PREGNANT WOMEN'S PERCEPTIONS AND UNDERSTANDING OF THE BARRIERS TO EARLY ANTENATAL CARE BOOKING IN THE SHISELWENI REGION IN SWAZILAND

By

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KEYWORDS

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Antenatal care booking

Focused Antenatal Care

Pregnant woman

Maternal

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Perinatal Mortality

Gestation Periods

Barriers

Swaziland

DECLARATION

I, Lungile Simelane, declare that this thesis, entitled, **"Pregnant women's perceptions and understanding of the barriers to early Antenatal Care booking in the Shiselweni Region in Swaziland"** is my own work, and that all the sources used or quoted in this research study have been indicated and acknowledged by means of complete references. I further declare that this work has not been submitted for any other degree at any other institution.

L. Simelane

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Researcher's signature

3rd December 2020

Date

ABBREVIATIONS

ANC	Antenatal Care
DHS	Demographic Health Survey
FANC	Focused Antenatal care
HIV	Human Immunodeficiency Virus
IDSR	Integrated Disease Surveillance and Response
MDG	Millenium Development Goal
MDSR	Maternal Death Surveillance and Response
MoH	Ministry of Health
MMR	Maternal Mortality Rate
PHU	Public Health Unit
RDT	Rapid Diagnostic Test
RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
SDG	Sustainable development goal
SRH	Sexual Reproductive Health
TB	Tuberculosis
UNFPA	United Nations Population Fund
WHO	World Health Organization

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DEFINITION OF KEY TERMS

Term	Definition
Antenatal care	Refers to the care given to pregnant women from the time of conception is confirmed until the beginning of labour.
Late antenatal care booking	It is when a pregnant woman comes to the facility for ANC services after 12 weeks of gestation for the first time during her pregnancy
Focused ANC	WHO recommendation for offering antenatal care services at four times during pregnancy at stipulates times
Pregnant woman	It is when a woman carries a developing foetus in her uterus
Maternal mortality	It is the death of a woman while pregnant or within 42 days of delivery or termination of pregnancy, from any cause related to, or aggravated by the pregnancy or its management
Gestation period	It is the time between conception and birth, it tells about how far along is the pregnancy
Perinatal mortality	It is the number of stillbirths and deaths in the first week of life

ABSTRACT

Introduction

Globally, the maternal mortality rate (MMR) dropped by 44%, from 342 deaths per 100 000 to 211 maternal deaths per 100,000 live births in 2017. Developing countries have reached two-thirds coverage (69 %) of the recommended focused visits and first ANC. In sub-Saharan Africa alone, approximately 66% (201,000) of deaths occur during birth. MMR can be reduced if pregnant women initiate ANC early enough and receive quality care. In Swaziland, only 14% of pregnant women make their first ANC visit during the first trimester, 64% during the 2nd trimester and 22% during the 3rd trimester. The study aimed to explore pregnant women's perceptions of the factors contributing to late ANC booking in the Shiselweni Region.

Methodology

Qualitative methodology through a descriptive study design was used to explore the perceptions of pregnant women on the factors that contribute to late ANC booking. Purposive sampling was used to select pregnant women aged 18-45 years who had presented to the facility for their 1st visit after week 16 of their pregnancy and were willing to participate in the study. Twelve participants were selected for the study for an individual interview, four from each public health unit in the region. In-depth interviews were conducted to collect data from pregnant women who booked later than 16 weeks of their pregnancy using a semi-structured interview guide. The interviews were recorded, transcribed and translated into English. Thematic analysis and coding were used to analyse the data that emerged from this study.

Results

Intrapersonal reasons that include lack of knowledge on the importance of ANC, social reasons that include lack of support from the family and stigma of early pregnancy were some of the contributing factors. The results also revealed that economic factors also affect late ANC booking for pregnant women; these include financial constraints on the participants' side and transport issues to the facility. Health System challenges also influenced late ANC booking for pregnant women, which included nurses' attitudes towards women and long waiting hours

Conclusion

Barriers to early ANC initiation remains a challenge. Some of the barriers are complex, and tackling them will entail addressing the social determinants of health which will need a collaborative approach in the Health Sector and the community.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Maternal mortality is a public health concern worldwide, more so in developing countries (Say et al., 2014). Approaches to decrease maternal mortality that are generally effective include antenatal care (ANC) services and delivery care (Ebu & Gross, 2015). ANC service offers safe pregnancy, health awareness on the benefits of antenatal care services and delivery (Uji et al., 2017). Antenatal care provides the chance to monitor pregnancy, identify and treat irregularities during pregnancy and deliver preventive health services such as immunisation, HIV testing, and counselling (Gross et al., 2012).

According to Afulani (2015), women who start ANC visits earlier in their pregnancy can attend four or more ANC visits during its duration, thus receive the appropriate and quality care that they need. ANC improves maternal and neonatal health to ensure a good start for the newborn child (Gross et al., 2012). Some conditions may prevail during pregnancy, such as hypertension, diabetes, malaria, sexually transmitted infections, maternal and neonatal tetanus, HIV, tuberculosis (TB), and nutritional deficiencies; these can be addressed during ANC (Gebremeskel et al., 2015). During ANC, health education on the identification of pregnancy difficulties is provided, necessary referrals concerning pregnancy complications are made, and a birth plan is established, which increases the possibility of delivery in a health facility (Afulani, 2015). Furthermore, ANC visits provide health information, counselling sessions for pregnant women such as infant feeding, promotion of early, exclusive breastfeeding and feeding options for HIV-positive women (Gebremeskel et al., 2015). Women who receive education on signs of pregnancy complication during their ANC visits have 50% lower chances of stillbirth than those who do not receive information (Afulani, 2015).

World Health Organization (WHO) introduced the Focused Antenatal Care (FANC) approach in 2001, which was adopted by countries, including Swaziland (MoH, 2014). This approach stipulates the interventions that are given to pregnant women at specific gestation periods. According to the WHO, a pregnant woman should attend ANC timely and as advised by the health worker to get all the benefits (Gross et al., 2012). WHO recommends a minimum of four visits and suggests the first visit to be as early as possible, preferably in 8-12 weeks of pregnancy (Gross et al., 2012).

The table below presents the interventions given to a pregnant woman based on the FANC schedule, as stated by WHO, 2006.

Table 1:The FANC Schedule

Goals			
First visit **8-12 weeks**	**Second visit** **24-26 weeks**	**Third visit** **32 weeks**	**Fourth visit** **36-38 weeks**
1. Confirm a pregnancy and the expected date of delivery. 2. Classify women for basic ANC (four visits) or more specialised care. 3. Screen, treat and give preventive measures. 4. Develop a birth and emergency plan. 5. Advise and counsel.	1. Assess maternal and fetal well-being. 2. Exclude pregnancy-induced hypertension and anaemia. 3. Give preventive measures. 4. Review and modify birth and emergency plan. 5. Advise and counsel.	1. Assess maternal and fetal well-being. 2. Exclude pregnancy-induced hypertension, anaemia, multiple pregnancies. 3. Give preventive measures. 4. Review and modify birth and emergency plan. 5. Advise and counsel.	1. Assess maternal and fetal well-being. 2. Exclude pregnancy-induced hypertension, anaemia, multiple pregnancy, and malpresentation. 3. Give preventive measures. 4. Review and modify birth and emergency plan. 5. Advise and counsel.

Source: WHO 2006

If pregnant women visit the facility early and adhere to the FANC schedule, they are more likely to deliver in health facilities by skilled attendants and their babies are born healthy, which in turn reduces chances of maternal or neonatal mortality (Gross et al., 2012).

In 2016, the World Health Organization issued a new series of recommendations to improve the quality of antenatal care to reduce the risk of stillbirths and pregnancy complications and give women a positive pregnancy experience. The new ANC guidelines, which Swaziland also adopted and started implementing in 2020, increased the number of ANC contacts a pregnant woman has with health providers from four to eight visits. WHO revealed that a higher frequency of antenatal contacts by women and adolescent girls with a health provider was

associated with a reduced likelihood of stillbirths, eight or more contacts for antenatal care can reduce perinatal deaths by up to 8 per 1000 births when compared to 4 visits(WHO, 2016). This may be because ANC frequencies increase opportunities to detect and manage potential complications. In line with the WHO ANC recommendation, the Swaziland ANC new guidelines stipulated that pregnant women should have the first contact in the first 12 weeks gestation, with subsequent contacts taking place at 29, 26, 30, 34 36, 38 and 40 weeks gestation (MoH ANC guidelines, 2018).

Complications during pregnancy and social factors are some of the leading causes of maternal mortality encountered by many countries, including Swaziland (MoH, 2014). In Swaziland, only 77% of women make four visits during pregnancy (MoH, 2014). Further, a maternal audit conducted in 2014 in the country revealed that the main patient-related factor contributing to maternal death was a delay in seeking care (57.6%) (MoH, 2014). Among other patient-oriented factors included non-attendance of the ANC, infrequent ANC visits, and family problems (MoH, 2014). Although there is an increasing trend of early bookings amongst pregnant women, vigorous strategies still need to be put in place as only 22 % of the women come in less than 16 weeks of gestation (MoH, 2014).

1.2 Problem Statement

In Swaziland, 97% of pregnant women attend ANC, and 79% attend at least four times during their pregnancy (CSO, 2010). However, an assessment that was conducted in Swaziland in 2012 shows that only 14% of pregnant women make their first ANC visit during the first trimester, 64% during the 2nd trimester, and 22% during the 3rd trimester (Mulima, 2014). According to the National Sexual Reproductive Health strategy, at least 60 % of pregnant women should attend ANC before 16 weeks (MoH, 2012). Furthermore, a study that was conducted in Swaziland on the compliance to FANC revealed that pregnant women from the Shiselweni region were not following the WHO FANC schedule (MoH, 2014). Even though ANC data is available in facilities that provide ANC services, little is known or documented about the reasons why pregnant women in Swaziland attend ANC late. Therefore, this study will explore the reasons for late ANC attendance and thus late booking.

1.3 Purpose of the study

The purpose of this study is to ascertain the factors which determine late ANC booking by pregnant women. Understanding these factors will help develop interventions and programs that will help strengthen ANC services and highlight the importance of early ANC booking amongst pregnant women. All these efforts can help reduce maternal mortality. Moreover, early participation of pregnant women on issues of Sexual Reproductive Health (SRH) and the availability of quality and affordable SRH services in health facilities can help prevent maternal and neonatal mortality (Tolefac et al., 2017).

1.4 Aim

The study aims to explore the perceptions and understanding of pregnant women's barriers to early antenatal care booking in the Shiselweni region.

1.5 Objectives

- To describe pregnant women's understanding of antenatal services in the Shiselweni region
- To describe factors contributing to late ANC booking of pregnant women in the Shiselweni region
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1.6 Outline of the thesis

This mini-thesis will be organised as follows:

Chapter 1 introduces the study and includes the formulation of the problem statement and rationale for the research study.

Chapter 2 focuses on reviewing the relevant literature on early Antenatal Care (ANC) utilisation in African countries and in particular, South Africa.

Chapter 3 provides the aim and objectives of the study and explains the research design and methodology used to understand why some women still do not attend ANC before 20 weeks gestation even when it is available.

Chapter 4 presents the findings of the study.

Chapter 5 discusses and interprets the findings of the study.

Chapter 6 concludes and makes recommendations for increasing early of the utilisation of ANC

CHAPTER 2: LITERATURE REVIEW

2.1 Global Maternal health

Global maternal deaths have fallen from 342 maternal deaths per 100 000 in 2000 to 211 deaths per 100, 000 live births in 2017, as women have gained access to family planning and skilled birth attendance in many countries (UNFPA, 2020). However, high maternal mortality persists in impoverished countries. The majority of the women die from severe bleeding, sepsis, eclampsia, obstructed labour and consequences of unsafe abortions (UNFPA, 2020). One of the Social Development Goal (SDG), namely SGD 3, is to attain a global MMR of 70 maternal deaths per 100,000 live births by 2030 (Kumar, 2016). This figure for MMR can be achieved if pregnant women initiate ANC early enough and receive quality care. Antenatal care is a significant component of basic maternal health care, pregnant women should attend at least four ANC visits (Tolefac et al., 2017). These visits are meant to check for signs of ill health such as underweight, anaemia, or infection and to monitor the health of the fetus (UNFPA, 2020). Antenatal care can also provide HIV testing and medications to prevent mother-to-child transmission of HIV (Kumar, 2016).

In areas where malaria is endemic, health personnel can provide pregnant women with medication and insecticide-treated mosquito nets to prevent this debilitating and sometimes deadly disease (Kumar, 2016). WHO (2016) recommends that pregnant women have their first contact with ANC within the first 12 weeks of gestation, with subsequent contacts taking place at 20, 26, 30, 34, 36, 38 and 40 weeks of gestation. According to WHO (2020), this new model increases maternal and fetal assessments to detect complications, improves communication between health providers and pregnant women, and increases the likelihood of positive pregnancy outcomes.

2.2 Maternal health in developing countries

Antenatal care (ANC) coverage is a success story in Africa; the continent has reached two-thirds coverage (69%) of the recommended focused visit and 1st ANC booking (WHO, 2020). Nevertheless, inequity exists, and young rural, poor, less educated women may not be benefitting from this coverage. To achieve the full life-saving potential that ANC promises for women and babies, four visits providing essential evidence-based interventions and a package called focused antenatal care are required (WHO, 2020). Conflictingly, developing countries

accounted for about 99% (302,000) of the estimated global maternal deaths in 2015 (Kumar, 2016). In sub-Saharan Africa alone, approximately 66% (201,000) of deaths occur during child birth (Tolefac et al., 2017). WHO further revealed that countries with low rates of early ANC care (Sub-Saharan Africa and Oceania) had the highest rates of maternal mortality as well as stillbirths and deaths of new-born infants (Tolefac et al., 2017). According to WHO (2020), equity is an integral part of the 2030 Agenda for SDGs with a vision of global equitable and universal access to quality health care. Therefore, pregnant women should be encouraged to initiate 1st ANC visit early in their first trimester. This will ensure that they receive optimal care and treatment throughout pregnancy and childbirth.

2.3 Maternal and child health in Swaziland

Swaziland maternal deaths are still very high despite a reduction from 532 per 100 000 per live births in 2005 to 437 per 100 000 in 2017 (WHO, 2019). The Swaziland Ministry of health committed itself to reduce MMR by embarking on the following interventions 1) development and launch of the National SRH policy with a focus on Reproductive Maternal Neonatal Child Adolescent Health (RMNCAH), 2) initiation of supportive mentoring and 3) supervision ensuring quality implementation of RMNCAH services in health care facilities, 4) Maternal Death Surveillance and Response (MDSR) (Swaziland MDG Report, 2015). Swaziland also dedicated itself to the United Nations' Agenda of Sustainable development Goals in 2016, which required the country to reduce maternal deaths to less than 70 per 100,000 live births from the current rate of 389 per 100,000 live births (Kumar, 2016). It also aimed to reduce neonatal mortality from 50 per 1,000 live births to as low as 12 per 1,000 live births (Swaziland MDG Report, 2015). Studies have linked late booking to an increased likelihood of infant and maternal morbidity and mortality(Kumar, 2016 & Ewnetu et al., 2015).

