed or unplanned pregnancies were more probable to attend ANC in the second trimester Therefore, pregnant women need support in planning their activities after recognizing their pregnancy, as this factor was found to be motivating early ANC attendance.

Pregnancy confirmation was the core motivator for participants to attend ANC early, even though participants had various reasons why they wanted to confirm their pregnancy early. This was supported by the findings, which indicated that easy access to HCG pregnancy testing may help in the early detection of pregnancy. Better access and usage of urine pregnancy tests are considerably associated with lower gestational age at initiation for ANC-planned pregnancy. Going to ANC clinic to perform HCG pregnancy test was perceived as a clean and trustworthy way of confirming a pregnancy, which stimulated attendance at ANC facilities (Downe et al. 2019:5). The desire to have one's pregnancy officially confirmed emerged as an important factor influencing if and when adolescents decided to seek ANC. In Ghana, obtaining a professional pregnancy confirmation was viewed as a strategy to prevent the potential father from denying the pregnancy. Adolescents who sought early confirmation of their pregnancy at a healthcare facility were then able to learn about and register for ANC services sooner in their pregnancy. Conversely, some participants indicated that the act of confirming a pregnancy might hinder or delay engagement with ANC due to the anticipated negative outcomes, such as being compelled to drop out of school, being forced out of the family home, or fearing severe consequences for considering pregnancy termination (Hackett et al. 2019:5). Furthermore, access to pregnancy validation methods namely urine-based tests, could permit women to discover pregnancy early, empowering them to initiate ANC earlier, a key emphasis for enhanced maternal and infant care in South Africa (Smith et al. 2019:519).

4.3.2 Concern for foetal wellbeing

The second theme was the participants' concerns about optimising foetal well-being, which motivated them to attend ANC early. Optimising foetal well-being implies assessing foetal health status and providing interventions where necessary to promote foetal survival (Ministry of Health Lesotho 2020:16). Three sub-themes were

developed under the theme “Concern for foetal wellbeing,” namely: 1) Monitoring the baby’s health, 2) optimising baby’s health and 3) prevention of mother-to-child transmission of HIV. All participants were motivated to attend ANC early to maintain foetal well-being. Most participants in this study attended ANC early to benefit from accessing pregnancy services as soon as possible by the need to optimise maternal and foetal well-being. Participants believed that by attending ANC early, their baby’s heartbeat, growth and well-being were going to be monitored and that some diseases, such as Syphilis, would be detected, prevented and managed as it can cause fatal complications if unattended. This correlated with Teshale and Tesema (2020:2), who indicated that timely ANC visit permits healthcare providers to access and treat diverse maternal and foetal health disorders like malnutrition, sexually transmitted diseases, congenital anomalies, and other pregnancy-related complications prompt. According to Perceived Benefits in the Health Belief Model, ANC acceptance is more probable if one believes timely, and frequent ANC attendance will decrease risk. Key benefits of ANC described by participants included blood tests for (HIV), receiving drugs if essential and guarding the welfare of the baby (Hackett et al. 2019:6).

4.3.2.1 Monitor the baby’s health

Monitoring the baby’s health means foetal assessment during the ANC consultation. Monitoring the baby’s health included foetal growth monitoring to determine foetal weight, foetal heartbeat assessment and general assessment of the foetus.

> *“… if my baby’s foetal growth is not monitoring [sic] early in pregnancy, I thought that I will deliver [an] under-weight baby as a result that motivated me to attend ANC early.” (P8)*

> *“I attended ANC early because I wanted my baby to be assessed if it was growing well and baby’s heartbeat assessed because in my previous pregnancy I was told that it was important for [a] nurse to monitor the baby during pregnancy so that complications concerning the baby can be detected early.” (P9)*

"I never had an opportunity to carry my first baby to term therefore I attended ANC early so that in my current pregnancy my baby can be closely monitored if it was growing well." (P14)

Participants were motivated to attend ANC early by the desire to ensure that their unborn baby's growth was well monitored because they believed that if the foetal growth was not monitored, that could cause them to deliver an underweight baby. Some participants wanted their baby's heartbeat and growth to be assessed because they knew the benefits of these assessments, as they learnt that it was important to monitor the baby's heartbeat and growth early in pregnancy to detect the baby's complications early. Confirming the absence of a heartbeat with colour or pulse-wave Doppler is suggested. When diagnosing multiple pregnancy, the number of amnions and chorions should be always determined. Chronicity is easier to determine early in pregnancy. Because insufficient or excessive growth can be associated with substantial foetal morbidity, detection of growth abnormalities is one of the important goals of prenatal care (London et al. 2019:191).

The findings of this study correlate with the results of a study conducted by Downe et al. (2019:2), who stated that capacity of healthcare providers to render the kind of high-quality, relationship-based, locally accessible ANC that is likely to enable access by women, be governed by the provision of adequate resources as well as the time to provide flexible personalised, private appointments that are not overloaded with organisational tasks. Such provision also be determined on organisational norms and values that openly value kind, caring staff who make effective, culturally-appropriate links with local communities, who respect women's belief that pregnancy is usually a normal life event, but healthcare providers can recognise and respond to complications when they arise.

4.3.2.2 Optimising baby's health

Some participants were motivated to attend ANC early by the desire to optimise their baby's health. Optimising a baby's health means that the unborn baby's health is cared for effectively so that good pregnancy outcomes can be obtained. Participants viewed optimising a baby's health as ensuring good bone formation, preventing maternal stress from affecting the unborn baby, and taking supplements during pregnancy.

"…this motivated me to attend ANC early so that my baby's bones can be well-formed to prevent abnormalities and that early ANC attendance will help me to have a healthy baby." (P3)

"I attended ANC after I had accepted my pregnancy after I had counselled myself and take[en[charge of my situation because I felt that if I continue[ed] stressing about my pregnancy my baby's health was going to be affected." (P4)

"…when one is pregnant [one] should take supplements such as Calcium which are given at ANC service, so I decided to attend ANC early so that I can be given those supplements which will help me and my baby." (P8)

Some participants were experiencing stress caused by their unplanned pregnancy, but because they wanted to optimize the health of their unborn baby, they were motivated to attend ANC early so that they could be assisted with their stress before it could affect their unborn baby. Some participants knew it was important for pregnant women to take supplements such as Calcium to optimize their unborn baby's health. Therefore, that motivated them to attend ANC early so that they could be given supplements vital for their baby's health. As soon as one becomes pregnant it is important to eat nutritious diet rich in energy, protein, vitamins, and minerals to fulfil the requirements of both the pregnant woman and the foetus (WHO 2020:1). Yet, the economic status of some pregnant woman does not allow their dietary consumption to meet these nutritional requirements, potentially resulting in micronutrient deficiencies. In regions with limited resources, such as sub-Saharan Africa, South-central Asia, and Southeast Asia, maternal undernutrition is predominant and resulting in adverse maternal and neonatal outcomes. Among these, iron insufficiency is the most prevalent micronutrient deficiency, leading to anaemia in pregnant woman. Pregnant women living in Lesotho are also in need of free pregnancy supplements because some pregnant women cannot afford nutritious diet because of their low economic status, therefore provision of pregnancy supplements at ANC services motivated pregnant woman to attend ANC early.

Optimization of the foetus' well-being was also found by Smith et al. (2019:512) in the South African context as an important reason for early ANC attendance. Another study found that attending ANC late in pregnancy was connected with lower infant birth

weight, premature birth, infants demanding care in neonatal units soon after birth and babies attaining lower APGAR scores. Recognising pregnancy timely permits for entry into prenatal care in the suggested first trimester and allows for risk lessening activities promoting healthy foetal development (Ralph et al. 2022:10).

4.3.2.3 Fear of losing the baby

Fear is an unpleasant response to recognised danger. Seven participants were motivated to attend ANC early by the fear of losing the baby. Some developed the fear due to developing signs and symptoms of a condition such as ectopic pregnancy, which they thought might be fatal to them or their unborn babies. Some participants developed the fear because of their knowledge of health conditions such as Syphilis, which could cause malformed body parts if it is not noticed and treated early in pregnancy. Some participants developed the fear because of their previous pregnancy losses.

> *"I was experiencing signs similar to ectopic pregnancy. These signs made me think that I might be having [an] ectopic pregnancy hence that influenced me to seek medical services and attend ANC services so that I can [could] be screened and be managed for ectopic because I knew that ectopic can be very fatal for me and my baby." (P4)*

> *"I was motivated to attend ANC early by the need to be screened for Syphilis as it can cause the baby to have malformed body parts or be born without other body parts." (P11)*

> *"I have been pregnant for five times but have only one living child therefore when I became pregnant I had fear[ed] that I might lose this pregnancy too as a result I attended ANC early so that my pregnancy can [could] be preserved." (P13)*

Participants feared for both their lives and that of their unborn babies: that they might be in danger due to the signs and symptoms that they were experiencing. That motivated them to attend ANC early so that they could get medical management while attending ANC. Some participants developed fear because of a friend's experience,

which means that fear does not occur only because of one's own experience but could also develop because of others' experiences during pregnancy.

> *"Because of what my friend experienced I felt like I was having high blood pressure and I was fearing that I might lose my pregnancy like her, therefore I wanted to be helped at the health center to prevent and manage high blood pressure early in my pregnancy which can cause miscarriage." (P3)*

The findings of this study were that fear motivated some participants to attend ANC early so that they could access health interventions concerning their pregnancy. Findings from a study among Kalenjin women in rural Kenya supported this. It found that complications in a prior pregnancy were related with early ANC booking (Riang'a et al. 2018:3). The women's perceptions impeded or motivated earlier access and uninterrupted use of ANC services.

Fear was a common factor that could motivate health-seeking behaviour for some participants in this study. This finding correlated with one study, which stated that fear of both the known and unknown was conveyed as an influential factor to the underutilisation of ANC services since pregnant women might be concerned and worried about pregnancy and childbirth (Mulondo 2020:792). Furthermore, negative views, joined with numerous financial and infrastructure barriers, resulted in decreased ANC attendance rates in Malawi. Pregnant women's views regarding initiation of ANC in the first trimester considerably impact the further usage of ANC services and pregnancy outcomes (Nyando et al. 2023:3). Perceived susceptibility in the Health Belief Model indicated that one's view regarding how at risk one is to a disorder and its complications could motivate one to seek health intervention (Nyando et al. 2023:6). This correlated with the discoveries of this study because the participants who were motivated by fear of losing their unborn babies had a perception that if they did not attend ANC early chances of losing their babies would increase. They, therefore, had to seek health intervention at the ANC department.

4.3.2.4 Prevention of mother-to-child HIV transmission

Mother-to-child transmission of HIV is the primary source of HIV infection in children in Lesotho (Ministry of Health Lesotho 2020: i). Children can be at risk of being infected

with HIV from their mothers during pregnancy, labour, delivery and breastfeeding. Participants were motivated to attend ANC early by the need to access PMTCT services early, to monitor HIV status early in pregnancy and the urge to safeguard their unborn babies from HIV infection.

> *"My HIV status motivated me to attend ANC early so that I can access health services early to prevent the spread of HIV from me to my baby and so that my viral load can be monitored as I have been informed that lower viral load can result in lower chances of HIV transmission." (P1)*

> *"I was living with [an] HIV-positive partner while I was HIV-negative; hence I wanted to attend ANC early so that my HIV status can be monitored so that my baby can be protected from being infected with HIV." (P7)*

> *"It is painful to have [an] HIV-infected baby so I attended ANC early so that my baby can [could] be protected from HIV." (P12)*

Some participants were motivated by their HIV-positive status to attend ANC early because they wanted to know if their babies were at a higher or lower risk of mother-to-child transmission of HIV by having a recent viral load test early in pregnancy. Participants knew that their HIV-positive partner could infect them with HIV even if their partners were on ART for some time. Therefore, if they knew their status early, they could initiate ART.

