INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE IN A HEALTH FACILITY IN CAPE TOWN

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DECLARATION

I, Maryke Roelofse declare that this dissertation entitled: "**INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE IN A HEALTH FACILITY IN CAPE TOWN**", is my own work and that all sources I have used or quoted have been indicated and acknowledged by means of complete reference and that this work has not been submitted for any other degree or examination in any other university other than the University of the Western Cape.

15 October 2018

Mrs. M. Roelofse`

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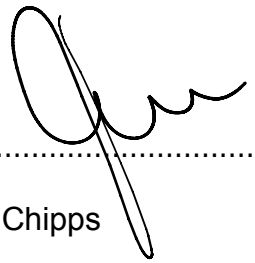

..... 09 November 2018

Prof. J. Chipps

(Supervisor)

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DEDICATION

I dedicate this study to each woman of childbearing age and women and family who lost a baby or mother, wife due to mortality of inadequate antenatal care or the lack there of.

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ACKNOWLEDGEMENTS

I thank God for giving me the wisdom, strength and courage to complete this study.

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ABSTRACT

Despite the awareness of the importance of initiating antenatal care in the first trimester of a pregnancy (before 12 weeks gestation), late initiation of antenatal care (on or after 24 weeks of gestation) remains a common trend amongst pregnant women. The late initiation of antenatal care poses such a risk, to both the pregnant women and their unborn babies that it can contribute to maternal and foetal mortality and morbidity. The late initiation of antenatal care, an entirely avoidable occurrence, has an impact on targets set by the United Nations Millennium Development Goals (MDGs), now focusing on the Sustainable Development Goals (SDG's) set out by the United Nations. This study aim to investigate the factors which contribute to and cause the late initiation of antenatal care in pregnant women in a region in the Western Cape.

Aim

The aim of this study was to investigate the factors that influence pregnant woman and contribute to late initiation of antenatal care (after 24 weeks gestational age) in one health facility/district in Cape Town. The findings of the study identified possible factors that may cause pregnant women to initiate antenatal care late in pregnancy and these findings could facilitate planning and possible interventions targeting the importance of early initiation in the community.

Methods

A quantitative research approach using a descriptive survey design and a researcher administered questionnaire was be used to investigate the factors contributing to late initiation of antenatal care services. All participants who attend the antenatal clinic on or after 24 weeks gestation, older than 18 years and able to communicate in English

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and who gave consent to participate in the study were approached over a period of four months to participate in the study until a sample size of 50 was reached.

Results

Fifty respondents were included in this study to investigate and describe factors contributing to late initiation of antenatal care. The respondent profiles of woman who presented at antenatal clinic for late initiation of antenatal care were older, multiparous women, residing in rural areas, unemployed, with a low educational background, and were dependent on their partners. These respondents were well informed about the importance of antenatal clinic initiation and attendance but yet delayed initiation of antenatal care. The main external environmental factor was that most respondents resided in informal settlements near and around the study site, which could have been the main factor contributing to late initiation of antenatal care. The main three enabling factors reported by respondents which inhibited them from early initiation of antenatal care were; other primary priorities like work and school responsibilities, uncertainty of gestational age of the pregnancy and hiding their pregnancies. The main needs related by respondents who initiated antenatal care were the need to be monitored and reassured their pregnancy was healthy, the need for a maternity case record when they need to go to the labour ward, the need to know the pregnancy's gestation and the need to reserve a bed for labour.

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Conclusion and Recommendations

This study showed that a lack of awareness and knowledge towards antenatal care was a positive indicator to late initiation of antenatal care, as the majority of the women fell pregnant unintentionally, were unmarried and unaware of their last normal period. The recommendation from the research report is that awareness campaigns should be conducted in the communities encouraging women to report to

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their nearest clinic for initiation of antenatal as soon as she suspects she might be pregnant.

Key Words

Risk factors, late initiation of antenatal care

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ABBREVIATIONS

ANC	**ANTENATAL CLINIC / ANTENATAL CARE**
ART	**ANTIRETROVIRAL MEDICATION**
BANC	**BASIC ANTENATAL CARE**
BP	**BLOOD PRESSURE**
DOH	**DEPARTMENT OF HEALTH**
EDD	**ESTIMATED DATE OF DELIVERY**
HIV	**HUMAN IMMUNODEFICIENCY VIRUS**
LNMP	**LAST NORMAL MENSTRUAL PERIOD**
NHRD	**NATION HEALTH RESEARCH DATA BASIS**
MCR	**MATERNITY CASE RECORD**
MDG'S	**MILLENIUM DEVELOPMENTAL GOALS**
MOU	**MIDWIFES OBSTETRIC UNIT**
PMTCT	**PREVENTION OF MOTHER TO CHILD TRANSMISSION**
SDG'S	**SUSTAINABLE DEVELOPMENTAL GOALS**
WHO	**WORLD HEALTH ORGANISATION**

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CHAPTER 1: BACKGROUND AND INTRODUCTION OF THE STUDY

1.1 INTRODUCTION

Antenatal care is essential for the well-being of pregnant women and the development of the foetus. According to the WHO, only about 56% of pregnant women attended the recommended four antenatal visits globally for the period 2006 to 2013 (WHO, 2015). The WHO recommend that all pregnant women should have at least four regularly interval spaced visits to an antenatal clinic under the supervision of a skilled attendant, starting as early as possible in the first trimester (Ornella Linceto, 2002).

This research thesis sets out to describe the factors that influence pregnant women to attend late initiation of antenatal care, i.e. after 24 weeks gestational age, in one health facility in Cape Town.

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1.2 BACKGROUND

The WHO recommends at least four (4) antenatal visits during pregnancy, with the first visit preferably being in the first trimester (Lincetto, Mothebesoane-Anoh, Gomez, & Munjanja, 2006). Although the number of antenatal visits can be as high as eight (8), very few women book in their first trimester as per WHO recommendation (WHO, 2017).

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According to the Department of Health Western Cape (2013) it is advised for pregnant woman to book and attend their first visit to the clinic before 20 weeks gestation and to return for follow-up visits every 6 weeks up to 28 weeks gestation. After that at 34 weeks gestation and thereafter as indicated by the antenatal clinic staff (Western Cape Government, 2015).

Antenatal care provides important education, advice and allows for the identification and management of obstetric complications (Lincetto et al. 2006). There are a number of risk factors associated with late antenatal booking (Banda, 2012) and these may have an impact on maternal and foetal wellbeing, resulting in increased mortality and morbidity.

The Millennium Development Goal 5 aimed to improve maternal health, reduce maternal mortality and increase universal access to reproductive health (Millennium Development Goals (MDG's, 2014). The MDG's that was started in 2000 and has been now been replaced by "The Sustainable Development Goals" (SDG's) at the United Nations Conference in Rio de Janeiro in 2012. The MDG's made good strides, but for millions of people it was not enough (Sustainable Development Goals, 2017). Goal 3; "Good health and well-being", of the Sustainable Developmental Goals focuses on ensuring healthy lives and promotes well-being for all at all ages and focuses on child health, maternal health, HIV/AIDS, malaria and other diseases (Sustainable Developmental Goals, 2017).

A number of initiatives were implemented globally to achieve the MDG's. In South Africa, these include the provision of antenatal care to all pregnant women from the

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first trimester, with the MomConnect project being introduced by the National Department of Health (DoH) to enhance antenatal care (DoH, 2014). On 21 August 2014, Dr Aaron Motsoaledi, the National Minister of Health launched the MomConnect Project, which is a free service whereby pregnant mothers register their pregnancy by dialing a number from their cell phone. Thereafter the pregnant mother will receive messaging services to create awareness about their pregnancy and about the health services available to them (DoH, 2014).

1.2 PROBLEM STATEMENT

Saving mother and babies should be accomplished by early booking and early recognition of danger signs (DoH, 2006). Despite the awareness campaign undertaken by the National Department of Health (DoH South Africa, 2017) to educate women and the public about healthy pregnancy, to encourage registration on MomConnect and to encourage attendance at the nearest basic antenatal clinic (BANC) facility early in the pregnancy, it is still evident that some women only attend antenatal clinics (ANC) for the first time after 20 weeks gestation.

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In Cape Town, South Africa, an analysis amongst a cohort of women with singleton births showed that out of 27, 713 women, only 7.3% initiated antenatal care in the first trimester (≤ 12 weeks gestation) and 32.6% were in their third trimester (≥ 27 weeks gestation) when they first initiated antenatal care (Beauclair, 2014).

Late initiation of antenatal care poses a risk for the unborn baby and pregnant women. This includes not receiving education on healthy lifestyles, nutrition and vitamin and haematinic supplementation which could benefit the pregnancy.

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Furthermore, women who initiate antenatal care late don't have a broad and comprehensive antenatal record which enables health services to detect possible risk factors indicating the need for further investigation.

Various factors can contribute to late initiation of antenatal care such as economic status, unplanned pregnancies and women being busy at work or with other primary priorities (Tekelab & Berhanu, 2014). There is a need to establish the factors that contribute to the continued situation where pregnant women only book antenatal classes 20 weeks into their pregnancy, despite efforts to increase the awareness of and uptake in antenatal care in the first trimester.

This study describes the socio and obstetric profile, the possible enabling and need factors that may contribute to late initiation of antenatal care. Recommendations will be made regarding implementation of strategies to create better awareness and education amongst women of child bearing age and create fields and recommendations for further research studies.

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1.3 SIGNIFICANCE OF THE STUDY

Antenatal care not only benefits both the pregnant women, and the unborn child, its effective provision and timeous uptake has the potential to improve the wellbeing of the family as morbidity and mortality are reduced (Licetto et al. 2014). The identification of factors that contribute to late initiation of antenatal care provides an opportunity to make recommendations of possible strategies to encourage pregnant woman to initiate antenatal clinic early, as soon as they find out they are expecting, preferably before 20 weeks gestation.

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The findings of the study could illustrate possible factors evident in causing pregnant women to initiate antenatal care late in pregnancy in this specific setting. These findings therefor could facilitate planning and possible interventions to increase access or increase awareness of the importance of early initiation in the community.

1.4 AIM OF THE STUDY

The aim of this study was to describe the factors that may influence pregnant women and contribute to late initiation of antenatal care, (after 24 weeks gestational age) in one health facility in Cape Town.

1.5 RESEARCH OBJECTIVES AND QUESTIONS

Four research objectives guided the study. The applicable research questions are presented after each objective.

1.5.1 RESEARCH OBJECTIVE ONE

To describe external environmental factors that may contribute to late initiation of antenatal care by pregnant women in one health facility/district in Cape Town

Research questions

a. *Where do women seek antenatal services?*
b. *Where do late attendees reside?*

1.5.2 RESEARCH OBJECTIVE TWO

To describe the predisposing factors that may contribute to late initiation of antenatal care

Research questions

a. *What are the demographic characteristics of women who initiate late attendance of antenatal care?*

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b. *What is the level of knowledge about their pregnancy in women who initiate late attendance of antenatal care?*

1.5.3 RESEARCH OBJECTIVE THREE

To describe the enabling factors which may contribute to late initiation of antenatal care?

Research questions

a. *How accessible are clinics to pregnant women?*
b. *How far from the clinic do pregnant women stay?*
c. *What is the transport affordability in this population?*
d. *What is the level of self-responsibility for pregnant women's health care?*
e. *What are the perceptions and beliefs about antenatal care?*

1.5.4 RESEARCH OBJECTIVE FOUR

To describe the need factors why woman initiate antenatal care late in pregnancy

a. *Why do late attendees initiate antenatal care?*

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1.6 OPERATIONAL DEFINITIONS OF TERMS

The following terms have been operationalised for this study

Table 1: Terms and Definitions

TERM	DEFINITION
Antenatal Clinic	A fixed clinic at the MOU which pregnant women attend throughout the pregnancy where mothers to be receive counseling and advice on the pregnancy, they receive and initial full assessment on the first visit called the booking visit. Maternal and foetal well-being is monitored closely throughout the pregnancy and also receives valuable information and vitamin supplementation. (Department of Health

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	Western Cape Government, 2014). *Operational Definition: Antenatal Clinic (ANC) is regarded as the service rendered to pregnant women prior to delivery to assess maternal and foetal wellbeing in the selected study site.*
Antenatal Visit	Regular check-ups with a midwife or doctor during pregnancy (Antenatal visits - check-ups during your pregnancy, 2014).
Basic Antenatal Clinic	A satellite antenatal clinic rendering initiations and low risk follow up services at the various community clinics.
Early initiation	The first antenatal visit should take place early in pregnancy before 12 weeks gestation (Kavanagh, 2011). *Operational Definition: The first ANC visit before 24 weeks gestation.*
Late initiation	First antenatal visit after 12 weeks gestation are classified as booking late according to (Trinh & Rubin 2006) *Operational Definition: For this study, the focus of booking late will refer to pregnant women attending ANC for the first time on 24 weeks gestation or later*
Booking Visit / Initiation visit / new booking	On the booking visit a comprehensive history, determining gestational age and identification of possible maternal and foetal risks are done and baseline investigations are performed (Harrington, 2012). (Department of Health Western Cape Government, 2013).
MOU	Birthing units run by midwifes in the community for primary, low-risk pregnant women (Department of Health Western Cape Government, 2013). *Operational Definition: The MOU is the birthing unit in the for the pilot study*
Knowledge	Knowledge refers to having an understanding of pregnancy and the possible complications and expectations *Operational Definition: Scoring 80% or more on Knowledge Questions in Questionnaire*
Postdates	A pregnancy extending to or beyond 42 weeks gestation (294 days)

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	(Gala, Symonds, Murray, Petraglia, & Smith, 2012)
Socio-demographics	Socio-demographic referring to age, sex, education, income, marital status, job, religion, birth rate, death rate, family size, and marriage age (The Law Dictionary, 2015).
Primiparous / Nulliparous women	Women being pregnant for the first time
Multiparous women	Women given birth two or more times
Macrosomic Baby	Large for gestation baby
Teratogenic Effect	Substances passing through the placenta causing congenital anomalies or birth defects
Gestation	The developing period of a foetus in weeks, calculated from the first day of the last normal menstrual period. A term pregnancy of 280 days = 40 weeks.
Ultra Sound	High frequency sound waves for diagnostic or therapeutic purposes to specifically create an image of internal body structures.

1.7 CONCEPTUAL FRAMEWORK

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1.7.1 INTRODUCTION

In this study, the Andersen Behavioural Model Framework (Andersen, 1995) and the Adapted Model Framework as used by Titaley, Dibley & Roberts (2010) were used to guide the study (Figure 1). Factors associated with underutilisation of antenatal care services in Indonesia: results of Indonesia Demographic and Health Survey 2002/2003 and 2007 (2010) was also used to guide the framework to determine factors which contribute to late initiation of antenatal care at the antenatal clinic.

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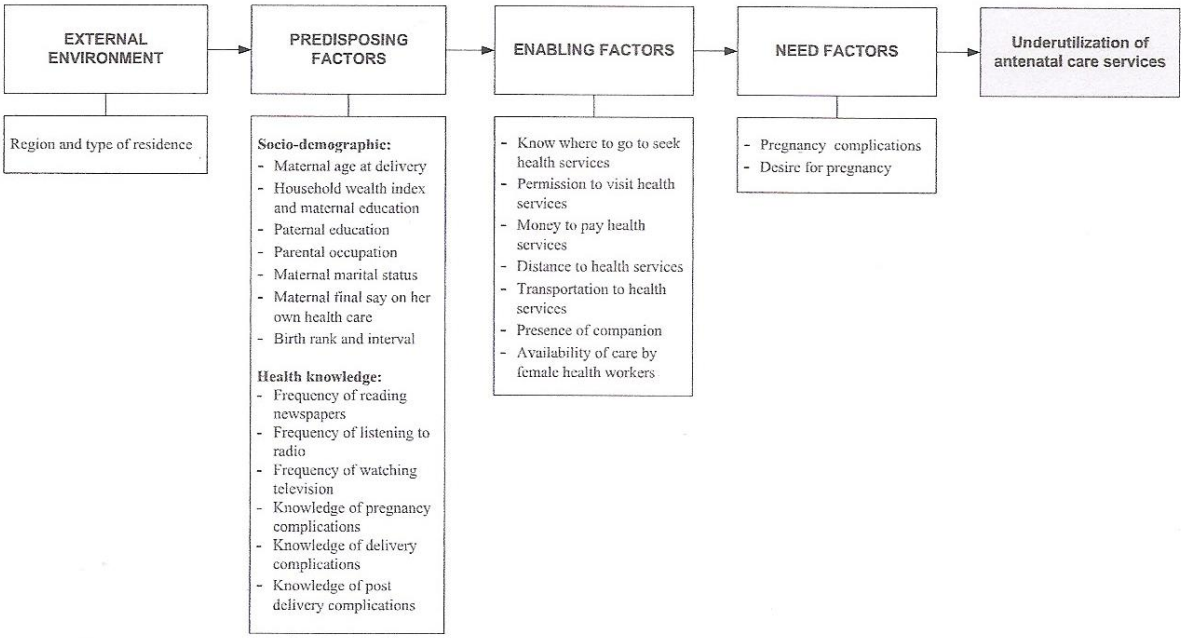

Figure 1: Theoretical framework of factors associated with underutilisation of antenatal care services in Indonesia used by (Titaley et al. 2010) adapted from the Andersen Behavioural Model.

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1.7.2 THE ANDERSON BEHAVIOURAL MODEL FRAMEWORK

The Andersen Behavioural Model was developed in the late 1960s to assist in understanding why families use health services, it suggested that predisposing factors and the needs for use will enable or impede use (Andersen, 1995). Titaley et al. (2010) used an adapted version of the Andersen Behavioural Model Framework to group potential factors associated with not attending antenatal care services. Titaley et al. (2010) used four main groups to categorize twenty-three potential risk factors associated with not attending antenatal care in Indonesia. These four categories are: external environmental, predisposing, enabling and need factors (Titaley et al. 2010) (Figure 2).

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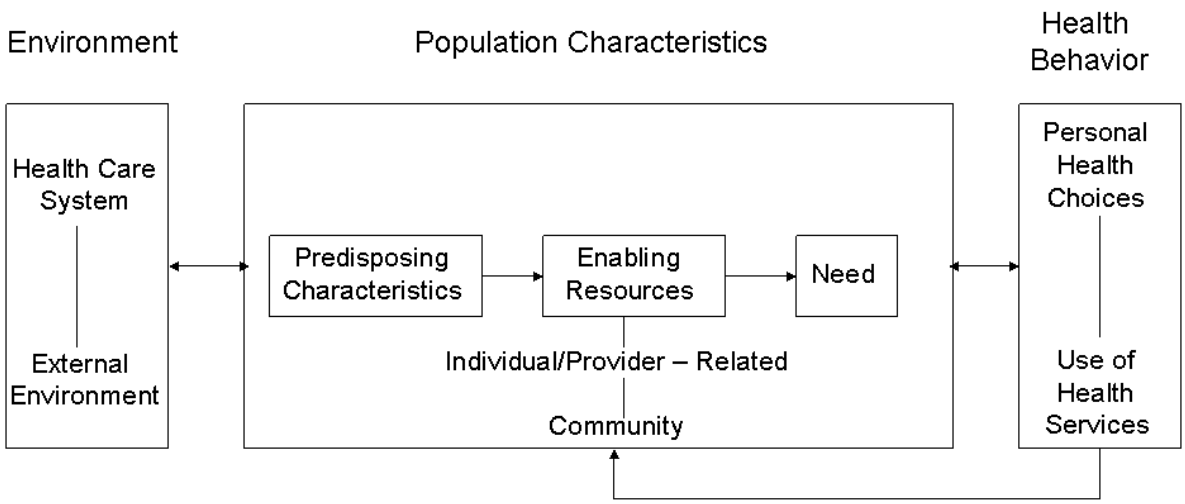

Figure 2: The Andersen Model of Health Care Utilisation (Titaley et al. 2010)

1.7.3 APPLICATION OF ANDERSON BEHAVIOURAL MODEL FRAMEWORK IN THIS STUDY

For this study an adapted version (Figure 3) was used to identify and describe factors which could contribute to why pregnant women attend antenatal clinic late during their pregnancy. The model focuses on predisposing characteristics, enabling resources and the need which will determine the likelihood of the use of health services (Anderson, 1995). External environmental, predisposing factors like socio-demographic and health knowledge, enabling factors such as where to seek health services and the need factor all contribute to the likelihood of attending antenatal clinic (Titaley et al. 2010).

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The details of the factors are discussed in literature review.