Correspondingly, late and inadequate ANC visits were identified as barriers to reduce maternal mortality rate during the implementation of the Millennium Development Goals in Swaziland from 2000 to 2015 (Swaziland MDG report 2015).

The Multiple Indicator Cluster Survey (MICS) (2014) revealed that 96% of women aged between 15 to 49 years had attended at least one ANC session, and approximately 76% of them had attended at least four ANC visits. Early ANC booking is significant for positive pregnant outcomes, whilst late ANC booking means that women may not have the opportunity to benefit

from screening tests, ANC education, health advice regarding birth preparedness (Ewnetu et al., 2015).

Maternal mortality continues to be a significant health problem in the Shiselweni region, according to Integrated Disease Surveillance and Response (IDSR) data for 2018. The Shiselweni region recorded the highest number (36%) of maternal deaths and perinatal deaths in Swaziland (Shiselweni Annual Report, 2018). The set target for 1st ANC booking at 16 weeks was 60%. However, less than 22% of the women booked for ANC at less than 16 weeks from 2015 to 2019 (Shiselweni Annual report, 2019). The new Swaziland ANC 2020 guidelines stipulate that women should book their 1st ANC at 12 weeks of gestation.;

2.4 Benefits of early ANC booking

2.4.1 Antenatal care

Antenatal care is care given to a pregnant woman which concentrates on tracing the baby`s growth and being vigilant for any health problems with the woman`s health (Gudayu, 2015). ANC's main objectives are prevention and treatment of obstetric complications, preparation for emergencies, family planning, meeting nutritional, social and emotional needs for pregnant woman, care and nutrition of the newborn (Ewnetu et al., 2015). During the first antenatal visit, health education, history taking, clinical examination, abdominal examination and laboratory testing to detect problems early need to be managed well (Ewnetu et al., 2015). Early booking for ANC further helps provide advice and counselling to the woman, malaria prevention and case management, and drug supply (Gudayu, 2015).

2.4.2 Health education, advice and counselling

Health education is vital during ANC because it helps with informing women about complications, it facilitates early detection of complications during pregnancy. If there are any complications, then a referral can be made (Afulani, 2015). According to Afulani (2015), women who received any education sessions during ANC on pregnancy complications have lower chances of stillbirth than those who have not received an education. Regardless of the importance of ANC visits, not all complications in pregnancy may be identified during the ANC visit. However, a pregnant woman who is educated on the complications can recognise the signs and symptoms that can be potentially dangerous during pregnancy and seek health care early (Ewnetu et al., 2015). In a study conducted in Tanzania, a total of participants 357 (57.0%) reported that they were aware of the different danger signs of pregnancy. The

women who knew the danger signs of pregnancy were 3.7 times more likely to attend ANC than the others (Mgata & Maluka, 2019). Likewise, a study conducted in Maichew, Ethiopia revealed that the odds of utilising ANC were two times more likely for those respondents who knew about unhealthy pregnancy as compared to those who did not know (Grosset et al.,2012). This may indicate that knowledge about the danger signs during pregnancy increases the opportunity to utilise ANC services.

Pregnant women need to utilise antenatal care services because they get the opportunity to be educated on issues such diet and nutrition, healthy weight gain during pregnancy, exercise, tetanus immunisations, safe sex, rest, abstaining from drugs and alcohol and prevention of malaria infection. In addition, pregnant women are informed about a birth preparedness plan and emergency plan (Afulani, 2015). The benefits of education during ANC visits also include information on the benefits of breastfeeding, injury and illness prevention, monitoring of health-compromising conditions, to help them to prepare for new emotional challenges of caring for an infant (Gebremeskel et al., 2015). A study in Ethiopia indicates that women who received correct information about the recommended timing of the first ANC visit were more likely to start ANC in a timely fashion (Gebremeskel et al., 2015). Health education is vital during ANC because it informs women about the value and purpose of ANC initiation (Hagey et al., 2014). It also empowers women to improve their child's health outcomes and their own by adhering to ANC visits as required (Afulani, 2015). Women who had poor knowledge about the advantages of ANC and service availability were more likely to be late on ANC booking at first visit (Hagey et al., 2014). This finding is similar to a systematic review and meta-analysis study conducted on delayed initiation of ANC (Grum & Brhane, 2018). This implies that if women were informed about the advantages of ANC, they would go to the clinic for ANC at recommended times (Grum & Brhane, 2018). For women to benefit from the ANC interventions, they must start ANC early on in their pregnancy (Gross et al., 2012).

2.4.3 Malaria Prevention and Case Management during Pregnancy

Malaria infection during pregnancy is a major public health concern in tropical and subtropical countries which pose a risk for the pregnant woman and her foetus (Jakubowski et al., 2017). The malaria infection rate is higher in pregnant women because of their decreased immunity (Jakubowski et al., 2017). It has been reported that in sub-Saharan Africa, malaria can cause as many as 10,000 cases of malaria-related deaths in pregnancy per year, usually due to severe maternal anaemia (Jakubowski et al., 2017). In addition, each year, malaria in pregnancy is responsible for 20% of stillbirths and 11% of all newborn deaths in sub-Saharan Africa (WHO, 2018). Pregnant women living in areas of low or unstable malaria transmission have little or no immunity to malaria, and they are at higher risk of developing the severe form of the disease in comparison to non-pregnant women who live in the same area (Otchere, 2016).

Pregnant women with malaria have an increased risk of spontaneous abortion, stillbirth, premature delivery, and low-birthweight infants (Jakubowski et al., 2017). Currently, the most substantive malaria prevention and control measures include insecticide-treated mosquito nets (ITNs), indoor residual spraying (IRS), intermittent preventive treatment for pregnant women (IPTp), seasonal malaria chemoprevention (SMC), and diagnosis by malaria microscopy or rapid diagnostic test (RDT), together with effective treatment for confirmed malaria cases with artemisinin-based combination therapies (Otchere, 2016).

In areas of high and moderate malaria transmission, preventive measures are put in place such as free insecticide-treated nets (ITNs) which are handed out to pregnant women (WHO 2014). The reason is that in most cases, infections of the placenta result in anaemia for the mother and contribute to spontaneous abortion, foetal loss, low birth weight and intrauterine growth retardation and preterm birth, which lead to higher infant mortality and impairment development of the child (WHO, 2014). The World Health Organisation recommends that all pregnant women in stable malaria transmission areas should receive at least two doses of IPT after quickening (i.e. the first noted movement of the foetus) during routinely scheduled antenatal clinic visits (WHO 2014). A study conducted in Ghana showed that 74.6 % of pregnant women attended four or more ANC visits which offered nationally recommended approaches to curb malaria among Ghanaian pregnant women (Otchere, 2016).

2.4.4 Drugs Supply during Pregnancy

In low- and middle-income countries, many women have poor diets and are deficient in nutrients and micronutrients, which are required for good health (Kisuule et al., 2013). During pregnancy, these deficiencies are heightened as their bodies have to provide nutrition for the baby too, thus impacting on women's health and that of their babies (Kisuule et al., 2013).

Pregnant women need to supplement with folic acid daily to help in the proper development of the baby's nervous system and to prevent a particular type of anaemia (WHO, 2016). A study that was conducted in Nigeria showed that pregnant women who book late for ANC had a high prevalence of anaemia (40.4%) (Kisuule et al., 2013).

An inadequate supply of iron can lead to miscarriage, intrauterine growth restriction, preterm delivery, and pre-eclampsia (Milman et al., 2016). This is according to the findings of a study that compared pregnant women who were receiving supplements of iron and folic acid with pregnant women who received a placebo of supplements of iron with folic acid. Overall, pregnant women who received multiple-micronutrient supplements had fewer low birthweight babies and small-for-gestational-age babies than pregnant women who received only iron without folic acid (Gernand et al., 2016).

Micronutrients are vitamins and minerals that are needed by the body in minute quantities but are essential for normal functioning, growth, and development (WHO, 2016). Micronutrient intake during pregnancy affects fetal organ development and the mother's health.

Deficiencies of micronutrients such as vitamin A, iron, iodine and folate are particularly common during pregnancy due to increased nutrient requirements of the mother and developing fetus (Milman et al., 2016). These deficiencies can negatively impact the health of the mother, her pregnancy, as well as the health of the newborn baby (Milman et al., 2016).

Even though there is evidence for the effectiveness of supplements in pregnancy during ANC, there is evidence that in some countries there has been low coverage and adherence to the use of supplements (Nieves et al., 2018). Some of the reasons are that pregnant women have inadequate access to routine and timely ANC which is caused by geographic distance to the health facility, women's access to health care and lack of motivation on the daily use of supplements (Bhutta et al., 2013).

2.5 Pregnancy Complications related to missed Antenatal Care Services

According to WHO, a pregnant woman should book for antenatal care services in the 1st trimester of pregnancy (WHO, 2015). This is the time when laboratory testing, clinical examinations and history taking is done in the facility. A pregnant woman is then expected to do all her subsequent antenatal visits as instructed by the health care provider (WHO, 2015). Subsequent visits will help detect health problems for both the mother and the baby as early as possible (WHO, 2015).

Pregnant women who do not attend antenatal care services have higher chances of developing the following complications**:** maternal mortality caused by haemorrhage, eclampsia and pre-eclampsia, maternal anaemia if oral iron tablets are not given to the pregnant woman, malaria infection in the case if intermittent preventive treatment was not given to the pregnant woman especially from malaria-prone areas during the rainy season, diabetes, TB and HIV/AIDS which may contribute to maternal deaths and postpartum depression among mothers (WHO, 2015). Complications do not only occur in women who book late for ANC but also affects their babies. Babies may face the following complications if folic acid and folate were not given to the woman during pregnancy: abnormalities of the brain and spinal cord will happen in newborn babies, high chance of HIV infection if the mother was not initiated on ART while pregnant, and if tetanus toxoid vaccination was not given to an expectant mother, neonatal tetanus could occur in the newborn baby(WHO, 2015).

Late booking can also lead to a high infant and maternal mortality rate. According to Robert and colleagues (2015), late booking is a contributing factor to high stillbirths, of which two-thirds of those occur in rural areas caused by the non-availability of skilled birth attendants to provide essential care during pregnancy until birth. It was also discovered in a review of all newborn deaths reported by the World Health Organization that 1.2 per 1000 of the stillbirths that happened were associated with hypertension disorders which were not detected early due to late booking (Osungdabe et al., 2014). Late bookings also contribute to missing early diagnosis and treatment of conditions such as maternal infection in pregnancy, maternal disorders, hypertension and diabetes mellitus, fetal growth retardation and several genital abnormalities (Ndidi et al., 2010).

2.6 Reasons for late ANC booking

Many studies have been conducted on the factors that hinder early ANC booking. The following literature review focuses on the factors that deter early ANC booking in sub-Saharan African countries. These factors include intrapersonal reasons, unplanned or unwanted pregnancy, health facility level, and financial reasons.

2.6.1 Intrapersonal Reasons

Women book late for ANC because they lack knowledge on the importance of early ANC booking. Hagey et al. (2014) conducted a qualitative research study that assessed social and behavioural factors that affect the timely initiation of antenatal care in Kigali, Rwanda, from health facility professionals' perspective. A majority of the health workers identified a lack of knowledge amongst the women on the importance of early ANC booking (Hagey et al.,2014).

Women failed to attend the first antenatal visit because they were scared of being tested for HIV, mainly because of a lack of knowledge on the importance of ANC (Hagey et al., 2014). Since this study from Kigali focused primarily on the perceptions of health professionals, there is a need to get the views of pregnant women and their male partners on early ANC initiation.

A study conducted in Zambia, concerning inadequate knowledge about ANC revealed 2.2(AOR 2.205, 95% CI 1.021, and 4.759) times high odds for late ANC attendance for women in the urban district (Banda et al., 2012). It also revealed that women who unintentionally fell pregnant had higher odds of starting ANC late in rural and urban areas (Banda et al., 2012). The study further identified other barriers, namely, those who could not bring along with them cloth wraps for the newborn to clinics were also not allowed to access ANC services (Mamba et al., 2017).

The perception of no benefits derived from early ANC booking also contributed to late ANC commencement which was due to a lack of knowledge on the importance of ANC (Banda et al., 2012). Compared to misconceptions on ANC, pregnant women in rural areas were 2.2 times more likely to start ANC late because of community norm, while in urban areas, late ANC attendance was 2.9 times higher due to cultural beliefs than misconceptions (Banda et al., 2012).

Women attended their first ANC visit late because they did not have information and knowledge regarding the ideal gestational time to start booking for ANC (Kisuule et al., 2013). Some received the wrong information on the timing of first ANC attendance from other women (Kisuule et al., 2013).

Some women attended ANC late because they thought it was needed if they were sick or when they were due to deliver (Sialubanje, 2014). A fifth of women in a study conducted in an urban area in South Africa revealed that pregnant women would have attended ANC earlier if they felt sick (Solarin & Black, 2013). Contrary to that, some women did not know which danger signs during pregnancy needed medical attention and would, therefore, not attend the ANC clinic despite experiencing problematic symptoms (Ndidi et al., 2010).

Women who had higher parity tended to attend ANC late for the first ANC visit (Kisuule et al., 2013; Simkhada et al., 2008). Older respondents explained that they started ANC late and did not attend the recommended four visits because they believed their pregnancy was healthy, and they avoided long-distance travelling to the clinic (Sialubanje et al., 2014). This was more so because they did not know the importance of initiating ANC early in their pregnancy.

2.6.2 Late bookings due to an unconfirmed or unplanned pregnancy

Unconfirmed or unplanned pregnancy is another factor that contributes to late ANC booking by pregnant women (Gross et al., 2012). A South African study found that a wanted pregnancy was associated with increased odds of early ANC initiation compared to unwanted pregnancy (OR = 1.8, 95% CI, 1.1–3.0) (Muhwava et al., 2016).Women who wanted to delay having a baby or who did not wish to have a baby had a higher likelihood of booking late (Sinyange et al., 2016). According to findings of a study by Siyange and colleagues (2016) conducted in Cape Town, South Africa which found that women with unwanted or unplanned pregnancies were not motivated to visit the clinic and therefore did not attend ANC early.

Women on contraceptive injection in some countries associate amenorrhea with contraception rather than pregnancy, hence discovering their pregnancy late, usually after two months. As a result, they initiate ANC at a later stage (Pell et al., 2013). This concurs with a study that evaluated the time of pregnant women's first antenatal care visit and factors

influencing early and late attendance in Tanzania. This study reported that 30% of the women did not initiate ANC early because they did not realise that they were pregnant since they had continued bleeding or previous contraception use (Gross et al., 2012).

Another reason is that women with unplanned pregnancies may initially attempt to deny their pregnancies to themselves and conceal them from others. As a result, such women become less motivated to seek ANC early compared to women with planned pregnancies (Exavery et al., 2013). The possible reason might be that women with unintended pregnancy may lack support from their partners or families, which may decrease their good health-seeking behaviour, or they lack the knowledge on the importance of early ANC initiation (Exavery et al., 2013). A few respondents reported that they did not know the signs of pregnancy; thus, they hesitated to disclose their pregnancy. As a result, they were more likely to recognise pregnancy at a later stage and, therefore, unintentionally delayed ANC attendance (Mgata et al., 2019).