The Health Belief Model proposes that the higher the perceived susceptibility and severity, the more probable the associated health-promoting behaviour will be practiced (Nyando et al. 2023:4). Perceived severity denotes that one's view of the gravity of a condition and its consequences can motivate an individual to seek healthcare services, in this case, ANC, if she was certain that complications, illness or death was possible (Hackett et al. 2019:6). It was found that mothers knew about HIV transmission from mother-to-child and if they knew their HIV status, they understood the susceptibility of their children to the disease via them (Yimer 2021:75). Heightened perceived susceptibility motivates utilization of PMTCT service (Yimer 2021:75). Early ANC attendance in pregnancy to facilitate ART initiation for HIV-positive women is fundamental in the effort to eliminate HIV vertical transmission (Yimer 2021:7). This is

of specific value in Lesotho since a significant proportion of HIV-infected infants die in the first year of life (Ministry of Health Lesotho 2020: i). Participants in one study identified ANC as the best practice for mitigating risks associated with pregnancy (Hackett et al. 2019:5). Several examinations and tests are usually done during ANC booking visits, including screening for HIV infection and syphilis (Boraya 2018:155). According to Gill et al. (2015: e36), the findings of a study conducted in Lesotho indicated that knowledge of HIV-positive status before pregnancy led to earlier and more frequent ANC attendance, promoting safe motherhood practices and demonstrating the importance of HIV counselling and testing before pregnancy.

4.3.3 The need to optimise maternal well-being

The third theme was about factors which could optimise maternal well-being. Some participants were motivated to attend ANC early by the need to optimise maternal well-being, meaning that they wished to be assisted to get treatment for the pregnancy signs and symptoms that they were experiencing, as well as to seek medical treatment for it because of the health risks associated with pregnancy. Participants knew that they might experience pregnancy complications if their health condition was not managed and treated early in pregnancy. The third theme was about factors which could optimise maternal well-being. Some participants were motivated to attend ANC early by the need to optimise maternal well-being, meaning that they wished to be assisted to get treatment for the pregnancy signs and symptoms that they were experiencing, as well as to seek medical treatment for it because of the health risks associated with pregnancy.

4.3.3.1 Management of normal pregnancy signs and symptoms

Management and treatment of regular pregnancy signs and symptoms motivated some participants to attend ANC early. Certain normal pregnancy signs and symptoms due to hormonal and mechanical effects of pregnancy can disrupt one's normal daily functioning. The most common symptoms of pregnancy include nausea and vomiting, low back and pelvic pain, heartburn, varicose veins, constipation and leg cramps. In some women, these symptoms may cause severe discomfort and negatively affect their pregnancy experience (Ministry of Health Lesotho 2020:19). Some participants

in this study indicated that they experienced vomiting, painful breasts, nausea and abdominal pains.

> *"…vomiting was intolerable and that made me to go to the clinic for assistance and attend ANC, so those symptoms helped me to attend the ANC early." (P5)*

> *"Because of nausea and vomiting I started losing my weight so that caused concern to me so I decided to attend ANC so that I can get information that can help me manage those signs, I wanted to get help to treat those signs as I was not sure if I was managing those signs well". (P8)*

> *"…painful breasts and nausea motivated me to attend ANC early as they made me aware that I had to test for pregnancy after I suspected that I might be pregnant and they motivated me to seek treatment for them as I was feeling ill.* B*ecause I never experience[d] such signs and symptoms, they made me eager to test for pregnancy hence these signs and symptoms motivated me to attend ANC early as I now knew that those signs were related to pregnancy." (P9)*

> *"I was vomiting and had abdominal pains [which] motivated me to attend ANC early as I wanted those signs to be managed." (P10)*

Some participants were feeling ill because of the pregnancy. That motivated them to attend ANC early to be assisted and get treatment for the pregnancy signs and symptoms. One participant was worried about her weight loss as she was pregnant, and that motivated her to attend ANC early so that she could be helped with nausea and vomiting to enable her to absorb the nutrients to nourish both her body and that of her unborn infant.

Perceived severity, according to the Health Believe Model, indicates that pregnant women can recognize that they are susceptible to getting an ill condition. One's opinion of the seriousness of a condition and knowing that its consequences can result in complications or illness does not motivate one to take necessary action until it is realised that the condition could have serious physical, psychological, and social implications for oneself and one's baby (Nyando et al. 2023:4). In this study, some pregnant women with the need for management of typical pregnancy signs and

symptoms were motivated to attend ANC early as participants believed that during ANC services they would be helped with management and treatment of those signs and symptoms that they were experiencing and prevent the symptoms from worsening. This was supported by a study conducted by Riang'a et al. (2018:15), which stated that many respondents did not perceive pregnancy as requiring medical attention. Treatment was warranted only when some unusual signs and symptoms were experienced. One of the respondents who booked ANC late mentioned that they did not have any health problems concerning their current pregnancy that required medical attention. Most of the respondents in this study who booked their first ANC early did so because they felt ill. In this study, it has been identified that fear can positively motivate pregnant women to attend ANC early, as demonstrated by the findings that some participants wanted their feared situations to be addressed.

4.3.3.2 Management and treatment of health risks associated with pregnancy

Health risks associated with pregnancy are conditions that women experience during pregnancy, which worsen when one is pregnant. The theme was also associated with fear of harm to one's baby. These health risks include high blood pressure, swollen, painful feet, uterine fibroid and incompetent cervix in pregnancy. Some participants were motivated by the management and treatment of health risks associated with pregnancy to attend ANC early.

> *"I was now pregnant with the unplanned baby, this increased my blood pressure and I started having swollen, painful feet and headaches, therefore this motivated me to seek medical help and start ANC because untreated high blood pressure can affect both me and my baby negatively." (P4)*

> *"I was informed that I have an incompetent cervix therefore this motivated me to attend ANC early so that my cervix can be sutured to help me carry my pregnancy to term." (P14)*

> *"In my previous pregnancy I was told that I had a uterine fibroid and high blood pressure so when my pregnancy was confirmed, I attended ANC early so that my conditions can be managed to prevent them from impacting my pregnancy negatively." (P13)*

Some participants were experiencing high-risk pregnancy signs and symptoms, such as having signs and symptoms of high blood pressure in pregnancy. These motivated them to attend ANC early and seek medical treatment because they knew that if their blood pressure was not managed and treated early in pregnancy, they might experience pregnancy complications. This is supported by a study conducted in Tanzania on the influence of community factors in implementing community-based interventions to improve ANC by Maluka et al. (2020:1). They noted that the likelihood of illness was also influencing early booking of ANC services. In this study, women booked ANC early because they experienced successive miscarriages with previous pregnancies. Respondents booked early because they felt it was important to identify and treat possible complications.

Boraya et al. (2018:157) conducted a study to determine factors associated with late ANC booking among pregnant women in selected hospitals in Embu County, Kenya. The study found that sick, pregnant women were 5.7 times more likely to initiate their ANC than those in good health. The health status of the pregnant women and their past poor obstetric experiences were the main determinants of early ANC clinic initiation (Boraya et al. 2018:158). A study conducted on the prevalence and factors which influence early ANC booking among women of reproductive age in Tanzania also found that complications in previous pregnancies motivated women to initiate ANC clinic visits early compared to those without complications (Moshi 2021:9). Research indicates that approximately 25% of maternal death occur during the prenatal phase, primarily due to conditions such as pre-eclampsia and antepartum haemorrhage. These issues can be effectively managed if pregnant women seek antenatal care (ANC) promptly. Timely attendance at ANC allows for the early detection and treatment of pregnancy-related complications and the implementation of preventive measures (Maluka et al. 2020:1).

Fear of complications during delivery can motivate early ANC booking (Maluka et al. 2020:1). However, participants from this study did not mention fear of complications during birth as a reason for early visits to an ANC.

Women vulnerable to developing health conditions during pregnancy need to be identified early and monitored diligently throughout their pregnancy (Ali & Abo-Kresha

2021:36; Ragolane 2017:5). Attending ANC early is important to enable pregnant women to acquire information and knowledge about pregnancy complications, so that women can get the needed emergency assistance. Therefore, commencing ANC services in the first three months is important to identify any concerns and set the platform for proper care during childbirth and postnatal care (Tufa et al. 2020:658).

4.3.4 Health education on early ANC attendance

The fourth theme is centred on health education, a benefit of early ANC during which reassurance and support are provided. During these visits, health education is provided on how to manage and treat pregnancy-related complications, the importance of screening tests during pregnancy and pregnancy supplements, as well as pregnancy danger signs. Some participants were motivated by health education received through social media to initiate ANC early. Two sub-themes developed from this: health education from social media platforms and advice from healthcare workers.

4.3.4.1 Health education from social media platforms

In public health and medicine, social media is the collection of online communication channels allowing for real-time and on-the-go communication. In healthcare settings, social media has become an increasingly popular communication and information-sharing tool (Yoon, Wee, Lee, Lin & Thumboo 2021:2). Seven participants were motivated by health education, which they picked up from social media platforms, to attend ANC early. Some participants in this study were motivated by different social media platforms such as radio, the Internet, Facebook and others. Some participants gathered information about the benefits of early ANC attendance from radio programs and some from other social media platforms such as Facebook.

> *"After my first pregnancy I listened to a radio health program regularly which was encouraging women to attend ANC early; hence in this pregnancy that information motivated me to attend ANC early." (P4)*

> *"I once learned that it was important to attend ANC early from a local radio, therefore, that motivated me to attend ANC early in this pregnancy." (P11)*

"I regularly read and listen to social media platforms such as Facebook on health matters including benefits of attending ANC early hence that motivated me to attend ANC early in all my pregnancies." (P13)

The radio appears to be an important source of information for participants of this study. This correlates with the findings of Seeiso (2017:78), which indicated that radio delivered the widest range of facts on pregnancy issues in comparison to the other sources of social media (Seeiso 2017:78). In another study, schools provided very little pregnancy-related information. At the same time, a slight percentage of the participants pursued pregnancy-related information from the internet (Seeiso 2017:76). This correlates with the findings of this study as many participants learnt about the benefits of early ANC attendance from sources other than social media. Furthermore, a study conducted by Okedo-Alex, Akamike, Ezeanosike and Uneke (2019:6) found that women who had been exposed to three media channels, radio, television and newspapers or magazines, were more likely to attend ANC early compared with women who were less exposed to the media showing that women who lacked information on the correct time of booking were more likely to book late for ANC.

Receiving information before pregnancy (e.g. at schools) or very early during pregnancy is vital because pregnant mothers who know when to attend ANC are more likely to early initiate the ANC services than those who lack this knowledge (Alemu & Aragaw 2018:6). Additionally, the internet, and in particular social media, now play a significant role in the day-to-day life of billions of people across the world. The ease of access to online material and the abundance of information related to pregnancy, birth and early parenting mean that midwives, mothers and their families are all exposed to the significant role of the internet (Chee, Capper & Muurlink 2023:112). Lastly, greater access to information and knowledge may enable an increased capacity for self-determination and the confidence to choose and determine one's own care (Chee et al. 2023:113).

4.3.4.2 Advice from healthcare workers

Some participants were motivated by the advice from healthcare workers to attend ANC early, before 16 weeks' gestation. Healthcare workers are providers of healthcare

and advice based on formal training and experience. Therefore, they can provide valuable health information. Advice provided by healthcare workers to pregnant women included the importance of early ANC attendance, advice for pregnant women to test for pregnancy as soon as they suspect that they are pregnant and advice on procedures which can preserve their pregnancy and prevent recurrent pregnancy losses. Some participants used information from healthcare workers in their previous pregnancies, and others from healthcare workers in their current pregnancies.

> *"In my previous pregnancies I did not attend ANC early because I did not recognise pregnancy signs early as it was my first pregnancy, but I was told that I should try to attend ANC early hence in this pregnancy I remembered the nurse's advice and attended ANC early." (P5)*

> *"Another person who motivated me was a Village Health Worker who lives near me, I told her that I suspect that I might be pregnant and she advised me to buy [a] pregnancy test or test for pregnancy at [the health centre] and encouraged me to attend ANC immediately." (P7)*

> *"I was motivated by health education from nurses and doctors that I received after I had lost my previous pregnancy, which said that I should attend ANC early so that I can be helped with [my] incompetent cervix." (P14)*

Village health workers played an important role in motivating some participants to attend ANC early by advising them to test for pregnancy and giving them health education on the importance of attending ANC early. Village health workers in Lesotho are part of the PHC, connecting the community with the health centres in their respective villages (Thetsane, Mokhethi, Ramathebane & Leseba 2022:1). Therefore, village health workers are equipped with the knowledge to assist the community with health-related issues.