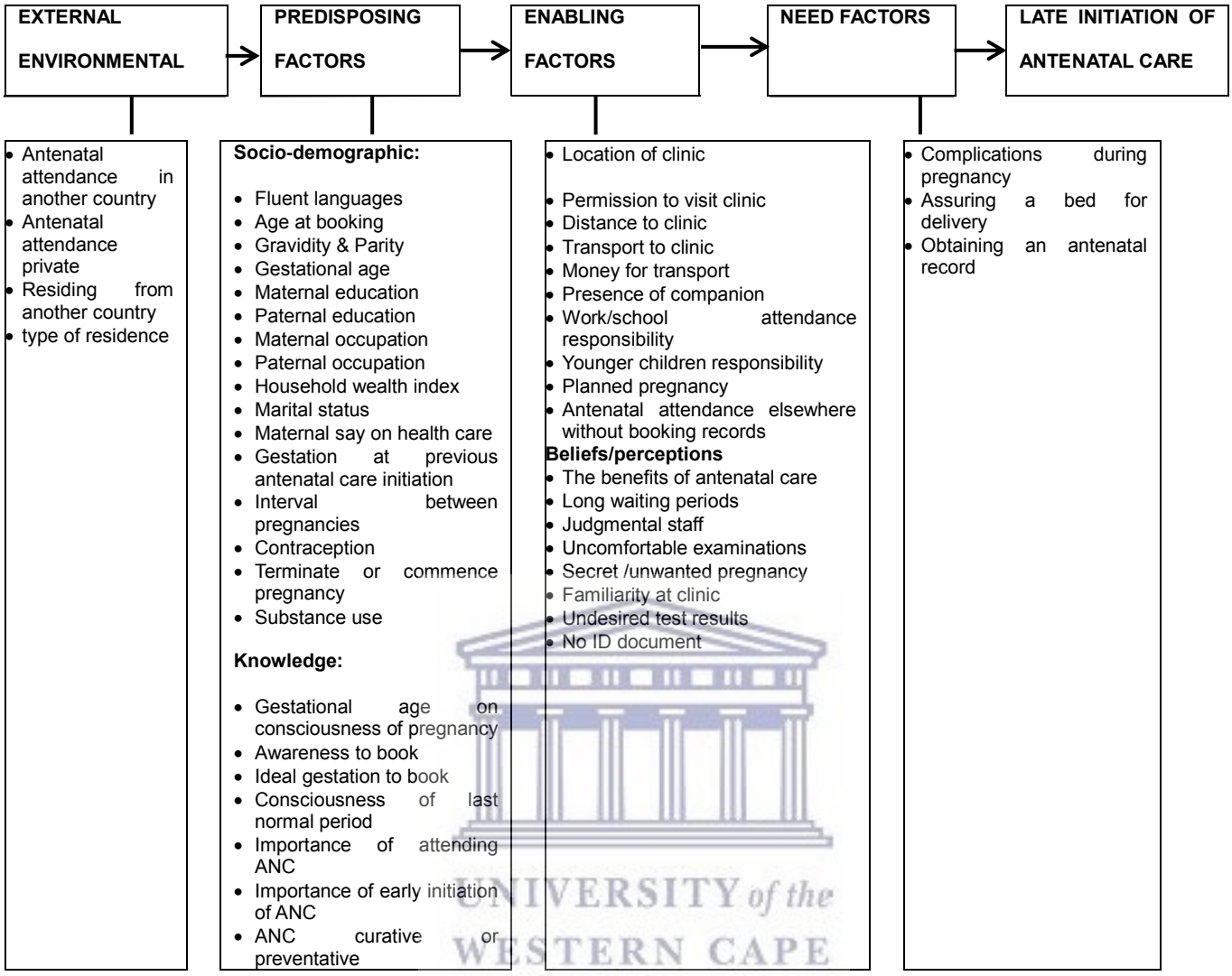

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Figure 3: The Andersen Behavioural Model (Titaley et al. 2010) Framework adapted for this study

1.8 SUMMARY OF THE CHAPTER

In this chapter the importance of early initiation of antenatal care was discussed. The problem statement highlighted the risks of late initiation and the need for further investigation of factors contributing to late initiation of antenatal care. To support the measures already in place to facilitate the initiation of antenatal care, this study will provide further evidence confirming risk factors for late initiation and provide possible recommendations to promote early initiation of antenatal care.

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The aim of this study, guided by the objectives was to describe the factors that contribute to late initiation of antenatal care. The Theoretical Framework of factors associated with underutilization of antenatal care services in Indonesia that was used by Titaley et al. (2010), adapted from the Andersen Behavioural Model was used to provide a framework and structure for this study.

In Chapter two, the literature relating to the problem size and consequences of late initiation of antenatal care and the external environmental, predisposing, enabling and need factors will be discussed.

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CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

Various factors have contributed to late initionation of antenatal care have been recorded in the literature (Tekelab & Berhanu, 2014) (Banda, Michelo, & Hazemba, 2012) (Myer & Harrison, 2003). Failure to access antenatal clinics early in pregnancy has a number of negative effects and outcomes which could contribute to maternal mortality and morbidity hampering work towards achieving or reaching targets set by the United Nations Sustainable Development Goals (Sustainable Developmental Goals, 2017). Consequences for late initiation of antenatal care include poor vitamin and iron supplementation, poor baseline vital signs and poor growth monitoring (WHO, 2016). There are a number of external environmental, predisposing and enabling factors which may contribute to late initiation of antenatal care. Cultural beliefs and a lack of knowledge about the correct time to book and the need for health care can also influence the timing of initiation of antenatal care. This chapter will present literature related to the above aspects, providing more clarity to the phenomenon investigated and described in this study.

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2.2 PROBLEM OF LATE INITIATION OF ANTENATAL CARE

Late initiation of antenatal care is an international problem. A study done in England and Wales found that 13.4% of primiparous women were more likely to initiate antenatal care after ten weeks gestation and 34.3% were more likely to initiate antenatal care after 18 weeks gestation (Kupek, Petrou, Vause & Maresh, 2002). In Africa there are reports of delayed initiation of antenatal care. As noted by Kisuule et al. (2013) 79% of pregnant women attend antenatal clinics late (after 20 weeks gestation or beyond) for their first visit in Uganda. Similarly, in Tanzania 56% of the

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pregnant women admitted that they initiated antenatal care late (Gross et al. 2012).This is also a problem in South Africa. According to Beauclair (2014) an analysis was conducted amongst a cohort of woman with singleton births in the public perinatal service in Cape Town, South Africa and they found that out of 27 713 women, only 7.3% initiated antenatal care in the first trimester (6-12 weeks gestation), and up to 32.6 % initiated antenatal care in the third trimester (27-42 weeks gestation).

2.3 BENEFITS OF EARLY INITIATION OF ANTENATAL CARE

The World Health Organisation recommend that a pregnant woman initiate antenatal care as soon as she finds out she is pregnant, preferably in the first trimester and have at least eight follow up visits throughout her pregnancy (WHO, 2016). The WHO (2016) outlined the benefits of early initiation of antenatal care:

- The counseling of healthy lifestyle and eating;
- Access to daily iron (30mg – 60mg) and Folic Acid (400 microgram) supplementation in early pregnancy to prevent anemia, pueperial sepsis, low birth weight and preterm labour;
- Early and regular monitoring of blood pressure and urine samples;
- Routine screening tests for early intervention and pregnancy risk;
- An ultrasound scan offered to pregnant women before 24 weeks gestation to estimate gestational age, improve detection of foetal abnormality, diagnosis of multiple pregnancy, reduce induction of labour for post term pregnancies, and improve pregnancy experience;
- Advice and discouragement of the use of alcohol and substance use in pregnancy.

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2.4 PERCIEVED CONSEQUENCES OF LATE INITIATION OF ANTENATAL CARE

Failure to access antenatal services in early pregnancy presents the benefits as discussed by the WHO. Therefore late initiation of antenatal care can contribute to a lack of comprehensive screening and monitoring of indications for early intervention of the pregnant women and the unborn baby. Late initiation of antenatal care can contribute to a lack of vitamin supplementation which is important in early stages of pregnancy, failure to detect foetal anomalies by ultrasound between 18 to 22 weeks gestation, the lack of monitoring vital signs and uterine growth during the pregnancy and the inability to detect risk factors early in the pregnancy (Mkhari, 2016).

The consequences when women initiate antenatal care after 24 weeks gestation include increased morbidity and mortality for both the mother and the child (Mkhari, 2016); poor supplementation of vitamins and minerals required for a healthy pregnancy; the inability to monitor, prevent and treat complications; and the unmet nutritional and information needs (Arinda, 2013). These consequences are discussed in more detail below.

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2.4.1 POOR VITAMIN AND IRON SUPPLEMENTATION

All women of child bearing age who are planning a pregnancy should take folic acid supplementation prior to and for at least the first 12 weeks during their pregnancy (Lincetto, 2002). Woman should receive at least 400mcg – 800mcg (microgram) folic acid daily, especially in the first trimester to minimise and prevent major birth defects like Spina Bifida and anencephaly (Wolff, 2012). When woman attend an antenatal clinic late for the first time, they might not have been educated on healthy lifestyle, vitamin, iron and folic acid supplementation during early pregnancy. In the

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government settings woman receive folic acid and vitamin supplementation free on their first visit and throughout their pregnancy whereas woman who book late might not have access to these supplements.

2.4.2 NO FOETAL ANOMALY SCAN OR ACCURATE ESTIMATED DATE OF DELIVERY (EDD) CALCULATION

According to Obstetric and Gynecological Ultrasound: Policy and Protocols (DoH, 2012), each pregnant woman should receive at least one ultrasound during their pregnancy, preferably between 18 – 20 weeks gestation which is the foetal anomaly (visualising specific organs and structures) scan. This scan can confirm an intra-uterine pregnancy, diagnose multiple pregnancies, detect foetal malformations and obtain certain measurements that could indicate the need for further investigation, as in placenta previa.

Women booking at government settings after 24 weeks gestation do not qualify for a routine ultrasound, unless otherwise indicated by problems that might arise. When booking after 24 weeks gestation an estimated date of delivery (EDD) is calculated based on the first date of the last normal menstrual period (LNMP) to see if it fits in with the symphysis to fundal height (SF measurement in cm indicating womb size). Otherwise if unsure LNMP, the EDD is approximately calculated by the SF height. The calculation of the EDD by SF measurement and unsure LNMP could be inaccurate especially in woman who have irregular menstrual cycles, who have been on hormonal contraception, or who may have had first trimester bleeding (Caughey, 2016), or woman who are unsure of the exact LNMP. The SF measurement might not be an accurate indication of the gestation of the pregnancy in calculating the EDD where there is slow or rapid foetal growth, to little (oligohydramnios) or too

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much (polyhydramnios) amniotic fluid, uterine fibroids, premature descending of foetus into the pelvis, high maternal body mass index, multiple pregnancies or a full bladder (Harms, 2014). Inaccurate dating could contribute to unnecessary induction of labour or prolonged pregnancies, which respectively have their own maternal and foetal risk factors (Gala et al. 2012).

2.4.3 POOR BASELINE VITAL SIGNS AND GRAVIDOGRAPH RECORD

Decreased / increased SF growth in comparison to gestational age might not be diagnosed, in those patients booking close to delivery or those women with a poor ANC attendance record, as a baseline SF growth could not be established. So macrosomic foetuses or intra-uterine growth retardation might not be diagnosed, nor multiple pregnancies. A baseline of vital signs like blood pressure (BP) through-out the pregnancy could assist in early identification or awareness of a possible onset of rising BP, as personally experienced in clinical practice. Early detection of a slight increase could indicate if the woman needs to be followed up more regularly or if there is the need for intervention or further investigation.

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2.4.4 LACK OF IDENTIFICATION OF OTHER MEDICATION AND CONDITIONS IN PREGNANCY

It is important for pregnant woman with chronic diseases to book early so that chronic medication can be adjusted or changed to prevent teratogenic effects to the developing foetus. Routine first visit screening tests like Rhesus factor, Syphilis and Human Immunodeficiency Virus (HIV) are offered to pregnant woman and performed with informed consent to diagnose possible diseases and infections which could impose a risk to the pregnancy, mother and foetus (WHO, 2016). Early detection of bacterial and viral infections is of great importance so that treatment could be

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initiated immediately to minimise and prevent complication during pregnancy and reduce maternal and foetal mortality and morbidity (WHO, 2016).

In HIV positive pregnant woman ART (Anti-retro viral treatment) adherence and feeding counseling should be offered (DoH, 2015). If pregnant woman are newly diagnosed HIV positive during the early first visit to ANC, ART's, FDC (fixed dose combination) can immediately be initiated regardless of the trimester, especially, if Tuberculosis is excluded, as stipulated by the PMTCT (Prevention of Mother-to-Child transmission) Clinical Guidelines Update (DoH, 2015). This will reduce the risk of HIV transmission to the foetus and in breastfeeding mother after the pregnancy and at the same time protecting the mothers' health during and after pregnancy (Western Cape Government of Health, 2014).

2.5 FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE

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A number of factors can contribute to late booking. For example in southern Ethiopia findings suggest the reasons why pregnant women book late is that most women believed that there are no advantages in initiating antenatal care early in the first three months of pregnancy (Tekelab & Berhanu, 2014). The study by Tekelab & Berhanu, (2014) reported a lack of awareness regarding the importance of early initiation and that antenatal care was primarily viewed as curative rather that preventative measure and ignorance with misconceptions on when to start antenatal. Lack of awareness was also noted in other African countries like Zimbabwe, where it was reported that the women did not really know the reasons for antenatal care and viewed antenatal care as a curative rather than a preventative service (Musendo, Chideme-Munodawafa, Mhlanga, & Ndaimani, 2016).

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Factors that might contribute to late initiation of antenatal care are described under; external environmental factors, predisposing factors, enabling factors and need factors.

2.5.1 EXTERNAL ENVIRONMENTAL FACTORS

According to Titaley et al. (2010) external environmental factors focus on the combination of area and type of residence and how this may influence behavior. A study done in Uganda showed that 30% of women sought antenatal care from other health facilities like private clinics and traditional birth attendants or had moved from one place to another before attending the antenatal clinic at the institution where the study was done (Kisuule et al. 2013). This resulted in women attending the studied institution initiate antenatal care late in pregnancy because they sought prior antenatal care at other institutions.

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In a study done in Zambia late initiation of antenatal care was high in both rural and urban communities (Banda et al. 2012). In Ghana, Kenya and Malawi, women sought assistance at general facilities for minor problems and complaints, due to the uncertainty of early pregnancy and did not necessarily initiate ANC nor disclose their pregnancy (Pell, 2013). A study done in Uganda, with a sample size of 400 women initiating antenatal care >20 weeks gestation, 120 (30%) of the women sought antenatal care prior to attending at the study site, which included general health care facilities, private clinics and traditional birthing attendants (Kisuule et al. 2013). In another study 25 (20.8%) women reported they shifted place recently and were attending the hospital as it was the nearest site (Arinda et al. 2013). In each

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respective case discussed above, it resulted in women delaying antenatal care, thus initiating antenatal care late in pregnancy at the study sites.

2.5.2 PREDISPOSING FACTORS FOR LATE INITIATION OF ANTENATAL CARE

Predisposing factors refer to conditions that make individuals more vulnerable to disease/disorder or the onset of certain behavioural responses (Biology-Online, 2015). According to Titaley et al. (2010) predisposing risk factors can be subdivided into socio-demographic and health knowledge factors. According to Anderson (1995) social-demographic factors such as age and gender, the status of a person in the community, education, occupation and ethnicity will suggest the likelihood of people who visiting health services. Health beliefs and knowledge that people have about health and the health service will also determine the use of health services (Andersen, 1995).

Socio-demographic factors: According to a study done in southern Ethiopia, a multivariate analysis showed that older age, lack of education amongst women, low family income, multi-parity, previous antenatal care utilisation, husband's education, residence occupation and the large distances traveled to the clinic had a significant association with late initiation of antenatal care (Tekelab & Berhanu, 2014). A survey done in Zambia, revealed that women with no education and women younger than 20 years or women wanting their last child later were more likely to initiate antenatal care late (Sinyange, Sitali, Jacobs, Musonda, & Michelo, 2016). In contrary, women aged >25 years was the main age group to initiate antenatal care late in southern Ethiopia (Tekelab & Berhanu, 2014). Teenage pregnancy, moving during pregnancy, unwanted pregnancies and unemployment were some of the factors contributing to the delay of initiation of antenatal care, according to a cohort study done in the

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Central Manchester Health Authority (Musendo et al. 2016). Musendo et al. (2016) stated that multiparas and women without husbands/partners were at higher risk of late initiation of antenatal care. In a study done in southern Ethiopia women who had lower to no education initiated antenatal clinic later than those with higher education (Tekelab & Berhanu, 2014). In Zambia women with high parity and gravidity with more than 5 children were associated with late initiation of antenatal care. Sinyange et al. (2016) also indicated the increased likelihood of women with little to no education, unplanned pregnancy and rural women to initiate antenatal care late in pregnancy. The pregnant women's husband who had no education or only primary school education and with a lower monthly wealth index could also be more likely to book late in comparison to those women having a higher combined monthly income and where the husband has secondary and tertiary education (Tekelab & Berhanu, 2014). In Zambia women with high parity and gravidity in both rural and urban areas had a tendency towards late initiation of antenatal care (Band et al. 2012). According to a study done in southern Ethiopia, pregnant women with a lower household monthly income delayed antenatal clinic booking compared to their counterparts with a high monthly income (Gebremeskel, Dibaba, & Admassu, 2015). Women with unplanned pregnancies were also more likely to delay initiation of antenatal care compared to those women who had planned pregnancies (Gebremeskel et al. 2015).

Health Knowledge: Health knowledge is the second predisposing factor. Respondents in a study done in southern Ethiopia stated that they did not know the right time to start antenatal care and that they were not aware of the importance of starting antenatal care early and this lack of awareness regarding the importance of early antenatal attendance was one of the main reasons for late initiation of

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antenatal care (Tekelab & Berhanu, 2014). In a study done in Uganda, most of the participants did not know the right gestational age to initiate antenatal care and the importance of early attendance at an antenatal clinic (Kisuule et al. 2013). Women with knowledge about antenatal care were more likely to initiate antenatal care earlier than those without (Banda et al. 2012).

In a study done in South-Eastern Tanzania, 29% of women gave the reason for late initiation of antenatal care as not recognising the pregnancy early. Due to continued bleeding, the use of contraception or being ill; or waiting for the foetus to move before initiating antenatal care (Gross et al. 2012). Women also associate their amenorrhea to their use of Depo-Provera and not to the possibility of being pregnant (Abrahams, Jewkes, & Mvo, 2001). Some women wait until they have missed two to three menstrual periods or wait until they recognise the signs of pregnancy previously experienced before seeking antenatal care (Abrahams et al. 2001).

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Banda et al. (2012) argued that there is a possibility of multiparous women feeling more confident from previous experience and this may make them feel it is unnecessary to start antenatal care early. Traditionally, nulliparous women would seek advice from multiparous women considered to be more experienced, who in most instances discouraged early booking (Adekanle & Isawumi, 2008). Banda et al. (2012) also mentioned the fact that some women seek advice from older women, consult traditional healers and use self-care practices, according to cultural beliefs, before seeking professional health services. They may also have cultural beliefs that pregnancy is not a disease condition and that antenatal care is primarily a curative rather than a preventative measure (Musendo et al. 2016).

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A lack of health knowledge was further supported in a study done in Edo State, Nigeria where the reasons given by pregnant women for late initiation of antenatal care was lack of knowledge of the importance of early booking was evident (Okhiai, Izeefua, Okojie, Edengbe, Aigbokhaebho, & Benjamin, 2015). Similarly to Gebremeskel (2015) in his study done in southern Ethiopia, pregnant women who did not receive advice on the recommended time to start attending antenatal clinics were more likely to initiate antenatal care late. Also a study in Zimbabwe, pregnant women believed that antenatal care is about safe delivery, and HIV testing, and that fear of the result of the HIV test or knowledge of negative status may both resulting in not (Musendo et al. 2016) seeing the need for antenatal care. The pregnant women were reported to come to the clinic when they are about to deliver to get a birth plan and antenatal record (Musendo et al. 2016). The same misconception came across in the study done by Tekelab & Berhanu (2014) at Catholic clinics in Kembata Tembaro Zone, Southern Ethiopia where pregnant women had the perception that the iron supplementation tablets are a labour inducing drug, thus carrying on to take this "labour inducing" drug late in pregnancy.A study done in Uganda, shared that 72.7% of the women who booked late were not aware of the right gestational age of their baby or when to initiate antenatal care (Arinda et al 2013). Lack of knowledge about cost was also a factor with 9.3% thinking they have to pay for antenatal service (Arinda et al. 2013).

2.5.3 ENABLING FACTORS FOR LATE INITIATION OF ANTENATAL CARE

2.5.3.1 Access of ANC

Factors enabling late antenatal care initiation are language barriers, access and having difficulty in arranging for friends or family members to accompany the women

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to the clinic to assist in translation (Hatherall, Morris, Jamal, Swweney, Kaur, Renton, & Harden, 2016). Health facilities and health workers need to be easily accessible where people live and work, (Andersen, 1995).

According to Anderson (1995) traveling times and waiting periods can play an important role in accessing health services. In a study done in Zambia, accessibility and availability of health facilities were identified as the cause of late initiation of antenatal care to women from rural areas with long traveling times and distances to adequate health facilities (Banda et al. 2012). Poor accessibility due to distance, difficulties in crossing rivers, poor road conditions and other factors like caring for a sick person at home or agricultural work obligations, not having money and the support of husband/partner was some of the reasons independently associated for late initiation of antenatal care in south-eastern Tanzania (Gross et al. 2012).

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The lack of access may result in women waiting until they are 'really' (increase in size, foetal movement) pregnant or hiding the pregnancy (Abrahams et al. 2001). At times women needed to find someone to accompany them in the dark to arrive early at the clinic or needed to sleep over at the institution as they did not want to walk dangerous pathways alone (Abrahams et al. 2001). Okhiai et al. (2015) stated according to the study done on Edo State, Nigeria, that it was reported that the distance to the primary health center was the main reason for late initiation of antenatal care, though 80% of late bookings also were contributed to by the negative attitudes of health care providers (Okhiai et al. 2015).

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2.5.3.2 Financial and other responsibilities

Women who work without benefits or who are discouraged by their employers to take off from work, especially during busy times on farms are often the late first attenders at antenatal clinics (Abrahams et al. 2001). Indirect expenses for resources like clothes and hairdressing prior to antenatal visits and making an effort to look smart and being dependent for finance from the husband for transport to attend antenatal appointments contributed to a delay in initiation of antenatal care (Pell, 2013).