2.6.3 Health facility barriers

Significant challenges identified by women included attitudes they received from health care providers, perceived poor quality of care, and health care system-related factors (Konje et al., 2018). In one study, pregnant women felt disrespected by the health care providers and avoided ANC until the birth period (Konje et al., 2018). This correlates with a study by Haddad et al. (2015), which showed that about one in five women reported being disrespected by the health care providers and were turned away with instruction to come back later; as a result, they returned more than two weeks later to start ANC. According to a study conducted in Malawi, the uptake of ANC services and the relationship with the healthcare workers revealed that nurses are constantly shouting at them; thus, they did not book early or did not book at all for ANC (Roberts et al., 2015). Women in Kenya who had short birth spacing reported that they booked late for ANC to avoid being scolded by the health care providers on their birth spacing (Pell et al., 2013). This is similar to a study conducted in South Africa which revealed that pregnant women avoided going for ANC until labour as they avoided being disrespected by the health care providers (Ejigu et al., 2013).

Long waiting times negatively affect early ANC booking, especially amongst working women (Solarin & Black, 2013). Working pregnant women face victimisation from their

employers as they do not receive payment for the hours they have not worked; as a result, they do not book early for ANC (Solarin & Black, 2013). According to Solarin and Black (2012) on women's early ANC booking experience, revealed that a large percentage of pregnant women booked late for ANC because health care workers delayed the provision of care as a result, were late for work.

Pregnant women were not booked for ANC during their first visit because health care providers told them that they were still early in the pregnancy and were told to come back at a later stage after palpitations could confirm the pregnancy. As a result, they ended up booking in their third trimester (Solarin & Black, 2012). This is similar to a study conducted in Tanzania on late ANC booking in which a quarter of all women in the study (27%) reported that they had waited for the foetus to move before initiating ANC (Sinyange et al., 2016).

The quality of care that is provided in some facilities also has an effect on late booking for ANC amongst pregnant women (Mgata, 2019). A study that was conducted in Zimbabwe revealed that women booked late for ANC because of the poor quality of care they received in the facilities, and women who did not understand the health care provider were not satisfied with their services (Mandoreba & Mokwena, 2016). The more pregnant women were satisfied with the health care they received, the more likely they were to initiate early and use the health care services subsequently (Ejigu et al., 2013). However, this contradicts the findings of another study in Zimbabwe which found that participants did not associate the quality of care with late ANC booking (Ejigu et al., 2013).

Unavailability of health supplies in the facility is another contributing factor to late ANC initiation for pregnant women. According to the World Bank, when there are enough supplies and equipment to utilise, health workers can cope with health problems and subsequently improve health outcomes (World Bank, 2014). Unavailability of the health supplies and equipment renders the maternal health care delivery system not functional. This is according to a study conducted in Bangladesh that explored maternal healthcare-seeking behaviour. It showed that women did not use ANC services because health facilities did not have the necessary instruments and supplies for antenatal services (Shahabuddin et al., 2017). Similarly, a study in Kenya found that some health facilities did not have supplies and equipment to be used during ANC; thus, women did not access ANC services (Pell et al., 2013).

2.6.4 Financial barriers hindering timely ANC

Financial barriers are another factor in timely ANC initiation. According to a study conducted in Ethiopia, pregnant women with a low household income were five times are more likely to book late for ANC compared to women with a high household income (Gebremeskel et al., 2015). This is in correlation to the results of a study conducted in Kenya on the determinants of late ANC booking, which indicated that women from households with higher income booked early for ANC than those from low-income households (Gitonga, 2017). A similar pattern was observed in a Nigerian study on the socio-economic factors that determine women's utilisation of health care services. The authors identified women's income as one of ten major factors influencing early access to health services amongst pregnant women (Ugbor et al., 2017).

For some women to reach the facility, they need to pay for public transport, which costs a lot of money. A study that was conducted in urban South Africa revealed that transport was the main expense when attending ANC visits (Muhwava et al., 2016). Even though transportation is an issue for some women, a study conducted in Pretoria showed that 19.1% of women reported transportation to ANC as a challenge but did not influence them in presenting late for ANC (Haddad et al., 2015). Women from Kenya booked late for ANC because it was expensive for them to make the follow-up visits, so if they delayed, they reduced the number of times they had to visit the facility and so reduced their travel costs to the facility (Pell et al., 2013).

Unemployment is another obstacle that hinders pregnant women from booking early and making follow up visits for ANC, while employed women were likely to receive early prenatal care (Hajizadeh et al., 2016). Even though ANC services are free of charge, unemployed women were more likely to book late for ANC because they could not always meet the transport costs for an ANC visit (Muhwava et al., 2016). Furthermore, there are additional costs that women incur as they go for their ANC appointments, such as food, new clothes and hairdressing as they want to appear presentable (Gebremeskel et al., 2015). A study conducted in Johannesburg revealed that 57.7% of the study participants were housewives and were unemployed, and depended on other people for financial assistance to go to the facility. (Hajizadeh et al., 2016). Even though working women have the finances to go to the facility, they encounter hindrances from their workplaces. They do not get time off

from work to go for ANC, as this will result in them losing some money when they are absent from work (Muhwava et al., 2016).

2.7 Consequences of late ANC booking

Late initiation of ANC can negatively affect the outcome of the pregnancy. Studies reveal that about 25% of maternal deaths occur during pregnancy (Hagey et al., 2014; Ewnetu et al., 2015). However, this depends on the prevailing conditions, such as the prevalence of unsafe abortion, violence, and disease in the area (Birungi & Onyango, 2006). Moreover, some of these deaths are the consequence of insufficient care during pregnancy (PMNCH, 2006). Women who start late to attend ANC have minimum chances of identifying and managing sexually transmitted infections, HIV, malaria, anaemia and other possible complications during pregnancy (Birungi & Onyango, 2006). Other consequences during pregnancy that contribute to maternal mortality include haemorrhage, dystocia, eclampsia, sepsis, and infections like HIV and tuberculosis (Hagey et al., 2014).

In summary, even though studies reveal the importance of early ANC booking, some show the gaps that exist in early ANC booking. Despite ANC services being offered for free in health facilities, African women still book late for ANC (PMNCH, 2006, Hagey et al., 2014). Several studies reported factors such as; intrapersonal factors, marital status, distance, financial, socio-cultural beliefs factors, and facility-level barriers to attending ANC services (Hagey et al., 2014, Milman et al., 2016).

2.8 Current gaps in literature

Most literature available about ANC bookings is from the secondary analysis of population surveys (DHS, MICS or Census). These surveys provide a high level of representing a large population and generalizability; they are not ideal for measuring social norms. Additionally, the literature reviewed in these studies did not propose the resolution to the encounters experienced by pregnant women. It only mentioned the contributing factors to late ANC. It also reveals studies conducted in other countries. However, none of the studies were conducted in Swaziland, specifically in the Shiselweni region. Identifying the gaps has made it easy for the researcher to conduct this study concentrating on the Shiselweni region.

Currently, studies that have been conducted for Swaziland about ANC are the ones using secondary data focusing on the four focused visits. Secondary data does not provide sufficient detail on non-numerical data (text, audio or video) to understand concepts, opinions and experiences of women of childbearing age about late ANC booking. This research was ideal for identifying the underlying reasons why pregnant women do not initiate ANC early, as this is significant to inform interventions appropriate to the Shiselweni region settings to enhance early ANC.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the research design and method used to collect the data. It also provides information regarding the study population, its eligibility criteria, sample size and sampling technique that was used. Furthermore, it also explains the data analysis, validity, reliability and ethical considerations.

3.2 Study Setting

This study was carried out in Matsanjeni, in the Nhlangano and Hlatikulu Public Health Units (PHUs) situated in the Shiselweni region. This region is located in the southern part of Swaziland and covers an area of about 3,790km. The selected facilities were the ones that offer antenatal care services and are located in the rural communities of the region. They have been chosen because they have a large catchment area.

Swaziland is located in the Southern part of Swaziland and covers a surface of 17, 3642 km. It is divided into four regions, namely Hhohho, Manzini, Lubombo and Shiselweni. The 2017 population census stood at 1,093,238 comprising of 531,111 males and 562,127 females (CSO, 2017). The Shiselweni region has about 204 111 people, which is made up of 108111 females and 96 000 males. (CSO, 2017). The region has in place an all-inclusive and accessible service delivery system that enables the provision of ANC health services for free (MoH, 2014).

The region is served by three levels of health institutions which are: primary, secondary and tertiary levels. Within the primary health care level, the regional health systems deliver its services through community-based health care workers (also known as community health volunteers), clinics (36) and outreach sites (30). The tertiary system consists of one referral hospital, which is the Hlatikhulu Government hospital and two (2) health centres; Matsanjeni and Nhlangano.

3.3 Study design

Even though ANC services are made available to pregnant women in the Shiselweni region, little is known about why they do not utilize these services early in their pregnancy. Therefore, a descriptive qualitative approach was the most appropriate to use for this study to help in providing a clear picture of their perception on the matter. A qualitative research

approach is a way of acquiring information from a primary source (Mack et al., 2005). The qualitative investigation looks to understand why that group makes particular choices, how their thoughts and ideas vary, and how well certain ideas are understood (Mack et al., 2005). The qualitative research design also allows alteration of new data during the progression of data collection, which enriches data saturation that helps in the development of themes (Polit & Beck, 2012). This study design was considered to be an appropriate one because it is all-inclusive, and it requires the researcher to be fully involved. This study design helped to determine social, economic and behavioural factors that make the participants access ANC services later than 16 weeks for their first visit.

3.4 Population and Sampling

The population was pregnant women who utilise the health facilities in the region which are based in these rural areas; Hlatikulu, Nhlangano and Matsanjeni Public Health Unit. The sample was women were aged 18-45 years with variations in terms of age, literacy level, marital status and parity. The researcher selected these women for the study to ensure the enrichment of knowledge on the research.

Purposive sampling was used to select pregnant women aged 18-45 years who had presented to the facility for their 1st visit after week 16 of their pregnancy and were willing to participate in the study.Women under 18 years were not included in the study because ethical approval was not sought from the parents. The researcher did not include any pregnant woman but those who met the eligibility criteria for inclusion.

3.4.1 The Inclusion criteria of respondents were:

- Pregnant women aged 18-45 years
- Women who had presented to the facility for their 1st visit after week 16 of their gestational period
- Women willing to participate in the study
- Residing in the Shiselweni region

3.4.2 The exclusion criteria of respondents were:

- Pregnant women below 18 years
- Women who had presented to the facility for their 1st visit before week 16 of their gestational period

- Respondents not residing in the Shiselweni region

3.4.3 Sampling Method

Purposive sampling was used since the study focused on pregnant women who were of interest and would best answer the research questions. Pregnant women with variations in age, marital status, parity and literacy level were selected for the study. This selection criterion was ideal because the researcher wanted to get diverse and rich ideas on the research topic from the participants(Polit & Beck 2012). It was also used because pregnant women attend ANC visits at different dates and times of the day. Twelve participants were selected for the study for an individual interview, four from each public health unit; this was to allow for data saturation.

3.5 Data collection

The participants were approached individually and informed of the purpose of the study and how they were selected. The participant information sheet and informed consent form were provided to all the 12 participants and were explained to them in the language they understood, namely SiSwati. They all agreed that they understood the objectives of the study and their rights. The participants then signed the consent form before the interview was started. Interviews were conducted in SiSwati as all the participants preferred SiSwati, and it was transcribed in English.

The researcher designed an interview guide which was divided into three sections: namely, a section with questions which were intrapersonal, healthcare-related and socio-economic related questions. Data collection was conducted by in-depth face to face interviews. In-depth interviews were used since they encourage the participants to tell more about their experiences and attitudes on late ANC initiation. It answered the questions ‘what’, ‘why’ women access the ANC services late, or as soon as they become pregnant. According to Wagner and colleagues (2012), an interview allows the researcher to explain questions during the interview process and apparent misunderstanding. In-depth interviews were used so that the participants could freely express themselves on their attitudes and beliefs in as far as ANC services were concerned. The interviewer conducted discussions in a manner that allowed participants to provide the information that was required for the study. Each of the topics of interest was explored by asking questions and also probing the participant. Using

probes helped the researcher to get deeper thoughts and feelings of the participant about the research study. There was no language barrier between the researcher and the participants since they understood both languages, English and SiSwati. Participants were asked in a language of their preference since questions were both in English and siSwati. Data was collected using the audio recorder and also note-taking. Data collection was carried out until no new information or ideas were emerging from the participants.

3.6 Data Analysis

In this study, the researcher used thematic analysis. The researcher examined, searched, made connections and reorganised the information collected from the participants until it was summarised to some of the critical topics (Creswell, 2013). This was done so that the researcher could make a connection between the different sections. The researcher engaged in a manual data analysis for the study. The researcher followed these steps during the analysis:

3.6.1 Familiarisation Phase

The researcher analysed the data first by listening to it carefully from the audio recording to have a better understanding and then wrote down what was in the audio recordings. The researcher listened to recordings three times. During the listening stage, the researcher tried to do a thorough investigation of the meaning of the data. The researcher also revisited the research objectives and identified the questions that could be answered through the collected data. This was done by using a small notebook. After reading, the researcher made a summary from the readings.

3.6.2 The coding phase

Coding is the process whereby the data is separated into different parts by looking at similar data and that which is different (Robson, 2011). The process of coding involves collecting the data into small groups of information and then assigned a label to the code (Creswell, 2013). The researcher then developed a framework whereby broad ideas and concepts were identified and were given codes. Coding was done to structure and label the data. After coding the data, the researcher then scrutinised the codes to check similar ones, which could be grouped again. A revision was done to see if there was data that did not belong to that group.

3.6.3 Identifying Themes

According to Cresswell (2013), for qualitative data to be analyzed, it must first be gathered into the essential patterns and themes that have been observed. Themes should develop from the research questions and set before data collection and also originate from the data as the study was conducted (Akinyode, 2018). After identifying the themes, the researcher then grouped the data into thematic groups, and the meaning of the themes were analysed and connected back to the research questions. Then the researcher made sure that she reviewed the themes by removing those that did not have enough data to support them and by combining those that were related.

3.6.4 Reviewing themes

During this phase, the researcher revised, adjusted and improved the initial themes that were identified in the previous step. The researcher gathered data that was relevant to each theme to check if it made sense. The data linked with each theme was colour-coded and read to check if the data supported the theme and not too much data was fitted into the theme, and to check if the themes that overlapped were separate themes (Akinyode, 2018). At the end of the review, the researcher had a reasonably good idea of what the different themes were, how they fit together, and the overall story they tell about the data (Creswell, 2013).

3.6.5 Defining and naming themes

The researcher then described and further improved the themes that would be presented for analysis. This was when the researcher identified each theme and what feature of the data each theme captured. The organised data extracts for each theme were then organised into a comprehensible explanation with an accompanying narrative. For each theme, a detailed analysis was written at the same time, identifying the story that each theme tells.