Some participants received health education from nurses and doctors about early ANC attendance to prevent recurrent loss of pregnancies. For example, a woman who has an incompetent cervix can be assisted. Comfort, Ayadi, Carol, Tsai, Nalubwama, Byamugisha, Walker, Moody, Roberts, Senoga, Krezanoski, & Harper (2022:9) confirm that health providers are a source of information about ANC and its timing in

Uganda. Also, health education during ANC equips women with facts about their bodies and regarding childbirth and postnatal care (Marais 2021:74).

4.3.5 Motivation from significant others

The fifth theme is about the impact of significant others in motivating early ANC attendance. Significant others are people who are important to one's well-being and greatly influence a person's behaviour and self-esteem. In this study, significant others can be friends, family members, husbands or partners. Some participants were motivated by significant others. Three sub-themes were formulated: motivation from friends, family, and husband or partner.

4.3.5.1 Motivation from friends

Friends motivated some participants to attend ANC early through their advice and support when they were informed about the participant's pregnancy. A friend is someone with whom one has a mutual affection or relationship. Friends can tell an individual what they need to hear in a way that the individual's decision can be influenced by what was said by that friend.

> *"My colleague motivated me as she was supporting me during the time when we were trying to have another baby with my husband and she said that it was very important to attend ANC early so that I can have a healthy baby." (P3)*

> *"My friend, who was also my colleague, motivated me to attend ANC early by advising me to do [a] pregnancy test and when the test was positive she further advised me to inform my husband about my pregnancy status. She also advised me to accept my pregnancy and attend ANC early." (P4)*

> *"… my friend's suspicions made me suspect that I might be pregnant, as a result, I took my friend's advice to test for pregnancy, if it was not for her I could not have attended ANC early because I was not aware that I was pregnant." (P8)*

Friends told participants that it was important to attend ANC early so that they could have a healthy baby. Some participants were motivated by their colleagues to accept

their pregnancy and attend ANC early. Colleagues also advised some participants to do a pregnancy test. Participants could listen to their colleagues because they were also their friends. Some participants were not aware of their pregnancy signs and symptoms and did not associate their illness with pregnancy, but as soon as they discussed their signs and symptoms with their friends and or colleagues, their friends were able to identify that they were experiencing pregnancy signs and symptoms.

Friends provided peer support to participants, enabling them to decide to attend ANC. Friends provided participants with knowledge, experience, emotional, social and practical support during this pregnancy. These findings are supported by Lowane (2021:20), who stated that "peer education provides a platform for adolescents or young adults to interact confidently and comfortably while discussing sensitive, interesting topics relating to sexual health education such as HIV/AIDS".

4.3.5.2 Motivation from family members

Motivation from family members encouraged participants to attend ANC early. Family members who motivated participants to attend ANC early were the participants' parents, grandmother, sister, or mother.

> *"I attended ANC immediately because my parents and grandmother motivated me to attend ANC early by accepting my pregnancy and encouraging me to accept my pregnancy. They told me that I should start my ANC services early so that I can be screened for conditions that can affect me or my baby. My grandmother also volunteered to accompany me to my first ANC, therefore, this motivated me to attend ANC early." (P2)*

> *"My sister motivated me to attend ANC early by saying that [a] painful breast is also one sign of pregnancy hence I should test for pregnancy and start ANC." (P9)*

> *"My mother motivated me to attend ANC early to prevent HIV transmission to my baby as my mother feared that I might infect my baby with HIV." (P11)*

Some participants did not associate what they were experiencing with pregnancy. Therefore, their sisters played an important role in identifying pregnancy signs and

symptoms and encouraging them to attend ANC early. Some participants were motivated by their mothers to attend ANC early because their mothers knew their positive HIV status and were concerned that some participants might infect their babies with HIV. Some mothers motivated participants to attend ANC early so that their pregnancy could be monitored and managed early Riang'a et al. (2018:9) state that family-enabling variables related to social rather than financial resources were commonly established. Some pregnant women began ANC early because of the inspiration from their family members. In the study by Riang'a et al. (2018:14), mothers or other family members encouraged pregnant women to initiate ANC. Similarly, Comfort et al. (2022:6) found that pregnant women in Uganda primarily relied on their own mothers' or mothers-in-law's advice and older women in the community, including their grandmothers. Mothers are culturally expected to advise their daughters on the importance of ANC and its timing.

In Lesotho, most women depend on the knowledge of their mothers. Therefore, pregnant women usually seek information about pregnancy related issues from their mothers, so that mothers can guide pregnant women on when to attend ANC and how to manage their pregnancy. This correlates with findings by Seeiso (2017:82), indicating that in Lesotho, few women use resources such as the radio or internet to obtain information about pregnancy. Some learn important information at school. There is a clear need for better access to media platforms that provide comprehensive education on ANC. Implementing policies to enhance internet availability, especially in remote regions, is recommended. Additionally, community libraries could serve as a vital link in closing the information gap.

4.3.5.3 Motivation from a husband or partner

Nine participants were motivated to attend ANC early through the support they got from their husbands or partners. A husband or partner often provides the financial resources (e.g. transport money) enabling participants to attend ANC at the health centre. Furthermore, husbands or partners who supported women during their previous pregnancies could motivate pregnant women to attend ANC early in this current pregnancy because the husband or partner now understood the importance of

early ANC attendance. As a result, women's decision to attend ANC early depended on the husband's opinion.

> *"My husband motivated me to attend ANC early by giving me transport money to the health centre so that I can [could] do [a] pregnancy test and attend ANC services. "He was very supportive to me and advised me to attend ANC early so that any medical conditions that I might have can be controlled and managed timely." (P1)*

> *"…my husband also motivated me to attend ANC after we had conducted [a] pregnancy test at home and he also supported me to move from South Africa to Lesotho to attend ANC early." (P9)*

Support from husbands was found to encourage the first ANC contact in Fiji (Maharaj & Mohammadnezhad 2022:8). However, when husbands have little awareness of the importance of early ANC booking, they may discourage their wives from discussing their pregnancies, and this may delay ANC (Tufa et al. 2020:664). Women whose husbands had a positive attitude towards ANC were more likely to use ANC than those with a negative attitude towards ANC. Women who had their husband's or partners' approval to attend ANC were more likely to use ANC services early than those without their husbands' support (Okedo-Alex et al. 2019:8).

The cultural beliefs about men in sub-Saharan Africa imply that male involvement is beneficial to maternal health because women are said to lack autonomy and largely cannot decide to seek ANC without approval from their husbands (Okedo-Alex et al. 2019:10). In a study in Tanzania participants reported that men control almost everything, including farms, livestock and businesses. In some cases, women could not attend ANC early due to a lack of money for transport to the health centre and other necessary needs (Maluka et al. 2020:3).

Culturally, in Lesotho, decisions on family issues, as well as sexual and reproductive issues, are supposed to be finalized by men because women are seen as minors who cannot make any decisions. Because of this, some participants had to wait for the approval of their husbands or partners before attending ANC. This correlates with a study conducted in Lesotho by Macleod and Reynolds (2021:805), which indicates

that in Lesotho, women are positioned as lifelong minors under customary law, with men holding key decision-making powers concerning family and sexual practices, including family size, spacing of children and the use of contraceptives.

Some participants were supported financially by their husbands as they were unemployed and depended on their husbands' money for transport to reach the health centre. One participant was even supported to travel from South Africa to Lesotho to attend ANC early because that participant believed that she could only get ANC services in Lesotho, where she had previously attended ANC in her previous pregnancy, and the participant was pleased with her husband's support as well as his understanding, through which the husband made it possible for her to travel to Lesotho.

Some participants were influenced by their husbands' fear due to previous negative pregnancy experiences that they might lose their pregnancy again; therefore, their husband's support made them to attend ANC early so that their pregnancy could be monitored and managed.

> *"My husband was afraid that I might have another miscarriage as a result he advised me to attend ANC early so that I can be assessed early for identification of any complications." (P13)*

> *"As we had discussed with my husband the nurses' and doctors' advice after I lost my first pregnancy, in this pregnancy my husband emphasized the need for me to attend ANC early and went with me to attend my first ANC visit to show me his support so that real[ly] motivated me to attend ANC early." (P14)*

Male involvement in maternal health services, including ANC education, has been advocated for internationally with the understanding that men are likely to fulfil their supportive roles as partners if they are educated on their role (Chikalipo, Chirwa & Muula 2018:146; Kassahun, Worku, Nigussie & Ganfurie 2018:117).). Male partners' knowledge of maternal health issues translates into joint decision-making and male partners' support in maternal health practices (Chikalipo et al. 2018:149).

4.3.6 Motivation from social norms

The last and sixth theme relates to social norms as a motivator for attending ANC early. Social norms are perceived as informal, mostly unwritten, rules that define acceptable and appropriate actions within a given group or community, thus guiding human behaviour. Social norms are learned and accepted by society (UNICEF 2021:1). In this study, three sub-themes were developed, namely the influence of cultural practices, the need for expression, and the understanding of myths about pregnancy.

4.3.6.1 Influence of cultural practices

Culture is a belief, norm or practice of a particular group that is learned, shared and guides decisions and actions in a patterned way (Mulondo 2020:793). Some cultural practices that motivated participants to attend ANC early were family traditions, traditional rituals and the traditional dress code for pregnant women. Some participants wanted to attend ANC early to know their estimated delivery date to initiate their cultural practices, as it was supposed to be done during a specific pregnancy period. Some participants attended ANC early so that they could hide their pregnancy from certain people. Wanting to hide pregnancy was discovered by the researcher to have motivated participants to attend ANC early so that participants could work on how to hide their pregnancy, for example, by giving a wrong estimated date of delivery.

> *"My cultural practice that motivated me to attend ANC early was the family tradition that my grandmother instilled in us of protecting each other as a family. Because of our family tradition of protecting each other, I was able to follow my family['s] advice that I should attend ANC early as I knew they had my best interest at heart." (P2)*

> *"My cultural practice motivated me to attend ANC early as we had agreed with my husband that we should hide my pregnancy so that we can [could] run away from our family tradition that I was supposed to perform when I was eight months pregnant and attending ANC early was going to help me know when I was going to give birth and also hide my pregnancy gestation from other people*

who can [could] possible [possibly] attack my pregnancy using traditional herbs." (P3)

"…my cultural practice that motivated me to attend ANC early was that I knew that I will [would] be served by nurses who understood my culture as I was respected by nurses in my previous pregnancy even though I was ashamed of [the] traditional dress code of pregnant women in my clan." (P4)

Both negative and positive feelings were associated with cultural practices during pregnancy. One participant was motivated to attend ANC early by her family tradition, which her grandmother instilled in her. Their family tradition made it possible for her to listen to the advice of attending ANC early. Their tradition also emphasizes the importance of uniting the family during hardship. As a result, she was able to cope with her unplanned pregnancy and attended ANC early. Practising Ubuntu philosophy emphasizes that one does not exist in a vacuum. Ubuntu suggests that individual consciousness and rationality is expressed collectively, in a relationship with others (Dillard & Neal 2020:371).

Some participants were motivated to attend ANC early by fear that cultural practices could harm their baby. Some pregnant women felt the need to hide their pregnancy gestation from other people to avoid performing their traditional rituals expected to be performed late in pregnancy. Early ANC attendance assists them in knowing their gestational age and estimated delivery date. They used that information so that they could escape from performing traditional pregnancy rituals by delivering early before the in-laws could commence the ritual. Some pregnant women's rituals are supposed to be done by others when they are pregnant, and if the pregnant woman does not have any objection to doing the ritual, she will always be ready to perform that ritual. But if the woman did not want to do the ritual, she could hide her pregnancy so that elders would not recognize that she was pregnant so that she could deliver before they performed the ritual because most rituals are performed late in pregnancy. For example, when a Mosotho woman is pregnant, she has to start pregnancy rituals (being smeared with Letsoku to protect her against lighting). When she is eight months pregnant, she must walk barefoot regardless of the season or the weather to protect her pregnancy. This correlated with the findings of a study done in Lesotho, which

indicated that some Basotho patient groups may adopt an external health locus of control, meaning they choose for their health to be guided by others. These patients may not directly seek out information when they are not decision-makers, as evident when some pregnant mothers defer medical decisions to their mothers-in-law (Kulesa, Crawford, Ferrer, Thahane, Sanders, Ottolini & Chua 2023:60). One participant was ashamed of the pregnant woman's traditional dress code (Selapa) which is a top cloth that is swan by hand on the side of the body and if it is accidentally torn one is not allowed to repair it. A pregnant woman only washes it at night because she cannot use any other top for the remaining two months of pregnancy. The same top will be used to wrap the baby when it is born until it is torn to pieces. The participant was motivated to attend ANC early by her knowledge that nurses working in the health centre understood her cultural practices and would not be surprised by a torn top (Selapa).