Some women in Kenya and Malawi reported that they initiate antenatal care in the sixth or seventh month to minimise the number of journeys involved for follow-up visits and the total cost thereof (Pell, 2013). Most of the women do not have direct access to cash and depend of their husbands or relatives to meet the cost which in turn complicates decision making around when to initiate antenatal care (Pell, 2013). Thus by minimising the number of visits Kenyan and Malawian women initiated antenatal care closer towards the end of their pregnancy when their husband can support them financially (Pell, 2013). This was supported in Uganda where 27.5 % of participants agreed that they did not have money for transport to attend antenatal clinics (Kisuule, et al. 2013).

2.5.3.3 Cultural and perceptual value

Hatherall, et al. (2016) stated that in their exploration they came across that women who saw little value in early initiation of antenatal care and that seeking antenatal care early in pregnancy was of lower priority than other more immediate responsibilities and commitments in her life, such as housing, employment, care of other children/family members etc. Somali and Bangladeshi women who had

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previous normal pregnancies and uncomplicated child births also saw less urgency and value to early initiation of antenatal care (Hatherall et al. 2016).

Musendo et al. (2016) stated that the decision making as to when to initiate antenatal care in pregnancy in African cultures depend mostly on the mother-in-law, aunt or husband and were usually determined by the cultural beliefs and norms of the community. This could be a delaying factor in early initiation of antenatal care in some cultures as the people believe the pregnancy will be bewitched if the pregnancy is made public in the early stages (Musendo et al. 2016).

Disclosure of pregnancy and the values associated with this is another issue. In Ghana, Kenya and Malawi, it was evident that adolescents and unmarried younger women would hide their pregnancy and delay initiating antenatal care to avoid the social implication of expulsion from school or home, partner abandonment, stigmatisation and gossip within the community and potential embarrassment (Pell, 2013). Malawian women also reported delaying antenatal initiation by witholding disclosure of the pregnancy for the fear of potential embarrasment if she could not carry the pregnancy to term and avoid potential witchcrafting that could harm the pregnancy (Pell, 2013). In addition, Pell (2013) reported that some Kenyan women with young children with close birth spacing would delay initiation of antenatal for the fear of interacting with health staff for social discrimination and chastisements for inadequate spacing between pregnancies.

Previous pregnancy is another factor. Women who have had previous pregnancies may remember previous unpleasant experiences like long queues, uncomfortable

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examinations and only being helped on a second, third or fourth attempt of going to the clinic may result in late initiation of antenatal care (Abrahams et al. 2001). This was supported by Banda et al. (2012) who argued that limited resources in the family and negative perceptions resulting from previous pregnancies could be a result in late initiation of antenatal care. Musendo et al. (2016) further highlighted the fact that feedback from respondents some mothers thought that antenatal care was only a way of booking a delivery space and obtaining an antenatal card in case of complications arising during labour (Musendo et al. 2016).

The last factor is unexpected pregnancies. Banda et al.(2012) stated that women with unexpected pregnancies were more likely to initiate antenatal care late. In an exploration done in east London, UK, women interviewed said that they needed time to come to terms with the unintended pregnancy and haden't decided if they wanted to continue with the pregnancy or not (Hatherall et al. 2016). The time taken to make a decision to continue with the pregnancy resulted in late initiation of antenatal once the women had made the decision (Hatherall et al. 2016). According to Hatherall et al. (2016), the younger women interviewed in their study felt they would lose control of decision making when they disclose their pregnancy to parents or relatives and thus fearing the referal to an antenatal clinic. Once the referal to the clinic was made a decision about continuning with the pregnancy would have been taken (Hetherall et al. 2016).

2.5.3.4 Health facility factors.

How health services are organised (Andersen, 1995) and the quality of antenatal care (Kisuule et al. 2013) should explain and predict healthcare usage. Musendo et

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al. (2016) stated in a study done in Zimbabwe that the unavailability of daily antenatal clinic services was a great contributor to late initiation of antenatal clinic care as some women are unable to attend clinic during the working week and work takes priority over initiating antenatal care early in their pregnancies.

Similarly, in a study done in Cape Town factors associated with late initiation of antenatal care were the booking systems at the clinic, poor patient-staff relationships, previous unpleasant experiences and difficulties with child care (Abrahams et al. 2001). In addition Pell (2013) stated that certain interactions between health care staff and pregnant women could result in a delay in the initiation of antenatal care, for example a Kenyan woman in her first trimester who attended the antenatal clinic for initiation was instructed by health care staff to go back home and only return in her second trimester when the pregnancy was visible and could be confirmed by palpation.

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This is furthermore confirmed by Gross et al. (2012), who stated that pregnant women who attend antenatal care late for the first visit, reasons were lack of services, being sent back home without care due to lack of sufficient staff and having to bring current medication cards or previous test results. Long queues and waiting times, long distance to walk in bad weather, fear of poor care, lack of transport and money and having to wake up early to travel long distances were some of the reasons given by women (Abrahams et al. 2001).

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2.5.4 PERCEIVED NEEDS AND LATE INITIATION OF ANTENATAL CARE

Not perceiving the need for antenatal care is another factor to consider. Women who perceived themselves as healthy and did not experience any health problems in their current and previous pregnancies, tended to delay initiation of antenatal care together with those who saw no health benefit in the early initiation of antenatal care (Banda et al. 2012, Adekanle & Isawumi, 2008). In Kenya and Malawi older multiparous women reported to initiate antenatal care at the end of the second trimester of pregnancy as they felt accustomed to the pregnancy experience and were less concerned about receiving holistic antenatal monitoring, and were more concerned with obtaining an antenatal card prior to delivery (Pell, 2013). In a study done in Uganda more than half of the participants reported that they did not see the reason to book early as they did not have any problems in the current pregnancy, even though some knew the correct gestational age to initiate antenatal care (Kisuule et al. 2013).

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Tekelab & Berhanu (2014) further stated that health care providers responded that women delay antenatal care initiation while they don't experience discomfort or illness related to their pregnancy. Higher parity women seemed to delay antenatal initiation probably due to these women having developed confidence in previous pregnancies and may feel that modern health care is not as necessary due to the experience and knowledge they have accumulated from previous pregnancies (Tekelab & Berhanu, 2014).

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However, when a woman perceives a need, she may initiate antenatal care. Women conveyed that health care in pregnancy becomes a priority when they felt unwell, became aware of a problem in their pregnancy, or towards the end stage of the pregnancy (Hatherall et al. 2016).

The need to seek health services can also depend on how people view their own general health and how people perceive certain signs and symptoms of ill health and determine whether or not to seek professional help (Andersen, 1995). A study done in Uganda showed that 33.3% of the participating women only booked at the hospital because they wanted to deliver there and wanted to get a file and book for delivery (Kisuule et al. 2013). Similarly, according to Gross et al. (2012) the principal reason for women, especially multiparous women to attend antenatal clinics was to obtain a card or a book which they perceived was necessary to gain entry to health services for illness during pregnancy and/or delivery. (Abrahams et al. 2001). Also in Kenya the main motivation for antenatal attendance at least once before delivery was to obtain an antenatal card, which contained details of the pregnancy without this maternity card the pregnant women would encounter problems at the delivery facility (Pell, 2013).

2.6 SUMMARY OF CHAPTER

In this chapter the literature on this topic was reviewed. In addition, the consequences of late initiation of antenatal care were highlighted. Furthermore related factors contributing to late initiation of antenatal care, as found by previous studies, were outlined.

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CHAPTER 3: METHODOLOGY

3.1 INTRODUCTION

In this chapter the research methodology is described. The research approach and design is also explained followed by a detailed description of the research setting where the investigation was conducted. The population and target population is described with the sampling and the sampling procedure. The research instrument to collect the data and the data collection procedure are explained in detail, followed by the explanation of the data analysis.

3.2 RESEARCH APPROACH

A quantitative research approach was used to conduct this study in the collection of the data, the analysis of the data and the interpretation of the data to describe the factors that could contribute to late initiation in antenatal care. Quantitative research is a formal, objective and systematic approach to describe variables, examine relationships among variables, and determine cause-and-effect interactions between variables, analysed through numerical data (Burns & Grove, 2005). This study only include a descriptive quantitative approach and will not examine cause and effect.

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3.3 RESEARCH PARADIGM

A positivist paradigm with its assumptions underpinned this quantitative research study. All the research activity is directed at describing the underlying causes of the phenomena of late initiation of antenatal care, within the positivism paradigm. Ontologically, reality exists and can be studied and real natural cause drives the real world (Polit & Beck, 2010). This paradigm has allowed for methodology to gather data to describe factors contributing to late initiation of antenatal care. Epistemologically, in quantitative research, the researcher is independent from what is being researched (Polit & Beck, 2010) and the focus is on the discovery of the objective reality as in this study, the objective reported patterns and trends of late initiation of antenatal care (Burns & Grove, 2005). This is achieved through the use of a structured questionnaire. Tight control over the research situation involves orderly, disciplined procedures to test hunches about the nature of the phenomenon (Polit & Beck, 2010).

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3.4 RESEARCH DESIGN

A descriptive quantitative survey research design using a researcher-administered questionnaire was used to describe the profile of pregnant women to determine the factors that may contribute to late initiation of antenatal care services. Techniques of data collection used were the researcher-administered questionnaires to gather data about a specific identified population using a survey design (Burns & Grove, 2005, p. 239). According to LoBiondo-Wood & Haber (2010) the survey study is the broadest category of non-experimental designs which is descriptive and comparative. Surveys

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are used to collect detailed descriptions of existing variables, the data is used to justify and assess current conditions and practices which could help to make plans for improving health care practices (Burns & Grove, 2005).

3.5 RESEARCH SETTING

The study was conducted in the Western Cape at a Northern Suburbs Cape Town Community Health Centre's Antenatal Clinic. The antenatal clinic is a governmental health institution, which provides services to large communities from Brackenfell and Kraaifontein including two large informal settlement communities. The setting was purposively selected due to the high numbers of late booking rates, and the need for intervention strategies at this specific clinic. The research facility is situated in Kraaifontein, a suburb of Cape Town in South Africa. Despite antenatal care service being provided free of charge at governmental health institutions, at this clinic there are still about 37.8 % of pregnant woman who initiate antenatal care late (after 24 weeks gestation). On average there are about 260 new bookings per month, of which 30-40% are more than 20 weeks pregnant. The percentage on average of late bookings is similar to other studies done in Wales and England (Kupek et al. 2002).

3.6 POPULATION AND TARGET POPULATION

The target population for this research study was pregnant woman, aged 18 years and older, attending antenatal clinic for the first time (booking visit) on or after 24 weeks gestational age (estimated N=352 – 512 in a given year).The inclusion criteria

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were: woman above the age of 18 years old, any parity who attend antenatal clinic for the first visit after 24 weeks gestation, at the health care institution.

3.7 SAMPLE AND SAMPLING PROCEDURE

To calculate the sample size it was estimated that in a given year between 2200 and 3200 women people may attend the antenatal clinic at the selected facility. Of these 25% are estimated to be past 20 weeks (550 – 800 women) and of these about 60% are estimated to be after 24 weeks (352 – 512). Therefore it was estimated that between 32 to 46 women per month would be presenting to the clinic late. Using 95% confidence intervals and an error of 10%, it was calculated that a sample of 76 respondents would be needed to be included in the study over a four month period. Fifty respondents were included in the study and 26 respondents where those interviewed in the pre-test study. A purposive sampling procedure was used to select respondents initiating antenatal care after 24 weeks gestation over the four months period. Inclusion criteria: All respondents who were 18 years and older, ≥ 24 weeks gestation and who could communicate in English or Afrikaans were included in the study until a sample size of 50 respondents was reached.

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3.8 RESEARCH INSTRUMENT

To investigate the factors contributing to late initiation of antenatal care the researcher collected data from respondents by the use of a structured researcher-administered questionnaire. A questionnaire is a method of collecting data by asking the subjects to respond to close ended questions (LoBiondo-Wood & Harber, 2010,

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p. 275). The questionnaire was developed by the researcher based on the factors in the framework (Figure 3). The knowledge questions were adapted from a study by Catherine Chiwaula (MPH Thesis, 2011). The questionnaire consisted of 85 close-ended questions. (Appendix 3: Questionnaire) where the questions were structured, with a fixed number of response items from which the respondents chose from the closest correct response (LoBiondo-Wood &Harber, 2010). The researcher read the questions from the questionnaire, and then circled the closest response to each question.

3.8.1 VALIDITY AND RELIABILITY OF THE QUESTIONNAIRE

Validity of an instrument is to measure if the concept truly reflects what it is supposed to measure (LoBiondo-Wood & Harber, 2010).

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Content validity measures if the measurement instrument is representative of the content and if the researcher measures what is intended to be measured (LoBiondo-Wood & Harber, 2010). The researcher usually constructs the measuring instrument based on the literature reviewed and the conceptual frameworks underpinning the study topic (Brink, 2008). In this study the content validity was based on the Andersen behavioural model used by Titaley et al. (2010) and adapted for this study (Figure 3 and Table 2). This framework consisted of the variables (derived from literature) used to investigate and describe possible factors contributing to late initiation of antenatal care. Variables were categorised into four main factors (Figure 3). These variables and factors were answered by the questions of the structured

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questionnaire derived and formulated to answer the research objectives. The content validity for the study can be seen in Table 2.

Table 2: Content Validity Table

OBJECTIVES	ANDERSON FRAMEWORK	QUESTIONS
3.8.1.1 To identify the external environmental factors that may contribute to late initiation of antenatal care by pregnant women in one health facility/district in Cape Town	External Environmental Factors	• 9, 50, 51, 52, 58(11)
3.8.1.2 To identify the predisposing factors that may contribute to late initiation of antenatal care	Socio-demographic Predisposing Factors Factors Knowledge Factors Obstetric history	• 1 - 9 • 10 - 16 • 32 - 49 • 17-31
3.8.1.3 To describe the enabling factors that may contribute to late initiation of antenatal care	Enabling Factors	• 48 – 62
3.8.1.4 To describe the need factors why woman initiate antenatal care late in pregnancy	Need Factors	• 63 – 64

Face validity: The instrument was presented to at least three midwifery experts for evaluation of face validity (Brink, 2008, p. 160):

1. A registered advanced midwife,

2. A registered nurse working in the antenatal clinic,

3. An advance midwife who is the operational manager of the Kraaifontein MOU,

4. A lecturer who is a specialist in midwifery.

According to the feedback received the questions were clear. The questionnaire was seen as covering a broad spectrum of variables with a good variety of response options to get more specific feedback. However the questionnaire was very lengthy due to its comprehensive approach.

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Reliability refers to the extent to which an instrument can be depended upon to produce the same results on repeated measures and focus on the consistency, accuracy, precision, equivalence, and homogeneity of data collection (LoBiondo-Wood & Harber, 2010, p. 295). In this study the researcher was the only person who administered the questionnaire, without probing or influencing the response of the respondents. Furthermore, to ensure reliability, a pre-test was conducted.

3.8.2 PRE-TEST OF QUESTIONNAIRE

The questionnaire was pretested prior to the survey to test the reliability of the measurement instrument (LoBiondo-Wood & Harber, 2010). Inter-rater, test-retest reliability and internal consistency were not done in the pilot due to the small pilot size.

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A total of 26 subjects were included in the pre-test which took place at the research setting. A meeting was held prior to the start of the study with the facility manager, unit manager (operational manager) and staff members of the antenatal clinic to inform them of the purpose of the study and the aims and objectives were explained the them. Permission was obtained from the facility and operational manager to conduct the study in the specific research facility. The respondents were exposed to the same processes as the proposed survey respondents. The reason for the study and what was expected of the respondents was explained, written consent was obtained and respondents had a chance to ask questions. The researcher administered questionnaire data collection session was conducted, which took 30-40 minutes per respondent.

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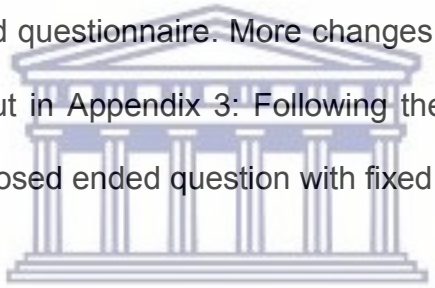
The pre-test was conducted in three stages. Firstly, nine (9) respondents, who met the criteria of the target population for this study, had the researcher administer the questionnaire (Appendix 1: Questionnaire prior to changes). A few changes were made to the initial questionnaire based on the errors experienced. Some questions were altered to obtain a more specific response from the respondents and some were altered to clarify the questions where the participants had difficulty in understanding the questions. These changes are laid out in Appendix 2: Changes to questionnaire following the pre-test.

Secondly another nine (9) respondents were the questionnaire administered by the researcher using the altered questionnaire. More changes were made to simplify the questions which are laid out in Appendix 3: Following the pre-test the open ended question was altered to a closed ended question with fixed response answers.



Thirdly, a further eight (8) respondents had the questionnaire administered by the researcher using the refined structured questionnaire with the simplified questions in the knowledge section. This final questionnaire is laid out in Appendix 3.

Five of the respondents for the pre-test were women that were admitted to the maternity ward, who also initiated antenatal care on or after 24 weeks gestation. Great caution was taken not to administer questionnaires to selected respondents who were in active labour as the respondent may not have been able to provide accurate responses while uncomfortable and in pain.

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3.9 DATA COLLECTION PROCEDURE

3.9.1 PREPARATION FOR DATA COLLECTION

A research proposal was put together to be presented and submitted to the University of the Western Cape Faculty Board Research and Ethics Committee and Senate Research Committee of the University of the Western Cape. After which the Senate Research Committee of the University of the Western Cape approved the methodology and ethics for this study (Registration number: 15/4/57 - Appendix 4:Ethics_Roelofse_15_4_57). The researcher applied for DOH ethics by registering online at The National Health Research Database at http://nhrd.hst.org.za. The database serves as a repository of health-related research which has been and is currently being conducted in South Africa. It is a useful tool for monitoring and managing health research for both the National Health Research Committee and the nine Provincial Health Research Committees (Nhrd.hst.org.za/Home/About). A letter of approval to conduct the study at Kraaifontein Community Health Centre was received with a reference number WC_2015RP14_657 (Appendix 5). The approval letter from the Director: Health Impact Assessment was forwarded to the facility manager of the Kraaifontein Community Health Centre after which permission to conduct the study was given via email. A final meeting was held with the Facility Manager, Operational Manager and staff members of the antenatal clinic to explain the aims and objectives and procedures of the study, and to inform them as to when the study would commence and what the requirements for an interview room were and how this might affect the staff was conducted.

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3.9.2 DATA COLLECTION FROM RESPONDENTS

Data collection was performed at the antenatal clinic after consent and permission had been obtain from the institution and the participating respondents. On a booking day, 35 - 40 new bookings to initiate antenatal care are allowed on a first come first served basis. On average 25% of these new bookings were more than 24 weeks into gestation.

Those respondents, who were identified as meeting the selection criteria and were clinically determined to be at least 24 weeks into gestation, by a midwife on the day of first initiating antenatal care, were referred to the researcher. The researcher explained the study to the respondents who could choose to voluntarily participate. Each respondent who voluntarily agreed to participate was escorted to a private room where the researcher explained the purpose of the study and what was expected from the respondent. Each respondent signed a consent form (Appendix 6) in which the procedure was set out and the participant's rights were explained. The researcher then lead the session by the use of the researcher administered questionnaire.

The administration, by the researcher, of the questionnaire took on average 20-30 minutes to complete. The researcher started the process by explaining the study and what was expected of the respondents. Then the researcher asked each question from the structured questionnaire and circled only one of the fixed answers. Respondents were informed that the feedback they gave was confidential and that no patient information was attached to any of the questionnaires. Respondents were

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notified that they could withdraw at any point without any negative impact to their health care. The respondents were given time to respond and ask questions. Each questionnaire was marked numerically; no names or folder numbers were used. For administrative purposes of data capturing the questionnaires were marked respondent 1 = questionnaire 1 etc.

3.10 DATA ANALYSIS

A code book was used to code the questions of the structured questionnaire and the data were entered into SPSSV 24 for statistical analysis and cleaned by checking for errors in data entry.

Measures of central tendency were calculated for all numerical variables. All categorical data were recoded into relevant categories and frequencies were calculated. A knowledge score was calculated based on the correct answers on the knowledge questions. An eighty (80%) scoring in the knowledge section would indicate if the subject was well informed about the importance of antenatal care. Differences in demographics and other variables were tested with nonparametric tests.

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3.11 ETHICS APPROVAL AND ETHICAL CONSIDERATION

The researcher submitted the research proposal along with the necessary consent forms to the University of the Western Cape Faculty Board Research and Ethics Committee and Senate Research Committee of the University of the Western Cape for evaluation and approval. Each respondent who agreed to participate in this study

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was provided with a short form written consent document, which explained the purpose of the study, potential risks/benefits, explanation of procedures, time commitment, the option to withdraw and assurance of anonymity and confidentiality that were orally presented by the researcher then signed by the respondent and a witness (Burns & Grove, 2005).

The respondents had the right to self-determination, which is based on the ethical principal of respect for persons and the control of their own destiny, and to be treated as autonomous agents whereby the researcher informed the respondents about the purpose of the study and their voluntarily participation in it (Burns & Grove, 2005). For this study all the respondents who agreed to be included in the study and were related directly to the study were provided with written informed consent and the right to decide if they wanted to partake in the study or not, without the risk of penalty or prejudicial treatment.