3.6.6 Integrating and interpretation

Finally, the researcher then changed the analysis into an interpretable piece of writing by using a clear and convincing extract related to the themes, research question, and literature (Creswell, 2013). The researcher integrated and interpreted the data to provide conclusions on the reasons for late initiation of ANC by pregnant women.

3.7 Validity and Reliability

3.7.1 Member Checking

Member checking was carried out to increase the credibility and validity of this qualitative study (Robson, 2011). During member checking, the participants were asked if the data is a true reflection of what they talked about and if it made sense. They were allowed to either confirm or deny that the summaries reflect their views, feelings, and experiences (Robson, 2011). Probing questions were also used to verify their responses. This strategy was used to make sure that the data that was collected was correct (Cresswell, 2014). It was also used to provide participants with the opportunity to correct errors and question what they thought were wrong interpretations (Cresswell, 2014). Furthermore, it was used to avoid chances whereby participants report at a later date that the researcher misunderstood their contributions, made errors, and prevented false information from being presented as reliable research (Cresswell, 2014).

3.7.2 Peer Debriefing

During the study, the researcher used a colleague with research experience and who knew the research topic to critique the methods and interpretations of the study. The colleague was used to provide helpful feedback and query, where she did not understand to improve the whole research process (Robson, 2011). The colleague read and asked questions about the research design, data collection process, and data analysis process from various perceptions and provided feedback concerning the accuracy and completeness. It helped identify whether some points or stages were revealed as less or more important than others and thus added sincerity to the study (Cresswell, 2014).

3.7.3 Thick description

Thick description is when the researcher offers details when describing a case or writing about a theme (Robson, 2011). It permits the reader to make conclusions concerning transferability because the writer describes in detail the participants and setting under study (Cresswell, 2014). The detailed description that the researcher provides enables the reader to transfer information to other settings and to determine whether the findings can be transferred (Cresswell, 2014). Details can develop through physical description, movement description, and activity description. It can also involve describing the general ideas to the narrow connecting the details (Cresswell, 2014).

Sufficient details about settings, inclusion or exclusion criteria, sample characteristics, data collection and analysis methods were detailed. This was to make sure that there is external validity (Malterud, 2001). This was done to evaluate the extent to which the study's conclusions are transferable to other settings, situations, and populations (Cresswell, 2014).

4.7.4 Audit trail

In order to develop a detailed audit trail, a journal was kept to record all research undertakings, notes and document all data collection and analysis procedures throughout the study (Creswell, 2000). Journaling ensures that the findings are based on the data that has been collected; namely, the conclusions are definite, there is no bias and the strategies that were used to make sure that the study is valid (Malterud, 2001). An audit trail was carried out to reflect on how the study was conducted. Further, it helped the reader follow each stage of the process and trace through the research logic (Creswell, (2000).

3.8 Ethics Statement

Polit (2012) describes ethics as a structure of good values that is apprehensive with the point to which research processes observe professional, legal and social responsibility to the study participants.

Ethical considerations were followed by the researcher when conducting this study.

The researcher obtained ethical clearance from the University of the Western Cape (UWC) Higher Degrees Committee, the UWC Biomedical Research and Ethics Senate Research Committee (BMREC). Approval before data collection was sought from the National Health Research Review Board (NHRRB) in the Ministry of Health, Swaziland. Once the NHRRB approved the study, permission to conduct the interviews in the health facilities was sought from the Regional Public Health Matron, the Zonal Matrons then the Nurse Managers in the facilities.

While conducting this study, the principles of ethical research were considered. These are the participants' rights, the benefit of the participants, the ‘to do no harm’ principle, and being fair to all participants. To consider the rights of the participants, they were given an introduction to the study and its purpose, as well as an explanation about the selection of the participants and the procedures that were to be followed. This was meant to let the participants decide on their own if they would take part in the study or not. Participants were informed that participation in the study was voluntary, and refusal to participate in the study

would not result in any penalty. They were further informed of their right to withdraw from the study at any point where they felt uncomfortable. They would not be compelled in any way to try and stop them from withdrawing. Also, they had a right to withhold information they did not feel comfortable releasing. To ensure anonymity, all identifying personal information was removed from the transcripts and replaced with codes during the transcribing of the data. Consent was then obtained by signing a consent form. Data was stored in a password-protected file, and only the researcher will have access to the transcripts. After six years, all the transcripts will be destroyed.

Also, participants were not be subjected to any unnecessary risks of harm. However, due to the nature of some questions, participants may have felt uncomfortable discussing challenges faced at home and in the community during pregnancy. In such an instance, a referral to the social worker at the clinic for counselling was arranged prior.

3.9 Summary

This chapter delivered a comprehensive synopsis of the approach used in the study. The aim and objectives of the study were stated. A descriptive and exploratory qualitative study design was used to understand better why women from the Shiselweni region initiate ANC after 16 weeks gestation. The study population included twelve pregnant women from Shiselweni between the ages of 18 to 40 years. These women utilised the Matsanjeni, Nhlangano and Hlatikulu Public Health Units for ANC. Semi-structured in-depth individual interviews were audio-recorded and transcribed verbatim for analysis. Reliability and validity were obtained by member checking, peer debriefing, thick description and audit trail. Ethics approval was sought from the University of the Western Cape (UWC). Approval before data collection was sought from the National Health Research Review Board (NHRRB) in the Ministry of Health, Swaziland. Ethics were considered when conducting this study.

CHAPTER 4: FINDINGS

4.1 Introduction

The study aimed to explore and describe the factors contributing to late antenatal care booking in the Shiselweni region. This chapter presents the characteristics of the sample and findings from in-depth interviews, which was conducted with twelve participants from three public health units in the Shiselweni region. Several themes developed from the collected data, and the findings will be reported according to themes and subthemes.

4.2 Characteristics of the sample

The study was conducted in three public health units, namely Matsanjeni, Nhlangano and Hlatikulu. Table 1 represents the socio-demographic characteristics of the study sample.

Table 2: The socio-demographic characteristics of the study sample (n =12)

Socio-demographic characteristics	Characteristics	# of Participants
Age	18-21	2
	22-30	2
	31-35	2
	36-40	6
Marital status	Married	4
	Single	8
Educational level	Primary	4
	High School	4
	Tertiary	4
Parity	1	4
	2	4
	3	3
	4	1
Contraception Method	Pill	3
	Injection	4
	Condom	5

Employment Status	Employed	3
	Self-employed	2
	Unemployed	7

4.3 Data Management and Analysis

Themes and subthemes were used for this analysis, as shown in Table 2. Intrapersonal reasons include a lack of knowledge on the importance of ANC, social reasons that include lack of support from the family and stigma of early pregnancy. The results show that economic factors also affect late ANC booking for pregnant women that include financial constraints on the participants' side and transport issues to the facility. Health System challenges also influenced late ANC booking for pregnant women, which included nurses' attitudes towards women and long waiting hours. The following are the themes and subthemes from the interviews that were conducted.

Table 3: Themes

Main Themes	Sub-themes
Intrapersonal Reasons	• Lack of knowledge on the importance of ANC
Social reasons	• Lack of support from the family • Stigma of early pregnancy • Unplanned pregnancy
Economic factors	• Transport to the facility • Distance • Money for transport
Health system challenges	• Nurses' Attitudes
	• Long waiting hours

The participants' quotes are presented in italics, some of which have been improved, without altering the meaning of the context.

4.4 Intrapersonal Reasons

Intrapersonal reasons are some of the hindrances in initiating ANC services .. Participants revealed a lack of knowledge on the importance of ANC.

4.4.1 Importance of ANC

Out of twelve women, nine of them revealed a lack of understanding regarding the importance of early ANC initiation; hence they booked late. Some only realised that they had to go for ANC just because they developed some problems in their pregnancy. Most of the younger ones did not know that they had to initiate early; they only thought that they had to go when it was their due date. They learnt the importance of ANC from their mothers after discovering that they were pregnant, and by then, they were more than 16 weeks pregnant.

Some did not go to the clinic during their pregnancy because they did not know the benefits of initiating ANC early. Also, because they were scared of being judged by their parents and relatives since they did not go early, they missed the opportunity to get health education on the importance of ANC at the appropriate time. Participant 1 had this to say:

"Since this is my first pregnancy, I did not know I had to go to the clinic until my mother literally took me to the clinic, and I was already twenty weeks pregnant. I did not tell my mother when I missed my period for the first time. I did not tell her because I was scared she would shout at me and also be disappointed in me since I was still young and unemployed, I solely depended on her for everything. I knew I was pregnant because we sometimes did not use a condom with my partner. When I got to the clinic, that is when I got health education about the importance of initiating ANC early."(Single, 18 years old, P1 G1).

For some, even though their mothers and friends told them to go, they still did not because they thought they were in good health since they did not feel any pain or any complications during their pregnancy.

"For me, I thought it would be a waste of time and money because I felt okay. I thought I would go when experiencing labour pains. I also thought that pregnant women who go to the clinic are those who experience problems in their pregnancies. I waited until my mother accompanied me to the clinic, that is when I started, and I was 22 weeks pregnant"
(Single, 30 years old, P1 G1)

Another woman thought that presenting early at ANC would not have made a difference for her and would not have impacted her child's health outcomes. Her views were based on the fact that even during her first pregnancy, she did not present early at the health facility and yet delivered a healthy baby. She had this to say;

"I started when I was five months pregnant, even for the first one. I feel like going early would not make any difference, and since there is usually nothing wrong with me, I feel healthy even now, and my baby is healthy too. Also, since I have to be at work, so if I do not experience any discomfort or anything, I feel it would be a waste of time to go there and spend almost the whole day waiting to be attended to."(Married, 31 years old, P2 G2)

Visiting the facility early was seen as a waste of time, especially when the fetus was as it meant there would be more visits. Participants viewed fetal movements as an indication of a healthy baby. The participant further stated that since she was eating a balanced diet, it meant she was feeding the baby very well, so there was no need to keep on going to the clinic. She said;

" I make sure that I have a balanced diet every day, so there is no way I can give birth to an unhealthy baby."

Some women did not perceive early initiation of ANC before 16 weeks gestation as necessary as they had enough knowledge and information on pregnancy from the local radio, community health workers and other community health activities. They felt they could go there when they were nearing their due dates. These women thought that they had to go to the clinic only to receive health information; seemingly, they did not take into account other services offered during ANC.

"When I am not busy, I sometimes listen to my radio every Thursday morning, where they conduct a health education programme. Sometimes they talk about the benefits of ANC, even though they do not do it always, but I do get a little bit. So, I feel it would be a waste of time because I trust the radio since the messages we get are from the Ministry of Health personnel."(Married, 38 years old, P3 G3)

Participant 12 had this to say: *"Haa…, our community is very busy. I don't know how many times we have had health events in my community at Nhlangano. We have officers from the Ministry of Health who come with officers from other organisations to conduct health events where they educate us about pregnancy issues. They also give us flyers with health*

information on pregnancy. So then there is no need for us to go to the clinic because we get all the information we need about pregnancy."(Single, 40 years old, P4 G3)

Some women acknowledged that the purpose of the facility visit is to have the baby checked, receive HIV testing and acquire an antenatal attendance card necessary for delivery preparations.

Another participant responded this way;

"My mother told me to go to the clinic when she noticed that I was pregnant, by then, it was already after 16 weeks". I went to the clinic so that I can have an HIV test since I had accepted the fact that I was pregnant and then happy about it. So I had to make sure that my baby is safe and free from HIV. Even though it was mostly about the baby, I was scared though of the outcome of the HIV test more, especially because sometimes we did not use the condom. I went to the clinic also because I wanted to get an ANC card or evidence that I received ANC so that when I go to the hospital for delivery, it would be easy." (Single, 26, P1 G1)

"My friends encouraged me to me go for ANC so that I get checked and to make sure that the baby is growing well. They also mentioned that I need to get advice from the nurses on how to take care of myself and the baby and also get some vitamin supplements; that is how I heard about ANC. Had it not been for my friends, I wouldn't have gone to the clinic because I was not ready for the pregnancy."(Married, 30, P1 G1).

Another participant mentioned that even during clinic visits, no health education was given regarding the importance of ANC and early ANC initiation, except for receiving the services she went for. While another viewed that the duration of pregnancy is long enough and allows one enough chances to visit the facility.

Some mentioned that they did not know there was a specific time to start; they said they thought one had to go to the facility any time during her pregnancy or whenever she felt the need to go.

"I initiated late because I did not see the need to go early because I still had all the nine months ahead of me, so I had enough time to choose from."(Married, 39 years old, P3 G3)

Some expressed their concern about not getting information from reliable sources about pregnancy issues. They depend primarily on information they obtain from people who live within their communities.

"The problem is that nobody tells us the exact month to start going to the facility after becoming pregnant, you keep on hearing people asking, have you gone to the clinic…one wonders when to start because we do not get something formal from reliable sources, eish, people say a lot of different things, you end up not knowing what to do. I came to the clinic because I thought my baby was not breathing because I felt no movement, and I was 24 weeks."

(Married, 36 years old, P2 G2)

4.5 Social reasons

Family and partner support during pregnancy is vital since it motivates women to take care of themselves and the baby. Lack of support from the family, the stigma of early pregnancy and unplanned pregnancy were some of the factors that were given by women in this study on late ANC initiation.

4.5.1 Lack of support from partners, family and friends

Some participants mentioned that they initiate late for ANC because they do not get support from their partners, family and friends during pregnancy. Participants received a negative reaction from their partners after hearing about the pregnancy. One woman experienced this:

"When I told my boyfriend that I missed my period, he insisted that I do a pregnancy test to confirm. I took it and later confirmed my pregnancy, but he denied it and advised me to terminate my pregnancy. I felt dejected and horrified because I never had any other boyfriend and did not know what to tell my parents (tears rolling down her cheeks)." (Single, 26 years old, P1 G1)

Some participants further gave reasons why their partners and families did not accept their pregnancies. According to the women, some men felt that they were not ready to involve themselves in raising a child as it brings extra expenses. One participant narrated her partner's response;

"I told you we were having a good time, and then you decided to get pregnant. I am not ready and do not have time for this, I thought he was just joking, but I realised that he was not because that was the last time I was with him. I have been relying on my parents for everything I need."(Single, 34 years old, P2 G2)

Younger unmarried women stated; family concerns and fear of being stigmatised by the community. They mentioned that being scared because they thought their families might

recognise their pregnancy since they viewed their pregnancy as something that would bring disappointment, humiliation and disgrace to their families. Their families expected them to get married first before they became pregnant. One participant said;

"I am not working, my parents are also not working, and my boyfriend has a part-time job where he works three days a week. I'm just from a poor family. So when I got pregnant, it felt like a nightmare to me (sobs and starts crying). I thought of my situation at home. I thought about the baby…who will help me raise the baby." (Single, 34 years old, P2 G2)

For some, they delayed initiating ANC because they come from a family with Christian values. Some came from families that are held in high regard and honoured in the community. These families did not believe in sex before marriage. She said;

"I think I was in denial because I missed my period; I noticed all the changes in my body. I was scared to tell my mother. My father is a pastor in a local church, so I thought I had disappointed and shamed my family. I kept quiet for four months until my mother noticed that something was wrong with me. My mother became suspicious, and she asked me about my periods and I told her about my pregnancy". She took me to the clinic herself when I was five months pregnant."(Single, 21 years old, P1 G1)

For some, they mentioned that they were stigmatised for their pregnancy and thus shunned away from their peers and friends in the community. One participant had this to say;

"Ya, I remember that I tried to conceal my pregnancy until one day when I fell sick. I think it was morning sickness because I started vomiting in the morning, and my mother was suspicious but kept quiet. Then one day, they called me together with my father and asked about my condition. I told them everything. They expressed their disappointment in me, such that I was even told that I am the odd one out in the family. Since that day, they stopped talking to me and even sending me on house errands, just because they were angry at me." (Single, 26 years old, P1 G1)

The fact that the family was not supportive made the participant delay because she was still dealing with the family issues of being accepted; as a result, she initiated ANC at 25 weeks. However, her family later came to terms with the pregnancy, and they started supporting her financially and emotionally during her pregnancy. She said ;

"Yoo, when my mother discovered that I was pregnant (paused for a while)… she was so mad at me. She told me I have since lost all that she had planned for me, all the benefits I had as

the only girl in the family. I was then told to stay home all the time, not to touch anything in the house, and she took my phone."(Single, 21 years old, P1 G1)

She went on to say that she did not initiate ANC and did not know she had to. She was also scared to ask her mother anything about pregnancy because they were not on good terms since she discovered she was pregnant. She felt ignored with no support from anyone. It was after 16 weeks that her mother started opening up and talking to her, but still, she mentioned nothing about going to the facility until when she was 22 weeks.