Fear is a common factor associated with pregnancy in African cultures. In the African culture, keeping a pregnancy secret was seen as more important than getting the first ANC visit that was needed, and in some other African cultures, it is even a taboo because if the family enemies know about a pregnancy, they may bewitch it (Mulondo 2020:293). Furthermore, it is normal for a pregnant African woman who has struggled to conceive to keep her pregnancy secret in her community due to fear of gossip (Ntshanga 2018:22). Therefore, secrecy is very common, even when women have had no problem conceiving.

Various cultural beliefs exist which explain understandings of and attitudes toward pregnancy, pregnancy risks, and preterm births. These beliefs may result in stigma and may perpetuate myths about pregnancy risks. Community members, healthcare providers and stakeholders should explore beliefs, attitudes, and understandings of pregnancy. An inclusive exploratory process is critical to facilitate an understanding of the beliefs and traditions which could impact the decision to attend ANC services. Taking cognizance of cultural beliefs' interaction with modern medicine is necessary in Africa to inform health decisions (Milford, Smith, Ngure, Thuo, Newmann, Lazarus, Beksinska, Mugo & Rand 2023:9).

The Health Belief Model states that health-seeking behaviour is likely when a person's opinion of the psychological costs of the health intervention is lower than the perceived

benefits. The perceived barriers in the context of this study can include psychosocial costs of shyness, embarrassment, fear of harsh treatment by nurses and fear of social discrimination, causing them to delay a first ANC initiation. Other perceived barriers to early ANC attendance can be tangible costs such as long distances to walk, long waiting times, costs of transport, and a dislike for ANC services (Hackett et al. 2019:6).

4.3.6.2 The need for expression and understanding

Five participants had the desire to express themselves and to be understood. They felt comfortable when nurses providing ANC services could tailor the ANC services to their needs by using the language that participants understood, respecting participants' cultural practices, and having sympathy. Expression and understanding are processes of putting something into words and the power of comprehending.

> *"I had noticed that ANC services were provided by Basotho nurses so this motivated me to attend ANC early because I am a Mosotho so this enabled me to freely express myself to nurses at ANC because they understood my language and they will respected [sic] my culture as I knew that I was allowed to express myself in my mother tongue and my cultural beliefs were always respected." (P1)*

> *"As soon as I had confirmed that I was pregnant I decided to attend ANC in Lesotho not South Africa as I did not belief [believe] that health workers there had [the] same culture as mine and I will not understand how ANC services were provided." (P9)*

Sharing the same culture appears to be an important motivating factor. This is supported by a study conducted by Mulondo (2020:792), which stated that immigrant women in South Africa have reported fearing prenatal care attendance because of language barriers. Pregnant women use ANC if they experience it positively and when it fits their beliefs and values, is easy for them to access, affordable, and when healthcare providers treat them as individuals (Downe et al. 2019:3). Pregnant women want care that makes them feel that they and their baby are safe, and that is provided by kind, caring, culturally sensitive, flexible, and respectful healthcare providers that have time to give them support and reassurance about the health and well-being of

them and their babies. Furthermore, when the perceived barriers of attending ANC are thought to outweigh the perceived benefits, the likelihood that the target behaviour will be performed decreases (Hackett et al. 2019:5). Trust in the nurses is an essential motivator.

> *"I was hurting after losing my first pregnancy but when I felt pregnant again I knew that I can trust my nurses at [the health center] with this pregnancy as they were sympathising with me in my loss and I knew that they will [would] provide me with ANC services which will [would] address my needs therefore that motivated me to attend ANC early." (P14)*

Empathy is the capacity to understand and share the affective experience of others and is instrumental in successful communication and caring interpersonal relationships. Higher empathy was linked to better coping (Boorman, Creedya, Fenwicka & Muurlink 2019:84). Findings of this study correlate with the findings of a study by Katowa-Mukwato et al. (2019:39) that pregnant women need respect, empathy, understanding, expression and sympathy. Respect that should be given includes a warm welcome, speaking in a quiet, gentle tone of voice, addressing clients by name, and obtaining permission before examination. The lack of these factors can be perceived as barriers affecting women's decision-making.

4.3.6.3 Myths about pregnancy

Myths about pregnancy are widely held and represent false beliefs or ideas about pregnancy-related issues. Four participants were motivated to attend ANC early, before 16 weeks' gestation, so that they could clarify the information that they heard because the myths about pregnancy had created panic in some participants. Some felt that the information that they got from their peers about pregnancy was not correct and that they wished to confirm the facts. Participants were motivated by their need to verify the information they got from people around them and their own knowledge that they would get from healthcare workers at the ANC clinic. They also needed to get correct information from the nurses about pregnancy as they had developed fear from myths they had heard from their peers because this was their first pregnancy. They felt that their friends or sisters did not address all their pregnancy concerns. Therefore,

they felt that if they attended ANC early, they would get all the information about pregnancy and erase myths that they had about pregnancy and deliver safely.

> *"… I had so many myths about pregnancy from my peers and that created panic in me, therefore I wanted to learn about pregnancy from nurses so that I can be ready to have my baby without any fear hence that motivated to attend ANC early." (P2)*

> *"I have discovered that health education that I might give to myself or the one from other people might be wrong as a result I wanted to ensure that I have appropriate health education about pregnancy." (P8)*

> *"…I did not buy [a] pregnancy test as advised by my friend and sister because I did not know how to use this test and I also thought that they were not giving me correct pregnancy information so I decided to go to the health centre for pregnancy testing and attended ANC so that I can get more information." (P10)*

Some myths aggravate the existing fears of childbirth. The participants envisioned chaos and trauma, including unbearable pain, panic, or losing the child's or one's own life. It is an uncontrollable situation that raises feelings of panic (Rondung, Magnusson & Ternström 2022:4). Some participants acted against the myth that multigravida women do not need to attend ANC early as they already experienced pregnancy.

> *"…there are myths that pregnant women do not need to attend ANC services at all and they can deliver safely their babies at home, as for me I do not believe such things as a result I attended ANC early." (P11)*

This was the second pregnancy for Participant 11, and she said when she was interacting with other women who had been pregnant before, they said to her that it was not necessary to attend ANC early if one had been pregnant before because she already had a pregnancy journey experience. Therefore, she did not need ANC services early, but Participant 11 knew that was a myth because it was still important to attend ANC early regardless of the number of pregnancies one had had previously. This motivated her to attend ANC early, even in this pregnancy.

The findings of this study were that myths about pregnancy can motivate women to attend ANC early so that women can get the correct information about pregnancy and have their fears alleviated. This was supported by findings in a study stating that the women who participated shared the experience that others did not take their fears seriously. When professionals and people around them made attempts to normalize, reassure and encourage, they often felt that their concerns were being ignored and their fear minimized. This made them feel less than a “real” woman (Rondung et al. 2022:5), emphasising the importance of early ANC.

4.4 SUMMARY

This chapter presented six themes with their respective sub-themes, summarising the factors influencing early ANC attendance in Lesotho according to participant experiences. The results were also discussed in this chapter. In the next chapter, the conclusions, recommendations and limitations of the study will be discussed.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter four was the presentation and interpretation of the findings with integration of the findings with the literature. In Chapter Five, the researcher concludes the study by discussing how each objective was addressed and presents the recommendations and limitations of the study. The study aimed to explore and describe factors motivating pregnant women in Lesotho to attend ANC services before 16 weeks' gestation. These motivating factors can be influential in developing health education programs to promote early utilisation of ANC services.

5.2 SUMMARY OF THE RESEARCH DESIGN AND METHOD

The researcher used an explorative, descriptive qualitative design since it allowed the researcher to present comprehensive descriptions of a phenomenon obtained through exploration (Polit & Beck 2017:479). Personal views of factors that motivated choices for early ANC attendance required in-depth exploration. Furthermore, evidence on factors that motivate early ANC attendance in Lesotho was not yet known.

Data was collected from 14 pregnant women who attended ANC services before 16 weeks' gestation at a health centre in Mafeteng Lesotho. Individual semi-structured interviews were conducted from February 2023 to June 2023. Data was analysed using the thematic analysis according to Tesch's steps for thematic analysis. Six themes and 17 sub-themes materialised from the data. The findings and conclusions were summarised, and recommendations were made for policy, practice and further research.

5.3 SUMMARY

The research findings can be summarised as follows:

5.3.1 Demographic information

The 14 participants were pregnant women who started ANC before 16 weeks' gestation at the selected health centre in Lesotho, as required according to the study objectives. The participants' ages ranged from 21 to 39 years.

Most participants (n = 11) were multiparous, with one to three children, but it was the first pregnancy for three participants. Four participants experienced pregnancy loss in their previous pregnancies, which could have influenced the narrative data received from them in one way or the other.

5.3.2 Reasons for attending ANC before or at 16 weeks

The first objective of this study was to identify women's reasons for attending ANC services before 16 weeks' gestation. Women indicated that they attended ANC early because they needed to confirm their pregnancy, because of concerns for the well-being of the foetus and because of their desire to optimise their own well-being during pregnancy.

The findings showed that some pregnant women were eager to confirm their pregnancy early because they had planned the pregnancy and wished to share the good news with their partners. For some, pregnancy signs and symptoms were experienced early in the pregnancy, and, as a result, it motivated participants to conduct a test to confirm pregnancy. Others wished to confirm their pregnancy as soon as possible to plan their future. Social norms influenced the decision to attend ANC in various ways. Some participants wanted to confirm the gestational age early to perform pregnancy traditional rites at the expected time during pregnancy. In contrast, others wanted to know their expected delivery date to escape from perceived harmful cultural practices.

Participants wanted their unborn babies to be monitored as early as possible for a healthy foetal heartbeat, growth and identification of any foetal abnormalities. Fear of

losing their unborn babies instigated these concerns, especially among those who had previous miscarriages. Participants attended ANC early because they trusted those providing the ANC service. The prevention of mother-to-child transmission of HIV was a specific concern among some study participants, motivating them to seek ANC services early.

The need to optimise their health also motivated pregnant women to attend ANC early. Health concerns were related to managing normal pregnancy signs and symptoms and preventing problems related to risk factors, for example, hypertension.

An eagerness to confirm pregnancy and fear of complications are not unique reasons for seeking ANC early as acknowledged by other studies, for example, in Uganda and South Africa, found that confirmation of pregnancy, access to screening, medication, immunisations and supplementation were sought by pregnant because they believed it was beneficial to initiate ANC early in pregnancy (Comfort et al. 2022:4). Fear was also found to be a motivator in other studies; for example, pregnant women who had problems in their prior pregnancy were more expected to attend ANC timely if matched to those without complications (Moshi 2021:9). Fear aligns with the concept of perceived severity in the Health Belief Model and explains that a person will seek treatment if they fathom that the implication of a condition is severe (Nyando et al. 2023:2). In some developing countries, pregnant women perceived ANC as only necessary for those experiencing ill health such as backache, HIV and more (Nyando et al. 2023:2). In this study, the Lesotho context, it was found that both concerns for ill health and positive emotions (happiness to confirm a planned pregnancy) were reasons for seeking ANC early.

5.3.3 Enablers to attending ANC early

One of the enablers for attending ANC early was pregnant women's awareness of the significance of early ANC and knowing when they had to go for their first ANC visit. The participants indicated that they learned this from health education offered through social media platforms or the radio. Healthcare workers, especially village health workers, also emphasised the need to attend ANC early. Advice from nurses and doctors during the loss of a previous pregnancy motivated early ANC during the subsequent pregnancy for some. Another study found that pregnant women's degree

of knowledge was considerably connected with the early initiation of ANC (Gebresilassie et al. 2019:6).

Motivation and support from significant others in the pregnant women's circle of care, including the family, husbands, partners and friends, enabled and motivated the pregnant women to start ANC early. These significant others provided information, encouragement and financial support. Some partners advised pregnant women to initiate ANC early and provided money for transport to reach the health centre to attend ANC services.