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Furthermore the researcher aimed not to violate self-determination by the use of coercion, covert data collection and deception. The respondents were able to choose to participate freely without any force being placed on them or being offered excessive rewards for participating in the study. All the respondents were aware that they were participating in the study and were informed as to the purpose of the study (Burns & Grove, 2005). In the written consent form, the purpose of the study was explained, and the type of information that was needed from the respondent. It was further explained that the study might not benefit them directly so that the respondents had no expectation of receiving anything in return for their participation.

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The respondents had the right to protected from discomfort and harm based on beneficence. Beneficence is a concept which states that researchers should have the welfare of their research participant as a goal of their research study (Burns & Grove, 2005). There were minimal risks anticipated with this particular study, except perhaps that the respondents might feel uncomfortable disclosing information such as household incomes and personal circumstances. For the respondents that might have experienced any discomfort or stress from the study, the researcher who is a midwife, would provide immediate assistance, and further assistance and help to the respondent was available from the professional psychiatric nurse or counselor at the institution.

Respondents also have the right to autonomy and confidentiality such that the respondent's identity could not be linked to her individual responses and the respondents were anonymous to the researcher and that the researcher does not share information of an individual with others (Burns & Grove, 2005). Confidentiality was ensured, data collection was conducted in a private room, no names or folder numbers were mentioned or attached to any questionnaires and all identifiers were removed from the collected data.

Questionnaires were numbered as the data collection went along without attaching identification to the questionnaires.

Respondents had the right to privacy such that respondents could determine the time, extent and general circumstances under which their personal information was shared with and withheld from others and no data were collected from respondents without their knowledge (Burns & Grove, 2005). Respondents were informed that the

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data collection would be done by means of a researcher administered questionnaire in a private room and that no feedback from the respondent would be judged. The respondents were informed in the written consent of the possible expected duration of completing the questionnaire. The written consent form made it clear that the respondent had the right to withdraw from the study at any time.

Persons with diminished autonomy or who are vulnerable and less advantaged might have diminished ability, or an inability to give informed consent and require additional protection, as these respondents are vulnerable to coercion and deception (Burns & Grove, 2005). Individuals with diminished autonomy were not included in the study.

Respondents were informed in the written consent that they will be protected from discomfort and harm and that the identity of all respondents is de-identified. Information and responses given by the respondents was solely used for the study and will not be noted in any means in the patient record.

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3.12 SUMMARY OF THE CHAPTER

In this chapter the survey research methodology which was used to conduct the study was explained. This chapter represented the positivist research paradigm and survey research design to conduct the study. The researched setting was explained in detail, followed by the population and target population who was included in the study. The sampling procedure was outlined and the data collection technique, using a structured questionnaire as the research instrument. This study was conducted

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under the ethical consideration discussed in above chapter. In the next chapter the results from the data collection will be discussed.

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CHAPTER 4: RESULTS

4.1 INTRODUCTION

The purpose of the study was to describe factors that may influence and contribute to pregnant women registering late for antenatal care at the selected community health centers' antenatal clinic.

This chapter describes the key findings of the study obtained by identifying possible factors that contribute to late initiation of antenatal care.

The chapter addressed the following key objectives:

- To describe external environmental factors that may contribute to late initiation of antenatal care by pregnant women in one health facility/district in Cape Town;
- To describe the predisposing factors that may contribute to late initiation of antenatal care;
- To describe the enabling factors which may contribute to late initiation of antenatal care;
- To describe the need factors as to why woman initiate antenatal care late in pregnancy

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4.2 SAMPLE REALISATION

Seventy six (76) respondents met the inclusion criteria and were eligible to participate in this study. Ten women who initiated antenatal care late participated in the pre-tesst and these women were excluded from the main study due to the recoding of open ended questions to closed questions. Fifty (50) respondents who

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met the inclusion criteria and agreed to participate in the survey, resulting in a response rate of 65.7%.

4.3 SAMPLE DESCRIPTION

4.3.1 DEMOGRAPHIC PROFILE

The respondents ages ranged from 18 to 37 years (mean 26 years, SD =+/-5.1 years), with 19 (38.0%) respondents being between 18 to 23 years old and the rest of the respondents (31, 62.0%) being over 23 years of age (Table 3). Only two (4%) respondents were over 35 years of age. Respondents who had more than one pregnancy were significantly older than respondents with two or more pregnancies (1 pregnancy (21.2 years, ± 2.9) versus 2 pregnancies (26.0years, ± 4.8) and ≥ 3 pregnancies (29.1 years, ± 4.2), K=18.6, p<.001).

Most of the respondents (36, 72.0%) were in a stable relationship and nine (18.0%) married, with only five (10%) of the respondents reporting that they were single. Nearly two thirds of the respondents (30, 60.0%) had not completed high school, six (12.0%) of the respondents left school earlier than grade 8 and 24 (48.0%) respondents left school before grade 11, with 19 (38.0%) of the respondents having finished high school. Only one respondent had tertiary education. Few respondents stayed alone (3, 6.0%), while 23 (46.0%) of the respondents stayed with their parents or other family members, eight (16.0%) respondents reported staying with their parents and 15 (30.0%) with other family and friends while nearly half of (24, 48.0%) respondents reported staying with their partners (Table 3).

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Table 3: The demographics characteristics of respondents by time of booking

Demographic variables	Respondents (n=50, 100%)
Age in years (n, %)	
18 - 23	19 (38.0%)
24 – 29	16 (32.0%)
30 – 35	13 (26.0%)
≥35	2 (4.0%)
Average age (SD)	26 (±5.1)
Marital status (n, %)	
Single	5 (10.0%)
Stable Relationship	36 (72.0%)
Married	9 (18.0%)
Divorced/Separated	0
Educational status (Respondent) (n, %)	
< grade 8	6 (12.0%)
Grade 9 – 11	24 (48.0%)
Grade 12	19 (38.0%)
Tertiary education	1 (2.0%)
Educational status (Partner) (n,%)	
< grade 8	2 (4.0%)
Grade 9 – 11	19 (38.0%)
Grade 12	23 (46.0%)
Tertiary education	3 (6.0%)
N/A	3 (6.0%)
House Sharing (n, %)	
Alone	3 (6.0%)
Siblings	7 (14.0%)
Friends	1 (2.0%)
Partner	24 (48.0%)
Parents	8 (16.0%)
Other Family	7 (14.0%)
Residence (n, %)	
Homeless	1 (2.0%)
Informal Settlement	30 (60.0%)
Formal Settlement	19 (38.0%)

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4.3.2 THE OBSTETRIC PRESENTATION OF THE RESPONDENTS

Twenty-seven (27) out of the 50 respondents (54.0%) were in the third trimester of their pregnancy when they initiated antenatal care, with the remainder 23 (46%) in their second trimester (Figure 5) with 20 (40.0%) between 28–32 weeks gestation and four (8.0%) respondents between 33–36 weeks gestation. Three (6.0%)

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respondents were >37 gestational weeks age in their pregnancy when they initiated antenatal care. The mean gestational age was 28.5 weeks (SD = 3.9) i.e. 7.5 months (Figure 5).

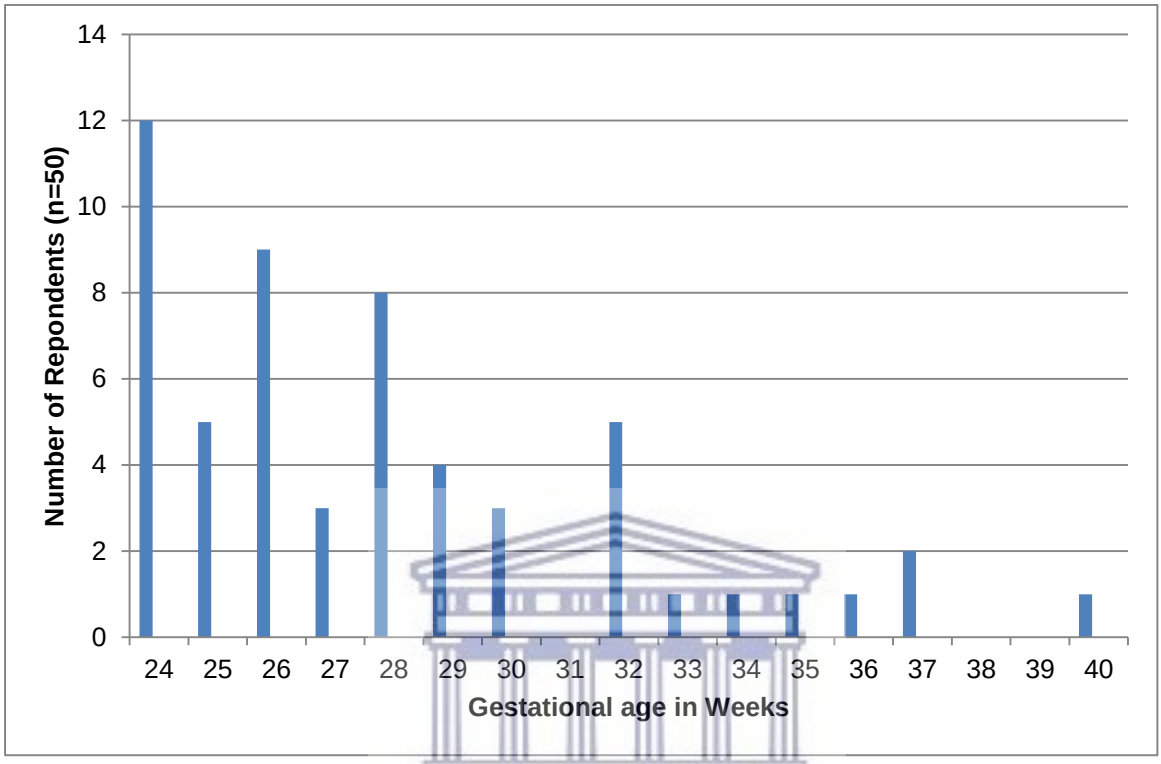

Figure 4: Gestational age at initiation of antenatal care (weeks)

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Only 12 respondents (24%) out of the 50 included in this study reported that this was their first pregnancy. Over three quarters of the respondents (38, 76.0%) reported that they had been pregnant before (Table 4). Of these, nearly two thirds (30, 60.0%) initiated antenatal care before 24 weeks gestation in their previous pregnancy and 8 (16.0%) initiated antenatal care after 24 weeks gestation in their previous pregnancy. The mean spacing between pregnancies in those respondents who were pregnant before was 36.36 months (3 years) (Table 4).

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Table 4: The obstetric profile of the respondents

Variables	Respondents (n=50, 100%)
Gravidity (n, %)	
First pregnancy	12 (24.0%)
2nd and more pregnancies	38 (76.0%)
Mean number of pregnancies per respondent	2.4 (SD)
Birth Interval (n, %)	
First pregnancy	12 (24.0%)
<1 – 2 years	10 (20.0%)
3 – 4 years	13 (26.0%)
>4 years	15 (30.0%)
Mean	36.38 months (3 years)
Gestation age at booking (n, %)	
24 – 27 weeks	23 (46.0%)
28 – 32 weeks	20 (40.0%)
33 – 36 weeks	4 (8.0%)
>37 weeks	3 (6.0%)
Perceived gestational age by respondent (n, %)	
Don't know	2 (4.0%)
<12 weeks	1 (2.0%)
13 – 20 weeks	22 (44.0%)
21 – 27 weeks	10 (20.0%)
28 – 32 weeks	11 (22.0%)
>33 weeks	4 (8.0%)
Timing of previous pregnancy antenatal clinic initiation (n, %)	
First pregnancy	12 (24.0%)
<12 weeks	12 (24.0%)
13 – 23 weeks	18 (36.0%)
>24 weeks	8 (16.0%)

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4.4 FACTORS THAT MAY CONTRIBUTE TO LATE INTIATION OF ANTENATAL CARE

To identify and describe the factors that may have impacted on respondents late initiation of antenatal care, the Andersen Behavioural Model Framework was used to describe the factors focusing on external environmental factors, predisposing factors, enabling factors and the need factors and reasons given by the respondents for late initiation of antenatal care.

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4.4.1 EXTERNAL ENVIRONMENTAL FACTORS THAT MAY CONTRIBUTE TO LATE INITIATION OF ANTENATAL CARE

To address research objective one: *Assessing the external environmental factors that may have impacted on respondents, contributing to late initiation of antenatal care*, residence, access to service and socio-economic situation such as residence type were described.

Nearly two thirds (30, 60.0%) of the respondents reported that they were living in an informal settlement, with 19 (38.0%) respondents staying in a formal settlement. One person reported that she was homeless. Only four (4, 8.0%) respondents reported that they recently relocated to their current residence.

In assessing other use of health services prior to late initiation just over one fifth (11, 22.0%) reported that they sought health care at a private healthcare provider, one respondent reported attending the baby clinic seeking antenatal care, the rest (38, 76.0%) of the respondents did not seek health care prior to initiation of antenatal care.

4.4.1.1 Socio-economic characteristics

Just under half (23, 46.0%) of the respondents reported that they were unemployed (Table 5). Ten (20.02%) of the respondents had some kind of occupation and seven (14.0%) respondents reported being students. The majority of the respondents (42, 84.0%) reported that their partners were employed, while four (8.0%) reported their

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partners were unemployed, one (2.0%) partner being a student and three respondents not having a partner (Table 5).

Just over half (26, 52.0%) of the respondents reported that their partner is the main breadwinner while 17 (34.0%) respondents reported that other family and friends are the main breadwinners. Seven (14.0%) respondents reported that they were the main breadwinner of the household (Table 5). Most (32, 64.0%) of the respondents reported that their monthly household income was less than R5 000.

Table 5: Socio-economic status

Socio-economic variables	**Respondents (n=50, 100%)**
Occupation status (Respondent) (n, %)	
Unemployed	23 (46.0%)
Contract worker	7 (14.0%)
Permanently employed	10 (20.0%)
Occasional work	3 (6.02%)
Student	7 (14.0%)
Occupation status (Partner) (n, %)	
Unemployed	4 (8.0%)
Contract worker	13 (26.0%)
Permanently employed	26 (52%)
Occasional work	3 (6.0%)
Student	1 (2.0%)
N/A	3 (6.0%)
Household income per month (n, %)	
<R1 000	8 (16.0%)
R1 001 – R3 000	17 (34.0%)
R3 001 – R5 000	7 (14.0%)
>R5 000	13 (26.0%)
Don't know	5 (10.0%)
Main Income provider (n, %)	
Self	7 (14.0%)
Partner	26 (52.0%)
Friend & family	17 (34.0%)

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4.4.2 PREDISPOSING FACTORS THAT MAY CONTRIBUTE TO LATE INITIATION OF ANTENATAL CARE

To address research objective two: *Identifying the predisposing factors that may have contributed to respondents initiating antenatal care late, socio-demographics, patient factors and knowledge of antenatal care was assessed*. The demographics and obstetric and patient profile of the respondents were described in the sample description and key factors are discussed further in this section.

4.4.2.1 Socio-demographics, patient and partner factors

Language, age, education and previous pregnancies may impact on late initiation. All respondents were English speaking women, with an age range of 18 to 37 (mean age of 26 years, ± 5.1). For most (38, 76.0%) of the respondents it was not their first pregnancy with a mean pregnancy value of 2.4 pregnancies per respondent.

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The mean gestational age on initiation of antenatal care was 28.5 (± 3.9) weeks pregnant in this study. Of those respondents who had been pregnant before, the majority (30, 60.0%) reported that they initiated antenatal care before 24 weeks in their previous pregnancy, eight (16.0%) respondents reported that they initiated antenatal late, after 24 weeks, in their previous pregnancy (Table 4).

Educational status might also be an influencing factor for late attendees. Only 19 (38.0%) respondents finished high school and one (2.0%) had tertiary education (Table 3).

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A third factor may be partner related factors and involvement or a lack thereof. Twenty-one (42.0%) of the respondents reported that their partners left school early, with 26 (52.0%) of the respondents' partners reported completing high school or having tertiary education (Table 3). The majority of the respondents (46, 92.0%) had support from their partner and family with their pregnancy while four (8.0%) of respondents reported no support with the pregnancy. In terms of needing permission from partner, parents, work or school, 22 (44.0%) of the respondents did not need permission to attend to the antenatal clinic, though over half (28, 56.0%) respondents needed some kind of permission to attend health care services and initiate antenatal care (Figure 5).

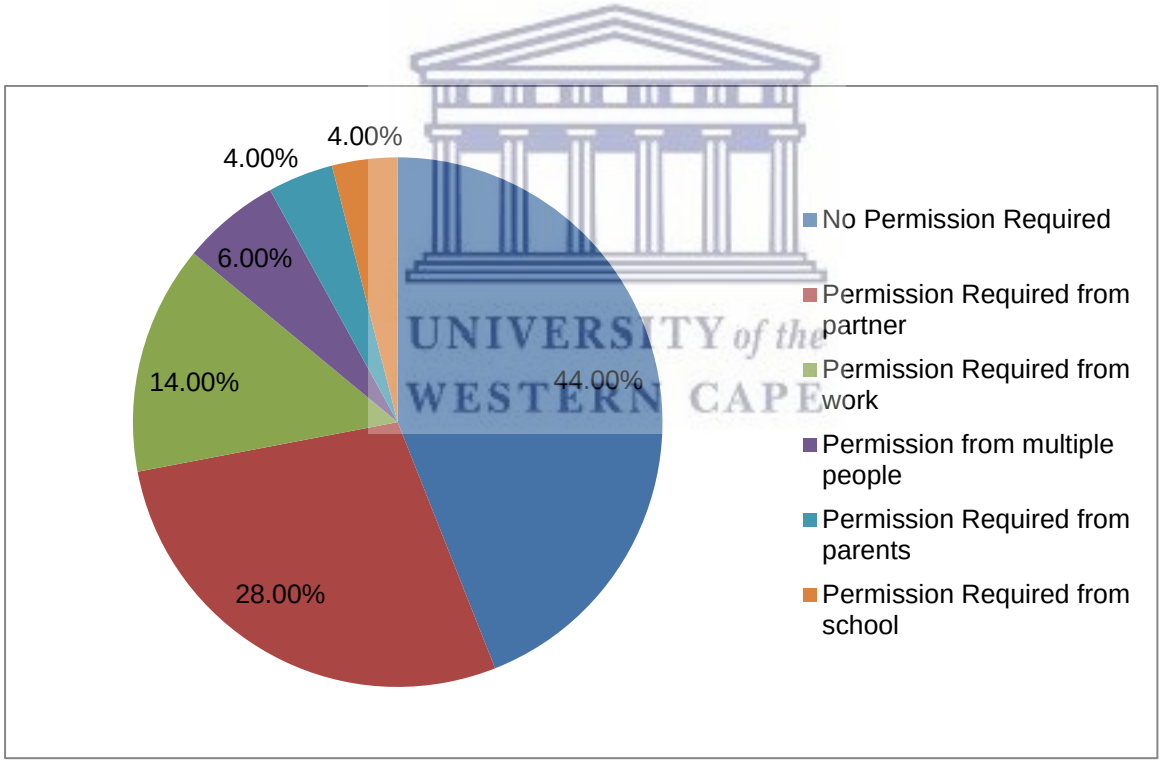

Figure 5: Permission required attending antenatal clinic

4.4.2.2 Awareness and knowledge of pregnancy and antenatal care

Nearly three quarters of the respondents (37, 74.0%) did not plan their current pregnancy and 14 (28.0%) respondents reported that they were using a

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contraceptive method when they conceived (Table 6). A few (13, 26.0%) planned to fall pregnant while 36 (72.0%) reported not using any contraceptive method at the time. Out of the 37 respondents whose pregnancies were unplanned, 11 (22.0%) thought of terminating their pregnancy. Ten (20.0%) reported wanting to hide and keep the pregnancy a secret for as long as possible. Over half of the respondents (28, 56.0%) were confident that they wanted to continue the pregnancy once they found out they were pregnant.

Half of the respondents 25 (50.0%) reported they became aware of their pregnancy in their first trimester, while 18 (36.0%) respondents became aware between 13 and 20 weeks gestation in their second trimester. Seven (14.0%) respondents became aware of their pregnancy after 24 weeks of gestation. Forty-one (41, 82.0%) respondents delayed attending antenatal care, although they were aware of their pregnancy (Table 6).

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Table 6: Awareness and planning of a pregnancy

Variables	Respondents (n=50, 100%)
Planning of current pregnancy (n, %)	
Unplanned pregnancy	37 (74.0%)
Planned pregnancy	13 (26.0%)
Contraceptive at conception (n, %)	
No contraception	36 (72.0%)
On contraception	14 (28.0%)
Indication / Awareness of pregnancy (n, %)	
Missed Period	32 (64.0%)
Felt the foetal movements	6 (12.0%)
Told by other people	3 (6.0%)
Stomach that was growing	5 (10.0%)
Came to the clinic because of illness	4 (8.0%)
Awareness of LNMP (n, %)	
Did not have regular menstrual periods	2 (4.0%)
Not aware of exact LNMP	41 (82.0%)

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Aware of exact LNMP	7 (14.0%)
Gestational age at realisation of pregnancy	
<12 weeks	25 (50.0%)
12 – 23 weeks	18 (36.0%)
24 – 32 weeks	7 (14.0%)
>32weeks	0
Timing in initiation of ANC Care after realisation of pregnancy (n, %)	
Immediate initiation of ANC after finding out about pregnancy	41 (82.0%)
Delay in initiation of ANC after finding out about pregnancy	9 (18.0%)
Seeking prior health care elsewhere prior to ANC initiation (n,%)	
No	38 (76.0%)
Yes, a General Practitioner	11 (22.0%)
Yes, the baby clinic	1 (2.0%)

A missed period was the first indication of pregnancy for 32 (64.0%) of the respondents, while 18 (36.0%) respondents reported suspecting they were pregnant judged on other indications such as feeling foetal movement, six (12.0%) by a growing stomach, five (10.0%) by other people telling them they might be pregnant, three (6.0%) by attending a doctor and four (8.0%) because they felt sick (Table 6). Only seven (14.0%) of the respondents knew exactly when their last normal period was with two (4.0%) respondents reporting not having regular periods. The remainder of the respondents (41, 82.0%) was not aware of their last normal period. Just over half (26, 52.0%) of the respondents reported that one to three missed periods was their clear indication of a possible pregnancy, 20 (40.0%) respondents reported that their periods were irregular, with four (8.0%) of the respondents not having a normal menstrual period (Table 6).