4.5.1 Unplanned pregnancy

The results of this study reveal that some of the women in the study had unplanned pregnancies. Unplanned pregnancies create unrest in some families, whether the woman is married or not, as it comes with financial implications. Some women reported that accepting the pregnancy was not easy; this resulted in thoughts of abortion since they faced the challenges of caring for and raising the baby. One of the participants was in this dilemma;

"After two months, I told my friend who suggested that I commit an abortion. The problem then was how, since we both didn't know how to do it and didn't know who would help. At the same time, I was scared at the thought of terminating life. So I was in between; to terminate and face the rest of my life guilty or to keep the baby and face my parents and the rest of the community…" (Single, 34 years old, P2 G2)

Unplanned pregnancy made the participants delay accessing ANC services early because they were not ready for the pregnancy and did not believe they were indeed pregnant.
"You see, I'm not married. Yes I knew I slept with my new boyfriend once, and it did not take long, how then could I be pregnant. I never thought I would fall pregnant because I was using an injection for contraception. I had my menstruation for two consecutive months as usual. So I did not suspect anything until I noticed my breasts swelling and also becoming picky about the food that I eat. When I'm pregnant, I don't like oily food, like fried chips, fat cakes, it makes me feel like throwing up (Giggling.)So I thought I might be pregnant. To confirm my pregnancy, I bought a pregnancy test from the pharmacy, which confirmed my pregnancy; by then, I was 21 weeks."(Single, 40 years old, P4 G3)

One participant explained that she delayed initiating ANC services because she sometimes had irregular menstrual cycles. She thought the menstrual cycle would start again, only to

find that she was pregnant. She discovered when she was 20 weeks pregnant but initiated ANC when she was already 21 weeks pregnant. Even though she found out that she was pregnant, she had problems telling her boyfriend because she was unsure how he would react upon hearing the news. At the same time, she came from a Christian family; she was scared to disclose her status. She stated the following:

"I normally have irregular periods, so for me, there was nothing wrong even if a month passed without my periods. To notice that I was pregnant, I noticed my breasts swelling, felt nauseous and one day I vomited early in the morning when I woke up. I became suspicious, but at the same time I was in denial. I think I was in denial because of my irregular periods, I think that is why I delayed initiating ANC services." (Single, 30 years old, P1 G1)

At first, the situation was not good at home, but later on, she got support from her parents, and her boyfriend accepted the responsibility. Her mother explained the importance of ANC, encouraged her to tell her boyfriend and then go to the clinic. They provided her with everything that she needed, food, clothes, moral support, and prayers.
Some women concealed their pregnancies because they feared losing support from their partners and sometimes ended up losing them altogether. They hid their pregnancies until late, and that led to late ANC booking. A single woman expressed this emotion;

"My partner supports me in every way. So I had to delay telling him about the pregnancy because I thought he would leave me. So if I tell him, I'm pregnant that would be the last day I see him. He would stop supporting me and then look for another girl. I think it's because some men are scared of responsibilities." (Single, 38 years old, P3 G3)

Even though women did not know the benefits of initiating ANC early, they identified antenatal services as an essential part of pregnancy but not as an immediate one. As a result, some even attested that since they had other commitments, they decided to postpone and delay ANC booking.

4.6 Economic factors

Financial barrier is another reason for late ANC initiation in Shiselweni. This study revealed that some of the women are unemployed so they cannot afford to pay for transport to the clinic. Those who are employed experience problems at work when they have to go for ANC.

4.6.1 Transport Issues

Even though ANC services are free in all the public health units in Shiselweni, however, for some, it is still a challenge to initiate ANC early. This is because some participants have to travel very long distances from their homes to the facility and yet they do not have any source of income .. One participant had this to say;

"Eish, yaaa, going to the facility is a hassle. It is very far. When I think of going there, I feel like crying and just keep on postponing more especially because I think I am okay, I don't feel any pain or anything and have never had problems during my pregnancy. There's a kombi that passes my place as early as7:30 am of which I think it's just too early for me. Also, it is quite expensive, going to the clinic."(Single, 38 years old, P3 G2)

They explained that since they live in hard-to-reach areas where transport is scarce, they opt not to go to the clinic. They then decided to go when they were approaching their delivery date. Some also stated that even if they wanted to walk, they could not walk because of the distance and their health condition.

"I am a sickly person, so travelling would be hard for me. It is a long trip to the clinic, so I decided to wait until I was 24 weeks pregnant, more, especially because I feel healthy." (Single, 37 years old, P2 G2)

4.6.2 Job Security

Some women postponed initiating ANC because they did not want to lose their income for the days they did not work whilst going to the clinic. So they felt since they experienced no complications, then there was no need for them to go early for ANC. Some even felt that their employers should be capacitated on health issues so that they can understand the importance of initiating ANC early and thus pay them when they go to the clinic. One participant said;

"My boss is not that friendly. When you request a day off to go to the clinic, he refuses and reminds you of a pay cut each day you are absent. So who wants to lose money? I have a family to feed. So for me, since this is my second pregnancy and I never had any complications on my first pregnancy, I see no reason why I should leave work and go for

ANC early. I know the right time will come, that is why I am here today, and I am five months pregnant." (Married, 31 years old, P2 G2)

For some adhering to ANC visits would have translated to job loss. One of the participants whose employer had no tolerance for absenteeism had this to say:

"I know the importance of initiating early, but the problem is that I do not have anyone to stand in for me at work, I am always busy and also because I normally deliver healthy babies."(Married, 36 years old, P2 G2)

4.7 Health System challenges

Health facilities and health workers hindered access to health services. Health workers unwelcoming attitudes and lack of encouragement resulted in women seeking ANC services late. Women in this study initiated ANC services late because they were scared of being scolded and being disrespected by the nurses. They also started late because of the long waiting hours at the clinic.

4.7.1 Health Personnel Attitude

Some participants in this study revealed that they started attending ANC late because they were scared of being disrespected by the nurses. One participant had this to say;

"I started late because I did not want to be ridiculed by the nurses. I'm old enough to be shouted at by these nurses, so it's better for me to see them a few instances."(Single, 37 years old, P2 G2)

One stated that she started late because she heard that the nurses are rude. Some participants were turned back when they went to the facility early and were rudely attended to by the nurses, one experienced this:

"One of the nurses yelled at me; hey, we all have been pregnant before, so stop wasting our time, it's just too early for you to start ANC, go back, and you will come back after four months. I need to attend to other women who need help. Just imagine, I spent time preparing myself, asked for bus fare from my mother and travelled to get to the bus stop, only to be turned back when I got to the clinic. That time I was two months pregnant. I went back and came back after 25 weeks. What I didn't like about the whole scenario is that the nurse did not address me properly; instead, she shouted at me, and I felt belittled."
(Single, 38 years old, P3 G2)

The participant said that she was turned back and was never attended to, so she came back after 25 weeks to initiate ANC. She further stated that there were no vitamin supplements in the clinic and was advised to buy them from the nearest pharmacy. This was so common to the extent that participants decided not to initiate early

" Ha, I heard that the nurses shout at you when you go to the facility, so that is why I don't like going to the clinic. Besides, I then have to go to the pharmacy to buy vitamin supplements. That is why I have to initiate now that I am 24 weeks so that I don't receive too much scolding from the nurses."(Single, 30 years old, P1 G1)

4.7.2 Long waiting hours

Long waiting hours was another factor that contributed to women attending ANC late. Women did not like to spend long waiting hours in the queues for services so they then opted to come a few hours later. They said they did this so that they can spend fewer hours in the clinic. However, their late coming and waiting proved to be disadvantageous on their side because they missed the health education that was rendered when the clinic opened in the morning.

"My friend told me that when you come in the morning, you wait until after lunch. She told me that the nurses start with health education, and then they keep on moving up and down, not knowing what they are doing, they then tell stories to each other. That is where they waste time. So I decided I should come today after lunch because I'm five months and a week pregnant. I don't want to wait the whole day here." (Married, 36 years old, P2 G2)

When asked if she was aware that she would miss the health education if she comes after lunch. She responded by saying that she sometimes got information from her friends who have been pregnant before, so she thinks there is nothing much to lose.

"As for that, it doesn't matter because I have a very good friend who takes me through every step of the way. She tells me what to expect and do each month, and whenever I feel something that I do not understand, she calms me down and tells me not to worry." (Married, 36 years old, P2 G2)

4.7.3 Human resource shortage

Some participants explained that the shortage of staff was another issue that hindered them from initiating ANC early. This is because when they get to the clinic, they find a long queue and the services are offered at a very slow pace which is caused by a lack of nurses.

"I went to the clinic as I was excited about my pregnancy. But when I got there, I was disappointed that there were only two nurses on duty. I had to wait till after lunch when we were told to go back and come at a later date. I went home and never came back till after 20 weeks, and that is when I initiated ANC." (Single, 40 years old, P4 G3)

Participants further explained that when one gets to the clinic, they do not get the services they had come for; instead, mothers are told by the nurses the number of clients they will attend to on a day and are advised to return at a later date. That is why most women felt that going to the clinic is a waste of time and money; hence they come at least after 16 weeks of gestation.

4.8 Summary of the study findings

The study findings reveal a wide range of factors that contribute to the late initiation of ANC. Some obstacles prohibit pregnant women from initiating ANC early before 16 weeks of gestation. Lack of information on the importance of early ANC initiation impacted the timing of ANC in this study. Some participants in this study did not know the value of early ANC initiation; thus, they started after 16 weeks. Not all women understood the significance of early ANC initiation; some women felt that they did not have to waste time and money by going to the clinic early. They felt if they did, then they would have to make more visits to the clinic. Some also mentioned that they got information from their friends, local radio and other community events. So they saw no need to go to the facility for early ANC initiation.

Some women in this study had unplanned pregnancies. Some even recognised very late that they were pregnant. An unplanned pregnancy brings a shock and disturbance, such that thoughts of abortion lingered to some. Some of the women in the study first had to accept that they were pregnant before initiating ANC, which further delayed ANC initiation.
Support during pregnancy is one of the factors which encourage women to start ANC early. As a result, some women had to initiate ANC late because they did not get support from their partners, friends and families. Women below 20 years of age, unemployed and unmarried, delayed divulging their pregnancy to their parents for fear of being rejected and humiliated. It was after disclosing or being suspected that they were able to book for ANC, and by then, it was already after 16 weeks gestation for some of them. Findings from this study highlight the value of care from the partner and family in enabling the beginning of ANC before 16 weeks gestation in pregnant women.

Furthermore, this study's findings reveal that public health care facilities are far from where the women are living. Women could not always walk to public health care facilities due to long distances and their health conditions. They also did not have the financial capacity to pay for public transport to the facility because they were unemployed.

There were also health system obstacles that contributed to the late ANC initiation. Most of the women reported that the personnel were rude, and they were sometimes turned back and told they came in too early. Waiting time was also a barrier to some because they had to leave work to spend more time in the facility while they risked not being paid for the hours missed.

CHAPTER 5: DISCUSSION OF RESEARCH FINDINGS

5.1 Introduction

According to the Swaziland Integrated Disease Surveillance and Response (IDSR) data for 2018, maternal mortality continues to be a significant health problem in the Shiselweni region. This study aimed to explore pregnant women's perceptions on the factors that contribute to late ANC booking in the Shiselweni Region. Studies that have been conducted in Sub-Saharan Africa reveal that many pregnant women book late for ANC, which subsequently limits them from benefiting from the preventive and curative measures it provides (Yilala, 2015; Kumar, 2016).

This chapter discusses findings that are factors that contribute to late ANC initiation. Findings are discussed according to the four main themes with highlights on their sub-themes. The main themes addressed are intrapersonal, social reasons, economic factors and health systems challenges. Interpersonal reasons include lack of knowledge on the importance of ANC, social reasons which comprise of lack of support from the family and stigma of early pregnancy. Economic factors consist of financial constraints, transport, distance, money for transportation to the facility, and job security. Health system challenges include nurses' attitudes and long waiting hours at the facility.

5.2 Intrapersonal Reasons

5.2.1 Lack of knowledge on the importance of ANC

Results of this study reveal that some women booked late for ANC because they did not know the importance of booking early. This is in accordance with a study by Kisuule et al. (2013) where women attended their first ANC visit late because they did not have information and knowledge regarding the ideal gestational time to book for ANC. This further concurs with the findings by Solarin & Black (2013), which reported that some women attended ANC late because they thought it was only needed when they were due to deliver. A possible explanation is that these women did not receive health education at the community level due to weak community health systems.

This study's findings further showed that older women who had a higher parity attended ANC later in their pregnancy because they usually go to the clinic for the first time after sixteen weeks. The absence of complications and the previous delivery experience of healthy babies made them not see the need for initiating ANC early. Other findings are further confirmed by Sialubanje & colleagues (2014), stating that older respondents explained that they started ANC late and did not attend the recommended four visits because they believed their pregnancy was healthy. The absence of health problems during pregnancy gives women a false sense of security, thus illustrating the need to infuse antenatal care teachings in family planning. Inadequate information on early booking and signs of pregnancy could have been because participants were unaware that they were pregnant and were also in denial of their pregnancy. If women knew the importance of early ANC booking, they would visit the clinic when they missed their first menstruation period. This is in accordance with Yeah (2016), stating that for women to initiate ANC early, they need to have adequate knowledge on the importance.

It is interesting to note that in the study that even women who had higher parity also attended ANC later than sixteen weeks, yet one expects them to know more about ANC. This reveals that these women did not have the basic knowledge of pregnancy obtained at the community level. The other possible explanation could be that the health education they received in previous pregnancies was unsuccessful in modifying their perceptions and behaviour on ANC's importance. This is because individuals follow and exercise what they generally know and perceive to be appropriate. Thus health education on sexual reproductive health needs to be strengthened at the community level so that pregnant women get to know the importance of initiating ANC early, even before they get to the facility.