The health professionals' attitude and display of respect for the pregnant women's culture made them feel welcome to attend ANC early, enabling them to express themselves. Furthermore, speaking with the ANC nurses in their mother tongue helped the pregnant women express themselves. The non-judgemental attitudes of healthcare providers played a vital role. Furthermore, the need to clarify the truths behind certain fear-provoking myths motivated pregnant women to attend ANC early.

5.4 RECOMMENDATIONS

Built on the study's findings, the following recommendations can be made for the government and non-governmental organisations, the Lesotho Department of Health, operational managers of health centres, healthcare providers and the community. The researcher will disseminate the research findings in electronic format to the Ministry of Health Lesotho, the Mafeteng District Health Management Team, and the selected health centre so that they can become aware of the findings and recommendations. Recommendations are made for policy, practice and further research.

5.4.1 Recommendation regarding policy

- Consideration should be given to appointing and training Village Health Workers, and empowering them with key messages to raise wakefulness about the importance of timely ANC attendance. These trained individuals can effectively reach people at the household level. The policy should be adjusted and implemented to ensure all pregnant women can access early ANC to achieve universal health coverage. The policy on the role of village health workers can be

amended to ensure they motivate the community to attend ANC early. Village health workers play a vital role in Lesotho in reaching community members as part of the National Health Reform (Ndayizigiye et al 2022:3). Education about the significance of early ANC initiation should be provided to Village Health Workers and communities because Village Health Workers were found in this study to have been able to inform some participants about the worth of timely ANC attendance and to have motivated those participants. If all Village Health Workers have the capacity and are knowledgeable about the importance of early ANC attendance, they can reach many pregnant women in the community and motivate women of childbearing age to attend ANC early when they become pregnant. Appointing and training Village Health Workers and empowering them with key messages to create awareness about the importance of early ANC attendance should be considered. These cadres can reach people at the household level. The policy could incorporate a new role for village health workers to perform HCG pregnancy testing at the community level for early pregnancy diagnosis to enable early ANC attendance. Early confirmation of pregnancy motivates early ANC attendance.

- Social media and radio campaigns promoting early ANC attendance should be encouraged by health centres since these were platforms where women accessed and received health education that motivated their decision to attend ANC early.

- The government and non-governmental organisations should emphasise the quality of ANC services by ensuring that HCG pregnancy testing strips are always available at health centres. Most participants in this study were motivated to attend ANC early by their desire to confirm pregnancy. The unavailability of HCG pregnancy testing strips can contribute to delayed ANC services utilisation because, according to the Lesotho ANC guidelines, pregnancy should be confirmed before pregnant women can access ANC services (Ministry of Health Lesotho 2020). Therefore, the consistent availability of pregnancy testing strips in motivating early ANC attendance to reduce maternal complications associated with late access is vital for early healthcare services in pregnancy. Similarly, prenatal supplements should be freely and consistently available at health centres. Some participants were motivated to attend ANC early to access prenatal supplements. A lack of stock may cause confidence in ANC services to be destroyed.

- The policy should encourage preconception services at all health centres to safeguard that women of childbearing age and their partners are educated on the significance of early attendance of ANC before conception. Some of the participants who were pregnant for the initial time only received information regarding the significance of early ANC attendance when they first attended ANC. An awareness of the significance of timely ANC is a motivating factor for early ANC initiation, and the partner's role in enabling and motivating early ANC has been confirmed in this study.

- The policy should strengthen the integration of sexual and reproductive services, such as ANC services at the ARV sites, to guarantee that HIV-positive patients have access to ANC services early in their pregnancies. This can be achieved by having pregnancy testing strips at ART sites and raising awareness of the importance of early ANC for mother-to-child transmission of HIV. The transmission of HIV to the baby was a specific concern that motivated pregnant women to attend ANC early.

- Incorporate education on early ANC attendance in the integrated school health services to raise awareness among youth since there is an increase in teenage pregnancies. According to Kons, Bineyb & Sznajderc (2022:387), the COVID-19 pandemic has aggravated these socioeconomic contributing factors of adolescent pregnancy in Sub-Saharan Africa, increasing rates of adolescent pregnancy all through the region.

5.4.2 Recommendation for practice

- This study indicated that some members of the community who knew the significance of early ANC initiation were also able to motivate pregnant women who took part in this study to attend ANC early, for example, the support of the husband, mothers, sisters and grandmothers. Therefore, men should be approached and engaged during campaigns on sexual and reproductive health. Health providers such as professional nurses who provide ANC services must focus on educating men on their shared responsibility in ANC so that men can support and encourage early ANC attendance.

- Training ANC nurses on the potential myths and how to address them and also encouraging conversation in the mother tongue is important for nurses at health centres to demystify harmful pregnancy myths. This might motivate pregnant women to start ANC early, as evidenced by this study's findings that pregnant women wanted to initiate ANC services where they felt welcomed, where their concerns were addressed, and where they could ask for clarification about harmful pregnancy-related myths.

- Healthcare providers should develop awareness campaigns about superstitions and myths related to pregnancy targeting the whole community since myths and superstitions were found to influence health-seeking behaviours, including the early attendance of ANC.

- Encourage ANC and birth companions to support pregnant women throughout their pregnancy and during labour. The support from a trusted family member, especially mothers and grandmothers, motivated early ANC, especially for an unplanned pregnancy. Support from a mother or grandmother can provide psychological support to women with unintended pregnancies resulting from various reasons to reduce stigma.

5.4.3 Recommendation for further research

Future studies can explore the drivers of early ANC attendance in other regions of Lesotho, for example, rural areas. A study can be conducted to design interventions for awareness campaigns motivating pregnant women to attend ANC early and to determine the awareness campaigns' effects on motivating and increasing early ANC attendance.

5.5 LIMITATIONS OF THE STUDY

The selected health centre is geographically located in an urban area. Therefore, factors influencing participants to attend ANC early at this location may differ from those among pregnant women in rural areas. However, it was not the intention of this study to generalise conclusions but rather to provide a deep understanding of factors

within the study context. A rich data trail is provided to repeat the study in rural areas or to transfer the findings to a similar context if possible.

5.6 CONTRIBUTIONS OF THE STUDY

This study identified factors that motivated pregnant women in Lesotho to attend ANC early. These factors enabled the formulation of recommendations that could inform policy and decision-makers, practice, and further research. The identified factors can be used to develop strategies to motivate other pregnant women to attend ANC early, promoting improved access and utilisation of ANC as a PHC service. Improved utilisation and access to PHC are crucial public health priorities in Lesotho and necessary to achieve the 2023 universal health coverage agenda. Furthermore, if women attend ANC early, the risk of mother-to-child transmission of HIV can be reduced in Lesotho, a country with some of the highest rates of HIV infections. The HIV epidemic in Lesotho is widespread and hyper-endemic, with prevalence in the midst of adolescents and adults aged 15 years and older estimated at 22.7%. Lesotho has a target of eliminating mother-to-child transmission of HIV from 11.3% in 2017 to fewer than 5% by 2023 (Ministry of Health Lesotho 2022:11). Overall, early ANC attendance can lessen maternal and neonatal morbidity and mortality, contributing towards achieving health for the nation at large and towards achieving the SDG target three guaranteeing good health and well-being for all.

The implementation of this study recommendation can contribute to reaching the declaration of Alma Ata 1978, which was reinforced by the 2018 Astana declaration and the WHO Universal Healthcare approach, which was the first global call to distinguish health as a human right and the significance of social determinants of health for health equity, social justice, and health for all (Parajón, Hinshaw, Sanchez, Minkler, & Wallerstein 2021:297). Factors that motivate early ANC attendance are one of the social determining factor of health. Therefore, taking into consideration what motivates pregnant women will enhance policies and practices that will reach many women who might be pregnant to motivate them to attend ANC early so that pregnancy-related conditions and complications can be managed and treated early in pregnancy. Motivating factors identified here in this study can work as the basis for health education material to promote early utilisation of ANC services in Lesotho

because it has been found that personal motivation is an important factor in changing behaviour within a community, more so the behaviour of pregnant women who need to attend ANC as early as possible to increase maternal and neonatal well-being.

5.7 CONCLUSION

The purpose of the study was to explore and describe factors motivating pregnant women to attend ANC services before 16 weeks' gestation; thus, this study did not focus on the challenges of attending ANC early. The factors that motivated pregnant women who participated in this study to attend ANC early were identified and categorized into six themes. It is crucial in the public healthcare service provision to emphasise the significance of early ANC attendance so that pregnant women can be screened for pregnancy-related health conditions and complications for prompt management. As the idiom says, "the early bird catches the fattest worm," pregnant women who attend ANC early will benefit most from the ANC service.

LIST OF REFERENCES

Abegaz, KH & Habtewold, EM. 2019. Trend and barriers of antenatal care utilization from 2000 to 2016 Ethiopian DHS: A data mining approach. *Scientific African*, 3(2):1–8.

Alemu, Y & Aragaw, A. 2018. Early initiations of first antenatal care visit and associated factor (sic) among mothers who gave birth in the last six months preceding birth in Bahir Dar Zuria Woreda North West Ethiopia. *Reproductive Health*, 15(1):1–8.

Ali, RA & Abo-Kresha, SA. 2021. Patterns and determinants of utilization of antenatal care services by pregnant women in Sohag, Upper Egypt. *Journal of High Institute of Public Health*, 51(1):33–38.

Alrobiaee, S & Jahan, S. 2022. Women's expectations and satisfaction with the quality of antenatal care at the primary health care centers in Unaizah City. *Family Medicine Academy Journal*, 20(3):15–26.

Al-Wutayd, O. 2020. Inadequate and late antenatal contacts among Saudi mothers: A hospital-based cross-sectional study. *International Journal of Women's Health*, 12:731–738.

Berehe, TT & Modibia, LM. 2020. Assessment of quality of antenatal care services and its determinant factors in public health facilities of Hossana Town, Hadiya Zone, Southern Ethiopia" A longitudinal study. *Advances in Public Health*, 2020(1):1–11.

Boorman, RJ, Creedy, DK, Fenwick, J & Muurlink, O. 2019. Empathy in pregnant women and new mothers: a systematic literature review. *Journal of Reproductive and Infant Psychology*, 37(1):84–103.

Boraya, JO, Githae, C & Atandi, T. 2018. Determinants of antenatal care booking among pregnant women in selected hospitals in Embu country, Kenya. *International Journal of Nursing and Midwifery,* 10(12):155–160.

Brink, H, Van der Walt, C & Van Rensburg, G. 2018. *Fundamentals of research methodology for health professionals*. 4th edition. Cape Town: Juta & Co.

Brucker, MC, Jivett, CM, King, TL & Osborne, K. 2019. *Varney's Midwifery*. 6th edition. Burlington, MA: Jones & Bartlett.

Comfort, AB, Ayadi, ME, Carol, SC, Tsai, CA, Nalubwama, H, Byamugisha, J, Walker, DM, Moody, J, Roberts, T, Senoga, U, Krezanoski, PJ & Harper, CC. 2022. The role of informational support from women's social networks on antenatal care initiation: qualitative evidence from pregnant women in Uganda. *BMC Pregnancy and Childbirth,* 22:1–12.

Chee, R, Capper, TS & Muurlink, OT. 2023. Midwifery care and social media. *British Journal of Midwifery,* 31(2):112–115.

Chikalipo, MC, Chirwa, EM & Muula, AS. 2018. Acceptability of couple antenatal education: A qualitative study of expectant couples attending antenatal clinics in Blantyre, Malawi. *Malawi Medical Journal,* (3):146–151.

Creswell, JW. 2018. *Research Design: Qualitative, Quantitative and Mixed Methods approach*. 5th edition. Thousand Oaks: SAGE.

Dillard, BC & Neal, A. 2020. I am because we are: Remembering Ubuntu in the pedagogy of Black women teachers from Africa to America and back again. *Theory into practice,* 59(4):370–378.

Downe, S, Finlayson, K, Tunçalp, O & Gülmezoglu, AM. 2019. Provision and uptake of routine antenatal services: a qualitative evidence synthesis. *Cochrane Database of Systematic Reviews,* 6:1–90.

Edmonds, WA & Kennedy, TD. 2017. *An Applied Guide to Research Designs: Quantitative, qualitative and mixed methods.* 2nd edition. Los Angeles: SAGE Publications.

Gebresilassie, B, Belete, T, Tilahun, W, Berhane, B & Gebresilassie, S 2019. Timing of first antenatal care attendance and associated factors among pregnant women in public health institutions of Axum town, Tigray, Ethiopia, 2017: a mixed design study. *BMC Pregnancy and Childbirth,* 19:1–11.