Nearly one quarter (12, 24.0%) of the respondents were not aware of antenatal services and the need to initiate antenatal care, with almost half of the sample (22, 44.0%) not being aware where to initiate antenatal care. The respondent's knowledge was tested with 16 close ended questions in which the scoring need to be

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more that 80% indicating good knowledge about the importance of antenatal care (Table 7).

4.4.2.2.1 Importance of early initiation and follow-up at the antenatal clinic

When asked when a pregnant woman should initiate antenatal care, nearly two thirds (32, 64.0%) of the respondent were correct by reporting the advised gestation age to initiate antenatal care is before 12 weeks gestation. Nearly one third (14, 28.0%) respondents reported that it is only necessary to book and attend clinic once they became aware of a problem. Three (6%) of the respondents however felt that regular antenatal follow-ups is not important (Table 7).

Just over two thirds (34, 68.0%) of the respondents reported that ultrasound scan is done to assess for abnormalities and determine the gestation, while 16 (32.0%) respondents believed an ultrasound is done to determine the sex of the foetus. Nearly two thirds (31, 62.0%) of the respondents believed that it is important to initiate antenatal care early, while 19 (38.0%) of the respondents don't see the importance in early initiation of antenatal care for the following reasons:

Nine (18.0%) of the respondents said that usually there are no problems in early pregnancy; six (12.0%) respondents believed they needed to initiate antenatal care at around 20 weeks gestation (5 months) to get an ultra sound, while four (8.0%) respondents believed they could initiate antenatal care any time during the pregnancy, in order to reserve a bed for labour, as long as it is before delivery (Table 10). Nearly half of the respondents (22, 44.0%) reported the best gestational age to initiate antenatal care is when the pregnancy is established and they can feel foetal

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movement (5, 10.0%) and the stomach starts growing (2, 4.0%) or at least round about 16 to 20 weeks gestation (17, 30.0%) (Table 7). The average knowledge score of the respondents regarding antenatal initiation and care was 79%.

Table 7: Respondents scoring on knowledge questions

Variables	Respondents score (n=50, 100%)
Importance of regular antenatal visits	47 (94.0%)
A women should only initiate antenatal care when a problem arise	36 (72.0%)
Correct gestational age for initiation of antenatal care	32 (66.0%)
The Importance of antenatal care:	
To be examined and interviewed and risk factors identified	47 (94.0%)
To receive information and counseling	46 (92.0%)
To receive an ultrasound to learn the sex of the baby	44 (88.0%)
Establishing a relationship with the health care provider	42 (84.0%)
To receive interventions like iron supplements	41 (82.0%)
Importance to initiate antenatal care early	31 (62.0%)
Respondents correct at which gestational age is best to initiate antenatal care	28 (56.0%)

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4.4.2.2.2 Perceptions of respondents on the consequences of late initiation

The respondents were asked if they regarded certain aspects of antenatal clinic care as important. Nearly a quarter (10, 20.0%) of the respondents reported that regular uterine growth measurement was not important in pregnancy. A quarter of the respondents did not see the importance of early and regular vital signs monitoring, while 16 (32.0%) respondents did not see late and poor vitamin supplementation as a problem. The inability to detect a problem in early pregnancy seemed to be unimportant to six (12.0%) respondents, while five (10.0%) respondents reported it is unimportant to have a foetal anomaly ultrasound at the government clinic as they had already had an ultrasound privately (Table 8).

Table 8: Respondents perceptions on the problem of late initiation of antenatal care

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Variables	Respondents (n=50, 100%)
Not receive a foetal anomaly ultra sound	45 (90.0%)
Inability to detect problems early	44 (88.0%)
Poor uterine growth monitoring	40 (80.0%)
Poor vital signs monitoring	37 (74.0%)
Poor vitamin supplementation	34 (68.0%)

4.4.3 ENABLING FACTORS THAT MAY CONTRIBUTE TO LATE INITIATION OF ANTENATAL CARE

To describe the enabling factors that may have impacted on respondents initiating late antenatal care; access to antenatal clinic, transport and financial implications, personal factors such as priority responsibilities and social and preconceived perceptions were reported on.

Firstly, access to antenatal care is a key enabling factor. Nearly half of the respondents (22, 44.0%) reported that they were not sure at which clinic they should report to initiate antenatal care, however most (45, 90%) respondents reported staying close to a basic antenatal clinic. As reported, the main means of transport was by foot (29, 58.0%), only six (12.0%) respondents reported that they stayed far from a clinic and struggled to afford transport to the clinic. Respondents also reported that the mean traveling time to the clinic is 24 minutes, ranging from 10-30 minutes. This is accompanied by the fact that over half (29, 58.0%) of the respondents traveled to the clinic by foot, 14 (28.0%) respondents used transport requiring payment and 7 (14.0%) respondents had their own transport. The factors impacting on access were the need for safety with nearly a quarter (12, 24.0%) of the respondents reporting that they needed for an escort to accompany them to the

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clinic. During summer months, most (42, 84.0%) of the respondents reported traveling to the clinic in daylight.

Availability of appointments also may have played a role. More than half (28, 56%) of the respondents reported that when they attended the antenatal clinic to initiate antenatal care they were given another date on which to return for initiation of antenatal care. Reasons for this were given as: 24 (78.0%) of these respondents were given a return date as the available bookings for that day were already filled; three (6.0%) respondents did not have a valid proof of identification to open a patient folder and two respondents reported to the antenatal clinic on a “non-booking” day, but one of these respondents was immediately accepted to initiate antenatal care as she needed an urgent referral to a secondary institution.

Permission to attend antenatal clinic from work or a partner was also a possible contributing factor. On the day of initiation of antenatal care over half (30, 60.0%) of respondents did not require leave from work as it was their off day, 23 (46.0%) of the respondents were unemployed. Out of the 20 (40.0%) respondents that were employed, 12 (24.0%) respondents reported they received leave from work to attend the antenatal clinic, with 8 (16.0%) respondents reported that they work on a no work no pay basis, not receiving payment if they are not at work. In terms of needing permission from partner, parents, work or school, 22 (44.0%) of the respondents did not need permission to attend to the antenatal clinic, though over half (28, 56.0%) respondents needed some kind of permission to attend health care services and initiate antenatal care (Figure 5).

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Listed in Table 9 are the reason given by the respondents (some respondents gave multiple reasons for late initiation of antenatal care) that contributed to late initiation of antenatal care:

Table 9: Enabling factors contributing to late initiation of antenatal care

Variables	**Respondents (n=50, 100%)**
Work/school responsibility	27 (54.0%)
Unsure of the gestation of the pregnancy	27 (54.0%)
Delaying antenatal attendance as a result of hiding the pregnancy	13 (26.0%)
Delaying initiation of antenatal care because the respondent was planning to undergo termination of pregnancy but was too far pregnant	9 (18.0%)
Responsibility of children at home	6 (12.0%)
No money for transport to the antenatal clinic	4 (8.0%)
Respondents who recently relocated to the area	4 (8.0%)
Staying too far from an antenatal clinic	3 (6.0%)
Delaying antenatal attendance in anticipation of uncomfortable examinations	2 (4.0%)
No transport to the antenatal clinic	1 (2.0%)
Difficulty in finding an escort to accompany respondent	1 (2.0%)
Other reasons given for initiating antenatal care late: Found out late about the pregnancy Not feeling well to come to the clinic Wanted to see if pregnancy last as respondent had previous miscarriages Respondents would have had private attendance Unsure were to initiate antenatal care Respondents planning to have the baby adopted Respondent not being aware to initiate antenatal care	10 (20.0%) 2 (4.0%) 3 (6.0%) 1 (2.0%) 2 (4.0%) 1 (2.0%) 1 (2.0%) 1 (2.0%)

Lastly, factors at the clinic may enable late attendance. The mean waiting period was 4.6 hours (SD 1.13) from the start to finish of a day of initiation of antenatal care with the longest duration of 7 hours and the shortest 3 hours. Furthermore, four (8.0%)

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respondents agreed that staff made them feel uncomfortable while ten (20.0%) participants felt anxious receiving rapid infectious test results. (Figure 6)

Seven (14.0%) respondents reported delaying initiation of antenatal care as they heard rumors of staff that might be rude to women, while 12 (24.0%) respondents reported delaying initiation of antenatal care based on rumors they heard about painful and uncomfortable examinations. (Figure 6)

4.4.4 NEEDS DRIVING LATE INITIATION OF ANTENATAL CARE

The reasons given for attending antenatal clinics late, such as needing proof of the pregnancy or to obtain a maternity case record with antenatal history or the need for an ultrasound and vitamin supplementation as reported by respondents, were assessed.

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A range of different needs/reasons were reported by the late attendees that motivated them to initiate antenatal care before the end of their pregnancy.

More than a third (34, 68.0%) respondents reported that they were advised by a family member or friend that they should attend an antenatal clinic to initiate antenatal care. Nearly all (48, 96.0%) of the respondents reported they initiated antenatal clinic care to be monitored and for confirmation that everything was well. Nine (18.0%) respondents reported that they only attended the antenatal clinic to initiate antenatal care because they felt unwell or had a problem. More than half (29, 58.0%) reported that they initiated antenatal care to determine the sex of the foetus, while the majority (42, 84.0%) of the respondents wanted to establish the gestation of their pregnancy to know the expected date of delivery and more than three

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quarters (39, 78.0%) wanted reassurance that they had a bed reserved for delivery, before labour. More than three quarters (39, 78.0%) of the respondents reported that they had initiated antenatal care so that they could be supplied with vitamin supplementation and advice. Out of the 20 respondents who are employed, 16 (80.0%) of the respondents reported that they had the need to initiate antenatal care as proof or confirmation to be able to apply for maternity leave. Over three quarters (43, 86.0%) of the respondents reported that they had the need to initiate antenatal care to obtain a maternity case record before they could go to the labour ward for delivery and over half (31, 62.0%) of the respondents reported that they heard rumors that the staff of the labour ward would be rude to them if they came to the labour ward without a maternity case record. (Table 10)

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Table 10: Need factors why respondents initiated antenatal care

Variables	Respondents (n=50, 100%)
The need to be monitored during the pregnancy and know everything seems well	48 (96.0%)
The need to have a maternity case record to be able to go to the maternity ward	43 (86.0%)
The need to learn the gestation of the pregnancy and the expected baby by date	42 (84.0%)
The need to reserve a bed for delivery	39 (78.0%)
The need to get vitamin supplementation	39 (78.0%)
Respondent was advised to initiate antenatal care	34 (68.0%)
The need to have a maternity case record to avoid staff being rude if you don't have a MCR	31 (62.0%)
The need to have an ultrasound to determine the sex of the baby	29 (58.0%)
The need for proof to apply for maternity leave	16 (32.0%)
Respondents initiating antenatal care because they felt sick or had a problem	9 (18.0%)

Certain specific factors were addressed by asking respondents questions; did they postpone booking early at the antenatal clinic because they believe there are usually no problems in early pregnancy, that they could book a bed for delivery anytime

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during the pregnancy, that they would have attended antenatal clinic earlier if they had a problem and that it is inconvenient for the women to sit and wait in long queues.

More than half (30, 60.0%) of the respondents reported that they did not postpone booking at the antenatal clinic believing there are no problems in early pregnancy. Just over half (26, 52.0%) of the respondents reported that they delayed or postponed initiating antenatal care as they believe they could book a bed for delivery anytime during their pregnancy. (Table11). More than three quarters (42, 82.0%) of the respondents reported that they would have initiated antenatal clinic earlier if they had had a problem. Lastly, almost half (23, 46.0%) of the respondents reported that they postponed early initiation of antenatal care as it was inconvenient for them to sit and wait in long queues. (Table 11)

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Table 11: Reasons why respondents postponed initiating antenatal care

Variables	**Respondents (n=50, 100%)**
The respondents believe that they would have come to initiate antenatal care earlier if there was problems	42 (82.0%)
That they can book and reserve a bed anytime during their pregnancy	26 (52.0%)
Respondent admitting that it is inconvenient waiting in long queues at the clinic	23 (46.0%)
As they believed there are usually no problems in early pregnancy	20 (40.0%)

4.5 SUMMARYOF THE CHAPTER

This chapter has provided in detail results of the feedback on the questionnaire as guided by the framework of this study. It has served to highlight the key findings that will be discussed in the next chapter.

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CHAPTER 5 – DISCUSSION

5.1 INTRODUCTION

This chapter discusses the findings of the survey to describe and identify possible contributing factors leading to the late initiation of antenatal care at a Northern Suburbs community Health Centre's Antenatal Clinic in Cape Town, South Africa.

The discussion of the findings will be addressing the objectives below:

- identify external environmental factors that may contribute to late initiation of antenatal care by pregnant women in one health facility/district in Cape Town;
- identify the predisposing factors that may contribute to late initiation of antenatal care;
- describe the enabling factors which may contribute to late initiation of antenatal care;
- describe the need factors why woman initiate antenatal care late in pregnancy

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5.2 EXTERNAL ENVIRONMENTAL FACTORS CONTRIBUTING TO LATE INITIATION OF ANC

External environmental factors in the Anderson behavioural model include; the type of residence, antenatal attendance in another country, private antenatal attendance and coming from another country (Titaley, 2010). In the Andersen behavioural model, factors like region and type of residence, particularly respondents residing in rural areas were more likely to underutilise antenatal service (Titaley et al. 2010).

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In this study the main external environmental factors presented in the sample were that nearly 60% of respondents resided in informal settlements near and around the study site. This was also seen in studies in rural settings by Tekelab & Berhanu (2014) who found that nearly half (49%) of the respondents in their study resided in rural areas and this was an influence on the timing of initiation of antenatal care.

The use of other services could also play a role in late initiation of antenatal care. Twenty two percent of the respondents in this study reported that they sought care at a private practitioner for their pregnancy before initiating antenatal care at the study site. There appears to be no clarity as to what constitutes an antenatal visit, with some of respondents indicating that their visit to the general practitioner was an antenatal visit even though no tests were performed. If an ultrasound of their pregnancy at a general practitioner was done they indicated this as an antenatal visit and the ultrasound appeared to be an informal gestation determining ultrasound.

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Similar findings were reported by Kisuule et al. (2013) for a study done in Uganda where 30.0% of the respondents reported seeking antenatal and health care from private clinics and traditional birth attenders prior to initiating antenatal care at the study site, resulting in late initiation of antenatal care. Also according to Pell (2013) respondents reported that they sought health care at general facilities for minor problems, in the uncertainty of early pregnancy and not for antenatal initiation. It is suspected that women that can afford it will rather attend private practitioners in the early days of a pregnancy were they will have an ultrasound, as this is not often done routinely for women in early pregnancy in governmental institutions.

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5.3 SOCIO-DEMOGRAPHIC FACTORS AND RESPONDENT KNOWLEDGE CONTRIBUTING TO LATE INITIATION OF ANC

Referring to the framework which guides this study based on Anderson's (1995) behavioural model and access to medical care predisposing characteristics such as age, social structure, status of a person, education and occupation, health beliefs and attitudes, values and knowledge about health services enable or impede the use of health care (Titaley et al. 2010)

Socio-demographic factors such as; age, gestation, relationship status, education, occupation, household wealth, gravidity and women empowerment, are known to be describing factors that can contribute to the delay of initiation of antenatal care, Tekelab & Barhanu (2014) argued that higher age, little to no education, low family income, parity in women (>=1) and the utilisation of ANC in previous pregnancies showed a significant association with late initiation of antenatal care. This is consistent with our study with most of the respondents who initiated antenatal clinic care late being women in the higher age group (>24 years), with an educational level of lower than Grade 12, unemployed and staying in an informal settlement with a monthly household income of less than R5 000 per month, not being in their first pregnancy and falling pregnant unintentionally.

Age, especially higher ages according to (Tekelab & Barhanu, 2014), has been identified as a key factor in late initiation. Late initiation of antenatal care could also be explained by most of the respondents being older and not in their first pregnancy due to confidence from previous experiences of pregnancy, and their accumulated

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knowledge, considered antenatal care as less important as explained by Tekelab & Barhanu (2014). In this study the respondents for this study's ages ranged from 18 to 37, with a mean age of 26 (SD = ±5.1) years of age. Studies reporting on the age of late initiators report similar ranges. Musendo et al. (2016) reported from their study done in Zimbabwe, that the median age was 23 years old. Arinda et al. (2013) found that the mean age for their study done in Uganda was 25.2 (SD = ±5.2) years old. Only the study in southern Ethiopia by Tekelab & Berhanu (2014) found that the mean age of their study participants was 28.3 (SD = ±5.5).

The stage or gestation of the pregnancy may also be associated with late initiation of antenatal care (Kisuule et al. 2013). The results of this study showed that more than half of respondents were in their third trimester (28- >37 weeks gestation) when they initiated antenatal care with a mean of 28.5 ±3.8 weeks (7.5 months) gestation. This study's findings are supported by a study done in Uganda where the mean gestational age at booking was 27.9 weeks gestation (Arinda et al. 2013). The findings in this study are higher when compared to a study done in southern Ethiopia where the mean gestational age was 5.5 (SD = ±1.8) months (20 – 24 weeks) on initiation of antenatal care (Tekelab & Berhanu, 2014). However, this may be due to the study sample including women from 16 weeks gestation and more as late initiators.

Being alone, unmarried and unsupported may also be a contributing factor to late initiation of antenatal care (Musendo et al. 2016). Our study confirmed this. Most of the respondents in this study were unmarried with only 18% being married. This finding is in contrast to that was reported by other studies where the majority of

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women who initiated antenatal clinic care late were married (Tekelan & Berhanu, 2014, Arinda et al. 2013). Studies done in Uganda (Arinda et al. 2013) and southern Ethiopia (Tekelab & Berhanu, 2014) reported that most of the study participants were married.

Women with lower to no formal education showed an increased likelihood of late initiation of antenatal care (Sinyange et al. 2016, Tekelab & Berhanu, 2014). Educational status in this study shows that thirty (60.0%) participants did not finish high school which relates to a study done in southern Ethiopia (Tekelab & Berhanu, 2014). Titaley et al. (2010) stated that women with a low educational attainment, with a high birth rank and short birth interval were more likely to initiate antenatal care late. Partner education doesn't seem to be a problem in this study as the majority of partners finished high school which relates to a study done in Uganda (Arinda et al. 2013).

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Unemployed women from a low household wealth index were found to be more likely to delay antenatal clinic initiation (Gebremeskel, Dibaba, & Admassu, 2015). According to Musendo et al. (2016) 92% of respondents who initiated antenatal care late were under the poverty datum line. This is confirmed in this study with the occupational status showing that most respondent's partners or other family members were the main breadwinner, with only seven (14%) respondents being the main breadwinner, which means most of the respondents were dependent on their partner or other family members for financial support and transport costs for travelling to the clinic. Most of the respondents reported that their monthly income is between R1000 and R3000. The poverty line in the Western Cape is suggested to be

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<R804 per person per month, hence R1608 for a household of two adults (Grant, 2015). Thus most of the respondents were living on the breadline and can be considered as coming from low income households, especially when taking into consideration that they have other children and family members to provide for.

Women with high parity and gravidity were more likely to initiate antenatal care late (Banda, Michelo, & Hazemba, 2012, Sinyange et al. 2016). Results for this study show that gravidity is a positive indicator as to when women initiate antenatal care. Three quarters (38, 76.0%) of the respondents in this study were not in their first pregnancy, of which 8 reported initiating antenatal care late in their previous pregnancy and 30 reported booking for antenatal care before 24 weeks gestation in their previous pregnancy. This finding might be due to the fact that the women have gained confidence from their previous experience of pregnancy and did not see the need for early initiation of antenatal care as they now knew what to expect during pregnancy. As Tekelab & Barhanu (2014) argued, health care might no longer be deemed necessary, by women in their second, or more, pregnancies, due to their accumulated knowledge and experience with antenatal clinic care and birthing and thus consider antenatal care to be less important.

Women with unplanned pregnancies are more likely to delay initiation of antenatal care (Gebremskel, Dibaba, & Admassu, 2015). Unplanned pregnancy was common in the late initiation of antenatal care as nearly three quarters (37, 74%) of the respondents reported that they did not plan to fall pregnant. Tekelab & Berhanu (2014) argued that women who had a previous pregnancy and antenatal experience and women with an unplanned pregnancy are more inclined to late initiation of

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antenatal care. Pell (2013) also stated that the lack of familiarity with pregnancy indicators in first time mothers cause them to be less likely to recognise a pregnancy and were therefore more inclined to unintentionally delay antenatal initiation. Pell (2013) stated the reason for late initiation was that women in their first trimester were often sent home by health care staff and told to return when their pregnancy was more evident and could be confirmed by palpation.