5.3 Social Reasons

5.3.1 Late bookings due to an unplanned pregnancy

Unconfirmed or unplanned pregnancy was also a contributing factor to late ANC booking. Some participants revealed that they did not plan for pregnancy; they discovered after they had missed their periods. This finding concurs with those by Eliason (2014) which reported that an unplanned pregnancy has severe effects on the child and the mother. Furthermore, a South African study also revealed that a wanted pregnancy was associated with increased odds of early ANC initiation compared to unwanted pregnancy (Muhwava et al., 2016). Participants further mentioned that since they were using contraceptives, they were not aware

of their pregnancy until after 12 weeks, so they were unsure about the steps to follow after discovering their pregnancy. These results concur with the findings of a study conducted to evaluate the time of pregnant women's first antenatal care visit and factors influencing early and late attendance in Tanzania. This Tanzanian study reported that 30% of the women did not initiate ANC early because they did not realise that they were pregnant since they had continued bleeding or previous contraception use (Gross et al., 2012).
It is more interesting to note that not only single women had unplanned pregnancies but also married women became pregnant unintentionally. A possible reason could be the lack of proper information on contraception use in these women both from urban and rural areas. Also, it could be late detection of pregnancy and not being willing to seek appropriate care and information on ANC from the clinic and people around her.

5.3.2 Lack of support from partner, family and friends

Lack of support from family and friends contributed to late ANC booking in Shiselweni**.** Falling pregnant was viewed as bringing disappointment to the family as families had high expectations for women; this was mostly the case among single women. Thus women concealed their pregnancies, resulting in delayed initiating ANC.

The denial of the pregnancy by partners resulted in them not supporting women during their pregnancy, as many felt that they were not ready to be parents. Such action led to delayed seeking early ANC services. This is a clear illustration that poor support or lack thereof may decrease their good health-seeking behaviour. According to Gross et al. (2012), having a spouse or partner who is not supportive was reported to be associated with initiating ANC late for both adolescents and adult women ($p = 0.035$). It was further concluded that women who had no support from their spouses or partners initiated ANC almost three weeks later than those given support (Gross et al., 2012). A possible reason could be that the spouses were not financially and emotionally ready for the pregnancy. During pregnancy financial stability is important so that both the mother and the baby's needs are taken care of. These needs include proper eating during pregnancy, birth preparedness and baby arrival and growth.

In several African settings, the male holds a leading role and is in charge of most household decisions (Bhatta, 2013). In some relationships, women may require consent to attend ANC

visits from their partners. According to Ifenne & Utoo (2012), the majority (82.7%) of the women decided to attend ANC together with their male partner. So if there is no support from the partner during pregnancy, chances for the women of booking late for ANC are high. The possible explanation for this could be a lack of knowledge of ANC's importance in male partners. If male partners were well aware of the importance of ANC, the chances are that they would influence ANC initiation since they are the decision-makers in their families. Also, they would motivate, remind and be a part of every step of the way during pregnancy.

It is worth noting that in this study, the majority of participants (n=8, 66%) were single and did not get support from their partners and families. In the context of Africa, where children are expected to be born in wedlock, being pregnant while single can be seen as a sign of defiance and disrespect. Results from a study by Osungdabe and Ayinde, 2014 in Nigeria revealed that 32% of the participants who booked late for ANC were single and had no support from their partners. This could have been that partners and families were not ready for the pregnancy and did not approve or were in shock of the pregnancies since they expected the women to get married first before they can get pregnant.

5.4 Economic factors

5.4.1 Transport costs to the health facility

Even though ANC services are free in Swaziland, but still some pregnant women cannot access them as expected by the World Health Organization. Results of this study reveal that women in Shiselweni initiate ANC late because they cannot afford to pay for the travelling expenses. As a result, they opt to start ANC after sixteen weeks to avoid many trips to the clinic. This correlates with a study conducted in Kenya which showed that women booked late for ANC because it was expensive for them to make the follow-up visits, so if they delayed, they reduced the number of times to the facility, thus cutting travel costs (Pell et al., 2013). Furthermore, a study conducted in Ethiopia reveals that pregnant women with a low household income are more likely to book late for ANC than women with a high household income (Gebremeskel et al., 2015). Results of this study reveal that more than half of study participants were unemployed, and thus they did not have money to pay for the visits to the clinic. If they initiated early, they were expected to make follow up visits whereby they had to use public transport or hire a taxi to get to the clinic. The possible explanation to this is that some women were not employed because of their education level, place of residence and for

some it could be unavailability of job opportunities. This could also be due to inadequate and imbalanced distribution of maternal health services in the rural areas due to the scarcity of resources in poor clinical settings whereby most of the services are concentrated in urban areas. This suggests that there is a need for outreach services for women to access health services in their respective communities easily.

5.4.2 Job Security

Some women postponed initiating ANC because they feared the negative consequences of absenteeism from work and the lack of empathy from employers who viewed ANC as unimportant. Working pregnant women face victimisation from their employers as they do not receive payment for the hours they have not worked; as a result, they do not book early for ANC (Solarin & Black, 2013). This concurs with other studies on the contributing factors to late ANC booking which found that attending ANC had negative consequences for women being absent from work; thus they initiated after 16 weeks of gestation (Okunlola et al., 2006; Pell et al., 2013).

It is worth noting though, that findings of this study further revealed that most of the participants (n=7, 58%) were unemployed but still failed to book early for ANC which could have been due to various reasons. This is in agreement with the results of a study by Mahwava & colleagues (2014), which showed that unemployed women are more likely to initiate ANC late. Also, a survey by Mkhari and Mathibe-Neke (2016) exploring factors contributing to late antenatal booking reported that most of the participants in the study were unemployed, mainly housewives (82.7%), civil servants (9.4%) and were self-employed (7.9%) booked late for ANC. This correlates with a study by Kawungezi & colleagues (2015), which revealed that most women spend most of their time (53%) doing household chores and other activities than taking care of their health. This could have been due to lack of money to travel to the facility.This could also be due to some women prioritising other responsibilities and house chores than booking early for ANC.

5.5 Health systems challenges

5.5.1 Nurses' Attitudes

Participants in this study revealed that when they reached the facility, nurses were rude to them and at times turned them back. This concurs with a study by Konje and others which

revealed that some pregnant women felt disrespected by the health care providers and thus avoid ANC until birth period (Konje et al., 2018). Furthermore, results from a study by Sanda (2014) in Nigeria on the utilisation of ANC services by pregnant women confirmed that pregnant women booked late for ANC because of the negative attitude by health care workers. Health care workers' attitude further perpetrated pregnant women to use traditional services which were readily available and friendlier than the facilities. Results from this study also revealed that when pregnant women visited the health facility, health care provider turned them back and told them to come back when they felt the palpitations. This is also confirmed by Solarin & Black (2012) findings of their study on barriers to early ANC initiation which showed that about 40% of women were not booked in the first visit as the health care providers told them that they were still early in the pregnancy. According to Pell et al. (2013), health care providers sometimes advised pregnant women to return for ANC after palpitations could confirm the pregnancy, which further delayed the initiation of ANC. As a result, they ended up being booked in their third trimester. A possible explanation could be the shortage of health care providers in the facilities, health care providers being fatigued or having personal problems which affected work performance. It could also be a lack of interpersonal communication skills in health care workers. It is, however, crucial to explore the reasons for nurses' ill-treatment of pregnant women to understand the issues about early booking better.

5.5.2 Long waiting hours

Women also initiated late because of long waiting times before being attended. Long waiting times negatively affect early ANC booking, especially amongst working women (Solarin & Black, 2013). According to Solarin and Black (2012), many pregnant women booked late for ANC because health care workers delayed the provision of care. As a result, they started initiating when they were close to their due dates to avoid many visits to the clinic.

The possible explanation could be the way healthcare providers render services to pregnant women; it could also be due to the fact that the health facilities serve a large catchment area; thus pregnant women are subjected to long waiting hours. It could also be due to the processes that nurses go through when pregnant women come for ANC visits. These include; maternal assessment, fetal assessment, counselling topics (information, education and counselling, point of care tests, lab investigations, radiological tests, preventive measures,

essential good clinical practices, treatment or management (MoH, 2018), so all these processes take time.

5.6 Conclusion

A variety of reasons influenced the timing of the first ANC booking, namely, knowledge and perceptions regarding antenatal services, lack of health system support to pregnant women's personal beliefs, shortage of health care personal and lack of active engagement with pregnant women. Unplanned pregnancies were common because some women were not sure of their pregnancy, and it took time for them to know they were pregnant since they were on a contraceptive; thus, they booked late for ANC. Previous experience of low-risk pregnancy in multigravida promotes late ANC visit. Financial constraints also had a significant influence on the disclosure and initiation of ANC.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

This study aimed to explore pregnant women's perceptions and understanding of the barriers to early Antenatal Care booking in the Shiselweni Region in Swaziland. In this chapter, study conclusions and recommendations based on the study findings are discussed. The recommendations will provide a concrete set of solutions that can be used to address the problem identified in this research.

6.1 Conclusion

The main objectives of ANC are prevention and treatment of obstetric complications, preparation for emergencies, family planning, meeting nutritional, social, emotional needs for pregnant women, including care and nutrition of the newborn (Ewnetu et al., 2015). During the first antenatal visit, health education, history taking, clinical examination, abdominal examination, and laboratory testing need to be managed well to detect problems early. Early booking for ANC further helps provide health education, advice and counselling to the woman, malaria prevention and case management during pregnancy, drugs supply during pregnancy, and prevention of possible complications for pregnant women.

Although there are free ANC services offered in the Shiselweni region, some women still book late for ANC. Pregnant women's perceptions and understanding of the barriers to early Antenatal Care booking in the Shiselweni Region in Swaziland have been presented, similar to other research findings. The findings of this study suggest that for women to initiate ANC early, they need to be capacitated on the importance of early ANC initiation. Moreover, family, partner, and friends should provide support to the woman during her pregnancy. Also, women need to plan for their pregnancies, there should not be any financial constraints on the woman's side, and the facilities should be friendly and provide quality services effectively and efficiently. Furthermore, male involvement during pregnancy should be encouraged to support pregnant women, thus initiate ANC early.

This study will help address barriers to early ANC initiation, which will be of value to both the mother and the baby. The results of this study will also help health policymakers and other stakeholders to develop public health policies and improve family and social support system for pregnant women in the communities. However, it will impact badly on the health

system as more funding or budget is needed. More funding is required to strengthen the existing health system at the community level and the provision of necessary resources.

6.2 Recommendations

Based on the findings of the study, the following recommendations are made. Recommendations will be discussed according to the themes.

6.2.1 Importance of ANC

The findings of this study are that some women revealed they did not know or see the importance of going for ANC early in their pregnancy. Therefore the following is recommended to strengthen the importance of ANC:

- Women need to be provided with more information on the importance of ANC even before they get pregnant for them to start early and also adhere to subsequent visits.
- Women of multiparity, as in this study felt they already knew the necessary information, and they also did not encounter problems in their previous pregnancies. Emphasis on early ANC initiation with every pregnancy should, therefore, be the focus to ensure that women initiate ANC early with each pregnancy.
- The Regional Public Health Matron should be responsible for strengthening and ensure monitoring of the existing community health workers' program on maternal health issues is properly conducted. The region, through rural health workers (Rural Health Motivators), should incorporate maternal health issues in their health talks whenever they do households visits. This will help encourage the involvement of women and their supporters, including male partners, mothers in law, and grandmothers who are the key decision-makers in the household in maternal health issues.
- To improve early and appropriate health-seeking behaviour, the regional Reproductive Health mentor, in collaboration with the Health Promotion unit, need to coordinate health promotion activities to create awareness and sensitise the community on the importance of ANC. Conducting community dialogues with the help of community health workers in the region will also help correct myths and misconceptions about the importance of ANC and early ANC initiation. The target group would be community leaders, traditional birth attendants and Faith-Based Organisations. They can first assess their knowledge and attitudes on ANC, then emphasise its importance. If the influential people are well capacitated on the importance of ANC, they will encourage and support pregnant women to attend ANC early.

- The Health Promotion Unit, in collaboration with partners in the region, should strengthen the use of media (television, radio, and social media) and Information, Education and Communication (IEC) materials to disseminate messages and raise awareness on the importance of early ANC. The use of media and IEC materials will help reach a wide range of the community by using different communication channels.

6.2.2 Unplanned Pregnancy

The results of this study reveal that some of the pregnant women had unplanned pregnancies. This suggests that there might be a lack of access to family planning services, and or the use of contraceptives is not practised correctly by the women. Access and proper utilisation of family planning services should be encouraged. This should start at the community level by the community health workers.

Therefore, there is a need to:

- Strengthen the provision of different methods of contraceptives which will offer a variety of options to women of childbearing age in the prevention of unplanned pregnancies
- Community campaigns on the use of contraceptives are essential for all women of childbearing age to get information on the importance of contraception to minimise unplanned pregnancies

6.2.3 Support from partner, family and friends

This study shows that pregnant women initiate ANC after sixteen weeks of pregnancy because they lack support from their partners and family. Therefore;

- Partners and families of pregnant women need to be educated on the importance of early ANC
- The government and non-governmental organisation should initiate male involvement programmes on maternal health issues in the communities in the Shiselweni region to encourage partner involvement in ANC so that they can be able to support their pregnant wives and girlfriends.

6.2.4 Health care system Challenges

The results of this study reveal that some women initiate ANC late because of the health care workers' attitudes, long waiting hours and, inadequate human resources. The following are recommendations that need to be effected in health facilities to encourage early ANC booking.

- Health facilities should initiate the appointment system so that women do not wait in the queue. The appointments would reduce long waiting hours and also improve quality care.
- The Regional Public Health Matron, in collaboration with the Sexual Reproductive Health mentor in the region, should conduct an assessment of service provision and client satisfaction in the health facilities. An appraisal will help in identifying gaps and areas for improvement.
- Health Promotion Unit and the Sexual reproductive health mentor should conduct in-service training on interpersonal communication for the health care workers to improve their communication skills.
- The Public Health unit and the Regional Public Health Matron should adjust the facility working hours to cater to working women. Health facilities should also operate also during weekends to provide services to working women.
- The region should also strengthen outreach services by providing vehicles, commodities and staff to work on outreach services; they should offer ANC services to relieve women of the increased costs for transport and other expenses when going to the clinic.

6.2.5 Limitations of the Study

The limitations of this study were as follows:

- The researcher is a health worker herself, and interviews were conducted in the facility, so some participants might have given answers to impress the health worker rather than telling the truth, which might introduce biasness on the respondents' part
- This study's results cannot be generalised to the entire country due to the sample size but are generalised for the Shiselweni region.
- The study only considered pregnant women who utilised the facility for ANC. Some women never use facilities for ANC due to various reason such as financial, cultural

or other problems. The inclusion of these participants might have added more factors to late ANC booking.