Gill, MM, Machekano, R, Isavwa, A, Ahimsibwe, A & Oyebanji, O. 2015. The association between HIV status and antenatal care attendance among

pregnant women in rural hospitals in Lesotho. *Journal of Acquired Immune Deficiency Syndromes,* 68(3): e33–e38.

Grove, SK & Gray, JR. 2019. *Understanding nursing research: building an evidence-based practice*. 7th edition. St. Louis: Elsevier.

Hackett, K, Lenters, L, Vandermorris, A, LaFleur, C, Newton, S, Ndeki, S & Zlotkin, S. 2019. How can engagement of adolescents in antenatal care be enhanced? Learning from the perspectives of young mothers in Ghana and Tanzania. *BMC Pregnancy and Childbirth*, 19(1):1–12.

Jinga, N, Mongwenyana, C, Moolla, A, Malete, G & Onoya, D. 2019. Reasons for late presentation for antenatal care, healthcare providers' perspective. *BMC Health Services Research*, 19(1):1–9.

Jiwani, SS, Amouzou-Aguirre, A, Carvajal, L, Chou, D, Keita, Y, Moran, AC, Requejo, J, Yaya, S, Vaz, LM & Boerma, T. 2020. Timing and number of antenatal care contacts in low- and middle-income countries: Analysis in the countdown to 2030 priority countries. *Journal of Global Health*, 10(1):1–12.

Katowa-Mukwato, P, Kwaleyela, NC, Mwiinga-Kalusopa, V, Musenge, E, Banda, Y, Mutinta, CM & Maimbolwa, CM. 2019. Evaluation of quality of antenatal care services in selected healthcare centres of Mumbwa and Lusaka districts of Zambia: Pregnant women's perspectives. *International Journal of Nursing and Midwifery,* 11(5):32–40.

Khanlou, N & Pilkington, FB. 2015. *Women's resilience in community & society*. Cham: Springer International.

Kons, K, Biney, AAE & Sznajder, K. 2022. Factors associated with adolescent pregnancy in Sub-Saharan Africa during the COVID-19 Pandemic: A review of socioeconomic influences and essential interventions. *International Journal of Sexual Health,* 34(3):386–396.

Kulesa, J, Crawford, L, Ferrer, K, Thahane, L, Sanders, J, Ottolini, M & Chua, I. 2023. Cultural considerations for patient and community education in global health: a qualitative study in Lesotho. *Sage Journal*, 44 (1):55–63.

LoBiondo-Wood, G & Haber, WJ. 2018. *Nursing research methods and critical appraisal for evidence-based practice*. 9th edition. St. Louis: Elsevier.

Lowane, NE. 2021. The HIV/AIDS peer education programme of Youth for Christ Mpumalanga (YFCMPU) and its impact on young adults: an exploratory study. PhD thesis in Psychology. UNISA. Pretoria.

Macleod, CI & Reynolds, JH. 2021. Reproductive health systems analyses and the reparative reproductive justice approach: a case study of unsafe abortion in Lesotho. *Global Public Health,* 17(6):801–814.

Maharaj, R & Mohammadnezhad, M. 2022. Perception of pregnant women towards early antenatal booking in Fiji: A qualitative study. *PLoS ONE*, 22:1–13.

Maluka, SO, Joseph, C, Fitzgerald, S, Salim, R & Kamuzora, P. 2020. Why do pregnant women in Iringa region in Tanzania start antenatal care late? A qualitative analysis. *BMC Pregnancy and Childbirth*, 20:1–7.

Marais, N. 2021. Early detection and treatment of clubfoot in a rural setting in South Africa. MPH dissertation. UNISA. Pretoria.

Milford, C, Smith, E, Ngure, K, Thuo, NB, Newmann, S, Lazarus, N, Beksinska, M, Mugo, N & Rand, L. 2023. Cultural considerations and beliefs surrounding preterm birth in Kenya and South Africa. *Reproductive Health*, 20:1–10.

Ministry of Health Lesotho. 2022. National guidelines on the use of Antiretroviral therapy for HIV Edition. Maseru. Lesotho.

Ministry of Health Lesotho. 2020. National Antenatal Care Guidelines for a positive pregnancy experience. Maseru. Lesotho.

Ministry of Health Lesotho. 2016. *National Health Strategic Plan 2017–2022*. Maseru. Lesotho.

Moller, AB, Petzold, M, Chou, D & Say, L. 2017. Early antenatal visit: a systematic analysis of regional and global levels and trends of coverage from 1990–2013. *Lancet Global Health*, 5: e977–e983.

Moshi, FV. 2021: Prevalence and factors which influence early antenatal booking among women of reproductive age in Tanzania: An analysis of data from the

2015–16 Tanzania Demographic Health Survey and Malaria Indicators Survey. *PLoS ONE,* 16(4):1–11.

Mulondo, SA. 2020. Factors associated with underutilisation of antenatal care services in Limpopo, South Africa. *British Journal of Midwifery,* 28(11):788–795.

Nattey, C, Jinga, N, Mongwenyana, C, Mokhele, I, Mohomi, G, Fox, MP & Onoya, D. 2018. Understanding predictors of early ANC initiation in relationship to timing of HIV diagnosis in South Africa. *AIDS PATIENT CARE and STDs,* 32(6):251–256.

Ndayizigiye, M, Allan-Blitz, L-T, Dally, E, Abebe, S, Andom, A, Tlali, R, Gingras, E, Mokoena, M, Msuya, M, Nkundanyirazo, P, Mohlouoa, T, Mosebo, F, Motsamai, S, Mabathoana, J, Chetane, P, Ntlamelle, L, Curtain, J, Whelley, C, Birru, E, McBain, R, Andrea, DM, Schwarz, D & Mukherjee, JS. 2022. Improving access to health services through health reform in Lesotho: Progress made towards achieving universal health coverage. *PLOS Global Public Health,* 2(11):1–13.

Nieswiadomy, RM & Bailey, C. 2018. *Foundations of nursing research*. 7th edition. New York: Pearson.

Ntshanga, NS. 2018. Reasons for late booking of pregnant women at antenatal care clinics in King Sabata Dalindyebo Sub-District in the Eastern Cape, South Africa. MPH dissertation. University of Fort Hare. South Africa.

Nyando, M, Makombe, D, Mboma, A, Mwakilama, E & Nyirenda, L. 2023. Exploring perceptions of pregnant women on antenatal care visit during their first trimester at Area 25 Health Center in Lilongwe, Malawi – a qualitative study. *BMC Womens Health* 23(1):1–26.

Okedo-Alex, IN, Akamike, IC, Ezeanosike, OB & Uneke, CJ. 2019. Determinants of antenatal care utilisation in Sub-Saharan Africa: a systematic review. *BMJ Open,* 9(10):1–14.

Parajón, LC, Hinshaw, J, Sanchez, V, Minkler, M, & Wallerstein, N. 2021. Practicing hope: enhancing empowerment in primary health care through community-

based participatory research. *Society for Community Research and Action,* 67:297–311.

Phafoli, SH, Van Aswegen, EJ & Alberts, UU. 2016. Variables influencing delay in antenatal clinic attendance among teenagers in Lesotho. *South African Family Practice Journal,* 49:1–49.

Polit, DF & Beck, CT 2017. *Nursing Research; Generating and assessing evidence for Nursing Practice*. 10th edition. London: Wolters Kluwer.

Ralph, LJ, Foster, DG, Barar, R & Rocca, CH. 2022. Home pregnancy test use and timing of pregnancy confirmation among people seeking health care. *Contraception*, 107:10–16.

Ragolane, VJ. 2017. Factors contributing to late antenatal care booking in Mopani district of Limpopo province. MPH dissertation. University of South Africa. Pretoria.

Riang'a, RM, Nangulu, AK & Broerse, JEW. 2018. "I should have started earlier, but I was not feeling ill!" Perceptions of Kalenjin women on antenatal care and its implications on initial access and differentials in patterns of antenatal care utilization in rural Uasin Gishu County Kenya. *PLoS One,* 13(10):1–23.

Rondung, E, Magnusson, S & Ternstrom, E. 2022. Preconception fear of childbirth: experiences and needs of women fearing childbirth before first pregnancy. *Reproductive Health*, 19:1–10.

Seeiso, T 2017. Antenatal care literacy of pregnant women in Thaba Tseka and Maseru districts Lesotho. *Dissertation*. University of South Africa. Pretoria. South Africa.

Seidu, A, Ameyaw, EK, Sambah, F, Baatiema, L, Oduro, JK, Budu, E, Appiah, F & Ahinkorah, O. 2022. Type of occupation and early antenatal care visit among women in Sub-Saharan Africa. *BMC Public Health,* 22:1–12.

Sibiya, MN, Ngxongo, TS, & Bhengu, TS. 2018. Access and utilization of antenatal care services in a rural community of eThekwine district in Kwazulu-Natal. *International Journal of African Nursing Science,* 8:1–7.

Smith, A, Burger, R & Black, V. 2019. Demand-side causes and covariates of late antenatal care access in Cape Town, South Africa. *Maternal and Child Health Journal,* 23:512–521.

Teshale, AB & Tesema, GA. 2020. Prevalence and associated factors of delayed first antenatal care booking among reproductive age women in Ethiopia; a multilevel analysis of EDHS 2016 data. *PLoS ONE*, 15(7):1–13.

Thetsane RM, Mokhethi M, Ramathebane M & Leseba N. 2022. Utilisation of village health workers' services for tuberculosis screening in Lesotho. *South African Family Practice Journal*, 64(1):1-6.

Tola, W, Negash, E, Sileshi, T & Wakgari, N. 2021. Late initiation of antenatal care and associated factors among pregnant women attending antenatal clinic of Ilu Ababor Zone, Southwest Ethiopia: A cross-sectional study. *PLoS ONE,* 16(1):1–11.

Tolera, H, Gebre-Egziabher, T & Kloos, H. 2020. Using Andersen's behavioral model of healthcare utilization in a decentralized program to examine the use of antenatal care in rural western Ethiopia. *PLoS ONE*, 15(1):1–18.

Tufa, G, Tsegaye, R & Seyoum, D. 2020. Factors associated with timely antenatal care booking among pregnant women in remote area of Bule Hora District, Southern Ethiopia. *International Journal of Women's Health,* 12:657–666.

United Nations Children's Fund (UNICEF). 2021. Defining social norms and related concepts. https://www.unicef.org/media/111061/file/Social-norms-definitions-2021.pdf (accessed 11 December 2023).

United Nations Children's Fund (UNICEF). 2020. *Antenatal Care*. From: https://data.unicef.org/topic/maternal-health/antenatal-care/ (accessed 08 December 2020).

United Nations International Children's Emergency Fund (UNICEF) 2017. *Lesotho Public Health Sector Expenditure Review*. Maseru. Lesotho.

Ministry of Health Lesotho data warehouse. hmis.gov.ls/dhis/dhis-web-commons/security/login (accessed 11 December 2023).

World Health Organisation (WHO). 2023. Analytical Fact Sheet. Maternal mortality: The urgency of a systemic and multi-sectoral approach in mitigating maternal deaths in Africa. aho.afro.who.int (accessed 01 February 2024).

World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), United Nations Population Fund and the World Bank. 2019. *Trends in Maternal Mortality: 2000 to 2017.* 2019. From: https://data.unicef.org/topic/maternal-health/maternal-mortality/ (accessed 07 December 2020).

World Health Organisation (WHO). 2018. WHO recommendations on antenatal care for a positive pregnancy experience: summary highlights and key messages from the World Health Organization's 2016 Global Recommendations for Routine Antenatal Care. From: www.mcsprogram.org (accessed 01 February 2024).

World Health Organisation (WHO). 2018. WHO. Recommendations on antenatal care for a positive pregnancy experience: From www.who.int/publications/reproductivehealth/maternal-perinatal/anc-positive-pregnancy-experiency/en/ (accessed 01 February 2024).

World Health Organisation (WHO). 2018. World Health Statistics 2018. Monitoring health for the Sustainable Development Goals. Geneva.

Yimer, HW. 2021. Guidelines to enhance strategies for prevention of mother-to-child transmission (PMTCT) of HIV in North-East Ethiopia. DLit et Phil thesis in Public Health. University of South Africa. Pretoria. South Africa.