Half of the respondents reported that they realised that they might be pregnant because of disamenorrhea and foetal movement. Although half of the respondents reported that they became aware of their pregnancy in the first trimester, a third of respondents became aware that they were pregnant between 13 and 20 weeks. This finding reflects a lack of knowledge about menstrual periods, contraceptives and the early initiation of antenatal care.

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Hatherall et al. (2016) reported that some women see less value in initiating antenatal care in their first trimester because there is still a risk of miscarriage, and women were advised to wait until the pregnancy was viable. Respondents who previously had normal pregnancies and uncomplicated births perceived less need and value in initiating antenatal care early for subsequent pregnancies (Hatherall et al. 2016). Similarly, Pell (2013) reported that Kenyan women who came to initiate antenatal care early in pregnancy were instructed to return in the second trimester when the pregnancy was visible and could be confirmed by palpation.

Women with adequate knowledge about antenatal care were more likely to initiate antenatal care early compared to those with little to no knowledge (Banda, Michelo,

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& Hazemba, 2012). Respondents' knowledge was investigated to determine if respondents possessed adequate knowledge regarding the importance of early initiation of antenatal care, when and where to initiate antenatal care and the importance and need of an ultrasound. Nearly a quarter of the respondents weren't aware that they should attend antenatal services with almost half of the respondents not being sure which clinic to attend. Results for this study showed that respondents had a scoring of more than 80% for what antenatal clinics were about and the reason for antenatal clinic care. Although the recording of the timing of initiation of antenatal care was less than 80% during the study, a common reason for not initiating antenatal clinic was to wait until the pregnancy was more evident and they could find a convenient time to attend antenatal care. This could be supported as reported by Musendo et al. (2016) as influence on cultural beliefs and norms as it is deemed bad luck, in some communities, to make a pregnancy public early as the pregnancy might be bewitched by people in the community.

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Musendo et al. (2016) postulated that late initiation could be due to a lack of knowledge of the importance of early initiation of antenatal or, as Hatherall et al. (2016) stated, little value is seen, early in a pregnancy, in the early initiation of antenatal care and, other more immediate responsibilities and commitments are given priority. However, in this study, two thirds of the respondents appeared to be knowledgeable about their pregnancy and reported at the correct time, but still initiated care late, despite reporting the correct timing for initiation of antenatal care.

Results of this study showed that respondents misunderstood the importance of an ultrasound in pregnancy, reporting that an ultrasound is done to determine the sex of

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the foetus. When the attention is focused on the importance of an ultrasound they would say it is for diagnostic purposes but initially to the respondents it is to learn the sex of the baby. Ikeako, Wzegwui, Onwudiwe, & Enwereji (2014) stated that the majority of Nigerian women request ultrasounds for foetal observation and sex determination.

In summary the demographic profile in a late initiation sample who presented at antenatal clinic for late initiation of antenatal care; were older, multiparous women, residing in rural areas, who are unemployed, with a low educational background, have other priorities and are dependent on their partners,. These respondents are well informed about the importance of antenatal clinic initiation and attendance but yet delayed initiation of antenatal care.

5.4 ENABLING FACTORS CONTRIBUTING TO LATE INITIATION OF ANC

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The three main enabling factors reported by respondents which inhibited them from early initiation of antenatal care were other primary priorities like work and school responsibilities, uncertainty of gestational age of the pregnancy and women hiding their pregnancies.

Seeking antenatal services early in pregnancy is of lower priority opposed to work and school responsibilities (Musendo et al. 2016, Hatherall et al. 2016), as women saw little value in early initiation of antenatal care compared with rather more immediate responsibilities and priorities such as housing, employment, care of children and going to school.

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In this study the main enabling factor contributing to late initiation of antenatal care, as reported by the respondents, were other responsibilities like work and school. Similar findings were reported by Gross et al. (2012). Most of the respondents needed some kind of permission to attend health care services and initiate antenatal care. Respondents reported that they needed permission from school or work and even their partners. Some of respondents even reported that their mother, mother-in-law or aunt even advised them to delay initiation as it is believed in some cultures that announcing the pregnancy early could result in bewitching or sabotaging of the pregnancy. Similar findings was also reported by Musendo et al. (2016) in Zimbabwe that women delay early disclosure of the pregnancy as they believe early disclosure of the pregnancy opens a gateway for the pregnancy to be bewitched.

Out of the 20 (40.0%) respondents that were employed, almost half (8, 16.0%) reported that they did not get paid if they were not at work, and that they would lose a day's pay if they attended the antenatal clinic. This seems to be common, as it is supported by a study done by Abrahams et al. (2001) in Cape Town where respondents reported that they work on a 'no work no pay' basis and are discouraged by employers to take off from work to attend an antenatal clinic.

Women were uncertain of their pregnancy and gestational age because they did not recognise early pregnancy signs especially if they were still having menstrual periods or if they were practicing contraception and therefore delayed antenatal care until foetal movement (Gross et al. 2012). Women not realising pregnancy symptoms, not keeping track of their monthly menstrual period, with unintentional pregnancies are

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more likely to late initiation of antenatal care (Banda et al. 2012, Tekelab & Berhanu, 2014).

It is of concern that more than two thirds (37, 74.0%) of the respondents reported that they did not plan the pregnancy and 36 (72.0%) respondents reported that they were not using any contraceptive method. It was evident in this study that the majority (41, 82.0%) of the respondents were not aware of their normal period, only 11 (22.0%) respondents reported that the first missed period was an indication to them that they might be pregnant. However, 18 (36.0%) respondents reported they only realised they were pregnant when they experienced foetal movement or when their stomachs became bigger which occurs during later stages of pregnancy.

Tekelab & Berhanu (2014) argued that women who had previous pregnancy and antenatal experience and women with an unplanned pregnancy are more inclined to initiate antenatal care late. Pell (2013) also stated that the lack of familiarity with the signs of pregnancy in first time mothers cause them to be less likely to recognise a pregnancy and were more inclined to unintentionally delay antenatal initiation. Pell (2013) also stated that women in their first trimester were sent home by health care staff with instructions to return to the antenatal clinic for initiation when the pregnancy is more evident and could be confirmed by palpation.

Hiding the pregnancy or keeping the pregnancy a secret was identified as a main enabling factor contributing to late initiation of antenatal care (Hatherall et al. 2016). Less than a third of respondents reported that they delayed initiation of antenatal care as they were hiding the pregnancy. Hiding the pregnancy has been previously

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documented in a number of African countries in studies done by Pell (2013) where women from Ghana, Kenya and Malawi reported that adolescents and unmarried younger women would hide their pregnancy and delay initiation of antenatal care to avoid the social implication of expulsion from school or homes, partner abandonment, stigmatisation and gossip within the community and potential embarrassment. Women even delay reporting their pregnancy and initiation of antenatal care for the potential embarrassment if she could not carry her pregnancy to full term (Pell, 2013). Hatherall et al. (2016) reported that young women, especially, delayed initiating antenatal care if they were hiding the pregnancy and were unsure if they wanted to continue the pregnancy, but by attending the antenatal clinic they felt they lost the decision making ability whether to continue with the pregnancy or not.

Other enabling factors contributing to late initiation of antenatal care include the waiting period to be seen, personal beliefs and perception, accessibility, money for resources and transport and institutional requirements and influences.

Respondents reported the mean waiting period at clinics was 4.6 hours, with the longest waiting period reported to be 7 hours. This is supported by studies done by Abrahams et al. (2001) and Mkhari (2016) where women reported they don't have time to sit and wait in long queues. Banda et al. (2012) also found in their study that long waiting periods at antenatal clinics are seen as a barrier in early initiation of antenatal care.

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Respondents were asked about their beliefs and perceptions that could influence the time of initiation of antenatal care. None of the respondents reported that they felt they were judged by healthcare staff. Although seven (14.0%) respondents reported they postponed initiating antenatal care as they heard rumors that staff was rude. Only four (8.0%) respondents reported that staff and the examinations made them feel uncomfortable. Nearly a quarter (12, 24.0%) of the respondents reported that they postponed initiating antenatal care as they heard from women who had previous experience that painful examinations were performed. Ten respondents reported that they were scared to receive the screening test results. Abrahams et al. (2001) and Pell (2013) reported that poor patient-staff relationships, unpleasant previous examinations, the booking systems and negative previous experiences were contributors to late initiation of antenatal care.

According to Pell (2013) Kenyan women with young children and closely spaced pregnancies delayed initiating antenatal care for fear of social discrimination and negative interaction with staff who viewed inadequate spacing between pregnancies negatively. Musendo et al. (2016) reported that nearly half (45.9%) of the respondents in their study in Zimbabwe thought that antenatal care was to determine if they were HIV positive or not, which caused most women to register late for antenatal initiation as they feared knowing their HIV status, and if women knew they were HIV negative they didn't see the reason for early initiation of antenatal care.

Three quarters (38, 76%) of the respondents who initiated antenatal clinic late reported that they were aware that they needed to initiate and attend antenatal clinic

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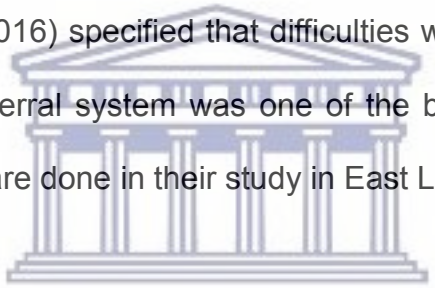
earlier, however nearly half (22, 44.0%) of the respondents reported not knowing which clinic to attend.

Some respondents reported that when they attended a basic antenatal clinic (BANC), which is usually in the satellite baby clinics, the staff would advise the women that they can't initiate antenatal care at the BANC as they might be a high risk pregnancy.

Respondents also reported that if they are not used to governmental health institutions they don't know the services rendered by the clinics and the procedures to follow. Hatherall et al. (2016) specified that difficulties with navigating through the health services and the referral system was one of the barriers that contributed to late initiation of antenatal care done in their study in East London, UK.



Over half (29, 58.0%) of the respondents reported that they travelled to the clinic by foot, leaving home early, sometimes in bad weather and unsafe environments. Twelve (24.0%) of the respondents reported that they needed to have an escort to accompany them to the clinic as they needed to be there early to be in the front of the queue and it was unsafe to walk alone, so they depended on the availability of an escort. Abrahams et al. (2001) found that women delayed initiating antenatal services as a result of long walking distances, sometimes in bad weather and unsafe environments to travel to the clinic, in winter months women had to leave their homes while it was still dark.

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Nearly all (45, 90.0%) of the respondents reported that there was an easily accessible clinic close to their home with a mean traveling time of 24.2 (SD = ± 5.6) minutes. Accessibility to initiate antenatal care early is not regarded as an enabling factor contributing to late initiation of antenatal care as most of the respondents reported having access to a BANC facility. Regardless if it was a baby clinic as baby satellite clinics in the district do BANC services or could advise women where to attend go for antenatal clinic initiation.

Indirect expenses for resources such as clothes and hairdressing prior to antenatal visits and making an effort to look smart and depending on their husband for transport contribute to the delay in initiation of antenatal care, as some women in Kenya and Malawi reported (Pell, 2013). So they would rather initiate antenatal care in the sixth or seventh month to minimise the number of journeys to follow-up visits and the total cost thereof. In addition many of the women did not have direct access to cash and were dependent on their husbands or relatives to meet the required costs, the lack of access to money could complicate decision making about when to initiate antenatal care (Pell, 2013). This was supported in Uganda where 27.5 % of participants agreed that they did not have money for transport to attend antenatal clinics, 9.3 % even thought that they needed to pay for antenatal care (Kisuule et al. 2013).

More than half (28, 56.0%) of the respondents of this study reported that when they attended the antenatal clinic for initiation they were given another date for initiation for various reasons such as; they came late to the clinic (24, 48.0%), they did not have valid proof of identity (3, 6.0%), two respondents came on a non-booking day,

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but one respondents had to be booked as she had a problem that needed urgent referral. This kind of practice further contributes to late initiation of antenatal care as documented in the literature (Musendo et al., 2016). For example, in a study done in Zimbabwe the unavailability of daily antenatal clinic services was a great contributor to late initiation of antenatal clinic as some women were unable to attend antenatal care during the working week with work requirements taking priority over initiating antenatal care early in pregnancy (Musendo et al. 2016).

Similarly, Gross et al. (2012) indicated that pregnant women who attended an antenatal clinic late, for the first visit, had reasons such as a lack of services, being sent back home without care due to lack of available staff and not having brought current medication cards or previous test results with them to the clinic.

The three main reasons given by respondents for late initiation in this study were; other priorities/responsibilities, unsure of the gestation of their pregnancy and avoiding initiating antenatal care because they were hiding the pregnancy, probably because it was unplanned. This is similar to the main factors as reported by the study of Tekelab & Berhanu (2014) where women reported that they were too busy at work, experiencing unfavourable finances or had unplanned pregnancies. These factors are the main enabling factors as confirmed by Titaley et al. (2010) who found that women with unwanted pregnancies are often associated with a delay in antenatal care initiation in comparison with wanted pregnancies.

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5.5 NEEDS DRIVING LATE INITIATION OF ANTENATAL CARE

The study investigated whether respondents initiated antenatal care in order to fulfill their specific needs.

Antenatal services are considered a curative rather than a preventative measure and women delay seeking antenatal care if they are not experiencing discomfort or illness in their pregnancy (Tekelab & Berhanu, 2014). Most of the respondents reported that they had initiated antenatal care to be monitored and examined to learn if everything was well with their pregnancy. Two respondents reported that they didn't initiate antenatal care to be monitored as they were attending a private healthcare provider. Nine (18.0%) respondents reported that they initiated antenatal care as they were feeling unwell or experiencing a problem. As Musendo et al. (2016) reported antenatal services seem to be viewed primarily as a curative rather than a preventive service.

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Women only initiated antenatal care closer to the end of their pregnancy so that when they come to the hospital to deliver they could book for delivery and gain access to the labour ward (Arinda, 2013). The need for respondents to obtain a maternity case record or antenatal record was evident in this study as respondents reported that they needed to have a maternity case record for when they went to the labour ward for delivery. Nearly two thirds (31, 62.0%) of the respondents reported that they feared rude staff when going to the labour ward without a maternity case record. Pell (2013) also reported similar findings with Kenyan and Malawian women who did not initiate antenatal care early as they were older multiparous women that

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were accustomed to the experience of pregnancy and were less concerned with receiving a holistic antenatal monitoring but rather needed to obtain an antenatal card prior to delivery.

Women are likely to initiate antenatal care when they are about to deliver, and regard antenatal services as a way of booking a place for delivery (Tekelab & Berhanu, 2014). The need by respondents to secure and book a delivery space was evident with more than three quarters (39, 78.0%) of the respondents reporting that they initiated antenatal care in order to reserve a bed or space in the labour ward for delivery. Just over half (26, 52.0%) of the respondents reported that they postponed initiation of antenatal care as they felt antenatal care was only about booking a space or bed in the labour ward. This resulted in them delaying initiation to closer to delivery time and misunderstanding the importance of early ultrasound and early initiation of antenatal care. Tekelab & Berhanu (2014) attribute this to women having previous pregnancy and antenatal experience not perceiving early initiation of antenatal care as a priority.

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The need to know the estimated delivery date was evident with most respondents (42, 84.0%). They reported that they initiated antenatal care to learn how far pregnant they were and when the expected date of delivery was. This could be explained by findings reported by Hatherall et al. (2016), that women reported antenatal services becoming a priority when they felt unwell or experienced a problem in their pregnancy toward its end stages, and to get reassurance and confirmation of the pregnancy progress and the delivery date.

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Some other findings in this study as to why the respondents felt they had the need to initiate antenatal care was that most of the respondents wanted an ultrasound to learn the sex of their unborn baby and not necessarily for the assessment of abnormalities. Most of the respondents had the need to initiate antenatal care as they were told by family members or friends when to initiate antenatal care. This is consistent with a study done in Zimbabwe by Musendo et al. (2016) that the decision making on when to initiate antenatal care, in African cultures, depends mostly on the mother-in-law, aunt or husband which is determined by cultural beliefs and norms.

Nearly half (20, 40.0%) of the respondents reported that they delayed antenatal care initiation as they felt there were no problems in their early pregnancy and more than three quarters (42, 82.0%) reported that if a problem arose in their pregnancy they would have initiated antenatal clinic care earlier. Women preferably seek medical attention at general practitioners and traditional healers, as reported by Hatherall et al. (2016), and antenatal care is primarily viewed as a curative rather than a preventative service (Tekelab & Berhanu, 2014).

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Gebremeskel et al. (2015) reported that even if women knew the correct time for initiating antenatal care they delayed initiation until they could feel foetal movement and were observably and evidently pregnant. Tekelab & Berhanu (2014) reported similar findings in their study, that women delay seeking antenatal care until they perceive discomfort or a problem. This is mostly seen in multiparous women probably due to their having confidence and experience acquired from previous pregnancies.

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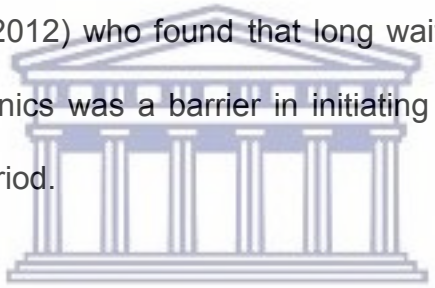
The need for vitamins wasn't regarded as reason for initiation of antenatal care as women can get vitamins from their local pharmacy. Regarding proof of pregnancy for maternity leave purposes, the majority of the respondents were unemployed with only 16 (32.0%) of women needing proof of pregnancy for maternity leave purposes. The majority of respondents reported that they did not postpone antenatal care initiation because they had to sit in long queues or in anticipation of rude, judgmental staff or uncomfortable examinations. This finding is in contrast with the following findings of; Gross et al. (2012) that pregnant women who attend antenatal care late for the first visit had reasons like lack of services, being sent back home without care due to a shortage of staff; having to bring current medication, cards or previous test results, and Benda et al. (2012) who found that long waiting periods prior to being attended to at antenatal clinics was a barrier in initiating antenatal care before the recommended gestation period.



In summary the four main needs that were found in this study are; the need to be monitored and reassurance that the pregnancy is healthy, the need for a maternity case record, needed if women must go to the labour ward, the need to know the pregnancy's gestation and the need to reserve a bed for labour.

5.6 SUMMARY OF THIS CHAPTER

This chapter discusses the key findings as related to Anderson framework. The respondent profile that presented at antenatal clinic for late initiation of antenatal care is older, multiparous women, residing in rural area, who are unemployed, with a

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low educational background, low monthly income, having other priorities and dependent on their partners. These respondents are well informed about the importance of early antenatal clinic initiation and attendance but yet delayed initiation of antenatal care.

The three main enabling factors given by respondents for late initiation in this study were; other priorities/responsibilities, unsure of the gestation of their pregnancy and avoid initiating antenatal care because they were hiding their pregnancy, probably because it was unplanned.

The four main need factors that were found in this study are; the need to be monitored and reassurance that the pregnancy is healthy, the need for a maternity case record, needed if women must go to the labour ward, the need to know the pregnancy's gestation and the need to reserve a bed for labour and attain vitamin supplementation.

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The framework used in this study was adapted from the Andersen Behavioural Model and a frame work used by Titaley et al. (2010), who argued that there is significant relevance between external environmental, predisposing, enabling and need factors associated with the underutilisation of antenatal care services.

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CHAPTER 6 – SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 INTRODUCTION

The purpose of this study was to investigate factors that might contribute to late initiation of antenatal care. To do this the researcher administered a questionnaire aimed at identifying external environmental and predisposing factors, and to describe the enabling and the need factors perceived by women that could contribute to late initiation of antenatal care.

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6.2 KEY FINDINGS

- The main findings reflected in this study was that socio-demographic factors like age, educational status and family income associated with late initiation of antenatal care was present in this sample. Most of the respondents included in this study were unmarried, staying with their partner or parents, had a low educational status, were not employed permanently and were dependent on their partner or family.
- In this study the late attendees were predominantly older women who had been pregnant before who initiated antenatal care late. It could be due to the fact that the women had had previous experience of pregnancy that contributed to their confidence during this current pregnancy. Women who had previous experience of antenatal care and pregnancy preceding the current pregnancy are positive indicators for late initiation of antenatal care. This

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seems to be because women view antenatal as a curative service rather than a preventative measure.

- This study showed that a lack of awareness and knowledge about antenatal care is present in late initiation of antenatal care, as the majority of the women fell pregnant unintentionally, were unmarried and unaware of their last normal period. Respondents prioritised other events above the need for antenatal care and the importance of early initiation of antenatal care.

- This study showed that women were well informed about the correct timing of initiation of antenatal care and the importance of early initiation but yet delayed initiation of antenatal care for various reasons, the most predominant reasons being; busy with other responsibilities, unsure of gestational age, waiting for the pregnancy to become evident and hiding the pregnancy. Respondents who reported that they knew early in their pregnancy that they were pregnant also reported delaying antenatal care as they found it inconvenient to wait in long queues, anticipated negative staff attitudes and uncomfortable examinations.

- Respondents reported that they had the need to initiate antenatal care, regardless of the gestation period because they needed to know how far pregnant they were, book a bed for delivery and most predominantly get a MCR (maternity case record, antenatal record) which is needed for access to the labour ward and to minimise negative staff attitudes should they present to the labour ward without a MCR.

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6.2 RECOMMENDATIONS

These recommendations come from the study confirming the profile of late attendees presented in the literature and the supportive literature of the topic of late attendees.