- Pregnant women who utilised private health facilities were also excluded from the study, which led to a lack of generalization of the results. The study only included women 18-40 years; it did not include teenagers (13-18 years) who are likely to book late for their ANC visits. This could have filled gaps in information regarding the late initiation of antenatal care and associated factors in the study population
- The sample size was small (n=12). Even though data was saturated amongst the few included women, a larger sample size might have added additional factors and barriers.

6.2.6 Recommendations for further research

- Similar qualitative studies need to be carried out in other regions in Swaziland to get a holistic picture of factors that hinder women from accessing ANC services early.
- Researchers could explore ways in which the challenges faced by women in utilising ANC can be addressed.
- Since this study was only based on the opinions of pregnant women, more research is needed to get the health workers' and partners' views on late ANC initiation.

6.2.7 Conclusion

The objective of the study was to explore factors contributing to late antenatal care booking in the Shiselweni region. Most of the reasons given as barriers to antenatal care were lack of knowledge on the importance of early ANC initiation, lack of privacy in health facilities and long waiting time.

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APPENDICES

Appendix A Data Collection tool (English Version)

Semi-structured

Inkhundla	
Facility Name	
Date of interview	

Age	< 20 20–30 30–40
Parity	Prim gravidae Multigravida
Marital status	Married Unmarried
Education level	High School and above Primary School No formal education
Employment status	Employed Unemployed Self-employed
Traditional medicine use	Yes No
Contraception use	Yes No
Pregnant Woman-related factors 1.Tell me about your pregnancy • When did you find out that you are pregnant and how?	

• How do you feel about your pregnancy? 2. What did you do when you discovered you were pregnant? • Who did you disclose to first about your pregnancy and why? • Tell me what made you go to the clinic(who told you to go there) • After how long did you go to the clinic and why? 3. Let us talk about being pregnant. What did you know about going to the clinic during pregnancy? Such as; • Its importance, if there is any • When should a pregnant woman start vising the clinic, and why? • Are there any dangers of not going to the clinic during pregnancy?	
Health care related factors 1. Tell me about your experience when you got to the clinic. (When you got to the health facility did they help you? 2. How long did it take for you to receive care? 3. What advice and support did you get when you got to the clinic? 4.Overall, based on the treatment and advices you got from the clinic, do you think it is important for pregnant women to book for ANC and at what stage	

of pregnancy? If yes why? If no why?	
Socio-economic status-related factors 1. When you think of going to the clinic for the first time, tell me about the problems that you encountered as you prepare your journey to the facility. Such as: • the distance to the facility • money to get there • mode of transport to use 2.Tell me about your family: • Who is more supportive amongst the family members during your pregnancy and how? • Is your partner supportive? • If yes, in what way? • If no, why?	

Appendix B Data Collection tool (SiSwati Version)

Inkhundla	
Umtfolamphilo	
Lusuku	

Umnyaka	< 20 20–30 30–40
Bangakhi bantfwana lonabo	Wekucala Wesibili kuya etulu
Wendzile yini	Ngendzile Angikendzi
Ufundze Kangakananani	Lizinga leliphakeme kuya etulu Lizinga leliphansi Angikafundzi
Umsebenti	Ngiyasebenta Angisebenti Ngiyatisebenta
Yawusebentisa umutsi wesintfu	Yebo Cha
Kuhlela umndeni	Yebo Cha
Pregnant Woman-related factors 1. Ase ungicocele ngekutetfwala kwakho • Ubone nini kutsi utetfwele? Ubone kanjani? • Utiva unjani nje ngalokutetfwala kwakho? Leni? 2.Wentanjani uma utibona kutsi sewutetfwele?	

• Ngubani lowamtjela kucala, leni yena? • Ase ungitjele wentiwa yini kutsi uye emtfolamphilo? • Emtfolamphilo ucale kuya ngemuva kwesikhatsi lesingakanani, leni ngemuva kwalesikhatsi? 3.Ase sicocisana ngekutetfwala nje, yini lobe ukwati mayelana netindzaba tekuya emtfolamphilo uma se utetfwele? Njengekutsi: • Kumcoka yini? Usho ngani? • Kufuna ucale kuya nini? • Bukhona yini bungoti bekutsi ungasheshi uye?	
Lephatselene nekunakekelwa emtfolamphilo 1. Ase ungicocele ngekuya kwakho emtfolamphilo. Uma ufika bakusita yini bonesi, ngani noma kanjani? 2. Kwatsatsa sikhatsi lesingakanani kutsi utfole lusito? 3. Ngutiphi teluleko nekwesekeleka lowakutfola emtfolamphilo ? 4. Kukokonkhe nje, mayelana ngelusito, teluleko nemphatfo lowayitfola emtfolamphilo, ucabanga kutsi kumcoka yini kutsi bomake labatetfwele baye emtfolamphilo? Uma kumcoka, baye leni, nini futsi?	

Uma kungasikomcoka, chaza kutsi usho ngani ?	
Lephatselene nesimo setemnotfo ekhaya 1.Ase sicosicane ngalesikhatsi ucababanga kuya emtfolamphilo kwekucala, ngutiphi tingcinamba lowahlangana nato usatilungiselela. Njenge naku: • Libanga lekuya emtfolamphilo • Imali yekuya khona • Indlela yekufika khona, njenge kwekuhamba 2. Ngicela ungitjele kabanti ngemndeni wakho: • Ngubani lokwesekela kakhulu emalungeni emndeni kulesikhatsi, kanjani futsi? • Ngabe babe wemntfwana uyakwesekela yini loku utetfwele? • Uma akwesekela, ukwesekela kanjani? • Uma angakesekweli kuya ngani?	

Appendix C Consent Form (English Version)

UNIVERSITY OF THE WESTERN CAPE
School of Public Health

Private Bag X17 ● **BELLVILLE** ● 7535 ● South Africa
Tel: 021- 959 2809, Fax: 021- 959 2872

CONSENT FORM

Research Topic: Pregnant women's perceptions on the factors that contribute to late Antenatal Care booking in Swaziland.

Everything has been explained to me and in a language that I understand. All the questions that I had about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

___ I agree to be (videotaped/audiotaped/photographed) during my participation in this study.

___ I do not agree to be (videotaped/audiotaped/photographed) during my participation in this study.

Participant's name……..

Participant's signature……

Date……

Appendix D Consent Form (SiSwati Version)

UNIVERSITY OF THE WESTERN CAPE
School of Public Health

Private Bag X17 ● **BELLVILLE** ● 7535 ● South Africa
Tel: 021- 959 2809, Fax: 021- 959 2872

LIFOMU LESIVUMELWANO

Sihloko Selucwaningo: Imibono yabomake labatetfwele mayelana nekwephuta kucala kuta emtfolamphilo ngemuva kwekutetfwala esifundzeni saseSwaziland.

Konkhe sengichazelwe kabanti ngelulwimi lengikucondzako. Yonkhe imibuto lebenginayo mayelana nalolucwaningo seyiphendvuliwe. Ngiyacondza kutsi kuba yincenye kwami kulolucwaningo kutokwenteka ngemvumo yami. Ngiyacondza kutsi imininingwane ngami ngeke ivetwe nakunoma ngubani. Ngiyacondza futsi kutsi ngingayekela kuchubeka nalolucwaningo uma ngifuna ngaphandle kwesizatfu nangaphandle kwekwesaba.

___Ngiyavuma(kutsetjulwa/kutsatfwa titfombe) uma ngisenta lolucwaningo

__Angivumi (kutsetjulwa/kutsatfwa titfombe) uma ngisenta lolucwaningo

Libito lalobutwako……..

Sayina lobutwako……

Lusuku…….……

Appendix E **Information Sheet (English Version)**

UNIVERSITY OF THE WESTERN CAPE
School of Public Health

Private Bag X17 ● BELLVILLE ● 7535 ● South Africa
Tel: 021- 959 2809, Fax: 021- 959 2872

Project Title: Pregnant women's perceptions on the factors that contribute to late Antenatal Care booking in Swaziland.

What is this study about?

My name is Lungile Simelane. I am a student at the University of the Western Cape studying towards Master's Degree in Public Health. I would like to invite you to participate in this research project because you a pregnant woman aged 18-45 years who came to the facility for your 1st visit after week 16 of your pregnancy and are willing to take part in the study. The purpose of this research project is to find out more about the views of pregnant women on the factors that contribute to late antenatal care booking in the Shiselweni Region.

What will I be asked to do if I agree to participate?

You will be asked to answer questions which will be asked by myself as the researcher or a research assistant. If you agree to take part, we will arrange the place and you will tell us the right time for us to meet. The questions will be asked in a language of your choice (siSwati or English). The questions will take about 30 minutes.

Would my participation in this study be kept confidential?

The information which you will share will be kept secret as much as possible. Your name and personal information will be not be shared with anyone and will not be included in the collected information.

To make sure that you are protected, all the information you provide will be written down and all interviews be recorded. After the interview, the written material will be taken from the interview site to the office, it will be locked away in a closed envelope and will be kept in a locked filling cabinet and only be opened by myself. Recorded tapes and all written

information will be locked away in a lockable cabinet and no one other than myself will have the key.

If we write a report or article about this research project, your identity will be protected.

What are the risks of this research?

This study does not involve any risks. However, you may experience the following risk:

- There is a risk that you may feel bad talking about the challenges that you are facing at home and in the community during pregnancy

This study is not meant to make you feel bad at any time, so please feel free not to answer any question that you do not feel like answering. If you feel stressed due to questions that make you remember certain events, you will be sent for counselling without cost.

What are the benefits of this research?

You will not be paid for being part of the research. The results may help the investigator learn more about the factors which determine late ANC booking by pregnant women. Finding these factors will then help in making programmes that will help support the importance of coming to the clinic early for antenatal care amongst pregnant women and thus help reduce the death of pregnant women.

Do I have to be in this research and may I stop participating at any time?

You are not forced to be part of this research, you may choose not to take part at all. If you decide to take part, you may stop at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be punished or lose any benefits to which you otherwise qualify.

What if I have questions?

If you have any questions about the research study itself, please contact Lungile Simelane at: Box 1526 Nhlangano, Swaziland

Phone: 76522072 / 22079475

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Prof U Lehmann
Head of Department: School of Public Health
University of the Western Cape
Private Bag X17
Bellville 7535
ulehmann@uwc.ac.za

Prof Anthea Rhoda
Dean: Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Humanities and Social Sciences Research Ethics Committee.

Biomedical Research Ethics Committee
University of the Western Cape
Private Bag X17
Bellville
7535
Tel: 021 959 4111
e-mail: research-ethics@uwc.ac.za

Appendix F Information Sheet (SiSwati Version)

UNIVERSITY OF THE WESTERN CAPE
School of Public Health

Private Bag X17 • BELLVILLE • 7535 • South Africa
Tel: 021- 959 2809, Fax: 021- 959 2872

LWATI LOLUMAYELANA NELUCWANINGO

Sihloko Selucwaningo: Imibono yabomake labatetfwele mayelana nekwephuta kucala kuta emtfolamphilo ngemuva kwekutetfwala esifundzeni eSwatini .

Lungani lolucwaningo?

Lolucwaningo lolu lwentiwa ngu Lungile Simelane umfundzi wase University of the Western Cape. Uyamenywa kutsi ube yincenye yalolucwaningo ngoba ungumake lotetfwele loneminyaka lesemkhatsini kwe lishumi nemfica kuya kulengemashumi lamane nesihlanu locale kuya emtfolamphilo ngemuva kwemaviki lasitfupha utetfwele futsi lofisako kuba yincenye yalolucwaningo. Lolucwaningo luhlose kutfola kabanti imicondvo yabomake labatetfwele lemayelana nekwephuta kuta kwabo emtfolamphilo uma batetfwele labachumuka esifundzeni saseShiselweni.

Yini lebhekeke kutsi ngiyente uma ngivuma kuba yincenye yalolucwaningo?

Lolucwaningo lufaka ekhatsi kutsi kucocisana ngekusebentisa imibuto letsite kutfola imicondvo yabomake labatetfwele lemayelana nekwephuta kuta kwabo emtfolamphilo uma batetfwele labachamuka esifundzeni saseShiselweni. Uyacelwa kutsi uphendvule imibuto ngekukhululeka kulolucwaningo, uvumelekile kubuta lapho ungeva kahle khona. Imibuto itawuba ngelulwimi lolukhetfwe nguwe kungaba siSwati noma Singisi. Kucocisana kutakwenteka emtfolamphilo. Imibuto itoba mayelana nekutetfwala kwakho, lusito lolutfola emtfolamphilo, tifundvo emtfolamphilo, simo setemnotfo ekhaya.

Kubayincenye kwami, ngabe kutawuba yimfihlo yini?

Kute lotawuba nemvume yekutsi ati kabanti ngetimphendvulo losikete tona. Ngeke kwatiwe ngulabanye bantfu. Kodvwa, utawuniketwa ligama lelinye kuze kuciniseke kutsi imininingwane yakho ingatiwa ngumuntfu lomunye. Yonkhe imininingwane loyinikako itawugcinwa futsi yonkhe inkhulumiswano itawutsebulwa.Khonkhe lokubhalwe phansi endzaweni lapho bekwentelwa khona lenkhulumiswano kutawuvalelwa emvilophini kuze kuvulwe ngimi nakufika ehhovisi. Kanjalo tinkhuluswano letigciniwe titawufakwa ebhokisini lelitsite lelikhiywako. Ngimi kuphela lotawuba netikhiya talelo libhokisi.

Yini bungoti lobungavela kulolucwaningo?

Lolucwaningo alufaki ekhatsi kwelashwa lokutsite.Kute imitsi yekwelapha letawukhishwa ngenca yalelucwaningo.

Kodvwa bungoti lobungabakhona nguloku lokulandzelako:

- Kungenteka kutsi ungajabuli ngekukhuluma ngetinkinga lobhekene nato noma letibhekene nabomake labatetfwele emmangweni wangakini
- Kunebungoti ekutseni leminye yalemibuto lebutwako kulolucwaningo ingahle ikuphatse kabi.

Lolucwaningo alukahlosi kukwenta utivele ungakakhululeki, uvumelekile kutsi uma utivela ungakakhululeki kuphendvula leminye imibuto , ungayiphendvuli.

Yini imiphumela lemihle yalolucwaningo?

Ngekusisita kulelucwaningo utawube usiniketa lwati kabanti ngetimbangela tekutsi kuyangani bomake labatetfwele bephute kuta emtfolamphilo uma sebatetfwele.

Lolucwaningo luhlose kutfola lwati ngetintfo letentekako hhayi lokucatjangwako. Lolwati lolutawutfolwa lutawusita ekutseni kutfolakale tindlela tekulwa naletimbangela taletinkinga letikhona kuze nalabanye bomake labatetfwele basitakale. Lutawusita futsi kutsi sakhe tinhlelo letibhekene ngco nekunakekelwa kwabo make labatetfwele, kute kunciphe kushona kwabo nebantfwana uma babelekwa.

Ngabe ngiphocelelekile yini kuba kulolucwaningo,ngingayekela yini uma ngifuna?

Awukaphoceleleki kuba yincenye yalolucwaningo, ungakhetsa kungabi yincenye yalo. Uma ukhetsa kuba yincenye yalolucwaningo, ungayekela uma sewufuna noma nini. Uma ukhetsa kungaba yincenye noma uyekela emkhatsini, ngeke ujeziswe noma ulahlekelwe lutfo.