Yoon, S, Wee, S, Lee, VSY, Lin, J & Thumboo, J. 2021. Patterns of use and perceived value of social media for population health among population health stakeholders: a cross-sectional web-based survey. *BMC Public Health*, 21:1–9.

APPENDIX 1: Ethical clearance certificate, UNISA

UNISA university of south africa

COLLEGE OF HUMAN SCIENCES RESEARCH ETHICS REVIEW COMMITTEE

23 February 2021

NHREC Registration # :
Rec-240816-052
CREC Reference # :
50015729_CREC_CHS_2021

Dear Ms. T.E. Lenkoane

Decision:
Ethics Approval from 23 February 2021 to 23 February 2024

Principal Researcher: Ms. T.E. Lenkoane (50015729@mylife.unisa.ac.za)
Supervisor: Mrs. G.C Boersema **(012 429 6027)**

Prof. Lizeth Roets **(012 429 2226)**

Title: ***Factors motivating early antenatal attendance in Lesotho***

Degree Purpose: Masters

Thank you for the application for research ethics clearance by the Unisa College of Human Science Ethics Committee. Ethics approval is granted for three years.

The *Low risk application was reviewed* by College of Human Sciences Research Ethics Committee, on **23 February 2021** in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the College Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

Open Rubric

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date **(23 February 2024)**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

*The reference number **50015729_CREC_CHS_2021** should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Signature :

Prof. Ilse Ferns
CHS Ethics Chairperson
Email: fernsi@unisa.ac.za
Tel: (012) 429 8210

Signature : PP

Prof K. Masemola
Exécutive Dean : CHS
E-mail: masemk@unisa.ac.za
Tel: (012) 429 2298

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 2a: Letter requesting ethical permission from Ministry of Health Lesotho

UNISA university of south africa

Appendix 2

REQUEST FOR PERMISSIOM TO CONDUCT THE STUDY

Request for permission to conduct research at [redacted] Health Centre Mafeteng

ID18-2021

Date: 07 September 2020

Organisation Administrator
National Health Research Ethics Committee Lesotho
Ministry of Health
Research Coordination Unit
Maseru 100
Email: dr.kyawthin@gmail.com

Dear Dr. Kyaw Thin

I, Mrs. Matholoana Elizabeth Lenkoane student researcher am doing research with supervisor Mrs. Christelle Boersema a lecturer, and Professor Lizeth Roets in the Department of Health Studies towards a master's degree in Public Health at the University of South Africa. We are inviting your Health Centre to participate in a study entitled "**Factors motivating early antenatal attendance in Lesotho**".

The aim of the study is to explore and describe factors motivating women to attend antenatal care services before sixteen weeks gestation.

This Health Centre has been selected because it is found in Mafeteng South area of Lesotho where there is a better access to education, healthcare services and provides a free Primary Health Care services including antenatal care services.

Face-to-face interviews using a semi-structured interview will be conducted by the researcher after obtaining participants consent. The interviews will be audio recorded and verbatim transcriptions will follow.

The benefits of this study will be provision of better understanding of the factors which motivate women to attend antenatal care services before sixteen weeks gestation. These factors could assist policy makers in Lesotho to make recommendations to facilitate attendance of antenatal care services before sixteen weeks gestation as the drivers of seeking initial antenatal care services will be known and may contribute to the design of more efficient and cost effective antenatal care service systems.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa

The information may further assist public healthcare staff in emphasizing and strengthening awareness campaigns on importance of early antenatal care.

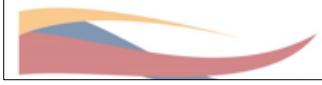
Potential risks are minor discomfort such as anxiety caused by interview questions therefore interviews can be withheld until participant is ready to continue with the interview.

Feedback procedure will entail oral and written reports of the research findings to the participating Health Centre, District Health Management team of the selected district and Research Coordination Unit.

Yours sincerely

Mrs. Thuso Elizabeth Lenkoane

UNISA postgraduate student



University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

APPENDIX 2b: Letter requesting extension on ethical permission to conduct the study from Ministry of Health Lesotho

UNISA university of south africa

Appendix 2

REQUEST FOR PERMISSIOM TO CONDUCT THE STUDY

Request for extension on permission to conduct research at [redacted] Health Centre Mafeteng

ID18-2021

Date: 13 May 2022

Organisation Administrator
National Health Research Ethics Committee Lesotho
Ministry of Health
Research Coor[redacted]tion Unit
Maseru 100
Email: dr.kyawthin@gmail.com

Dear Dr. Kyaw Thin

I, Mrs. Matholoana Elizabeth Lenkoane student researcher am doing research with supervisor Mrs. Christelle Boersema a lecturer, and Professor Lizeth Roets in the Department of Health Studies towards a master's degree in Public Health at the University of South Africa. We are inviting your Health Centre to participate in a study entitled "**Factors motivating early antenatal attendance in Lesotho**".

The aim of the study is to explore and describe factors motivating women to attend antenatal care services before sixteen weeks gestation.

This Health Centre has been selected because it is found in Mafeteng South area of Lesotho where there is a better access to education, healthcare services and provides a free Primary Health Care services including antenatal care services.

Face-to-face interviews using a semi-structured interview will be conducted by the researcher after obtaining participants consent. The interviews will be audio recorded and verbatim transcriptions will follow.

The benefits of this study will be provision of better understanding of the factors which motivate women to attend antenatal care services before sixteen weeks gestation. These factors could assist policy makers in Lesotho to make recommendations to facilitate attendance of antenatal care services before sixteen weeks gestation as the drivers of seeking initial antenatal care services will be known and may contribute to the design of more efficient and cost effective antenatal care service systems.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

The information may further assist public healthcare staff in emphasizing and strengthening awareness campaigns on importance of early antenatal care.

Potential risks are minor discomfort such as anxiety caused by interview questions therefore interviews can be withheld until participant is ready to continue with the interview.

Feedback procedure will entail oral and written reports of the research findings to the participating Health Centre, District Health Management team of the selected district and Research Coordination Unit.

I would like my permission to conduct this study to be extended as I am now about to collect data on this study and I do not think I can be done with the study on the permission date.

Yours sincerely

Signature of researcher

Mrs. Matholoana Elizabeth Lenkoane

UNISA postgraduate student

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 3a: Permission from Ministry of Health Lesotho to conduct the study

LESOTHO

Ministry of Health
P.O. Box 514
Maseru 100

Category of Review:
[x] Initial Review
[ ] Continuing Annual Review
[ ] Amendment/Modification
[ ] Reactivation
[ ] Serious Adverse Event
[ ] Other _____

REF: ID18-2021
Date: May 28, 2021
To
Mrs. Thuso Elizabeth Lenkoane
Student Number: 50015729
University of South Africa (UNISA)

Dear Mrs. Lenkoane

RE: Factors Motivating Early Antenatal Attendance in Lesotho

This is to inform you that the Ministry of Health Research and Ethics Committee reviewed and **APPROVED** the above named protocol and hereby authorizes you to conduct the study according to the activities and population specified in the protocol. Departure from the approved protocol will constitute a breach of this permission.

This approval includes review of the following attachments:
[x] Protocol
[x] **Data Collection Tool**: Interview guide (English & Sesotho)
[ ] Participant materials
[x] Other materials: Letter of permission to conduct a study dated 19th March 2021, CV_Lenkoane, Letter of Approval from College of Human Sciences Research Ethics Review Committee (UNISA) dated 23RD February 2021,

This approval is **VALID** until May 28, 2022.

Please note that an annual report and request for renewal, if applicable, must be submitted at least 6 weeks before the expiry date.

All serious adverse events associated with this study must be reported promptly to the MOH Research and Ethics Committee. Any modifications to the approved protocol or consent forms must be submitted to the committee prior to implementation of any changes.

We look forward to receiving your progress reports and a final report at the end of the study. If you have any questions, please contact the Research and Ethics Committee at rcumoh@gmail.com (or) 59037919/58800246.

Sincerely,

DR. 'NYANE LETSIE
Director General Health Services

DR. LLANG BRIDGET MAAMA-MAIME
Member of National Health Research
Ethics Committee (NH-REC)

APPENDIX 3b: Permission from Ministry of Health Lesotho on extension to conduct the study

LESOTHO

Ministry of Health
P.O. Box 514
Maseru 100

Category of Review:
[] Initial Review
[x] Continuing Annual Review
[ ] Amendment/Modification
[ ] Reactivation
[ ] Serious Adverse Event
[ ] Other _____

REF: ID18-2021 Renew 01
Date: June 15, 2022
To
Mrs. Thuso Elizabeth Lenkoane
Student Number: 50015729
University of South Africa (UNISA)

Dear Mrs. Lenkoane

RE: Factors Motivating Early Antenatal Attendance in Lesotho

This is to inform you that the Ministry of Health Research and Ethics Committee reviewed and **APPROVED** the above named protocol for renewal and hereby authorizes you to continue the study according to the activities and population specified in the protocol. Departure from the approved protocol will constitute a breach of this permission

This approval includes review of the following attachments:
[x] Other materials: Request for renewal including progress report dated 13th May 2022

This approval is **VALID** until June 15, 2023.

Please note that an annual report and request for renewal, if applicable, must be submitted at least 6 weeks before the expiry date. All serious adverse events associated with this study must be reported promptly to the MOH Research and Ethics Committee. Any modifications to the approved protocol or consent forms must be submitted to the committee prior to implementation of any changes.

We look forward to receiving your progress reports and a final report at the end of the study. If you have any questions, please contact the Research and Ethics Committee at rcumoh@gmail.com (or) 59037919/58800246.

Sincerely,

DR. 'NYANE LETSIE
Director General Health Services

DR. LLANG BRIDGET MAAMA-MAIME
Member of National Health Research
Ethics Committee (NH-REC)

APPENDIX 4: Permission from Mafeteng District Health Management representative to conduct the study

LESOTHO

Mafeteng Government Hospital

P.O. Box 16

Mafeteng 900

5th November 2021

Miss M Lenkoane

M3604

P. O. Box 1201

Millennium Manyatseng Ladybrand 9745

Dear Madam

Re: Permission to conduct study on Factors Motivating Early Antenatal Attendance in Lesotho

This serves to inform you that permission to conduct above mentioned study has been granted. This is based on approval to conduct the study by the Ministry of Health Research and Ethics committee dated 28th May 2021

I hope you will adhere to study protocols as stipulated in your proposal and request letter. It is worth noting that research population specified in the study are the most valuable people, I therefore urge you to protect them throughout the study against any harm

The institution will be looking forward to the findings of the study which I hope will contribute positively to betterment of antenatal services in this organization.

Thank you

Yours in Service

M. Ntlale (M/S)

.....

Manger Hospital Nursing Services

APPENDIX 5: Permission from selected Health centre Nurse in charge to conduct the study

Lehcoop Health Centre

Mafeteng 900

Lesotho

13th January 2022

M 3604

P.O. Box 1201

Millenium Manyatseng Ladybrand

Ladybrand 9745

Re: FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO

Dear Mrs Lenkoane.

I am glad to inform you that the above mentioned study have been approved to take place in Lehcoop Health Centre and we hope that you will abide by research ethics and principles outlined in your proposal.

Kind regards.

Mrs. Mamotlatsi Tema (Nurse in Charge Lehcoop Health Centre)

LEH - COOP HEALTH CENTRE
2022 -01- 13
P.O. BOX 16
MAFETENG 900 - LESOTHO

APPENDIX 6: Request to participate in the study

UNISA university of south africa

APPENDIX 6

REQUEST TO PARTICIPATE IN THE STUDY

Ethics clearance reference number: NHREC Registration # 240816-052

CREC Reference #: 50015729_CREC_CHS_2021

Research permission reference number (if applicable): ID18-2021

Date: 01 February 2023

Student research project

Title: Factors motivating early antenatal attendance in Lesotho.

Dear Prospective Participant

My name is Mrs. Matholoana Elizabeth Lenkoane and I am doing research with Dr. Christelle Boersema, a Senior lecturer in the Department of Health Sciences and Professor Lizeth Roets towards a Master's degree in Public Health at the University of South Africa. We are inviting you to participate in a study called "Factors motivating early antenatal attendance in Lesotho".

WHAT IS THE PURPOSE OF THE STUDY?

I am doing this research to find out what motivated you, during this pregnancy, to attend antenatal clinic very early, before you were 16 weeks pregnant.