6.2.1 EDUCATIONAL RECOMMENDATIONS

- Comprehensive and safe counseling and awareness throughout the pregnancy at antenatal clinics and in the labour ward to support the initiative of the Royal College of Obstetricians & Gynaecologists: Leading Safe Choices (Leading Safe Choices, 2017). The initiative aims at expanding contraceptive choice, by improving access to services like long-acting reversible contraceptive devices such as the post-partum intrauterine device, to improve women's health and prevent unintended pregnancies.
- Campaigns should be held on preventing teenage and unwanted pregnancies.
- Awareness campaigns should be held at secondary schools for the anonymous use and provision of antenatal care service at all clinics and to initiate antenatal care early in pregnancy.
- Under life science learners at school should be informed that if they are sexually active they stand a great chance of falling pregnant. Provide learners with information and advice as to where they can get contraceptives to minimise unintended pregnancies.
- Like the MomConnect service, create an anonymous hot line with a contact number where learners who are sexually active can be advised on safe sexual practices and pregnant women can consult on how and where to initiate antenatal care.

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- Create awareness of the importance of early antenatal care by creating posters that can be displayed in the community at shops advertisement boards and clinic waiting areas.

6.2.2 PRACTICE RECOMMENDATIONS

- Client satisfaction and recommendation survey forms should be handed out to each health care user that utilises antenatal care services to create a better and more user friendly service.
- Interpersonal communications skills workshops should be provided to improve the attitudes with which nurses address healthcare.
- Antenatal care services should be available on a daily basis so that pregnant women who attend antenatal clinics for initiation are booked on their first attendance and not receive a return date for initiation.
- The Department of Health might look into extending antenatal clinic hours, for example a weekend clinic, so that women who work through the week can utilise antenatal services on a weekend.

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6.2.3 FURTHER RESEARCH RECOMMENDATIONS

- Further qualitative studies need to be done to explore the challenges women face in initiating antenatal clinic on time and the reasons why women don't initiate antenatal clinic at the BANC sites. This could be done through qualitative studies exploring, in detail, the experience and issues of late attendees.
- Further epidemiological studies need to be done to predict the association between factors and late versus early initiators.

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- There is a need for further research to investigate the viability of implementing an antenatal initiation service only for pregnant women at their local community clinic, offering antenatal initiation at clinics on a daily basis.

6.3 LIMITATIONS

The study population was limited to those participants that booked at the Kraaifontein antenatal clinic who were 24 weeks or more of gestational age, as determined by a skilled antenatal clinic registered nurse. However participants who were unable to communicate in English or/and Afrikaans could not be included in the study as this would have resulted in the collection of unreliable data if the questions were not understood clearly. In addition, participants who might have had time constraints were not included.

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This study is a description of the profile and factors of late attendees of antenatal clinic as this study described causation only and not grouping between late and early attendees.

6.4 CONCLUSION

This study has described the profile of late attendees and some factors associated with late initiation of antenatal care. An adapted Anderson's model of need for health care has been used as a framework to guide this study. Recommendations have been made guided by the results of this study. Additional studies and investigations should be done to further explore causation factors of late initiation of antenatal care.

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7. REFERENCES

Abrahams, N. Jewkes, R. & Mvo, Z. (2001). Health care-seeking practices of pregnant women and the role of the midwife in Cape Town, South Africa. *Journal of Midwifery & Women's Health, 46*.

Adekanle, D., & Isawumi, A. (2008). Late antenatal care booking and its predictors among pregnant women in South Western Nigeria. *Online Journal of Health and Allied Science, 7*(1).

Andersen, R. M. (1995). Revisiting the behavioural model and access to medical care: Does It Matter? *Journal of Health and Social Behaviour, 36*, 1-10.

Antenatal visits - check-ups during your pregnancy. (2014). Retrieved March 17, 2015, from Woman's and Children's Health Network - Pregnancy: http://www.cyh.com/HealthTopics/HealthTopicDetails.aspx?p=438&np=459&id=2758

Arinda, A., Nakitende, G., & Otim, L. (2013, May 25). *Timing and reasons for coming late for the first antenatal care visit by pregnant women at Mulago hospital, Kampala Uganda.* Retrieved August 15, 2017, from BMC Pregnancy and Childbirth: https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-13-121

Banda, I. (2012). Factors associate with late antenatal care attendance in selected rural and urban communities of the Copperbelt province, Zambia. Retrieved from: http://dspace.unza.zm:8080/xmlui/bitstream/handle/123456789/1830/Isaac%20Banda-MPH%202012%20Dissertation.pdf?sequence=1

Banda, I., Michelo, C., & Hazemba, A. (2012). Factors Associated with late Antenatal Care Attendance in Selected Rural and Urban Communities of the Copperbelt Province of Zambia. *Medical Journal of Zambia, 39*.

Beauclair, R. (2014). *Data from Cape Town suggests that late initiation of antenatal care may not affect the occurrence of stillbirths.* Retrieved March 26, 2015, from Sacema Quarterly: http://sacemaquarterly.com/short-item/data-from-cape-town-suggests-late-initiation-antenatal-care-may-not-affect-occurence-stillbirths.html

Biology-Online. (2015). *Predisposing-factors*. Retrieved March 26, 2015, from Biology-Online: http://www.biology-online.org/dictionary/Predisposing-factors

Brink, H. (2008). *Fundamentals of research methodology for health care professionals.* Cape Town: Juta.

Burns, N., & Grove, S. K. (2005). *The practice of nursing research* (5 ed.). (L. Henderson, Ed.) Missouri, United States of America: Elsevier Saunders.

UNIVERSITY of the WESTERN CAPE

http://etd.uwc.ac.za/

Business Dictionary. (2015). *Social-factor*. Retrieved March 26, 2015, from Business Dictionary: http://www.businessdictionary.com/definition/social-factor.html

Department of Health (Western Cape Government). (2013, September 5). *Antenatal (Pre-Birth) Health Services*. Retrieved March 2015, 17, from Department of Health (Western Cape Government): http://www.westerncape.gov.za/service/antenatal-pre-birth-health-services.

Department of Health South Africa. (2017). Retrieved October 12, 2017, from Pregnancy Awareness Week 2017: http://www.health.gov.za/index.php/gf-tb-program/334-pregnancy-awareness-week-2017

DoH. (2006). *Pregnancy Education Week: 18-26 February 2006*. Retrieved February 27, 2015, from Department of Health Western Cape: http://www.westerncape.gov.za/news/pregnancy-education-week-18-26-february-2006

DoH. (2014, August 25). *New project connects expectant moms to Government Health Services*. Retrieved February 27, 2015, from Western Cape Goverment Department of Health: http://www.westerncape.gov.za/general-publication/new-project-connects-expectant-moms-government-health-services

DoH. (2014). *Pregnancy Awareness Week*. Retrieved February 27, 2015, from Department of Health Western Cape: http://www.westerncape.gov.za/news/pregnancy-awareness-week

Caughey, A. B. (2016). *Postterm Pregnancy*. Retrieved June 30, 2016, from Medscape: http://emedicine.medscape.com/article/261369-overview

Chiwaula, C. H. (2011). Factors Associated with Late Initiation of Antenatal Care (ANC). *A Dissertation Submitted to College of Medicine in Partial Fulfillment*.

Gala, M., Symonds, I., H, M., Petraglia, F., & Smith, R. (2012). *Postterm Pregnancy*. Retrieved June 30, 2016, from US National Library of Medicine National Institutes of Health: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3991404/

Gala, M., Symonds, I., Murray, H., Petraglia, F., & Smith, R. (2012). Postterm Pregancy. *National Center for Biotechnology Information*, 175-187.

Gebhardt, S., & Geerts, L. (2012). *Obstetrical and Gynaecological Ultrasound: Policy and Protocols 2012.* Retrieved February 11, 2015, from Western Cape Government: http://obstyger.co.za/doc/Ultrasound%20Policy%202012.pdf

Gebremeskel, F., Dibaba, Y., & Admassu, B. (2015). Timing of First Antenatal Care Attendance and Associated Factors among Pregnant Women in Arba Minch

UNIVERSITY of the WESTERN CAPE

http://etd.uwc.ac.za/

Town and Arba Minch District, Gamo Gofa Zone, South Ethiopie. *Journal of Environmental and Public Health*, 7.

Grant, L. (2015, February 5). *Infographic: Poverty in South Africa*. Retrieved August 10, 2017, from Mail & Gardian: https://mg.co.za/data/2015-02-05-infographic-poverty-in-south-africa

Gross, K., Alba, S., Glass, T. R., Armstrong-Schellenberg, J., & Obrist, B. (2012). Timing of antenatal care for adolescent and adult pregnant women in south-eastern Tanzania. *BMC Pregnancy and Childbirth*.

Harms, R. W. (2014). *Pregnancy week by week*. Retrieved June 30, 2016, from Mayoclinic: http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/expert-answers/fundal-height/faq-20057962

Harrington, K. (2012). *Pregnancy / Antenatal care*. Retrieved March 17, 2015, from Womens Healthcare - Your complete guide to women's health: http://www.wellbeingforwomen.com/pregnancy_topics/antenatal-care/#booking_visit

Hatherall, B., Morris, J., Jamal, F., Swweney, L., Wiggins, M., Kaur, I., Renton., & Harden. (2016, May). *Timing of the initiation of antenatal care: An exploratory qualitative study of women and service providers in East London.* Retrieved August 15, 2017, from Sciencedirect: http://www.sciencedirect.com/science/article/pii/S0266613816000553

Ikeako, L., Ezegwui, H., Onwudiwe, E., & Enwereji, J. (2014). *Attitude of expectant mothers on the use of ultrasound in pregnancy in a tertiary institution in South East of Nigeria*. Retrieved November 18, 2017, from US National Library of Medicine National Institutes of Health: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250997/

Kavanagh, S. (2011). *Antenatal Examinations*. Retrieved March 17, 2015, from Patient.co.uk: http://www.patient.co.uk/doctor/antenatal-examinations

Kisuule, I., Kaye, D. K., Najjuka, F., Ssematimba, S. K., Arinda, A., Nakitende, G.,& Otim, L. (2013). *BMC Pregnancy & Childbirth - Timing and reasons for coming late for the first antenatal care visit by pregnant women at Mulago hospital, Kampala Uganda.* Retrieved March 25, 2015, from BioMedCentral: http://www.biomedcentral.com/1471-2393/13/121

Kupek, E., Petrou, S., Vause, S., & Maresh, M. (2002, March). Clinical, provider and sociodemographic predictors of late initiation of antenatal care in England and Wales. *BJOG: an International Journal of Obstetrics and Gynaecology, 109*, 265-273.

http://etd.uwc.ac.za/

Lincetto, O. (2002). *Standards for Maternal and Neonatal Care - Prevention of neural tube defects.* Retrieved February 27, 2015, from World Health Organization: http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/neural_tube_defects.pdf

Lincetto, O., Mothebesoane-Anoh, S., Gomez, P., & Munjanja, S. (2006). *Antenatal Care: Opportunities for Africa's newborns: Practical data, policy and programmatic support for newborn care in Africa.* Retrieved March 16, 2015, from World Health Organization: http://www.who.int/pmnch/media/publications/aonsectionIII_2.pdf

LoBiondo-Wood, G., & Harber, J. (2010). *Nursing Research: Methods an Critical Appraisal for Evidence-Based Practice* (7th ed.). St. Louis, Missouri, United States of America: Mosby Elsevier.

Millennium Development Goals (MDGs). (2014, May). Retrieved February 12, 2015, from World Health Organization: http://www.who.int/mediacentre/factsheets/fs290/en/

Mkhari, M. M. (2016). *Factors contributing to late antenatal care booking at Thulamahashe local area at Bushbuckridge Sub-district in Mpumalanga province.* Retrieved January 12, 2018, from http://uir.unisa.ac.za.bitstream.handle/10500/22648/dissertation_mkhari_mm.pdf?sequence=1

Myer, L.,& Harrison, A. (2003). Why Do woman seek antenatal care late? Perspective From Rural South Africa. *Journal or Midwifery & Women's Health*.

Musendo, M., Chideme-Munodawafa, A., Mhlanga, M., & Ndaimani, A. (2016). *Delayed First Antenatal Care Visit by Pregnant Women: Correlates in a Zimbabwean Peri-Urban District.* Retrieved August 10, 2017, from Ijird: http://www.ijird.com/index.php/ijird/article/viewFile/97483/71112

Ndidi, E., & Oseremen, I. (2010). Reasons given by pregnant women for late initiation of antenatal care in the Niger Delta, Nigeria. *Ghana Journal Medical*.

Okhiai, O., Izeefua, E., Okojie, A., Edengbe, R., Aigbokhaebho, E. I., & Benjamin, G. A. (2015). Factors contributing to late antenatal booking among pragnant women in Ibore Primary Health Centre in Esan Central Local Government Area, Edo State. *International Journal of Public Health Research*.

Ornella Linceto, H. F. (2002). *Prevision of effective antenatal care*. Retrieved April 24, 2015, from World Health Organisation: http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/effective_antenatal_care.pdf

Pell, C. (2013, January 15). *Factors affecting antenatal care attendance: Results from Qualitative Studies In Ghana, Kenya and Malawi.* Retrieved August 19,

http://etd.uwc.ac.za/

2017, from Journal.Plos: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0053747

Polit, D. F., & Beck, C. T. (2010). Essentials of Nursing Research. In *Appraising Evidence for Nursing Practice* (p. 15). Philadelphia: Wolters Kluwer Lippincott Williams & Wilkins.

Sinyange, N., Sitali, L., Jacobs, C., Musonda, P., & Michelo, C. (2016, October 24). *Factors associate with late antenatal care booking: population based observations from the 2007 Zambia demographic and health survey.* Retrieved August 10, 2017, from The Pan African Medical Journal: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5325499/

Sustainable Development Goals. (2017). Retrieved October 12, 2017, from United Nations Development Programme: http://www.undp.org/content/undp/en/home/sustainable-development-goals/background.html

Sustainable Developmental Goals. (2017). Retrieved January 05, 2018, from United Nations: http://www.un.org/sustainabledevelopment/health/

Tekelab, t., & Berhanu, B. (2014, January to April). *Factors Associated with Late Initiation of Antenatal Care among Pregnant Women Attending Antenatal Clinic at Public Helath Centers in Kembata Tembaro Zone, Southern Ethiopia* . Retrieved August 10, 2017, from Star Journal: http://www.ajol.info/index.php/star/article/view/104051

The Free Dictionary. (2015). *Environment*. Retrieved March 26, 2015, from The Free Dictionary: http://the freedictionary.com/environment

The Law Dictionary. (2015). *What is demographic Factors?* Retrieved March 26, 2015, from The Law Dictionary: http://thelawdictionary.org/demographic-factors/

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

Trinh, L. T., & Rubin, G. (2006, August 18). *Late entry to antenatal care in New South Wales, Australia.* Retrieved March 17, 2015, from National Center for Biotechnology Information: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1562358/

Western Cape Government. (2015). *Antenatal (Pre-Birth) Health Services*. Retrieved April 24, 2015, from Western Cape Government: https://www.westerncape.gov.za/service/antenatal-pre-birth-health-services

http://etd.uwc.ac.za/

Western Cape Government of Health. (2013). *Western Cape Government.* Retrieved February 11, 2015, from Antenatal (Pre-Birth) Health Services: http://westerncape.gov.za/service/antenatal-pre-birth-health-service

Western Cape Government of Health. (2014, May 5). *Prevention of Mother to Child Transmission.* Retrieved February 11, 2015, from Western Cape Government of Health: http://www.westerncape.gov.za/service/prevention-mother-child-transmission-pmtct

Western Cape PMTCT Clinical Guideline 2015. (2015). *PMTCT Clinical Guidelines Update*. Western Cape, South Africa: Western Cape Government of Health.

WHO. (2015). *Global Health Observatory (GHO) data - Antenatal Care*. Retrieved April 24, 2015, from World Health Organisation: http://www.who.int/gho/maternal_health/reproductive_health/antenatal_care_text/en/

WHO. (2017). *Sexual and Reproductive Health –New guidelines on antenatal care for positive pregnancy experience.* Retrieved November 23, 2017, from World Health Organisation: http://www.who.int/reproductivehealth/news/antenatal-care/en/

Wolff, T. (2012, July 16). *Folic Acid fact sheet*. Retrieved February 11, 2015, from Womanshealth.gov: http://womanshealth.gov/publications/our-publications/fact-sheet/folic-acid.html

Word Ink. (2015). *Socio-demographic*. Retrieved March 26, 2015, from Word Ink: http://www.wordink.com/words/socio-demographic

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APPENDICES

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APPENDIX 1 : FIRST QUESTIONNAIRE USED IN PRE-TEST

QUESTIONNAIRE: INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE

Questionnaire number:_____

DEMOGRAPHICS

1. How old are you now? _____

18 – 23	24 - 28	29 – 32	32 – 34	>35

2. Marital status

Single	Stable relationship	Married	Separated	Divorced	Widow

3. What is your highest level of education completed?

< grade 8	Grade 9 – 11	Grade 12	Tertiary education

4. Are you working?

Unemployed	Contract worker	Permanently employed	Occasionally

5. Who are you staying with?

Both parents	Mother	Father	Other family	Spouse	Friends	Siblings	Alone

6. What religion or denomination are you?

Christian	Muslim	None	Other

7. What did the Sister say, how far pregnant are you today?

24– 27 weeks	28 – 32 weeks	37 – 36 weeks	> 37 weeks

8. Where do you stay?

Informal settlement	Formal settlement	Far away farm	Homeless

PREDISPOSING FACTORS

9. Do you have a partner (husband or boyfriend)?

Yes	No	N/A	Specify_____

10. Does your significant other (parents/partner) support the pregnancy?

Yes	No	N/A

11. Do you need permission from your partner / parents to seek health care?

Yes	No	N/A

12. Do you need to get permission to book and attend the antenatal clinic?

No	Yes, from partner	Yes, from parents	Yes, from school	Yes, from work

13. Highest level of education completed by partner

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< grade 8	Grade 9 – 11	Grade 12	Tertiary education	N/A

14. Is your partner working?

Unemployed	Contract worker	Permanently employed	Occasionally	N/A

15. Who has the main income in your family?

Both parents	Mother	Father	Other family	Partner	Friends	Siblings	Self

16. What is the average household income per month?

None	R100-R500	R500-R1000	R1000-R3000	R3000-R5000	>R5000	Don't know

OBSTETRIC HISTORY

17. Is this your …….pregnancy

1st pregnancy	2nd pregnancy	≥ 3rd pregnancy	Specify if >3

18. What is the interval/ spacing between your first and current pregnancy?

< 1 year	1-2 years	3-4 years	>4 years	N/A

19. With your previous pregnancy, at what gestational age did you have your first antenatal clinic visit?

< 12 weeks	13 – 23 weeks	≥ 24 weeks	N/A

20. Did you plan this pregnancy?

Yes	No

21. Where you using contraceptives when you fell pregnant?

Yes	No

22. What contraceptives were you using?

Not on contracep-tives	Oral contracp-tives	Injectable contracep-tives	Condoms	Loop or failed sterilisa-tion	Don't know about contra-ceptives

23. What was your first reaction when you discovered that you are pregnant?

Sure to continue with the pregnancy	Thought of terminating the pregnancy	Wanted to keep the pregnancy a secret for as long as possible	Other:

24. How did you realise that you are pregnant?

Missed period	Stomach became bigger	Felt the baby moving	Was told by partner or other people that you are pregnant	Came to a doctor because you were feeling sick

25. How far pregnant do you think you are now?

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24 – 27 weeks	28 – 32 weeks	37 – 36 weeks	> 37 weeks

26. Did you know exactly when your last normal period was?

Yes	Not sure	Did not have periods

27. Was a missed period an indication of pregnancy to you?

Yes, 1 period	Yes, 2 periods	Yes, 3 periods	No, was on contraceptive, not having a period	Periods was irregular

28. When did you become aware of the pregnancy?

< 3 months	3 – 5 months	5 – 6 months	6 – 7 months	> 8 months

29. Did you immediately come to the antenatal clinic when you found out about your pregnancy?

Yes	No

30. Why did you book to attend antenatal clinic?

To know if everything is well	Because you were sick	Because someone advised you	To get a scan	To know how far pregnant
To know what baby it is	To have a bed for labour	To get vitamins	Other:	

31. Did you seek pregnancy advice prior to booking?

No	Yes, a traditional healer	Yes, a private healthcare provider	Yes, a private clinic	Other

32. Did you attend antenatal clinic for booking but was given another date to come and book?

Yes, had to return on another date to book	No, was booked at the first attendance at the antenatal clinic.

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KNOWLEDGE FACTORS

Now I would like to ask you about your understanding of antenatal care

33. When is a pregnant woman supposed to start antenatal care?

0-12 weeks (0 – 3 months)	13 – 24 weeks (4 – 6 months)	25 – 36 weeks (5 – 9 months)

34. How many times should a pregnant woman visit the clinic during a pregnancy

a. When there is a problem_____

b. When there are no problems

35. When is a pregnant woman supposed to start antenatal care?

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0-12 weeks (0 – 3 months)	13 – 24 weeks (4 – 6 months)	25 – 36 weeks (5 – 9 months)

What are the benefits of antenatal care?

	Yes	No	Not sure
36. To establish a relationship with the provider			
37. For the skilled provider to interview examine and identify pre-existing problems			
38. For the skilled provider to teach and counsel the pregnant woman			
39. For the pregnant woman to receive preventive interventions such as Immunization, Iron, ……..			

40. Do you think it is important to book early?

Yes	No, no problems early in pregnancy	No, you only get a scan on 5 months	No, you can book late to reserve a bed	Not sure

41. What do you think is the best gestational age to book at the antenatal clinic?

< 3 months	Before 5 months	On 5 months	When stomach becomes big	When you feel the baby move	Just before delivery	Don't know

What problems would a woman encounter if she starts ANC late? Tick if participant provide correct answer.