Uma nginemibuto?

Lolucwaningo lwentiwa ngu **Lungile Simelane kanye ne Department of Public Health** eNyuvesi yase Western Cape. Uma unemibuto mayelalana nalolucwaningo, tsintsana na:

Lungile Simelane
Box 1526 Nhlangano, Swaziland
Phone: 76522072 / 22079475

Uma kwenteka uba nemibuto mayelana nalolucwaningo kanye nekufuna kwati ngemalungelo akho, noma ufuna kubika lokungahambi kahle, tsintsana na:

Prof U Lehmann
Head of Department: School of Public Health
University of the Western Cape
Private Bag X17
Bellville 7535
ulehmann@uwc.ac.za

Prof Anthea Rhoda
Dean: Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

Lolucwaningo lwentiwe ngemvumo ye University of the Western Cape's Humanities and Social Sciences Research Ethics Committee.

Biomedical Research Ethics Committee
University of the Western Cape

Private Bag X17
Bellville
7535
Tel: 021 959 4111
e-mail: research-ethics@uwc.ac.za

Appendix G Permission request letter for the Regional Public Health Matron

UNIVERSITY OF THE WESTERN CAPE
School of Public Health

Private Bag X17 • BELLVILLE • 7535 • South Africa
Tel: 021- 959 2809, Fax: 021- 959 2872

18th May 2020

The Regional Public Health Matron
Ministry of Health and Social Welfare
P.O Box 58
Nhlangano
Swaziland

Dear Sir/Madam

Re: Request for permission to conduct a study in the three regional Public Health Units

I am Lungile Cynthia Simelane, a Masters of Public Health Student at the University of the Western Cape. I am asking for your permission to conduct in-depth interviews in the facility with pregnant women who utilise the facility. The study will be undertaken as a partial fulfilment for the completion of the Masters of Public Health Degree.

The purpose of this research project is to explore the perceptions of pregnant women on the factors that contribute to late ANC booking in the Shiselweni Region. Finding these factors will then help in developing interventions and programmes that will help strengthen the importance of early ANC booking amongst pregnant women and thus help reduce maternal mortality. Results from this study will also help to improve and support knowledge and early participation of pregnant women on issues of Sexual Reproductive health (SRH) and ensure availability of quality and affordable SRH services in health facilities.

This study will be based in the Shiselweni region. It will be carried out in the Matsanjeni, Nhlangano and Hlatikulu Public Health Units (PHUs). These facilities are those that offer antenatal care services. They have been chosen because they have a large catchment area. This study will use purposive sampling because the attention is generally on the participants

who might have been victims or directly affected by the research topic. It will also be used to make sure that all the essential areas and diversity of the study question are incorporated and explored to provide detailed information. In this study, women aged 18-45 years, with variations in terms of literacy level, marital status, parity, will be selected for the study to ensure enrichment of knowledge on the research.

A descriptive qualitative approach will be used for the study. A qualitative research approach is a way of acquiring information from a primary source. Further, the qualitative investigation seeks to understand why that group makes certain choices, how their thoughts and ideas vary and how well specific ideas are understood. The qualitative design will help in determining social, economic and behavioural factors that make them access ANC services later than the stipulated time for their first visit. I will use semi-structured interviews which will encourage the participants to tell more about their experiences and attitudes in as far as ANC late visits are concerned.

Participants will be informed that participation in the study is voluntary, and refusal to participate in the study will not result in any penalty. They will further be informed of their right to withdraw from the study at any point where they feel uncomfortable. They will not be compelled in any way to try and stop them from withdrawing. Also, they have a right to withhold information they do not feel comfortable to release. To ensure anonymity in this study, all identifying personal information will be removed from the transcripts and replaced with codes during transcribing of the data in order to protect the identity of the subject. Consent will then be obtained by signing a consent form. Also, participants will not be subjected to any unnecessary risks of harm. Their participation in this research is key to achieve scientifically and socially important aims.

This proposal will be submitted to the University of the Western Cape (UWC) Higher Degrees Committee and ethical clearance will be requested from the UWC Biomedical Research and Ethics Senate Research Committee (BMREC). Approval before data collection will be sought from the Scientific and Ethics Committee (SEC) in the Ministry of Health, Swaziland. Once the proposal is approved by the SEC, permission to conduct the interviews in the health facilities will be sought from Regional Public Health Matron, then the Zonal Matrons.

The study findings will benefit the SRH programme in tailoring their interventions based on the study findings. The Research Unit of the Ministry will be provided with a copy of the results that will be kept for future references.

If you have any questions about the research study itself, please contact me ***Lungile Simelane*** at: P.O. Box 1526, Nhlangano, Swaziland; Cell phone number +268 76522072, email address: mkhweli2002@yahoo.com or my Supervisor: Dr. Lungiswa Tsolekile, University of the Western Cape, Private Bag X17, Bellville 7535, Telephone: +27 21 9592243, Email address: ltsolekile@uwc.ac.za

Thank you for considering my request. I have attached my research proposal and the data abstraction tool as well as the Ethical Clearance from University of the Western Cape's Senate Research Committee and Ethics Committee.

Kind regards,

L. Simelane

Lungile Cynthia Simelane

Appendix H Regional Public Health Matron Approval

Telegrams:
Telex:
Tele: (+268 22078362)
Fax: (+268 22078701)

Ministry Of Health
P.O. Box 58
Nhlangano
Swaziland

THE KINGDOM OF SWAZILAND

15th May, 2020

The Regional Public Health Matron
Ministry of Health
Nhlangano

Dear Sir/Madam

Re: Request for permission to conduct a study in the three regional Public Health Units

This is to acknowledge receipt of your request to conduct your study in the Public Health Units for your Master's research entitled ***"Pregnant women's perceptions on the factors that contribute to late antenatal care booking in the Shiselweni region in Swaziland."***

In light of the importance of the study, you are granted permission to conduct the study for your thesis in these facilities. Kindly share the findings of your study with the Regional Management Team when you have completed your research.

Wishing you success as you pursue your study.

Sincerely

Sisana Ndwandwe
REGIONAL PUBLIC HEALTH MATRON

MINISTRY OF HEALTH P. O. BOX 58 NHLANGANO 20 MAY 2020 REGIONAL PUBLIC HEALTH MATRON SHISELWENI ESWATINI

Appendix I Permission request letter for the Zonal Matron

UNIVERSITY OF THE WESTERN CAPE
School of Public Health

Private Bag X17 ● BELLVILLE ● 7535 ● South Africa
Tel: 021- 959 2809, Fax: 021- 959 2872

18th May, 2020

The Zonal Matron
Ministry of Health and Social Welfare
P.O Box 58
Nhlangano
Swaziland

Dear Sir/Madam

Re: Request for permission to conduct a study in the Public Health Unit

I am Lungile Cynthia Simelane, a Masters of Public Health Student at the University of the Western Cape. I am asking for your permission to conduct in-depth interviews in the facility with pregnant women who utilise the facility. The study will be undertaken as partial fulfilment for the completion of the Masters of Public Health Degree.

The purpose of this research project is to explore the perceptions of pregnant women on the factors that contribute to late ANC booking in the Shiselweni Region. Finding these factors will then help in developing interventions and programmes that will help strengthen the importance of early ANC booking amongst pregnant women and thus help reduce maternal mortality. Results from this study will also help to improve and support knowledge and early participation of pregnant women on issues of Sexual Reproductive health (SRH) and ensure availability of quality and affordable SRH services in health facilities.

This study will be based in the Shiselweni region. It will be carried out in the Matsanjeni, Nhlangano and Hlatikulu Public Health Units (PHUs). These facilities are those that offer antenatal care services. They have been chosen because they have a large catchment area. This study will use purposive sampling because the attention is generally on the participants

who might have been victims or directly affected by the research topic. It will also be used to make sure that all the important areas and diversity of the study question are incorporated and explored to provide detailed information. In this study, women aged 18-45 years, with variations in terms of literacy level, marital status, parity, will be selected for the study to ensure enrichment of knowledge on the research.

A descriptive qualitative approach will be used for the study. A qualitative research approach is a way of acquiring information from a primary source. Further, qualitative investigation looks to understand why that group makes certain choices, how their thoughts and ideas vary and how well certain ideas are understood. The qualitative design will help in determining social, economic and behavioural factors that make them access ANC services later than the stipulated time for their first visit. I will use semi-structured interviews which will encourage the participants to tell more about their experiences and attitudes in as far as ANC late visits are concerned.

Participants will be informed that participation in the study is voluntary, and refusal to participate in the study will not result in any penalty. They will further be informed of their right to withdraw from the study at any point where they feel uncomfortable. They will not be compelled in any way to try and stop them from withdrawing. Also, they have a right to withhold information they do not feel comfortable to release. To ensure anonymity in this study, all identifying personal information will be removed from the transcripts and replaced with codes during transcribing of the data in order to protect the identity of the subject. Consent will then be obtained by signing a consent form. Also, participants will not be subjected to any unnecessary risks of harm. Their participation in this research is key to achieve scientifically and socially important aims.

This proposal will be submitted to the University of the Western Cape (UWC) Higher Degrees Committee and ethical clearance will be requested from the UWC Biomedical Research and Ethics Senate Research Committee (BMREC). Approval before data collection will be sought from the Scientific and Ethics Committee (SEC) in the Ministry of Health, Swaziland. Once the proposal is approved by the SEC, permission to conduct the interviews in the health facilities will be sought from Regional Public Health Matron, then the Zonal Matrons. The study findings will benefit the SRH programme in tailoring their interventions

based on the study findings. The Research Unit of the Ministry will be provided with the copy of results that will be kept for future references.

If you have any questions about the research study itself, please contact me ***Lungile Simelane*** at: P.O. Box 1526, Nhlangano, Swaziland; Cell phone number +268 76522072, email address: mkhweli2002@yahoo.com or my Supervisor: Dr Lungiswa Tsolekile, University of the Western Cape, Private Bag X17, Bellville 7535, Telephone: +27 21 9592243, Email address: ltsolekile@uwc.ac.za

Thank you for considering my request. I have attached my research proposal and the data abstraction tool as well as the Ethical Clearance from University of the Western Cape's Senate Research Committee and Ethics Committee.

Kind regards,

L. Simelane

Lungile Cynthia Simelane

Appendix J Zonal Public Health Approval (Hlatikulu PHU)

Telegrams:
Telex:
Tele: (1268 22078362)
Fax: (+268 22078701)

Ministry Of Health
P.O. Box 58
Nhlangano
Swaziland

THE KINGDOM OF SWAZILAND

18th May, 2020

The Zonal Public Health Matron
Ministry of Health
Nhlangano

Dear Sir/Madam

Re: Request for permission to conduct a study in the Public Health Unit

This is to acknowledge receipt of your request to conduct your study in the Public Health Unit for your Master's research entitled "***Pregnant women's perceptions on the factors that contribute to late antenatal care booking in the Shiselweni region in Swaziland.***"

You are granted permission to conduct the study for your thesis in the facility.

Wishing you the best as you conduct your study.

Sincerely

Khabonina Mhlanga
HLATIKULU ZONAL PUBLIC HEALTH MATRON

Appendix K Zonal Public Health Approval (Matsanjeni PHU)

Telegrams:
Telex:
Tele: (+268 22078362)
Fax: (+268 22078701)

Ministry Of Health
P.O. Box 58
Nhlangano
Swaziland

THE KINGDOM OF SWAZILAND

18th May, 2020

The Zonal Public Health Matron
Ministry of Health
Nhlangano

Dear Sir/Madam

Re: Request for permission to conduct a study in the Public Health Unit

This is to acknowledge receipt of your request to conduct your study in the Public Health Unit for your Master's research entitled ***"Pregnant women's perceptions on the factors that contribute to late antenatal care booking in the Shiselweni region in Swaziland."***

Please be informed that you are granted permission to conduct the study for your thesis in the facility.

Wishing you success as you conduct your study.

Sincerely
for Rosemary Masuku
MATSANJENI ZONAL PUBLIC HEALTH MATRON

Appendix L Zonal Public Health Matron Approval (Nhlangano PHU)

Telegrams:
Telex:
Tele: (+268 22078363)
Fax: (+268 22078701)

Ministry Of Health
P.O. Box 58
Nhlangano
Swaziland

THE KINGDOM OF SWAZILAND

15th May, 2020

The Zonal Public Health Matron
Ministry of Health
Nhlangano

Dear Sir/Madam

Re: Request for permission to conduct a study in the Public Health Unit

This is to acknowledge receipt of your request to conduct your study in the Public Health Unit. for your Master's research .

Please be informed that, you are granted permission to conduct the study for your thesis in the facility.

Wishing you success as you pursue your study.

Sincerely

for Phindile Mavuso
NHLANGANO HEALTH CENTRE MATRON

Appendix M Swaziland Research Protocol Certificate

RESEARCH PROTOCOL CLEARANCE CERTIFICATE

BOARD REGISTRATION NUMBER	**FWA 00026661/IRB 00011253**						
PROTOCOL REFERENCE NUMBER	**SHR236/2020**						
Type of Review	Expedited	X		Full Board			
Name of Organization	Student (Masters)						
Title of study	Pregnant women's perceptions on the factors that contribute to late Antenatal Care booking in Swaziland						
Protocol version	1.0						
Nature of protocol	New	X		Amendment		Renewal	
List of study sites	Nhlangano Health Center, Matsanjeni Health Center, Hlatikulu PHU						
Name of Principal Investigator	Mrs. Simelane, Lungile Cynthia						
Names of Co- Investigators	N/A						
Names of steering committee members in the case of clinical trials	N/A						
Names of Data and Safety Committee members in the case of clinical trials	N/A						
Level of risk (Tick appropriate box)	Minimal ✓			High			
Clearance status (Tick appropriate box)	Approved	X		Disapproved			
Clearance validity period	Start date	14/07/2020		End date	14/07/2021		
Signature of Chairperson							
Date of signing	14/07/2020						
Secretariat Contact Details	Name of contact officers	Ms Babazile Shongwe					
	Email address	babazileshongwe@gmail.com					
	Telephone no.	(00268) 24040865/24044905					

ESWATINI HEALTH & HUMAN RESEARCH REVIEW BOARD
14 JUL 2020
P.O BOX 5, MBABANE H100
TEL: (+268) 2404 4810

Appendix N UWC Biomedical Science Research Ethics Committee Approval

UNIVERSITY *of the* WESTERN CAPE

24 March 2020

Mrs L Simelane
School of Public Health
Faculty of Community and Health Sciences

Ethics Reference Number: BM20/1/14

Project Title: Pregnant women's perceptions on the factors that contribute to late antenatal care booking in Swaziland.

Approval Period: 20 March 2020 – 20 March 2023

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report by 30 November for the duration of the project.

Permission to conduct the study must be submitted to BMREC for record-keeping.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

Director: Research Development
University of the Western Cape
Private Bag X 17
Bellville 7535
Republic of South Africa
Tel: +27 21 959 4111
Email: research-ethics@uwc.ac.za

NHREC Registration Number: BMREC-130416-050

FROM HOPE TO ACTION THROUGH KNOWLEDGE.