WHY ARE YOU INVITED TO PARTICIPATE?

You went for antenatal care services before you were sixteen weeks pregnant. The reasons that motivated you to go for antenatal care very early can help can help the researcher to better understand factors which motivate pregnant women to attend antenatal care services before sixteen week gestation and how we can motivate others to also go very early for ANC services in their pregnancy.

The researcher obtained permission to conduct this study from UNISA Ethics Committee and Lesotho Ministry of Health by the District Health Management Team representative and the selected Health Centre Nurse in Charge.

The health providers at the selected Health Centre were asked to provide you with information on the study and due to the fact that you indicated that you were willing to participate in this study, you were referred to me for further explanation of the study and enrolment in the study.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

WHAT IS THE NATURE OF YOUR PARTICIPATION IN THIS STUDY?

I will obtain consent from you to participate in the study after you have agreed to participate in the study. There after I will make an appointment with you for data collection at the time convenient for you when are at the health centre for your ANC services.

The study involves *face-to-face interviews which will be recorded.* There may be a need to conduct more than one interview in order to obtain enough information and understanding of the factors that motivated you to attend antenatal care early in your pregnancy.

CAN YOU WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

To take part in this study is voluntary and there is no penalty or loss if you decide not to take part.

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

You may benefit in the future when recommendations from this study are implemented to promote women's health.

ARE THEIR ANY NEGATIVE CONSEQUENCES FOR YOU IF YOU PARTICIPATE IN THE RESEARCH PROJECT?

Negative consequences that you may experience can be minor discomfort such as anxiety or feeling uncomfortable with the interview questions. If you experience this, the interview may be stopped until you are ready to continue.

WILL THE INFORMATION THAT YOU CONVEY TO THE RESEARCHER AND YOUR IDENTITY BE KEPT CONFIDENTIAL?

You have the right to insist that your name should not be recorder anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research. Your name will not be recorded anywhere and no one will be able to connect you to the answers you give during the interview. Your answers will be given a code number and you will be referred to in this way in the data, any publications, or other research report.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a minimum period of five years in a locked cupboard/filing cabinet in the house of the researcher for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable.

Information will be destroyed if necessary, hard copies will be shredded and electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme.

WILL YOU RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There may be no direct benefit to you from taking part in this study. However, the information that you provide may help health professionals better understand important factors which motivate pregnant women to attend antenatal care services before sixteen weeks gestation so that those factors can be promoted to encourage early antenatal attendance.

Payment or reward: There will be no payments or rewards given to people who take part in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the College Research Ethics Committee of the University of South Africa. A copy of the approval letter can be obtained from the researcher.

HOW WILL YOU BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Mrs Matholoana Elizabeth Lenkoane on the following telephone number 266 5814 3787 or email address 50015729@mylife.unisa.ac.za

Should you require any further information or want to contact me about any aspect of this study, please contact Mrs Matholoana Elizabeth Lenkoane on the following telephone number 266 5814 3787 or email address 50015729@mylife.unisa.ac.za Should you have concerns about the way in which the research has been conducted, you may contact supervisor Mrs Christelle Boersema on 012 429 6027 or email her at eboergc@unisa.ac.za. Contact the College Research Ethics Committee chairperson Prof MA Antwi at CREC@unisa.ac.za if you have any ethical concerns.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

Thank you for taking time to read this information sheet. If you are willing to take part in this study, kindly complete the consent form below.

Kind regards

Researcher (M.E. Lenkoane)

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 7: Consent to participate in the study

UNISA university of south africa

Appendix 7

CONSENT TO PARTICIPATE IN THE STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the face-to-face interview.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname..... (please print)

Participant Signature.....Date.....

Researcher's Name & Surname..... (please print)

Researcher's signature.....Date.....

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

APPENDIX 8: Data collection tool

Research Title: Factors motivating early antenatal attendance in Lesotho

SECTION A: Demographic data

Are you between the ages of:

Age	Tick
18– 25	
26– 33	
34– 41	
42– 49	
>50	

Your highest level of education

Level of education	Tick
No schooling	
Primary	
Secondary	
Tertiary	

What is your employment status?

Employment status	Tick
Unemployed	
Self employed	
Employed	

How many times have you been pregnant?

When did you start antenatal care services in this current pregnancy?

SECTION B

1. Please explain to me how you knew or suspected that you might be pregnant?
2. Please explain to me what your reaction was when you found out that you were pregnant.
3. Explain to me what you decided to do after you thought that you were pregnant
4. Describe to me whether any of the pregnancy or other symptoms that you have experienced motivated you to attend the ANC before you were 16 weeks gestation. *(Probe and react to all the symptoms mentioned to ensure that you know how every symptom affected her decision).*
5. Please explain whether and how any specific person or persons motivated you to go to the ANC services before 16 weeks gestation. (*Now probe on this answer to find out who motivated her and why?*
6. Please explain whether your culture or religion in any way influenced you to attend ANC before 16 weeks gestation.
7. Please explain whether there was anything else that motivated you to attend ANC before 16 weeks (*anything…… even social media..)*
8. Please share with me any other information or aspects that you think can motivate other pregnant women to attend ANC before 16 weeks gestation
9. Please describe to me what you think should be done to motivate all pregnant women to attend ANC before they are 16 weeks pregnant.

APPENDIX 9: Confidentiality agreements

UNISA university of south africa

CONFIDENTIALITY AGREEMENT

Date: 19 February 2024

Title: FACTORS MOTIVATING EARLY ANC ATTENDANCE IN LESOTHO

Researcher: Matholoana Elizabeth Lenkoane

I Matholoana Elizabeth Lenkoane conducted and worked in this study as principal researcher. I will maintain confidentiality of all data which come to my attention from or about research subjects.

I will undertake security measures to maximise privacy. I will conduct this study according to research ethics and principles to meet the research objectives. I will also cooperate with the supervisor where necessary to facilitate the accomplishment of the study.

Name: Matholoana Elizabeth Lenkoane

Signature: .....

Date: 19/02/2024

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

UNISA university of south africa

CONFIDENTIALITY AGREEMENT

Date: 19 February 2024

Title: FACTORS MOTIVATING EARLY ANC ATTENDANCE IN LESOTHO

Researcher: Matholoana Elizabeth Lenkoane

I, PASEKA BENEDICT MOHOBO will assist and work collaboratively with the researcher regarding research-related matters about this study. I will be assisting as a co-coder I will maintain confidentiality of all data which come to my attention from or about research subjects.

I will undertake security measures to maximise privacy. I will help the researcher in the aspects allocated to me in order for her to meet the research objectives. I will also cooperate with the supervisor where necessary to facilitate the accomplishment of the study.

Name: PASEKA BENEDICT MOHOBO

Signature: .....

Date: 19/02/2024

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429-4150
www.unisa.ac.za

APPENDIX 10: Research transcriber, translator, co-coder profile

Appendix 11: Research transcriber, translator, co-coder profile

Names: Paseka Benedict Mohobo

Email address: paseka.mohobo@gov.ls

Educational Background:

Master of Science in Sociology (The National University of Lesotho-NUL)

Postgraduate (BA Honors in Philosophy-NUL)

Bachelor's Degree in Philosophy (Pontifical Ubarniana University-Italy)

Present post:

Chief Consultant: Research and Consultancy-Lesotho Institute of Public Administration and Management-LIPAM

Currently working at LIPAM heading in the Section of Research and Consultancy and supervising consultants on research related issues. I have been leading this section for more than 7 years due to the fact that research is one of the fields I master most in this institution. I am also a part-time lecturer at NUL facilitating three courses, namely, Sociology of Adult Education, Evaluation in Adult Education, Business Ethics and supervising research projects.

Experience:

Managed research projects for individuals doing under-graduate and Masters Degrees research projects for students. For both LIPAM and NUL have been lecturing research for students and supervising them on their research projects as their prerequisite for their final year. Facilitated strategic plans for different ministries and parastatals in Lesotho. Conducted research for African Caribbean Pacific on issues of migration in African countries.

This is where I was part of the researchers who were conducting research on migration and developments in Lesotho. I translated, transcribed and co-coded many research reports for LIPAM and Ministry of Finance of Lesotho.

I have supervised and still supervising Masters students, Degree and Diploma students at NUL, LIPAM and other institutions. I am also teaching research at both LIPAM and NUL.

When students encounter some challenges consult me for assistant as I am good in research for guidance or mentoring.

I published number of publications including strategic plans for Lesotho government ministries and parastatals. I published number of articles and presented research pares in national and international platforms where was representing Lesotho on Ethics and Professionalism in the public service as is my field of profession.

I also presented the study on The Remittances Framework in Lesotho: Assessment of Policies and Programs Promoting the Multiplier Effect: 2012 ACPOBS/2012/PUB03. This article is accredited.

APPENDIX 11: Language and technical editing report

CERTIFICATE OF LANGUAGE EDITING

I, the undersigned, declare that I have edited the Master of Public Health dissertation of Matholoana Elizabeth Lenkoane, titled:

FACTORS MOIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO.

Some parts of the thesis ***were left unedited***, specifically the direct quotations of human participants – which were translated into English by a specialist – and the documents included in the annexures. These sections either contain translated but direct verbal communication or form part of completed research records that must remain unaltered. Modifications were occasionally made within square brackets in the participants' quotations to enhance the English translation's readability or clarify the speakers' probable intentions.

As is usual, the editor is not responsible for the correctness of changes made to the thesis after it was edited and before submission or after possible changes suggested by the examiners have been implemented.

Signed: 

Prof (emeritus) P.J. Botha

(A member of the South African Translators' Institute, no. 1000048.)

Date: 21 February 2024

APPENDIX 12: Turnitin report

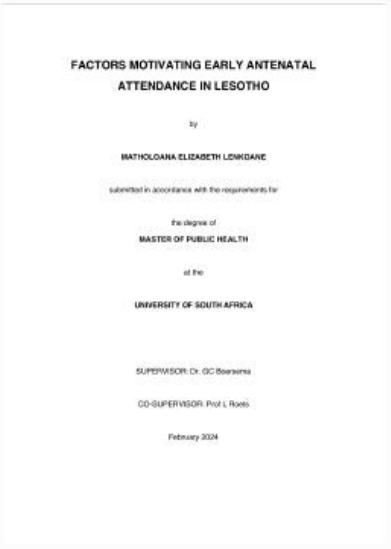
turnitin

Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author:	T E LENKOANE
Assignment title:	Chapter 4 FINAL
Submission title:	FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN L...
File name:	50015729_FACTORS_MOTIVATING_EARLY_ANTENATAL.docx
File size:	1.93M
Page count:	139
Word count:	32,878
Character count:	181,260
Submission date:	28-Feb-2024 08:24PM (UTC+0200)
Submission ID:	2307131909



FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO

by

MATHOLOANA ELIZABETH LENKOANE

submitted in accordance with the requirements for

the degree of

MASTER OF PUBLIC HEALTH

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: Dr. GC Boersema

CO-SUPERVISOR: Prof L Roets

February 2024

Turnitin Originality Report

Processed on: 28-Feb-2024 20:25 SAST
ID: 2307131909
Word Count: 32878
Submitted: 1

FACTORS MOTIVATING EARLY ANTENATAL ATTENDANCE IN LESOTHO By T E LENKOANE

Similarity Index	Similarity by Source	
27%	Internet Sources:	25%
	Publications:	18%
	Student Papers:	13%

1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/25028/dissertation_ragolane_vj.pdf?isAllowed=y&sequence=1

1% match (Internet from 28-Oct-2021)
https://dokumen.pub/varneys-midwifery-6th-ed-9781284127966-1284127966.html

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/26773/dissertation_bekwa_bg.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/29243/dissertation_marais_n.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/27173/thesis_baloyi_lf.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/23733/dissertation_seeiso_t.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/27006/dissertation_lekhotsa_tj.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 23-Sep-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/27909/dissertation_naicker_j.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 11-Apr-2023)
https://Uir.unisa.ac.za/bitstream/handle/10500/29866/thesis_poto-rapudi_m.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/28500/thesis_lowane_ne.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 22-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/26540/dissertation_masiga_m.pdf?isAllowed=y&sequence=1

< 1% match (Internet from 19-Nov-2022)
https://uir.unisa.ac.za/bitstream/handle/10500/13063/dissertation_mujasi_cm.pdf?isAllowed=y&sequence=1