	Yes
42. Low birth weight	
43. Pre eclampsia (High Blood Pressure)	
44. Perinatal death	
45. Anaemia (low iron)	
46. Premature delivery	
47. Growth retardation	

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ENABLING FACTORS

48. How do you travel to the clinic?

By foot	Public transport	Hired transport	Own transport	Other:

49. Is there an easy accessible antenatal clinic close to your home?

Yes	No	Not sure

50. How long does it take you to travel to your nearest antenatal clinic? _____

10 – 30 minutes' walk	10 – 30 minutes with public transport	10 – 20 minutes with hired transport	10 – 20 minutes with own transport	> 30 minutes traveling time

51. Do you need someone to escort you to the antenatal clinic?

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Yes	No	If Yes,Who_____

52. Do you need to leave home before sunrise in the morning to book at your nearest antenatal clinic?

Yes	No

53. Do you get leave from work to book and attend antenatal clinic?

Yes	No	N/A

54. Are you working on a basis of no work no pay (no sick leave)?

Yes	No	N/A

55. Do you struggle to afford transport to book and attend antenatal clinic?

Yes	A little	No	N/A

56. Rank the reasons applicable which inhibited you to book earlier? (please rank main reason first)

Difficult to get transport	No money for transport	Too far from the clinic	Work/school responsibility	Small children to look after
Difficult to get an escort	Wasn't sure of the pregnancy	I was anticipating uncomfortable examinations	I was hiding the pregnancy for as long as possible	Other:

57. Was there a problem to book at the antenatal clinic on the first attendance

Yes	No	N/A

58. If Yes – what was the reason?

You came late on the booking day	You did not bring you identity document	You did not have a valid asylum or passport	The numbers was full for the day	Other	N/A

59. How long is the waiting period at the antenatal clinic?_____

60. Do you agree with the following statements

a. I was judged by health care staff for being pregnant

Strongly Agree	Agree	Disagree	Strongly Disagree

c. Staff was rude to me

Strongly Agree	Agree	Disagree	Strongly Disagree

d. I was unsure about getting my test results

Strongly Agree	Agree	Disagree	Strongly Disagree

e. I was scared to get my test results

Strongly Agree	Agree	Disagree	Strongly Disagree

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NEED FACTOR

61. I book at the antenatal clinic to be monitored throughout the pregnancy?

Strongly disagree, I was advised to come	Disagree, I will feel if there are problems	No, Eg. just to get vitamins and a scan and know how far pregnant I am	Agree and to receive advice	Strongly agree

62. Did you think that you at least need to MCR (Maternity Case Record) at the antenatal clinic before delivery because…

You need to ensure a bed when in labour	To have a MCR when there is a problem and you need to go to the labour ward	To have a MCR, otherwise staff will be rude if you don't have a book in labour	Wasn't aware of the MCR	Other

63. Reason for booking?

You felt sick or had a problem during pregnancy	You needed proof to get maternity leave	You wanted conformation and gestation of the pregnancy	To get a scan and know the sex of the baby	Other

64. Are there any other reasons why you booked late in this pregnancy that you did not mention earlier during this interview?

1.
2.
3.
4.

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APPENDIX 2 : EDITED QUESTIONNAIRE

QUESTIONNAIRE: INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE

Questionnaire number:_____

DEMOGRAPHICS

1. How old are you now? _____

18 – 23	24 - 28	29 – 34	>35

2. Marital status

Single	Stable relationship	Married	Separated	Divorced	Widow

3. What is your highest level of education completed?

< grade 8	Grade 9 – 11	Grade 12	Tertiary education

4. Are you working?

Unemployed	Contract worker	Permanently employed	Occasionally

5. Who are you staying with?

Both parents	Mother	Father	Other family	Partner	Friends	Siblings
Alone						

6. What religion or denomination are you?

Christian	Muslim	None	Other

7. What did the Sister say, how far pregnant are you today? _____

24 – 27 weeks	28 – 32 weeks	33 – 36 weeks	≥ 37 weeks

8. Where do you stay?

Informal settlement	Formal settlement	Far away farm	Homeless

PREDISPOSING FACTORS

9. Do you have a partner (husband or boyfriend)?

Yes	No	Specify_____

10. Does your significant others (parents/partner) support the pregnancy?

Yes	No	N/A

11. Do you need permission from your partner / parents to seek health care?

Yes	No	N/A

12. Do you need to get permission to book and attend the antenatal clinic?

No	Yes, from partner	Yes, from parents	Yes, from school	Yes, from work

13. Highest level of education completed by partner

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< grade 8	Grade 9 – 11	Grade 12	Tertiary education	N/A

14. Is your partner working?

Unemployed	Contract worker	Permanently employed	Occasionally	N/A

15. Who has the main income in your family?

Both parents	Mother	Father	Other family	Partner	Friends	Siblings	Self

16. What is the average household income per month?

None	R100-R500	R500-R1000	R1000-R3000	R3000-R5000	>R5000	Don't know

OBSTETRIC HISTORY

17. Is this your …….pregnancy

1st pregnancy	2nd pregnancy	≥ 3rd pregnancy	Specify if >3

18. What are the interval/ spacing between your first and current pregnancy? _____

< 1 year	1-2 years	3-4 years	>4 years	N/A

19. With your previous pregnancy, at what gestational age did you have your first antenatal clinic visit?

< 12 weeks	13 – 23 weeks	≥ 24 weeks	N/A	Specify_____

20. Did you plan this pregnancy?

Yes	No

21. Where you using contraceptives when you fell pregnant?

Yes	No

22. If yes, what contraceptives were you using?

Not on contra-ceptives	Oral contra-ceptives	Injectable contra-ceptives	Condoms	Loop	Failed sterilisa-tion	Don't know about contrace ptives

23. What was your first reaction when you discovered that you are pregnant?

Sure to continue with the pregnancy	Thought of terminating the pregnancy	Wanted to keep the pregnancy a secret for as long as possible	Other:

24. How did you realise that you are pregnant?

Missed period	Stomach became bigger	Felt the baby moving	Was told by partner or other people that you are pregnant	Came to a doctor because you were feeling sick

25. How far pregnant do you think you are now? _____

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Don't know	≤12 weeks	13 – 20 weeks	21 – 23 weeks	24 – 27 weeks	28 – 32 weeks	33 – 36 weeks

26. Did you know exactly when your last normal period was?

Yes	Not sure	Did not have periods

27. Was a missed period an indication of pregnancy to you?

Yes, 1 period	Yes, 2 periods	Yes, 3 periods	No, was on contraceptive, not having periods	Periods was irregular

28. When did you become aware of the pregnancy? ____

< 3 months	3 – 5 months	6 – 8 months	> 8 months

29. Did you immediately come to the antenatal clinic when you found out about your pregnancy?

Yes	No

30. Why did you book to attend antenatal clinic?

To know if everything is well	Because you were sick	Because someone advised you	To get a scan	To know how far pregnant
To know what baby it is	To have a bed for labour	To get vitamins	To apply for maternity leave	Other:

31. Did you seek pregnancy advice prior to booking?

No	Yes, a traditional healer	Yes, a private healthcare provider	Other

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32. Did you attend antenatal clinic for booking but was given another date to come and book?

Yes, had to return on another date to book	No, was booked at the first attendance at the antenatal clinic.

KNOWLEDGE FACTOR

Now I would like to ask you about your understanding of antenatal care

33. When is a pregnant women supposed to start antenatal care? _____

0-12 weeks (0 – 3 months)	13 – 24 weeks (4 – 6 months)	25 – 36 weeks (6 – 9 months)

34. Do you think it is important to attend regular antenatal clinic visits?

Yes	No

35. Is it necessary to only book and attend antenatal clinic if you become aware of a problem?

Agree	Disagree

What are the benefits of antenatal care?

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	Relevant	Irrelevant
36. To establish a relationship with the health care provider		
37. For the skilled healthcare provider to interview, examine and identify pre-existing problems		
38. For the skilled health care provider to teach and counsel the pregnant woman		
39. For the pregnant woman to receive preventive interventions such as Immunization, Iron, ……..		
40. Having a scan to learn the sex of the baby		

41. Do you think it is important to book early?

Yes	No, no problems early in pregnancy	No, you only get a scan on 5 months	No, you can book late to reserve a bed

42. What do you think is the best gestational age to book at the antenatal clinic?

< 3 months	Before 5 months	On 5 months	When stomach becomes big	When you feel the baby move	Just before delivery	Don't know

What is the problem about booking late?

	Agree	Disagree
43. Poor growth monitoring		
44. Poor vital sign monitoring		
45. Poor vitamin and iron supplementation		
46. Inability to detect problems in pregnancy early		
47. Not receiving a detail scan		

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ENABLING FACTORS

48. How do you travel to the clinic?

By foot	Public transport	Hired transport	Own transport	Other:

49. Is there an easy accessible antenatal clinic close to your home?

Yes	No	Not sure

50. How long does it take you to travel to your nearest antenatal clinic? _____

10 – 30 minutes' walk	10 – 30 minutes with public transport	10 – 20 minutes with hired transport	10 – 20 minutes with own transport	> 30 minutes traveling time

51. Do you need someone to escort you to the antenatal clinic?

Yes	No	If yes, who

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52. Do you need to leave home before sunrise in the morning to book at your nearest antenatal clinic?

Yes	No

53. Do you get leave from work to book and attend antenatal clinic?

Yes	No	N/A

54. Are you working on a basis of no work no pay (no sickleave)?

Yes	No	N/A

55. Do you struggle to afford transport to book and attend antenatal clinic?

Yes	No	N/A

56. Rank the reasons applicable to which inhibited you to book earlier? (please rank main reason first)

Difficult to get transport	No money for transport	Too far from the clinic	Work/school responsibility	Small children to look after
Difficult to get an escort	Wasn't sure of the pregnancy	I was anticipating uncomfortable examinations	I was hiding the pregnancy for as long as possible	Other:

57. Was there a problem to book at the antenatal clinic on the first attendance

Yes	No

58. If Yes – what was the reason?

You came late on the booking day	You did not bring your identity document	You did not have a valid asylum or passport	The numbers was full for the day	Other	N/A

59. How long are the waiting period at the antenatal clinic?_____

60. Do you agree with the following statements

a. I was judged by health care staff for being pregnant

Agree	Disagree

b. Staff was rude to me

Agree	Disagree

c. I was scared to get my test results

Agree	Disagree

NEED FACTOR

61. I book at the antenatal clinic to be monitored throughout the pregnancy?

Strongly disagree, I was	Disagree, I will feel if there is	No, Eg. just to get vitamins	Agree and to receive	Strongly agree

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advised to come	problems	and a scan and know how far pregnant I am	advice	

62. Did you think that you should at least need to book at the antenatal clinic before delivery because…

You need to ensure a bed when in labour	You wanted a book, when there is a problem and you need to go to the labour ward	You wanted a book, otherwise staff will be rude if you don't have a book in labour	Wasn't sure how far pregnant and thought to at least attend antenatal clinic	Other

63. Reason for booking today? Rank most important first ….

You felt sick or had a problem during pregnancy	You needed proof to get maternity leave	You wanted conformation and gestation of the pregnancy	To get a scan and know the sex of the baby	You must book before 12 weeks to ensure good monitoring and advice during pregnancy	Other

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APPENDIX 3 : FINAL QUESTIONNAIRE

QUESTIONNAIRE: INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE

Questionnaire number:_____

DEMOGRAPHICS

1. How old are you now? _____

18 – 23	24 - 28	29 – 34	>35

2. Marital status

Single	Stable relationship	Married	Separated	Divorced	Widow

3. If you are married….

Law	Traditional	N/A

4. What is your highest level of education completed?

< grade 8	Grade 9 – 11	Grade 12	Tertiary education

5. Are you working?

Unemployed	Contract worker	Permanently employed	Occasionally	Student

6. Who are you staying with?

Both parents	Mother	Father	Other family	Partner	Friends	Siblings
Alone						

7. What religion or denomination are you?

Christian	Muslim	None	Other

8. What did the Sister say, how far pregnant are you today? _____

24 – 27 weeks	28– 32 weeks	33 – 36 weeks	≥ 37 weeks

9. Where do you stay?

Informal settlement	Formal settlement	Far away farm	Homeless

PREDISPOSING FACTORS

10. Do you have a partner (husband or boyfriend)?

Yes	No	Specify_____

11. Does your significant others (parents/partner) support the pregnancy?

Yes	No	N/A

12. Do you need permission from your partner / parents / school / work to seek health care?

Yes	No	N/A	Specify:

13. Highest level of education completed by partner

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< grade 8	Grade 9 – 11	Grade 12	Tertiary education	N/A

14. Is your partner working?

Unemployed	Contract worker	Permanently employed	Occasionally	Student	N/A

15. Who has the main income in your family?

Both parents	Mother	Father	Other family	Partner	Friends	Siblings	Self

16. What is the average household income per month?

None	R100-R500	R500-R1000	R1000-R3000	R3000-R5000	>R5000	Don't know

OBSTETRIC HISTORY

17. Is this your ……pregnancy

1st pregnancy	2nd pregnancy	≥ 3rd pregnancy	Specify if >3

18. What are the interval/ spacing between your first and current pregnancy? _____

< 1 year	1-2 years	3-4 years	>4 years	N/A

19. With your previous pregnancy, at what gestational age did you have your first antenatal clinic visit?

< 12 weeks	13 – 23 weeks	≥ 24 weeks	N/A	Specify_____

20. Did you plan this pregnancy?

Yes	No

21. Where you using contraceptives when you fell pregnant?

Yes	No

22. If yes, what contraceptives were you using?

Not on contra-ceptives	Oral contra-ceptives	Injectable contra-ceptives	Condoms	Loop	Failed sterilisa-tion	Don't know about contra-ceptives

23. What was your first reaction when you discovered that you are pregnant?

Sure to continue with the pregnancy	Thought of terminating the pregnancy	Wanted to keep the pregnancy a secret for as long as possible	Other:

24. How did you realise that you are pregnant?

Missed period	Stomach became bigger	Felt the baby moving	Was told by partner or other people that you are pregnant	Came to a doctor because you were feeling sick

25. How far pregnant did you think you were now? _____

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Don't know	≤ 12 weeks	13 – 20 weeks	21 – 23 weeks	24 – 27 weeks	28 – 32 weeks	33 – 36 weeks

26. Did you know exactly when your last normal period was?

Yes	Not sure	Did not have periods

27. Was a missed period an indication of pregnancy to you?

Yes, 1 period	Yes, 2 periods	Yes, 3 periods	Did not have periods	Periods was irregular

28. When did you become aware of the pregnancy? ____

< 3 months	3 – 5 months	6 – 8 months	> 8 months

29. Did you immediately come to the antenatal clinic when you found out about your pregnancy?

Yes	No

30. Did you seek pregnancy advice prior to booking?

No	Yes, a traditional healer	Yes, a private healthcare provider	Other

31. Did you attend antenatal clinic for booking but was given another date to come and book?

Yes, had to return on another date to book	No, was booked at the first attendance at the antenatal clinic.

KNOWLEDGE FACTORS

Now I would like to ask you about your understanding of antenatal care

32. When is a pregnant women supposed to start antenatal care?

0-12 weeks (0–3 mths)	13 – 24 weeks (4–6 mths)	25 – 36 weeks (6–9 mths)	Don't know

33. Do you think it is important to attend regular antenatal clinic visits?

Yes	No

34. Must you only book and attend antenatal clinic if you become aware of a problem?

Yes	No

Do you think the following is important to antenatal care?

	Yes	No
35. Book and attend ANC to establish a relationship with the health care provider		
36. So that a health care provider can examine you and identify pre-existing problems		
37. For the skilled health care provider can inform and counsel the pregnant woman		
38. So that you can receive preventive interventions such as Immunization, Iron, ……..		
39. To know if it is a boy or a girl by having a scan		

40. Why is a scan done?

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To see if it is a boy or a girl	To assess for any abnormalities and determine the gestation	Other

41. Do you think it is important to book early?

Yes	No, there is usually no problems early in pregnancy	No, you only get a scan on 5 months	No, as long as you book a bed before delivery

42. What do you think is the best gestational age to book at the antenatal clinic?

< 3 months, when you miss a period	Before 5 months	On 5 months	When stomach becomes big	When you feel the baby move	Just before delivery	Don't know

Do you think the following is a problem when you book late ……

		Yes	No
43.	Poor growth monitoring		
44.	Poor vital sign monitoring eg. Blood pressure		
45.	Poor vitamin and iron supplementation		
46.	Inability to detect problems in pregnancy early		
47.	Not receiving a scan to check for abnormalities		

ENABLING FACTORS

48. When you found out you are pregnant were you aware that you need to book at the antenatal clinic?

Yes	No

49. Did you know exactly where to go to book at the antenatal clinic?

Yes	no

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50. How do you travel to the clinic?

By foot	Public transport	Hired transport	Own transport	Other:

51. Is there an easy accessible antenatal clinic close to your home?

Yes	No	Not sure

52. How long does it take you to travel to your nearest antenatal clinic? _____

10 – 30 minute's walk	10 – 30 minutes with public transport	10 – 20 minutes with hired transport	10 – 20 minutes with own transport	> 30 minutes traveling time

53. Do you need someone to escort you to the antenatal clinic?

Yes	No	If Yes, who_____

54. Do you need to leave home before sunrise in the morning to book at your nearest antenatal clinic?

Yes	No

55. Do you get leave from work to book and attend antenatal clinic?

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Yes	No	N/A

56. Are you working on a basis of no work no pay (no sick leave)?

Yes	No	N/A

57. Do you struggle to afford transport to book and attend antenatal clinic?

Yes	No	N/A

58. Choose the most appropriate reasons which inhibited you to book earlier? (More than one reason)

No transport	No money for transport	Too far from the clinic	Work/school responsibility	Small children to look after
Difficult to get an escort	Wasn't sure of the gestation	I was anticipating uncomfortable examinations	I was hiding the pregnancy for as long as possible	Wanted an abortion, but was too far pregnant
Other:				

59. Was there a problem to book at the antenatal clinic on the first attendance

Yes	No

60. If Yes – what was the reason?

You came late on the booking day	You did not bring you identity document	You did not have a valid asylum or passport	The numbers was full for the day	Other	N/A

61. How long are the waiting period at the antenatal clinic?_____

62. Do you agree with the following statements

a. You were judged by health care staff for being pregnant

Agree	Disagree

b. Staff made me feel uncomfortable with their comments

Agree	Disagree

c. You were scared to get my test results

Agree	Disagree

d. You postponed booking early because I heard rumours of staff being rude

Agree	Disagree

e. You postponed booking early because I heard rumours of painful examinations

Agree	Disagree

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NEED FACTOR

63. I book at the antenatal clinic ….. (answer yes were applicable, no if not applicable)

	Yes	No
a. I was advised to come		
b. To be monitored and know everything is well		
c. Because you felt sick or had a problem		
d. To get a scan to know the sex of the baby		
e. To know the gestation and expected delivery date		
f. To reserve a bed for delivery		
g. To be supplied with vitamins and advice		
h. To be able to apply for maternity leave		
i. To have a maternity record (book) when you need to go to the labour ward		
j. To have a maternity record otherwise staff will be rude if you don't have a book		

64. I postpone book early because

	Yes	No
a. There are usually no problems early in pregnancy		
b. You can book a bed any time		
c. You would have come to the clinic earlier if you felt a problem		
d. It is not convenient for you to sit in long queues at the clinic		

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APPENDIX 4 : SENATE RESEARCH COMMITTEE OF THE WESTERN CAPE ETHICAL APPROVAL

OFFICE OF THE DEAN
DEPARTMENT OF RESEARCH DEVELOPMENT

08 July 2015

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:
Mrs M Roelofse (School of Nursing)

Research Project: Investigating factors contributing to late initiation of antenatal care in a health facility in Cape Town

Registration no: 15/4/57

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

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

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

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www.uwc.ac.za

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APPENDIX 5 : APPROVAL LETTER FROM DoH TO CONDUCT THE RESEARCH STUDY IN A HEALTH INSTITUTION

Western Cape Government
Health

STRATEGY & HEALTH SUPPORT
Health.Research@westerncape.gov.za
tel: +27 21 483 6857; fax: +27 21 483 9895
5th Floor, Norton Rose House,. 8 Riebeek Street, Cape Town, 8001
www.capegateway.gov.za)

REFERENCE: WC_2015RP14_657
ENQUIRIES: Ms Charlene Roderick

Kraaifontein Community Health Centre
203 6th Ave
Cape Town
7570

For attention: **Mrs Maryke Roelofse**

Re: INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE IN A HEALTH FACILITY IN CAPE TOWN.

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in accessing the following sites:

Kraaifontein CHC **L Steyn** **Contact No: 021 987 0080**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (annexure 9) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (Health.Research@westerncape.gov.za)
3. The reference number above should be quoted in all future correspondence.

Yours sincerely

AT HAWKRIDGE.

DR A HAWKRIDGE
DIRECTOR: HEALTH IMPACT ASSESSMENT
DATE: 31/8/2015.

CC **A PATIENTIA** **A/DIRECTOR: NORTHERN/ TYGERBERG**

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APPENDIX 6 : TEMPLATE OF THE CONSENT FORM SIGNED BY RESPONDENTS

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Private Bag X 17, Bellville 7535, South Africa
Tel: +27 21-959 2911, Fax: 27 21-959 ?????
E-mail: info@uwc.ac.za

CONSENT FORM

Title of Research Project: **INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE in a health facility/district in Cape Town**

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participateof 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.

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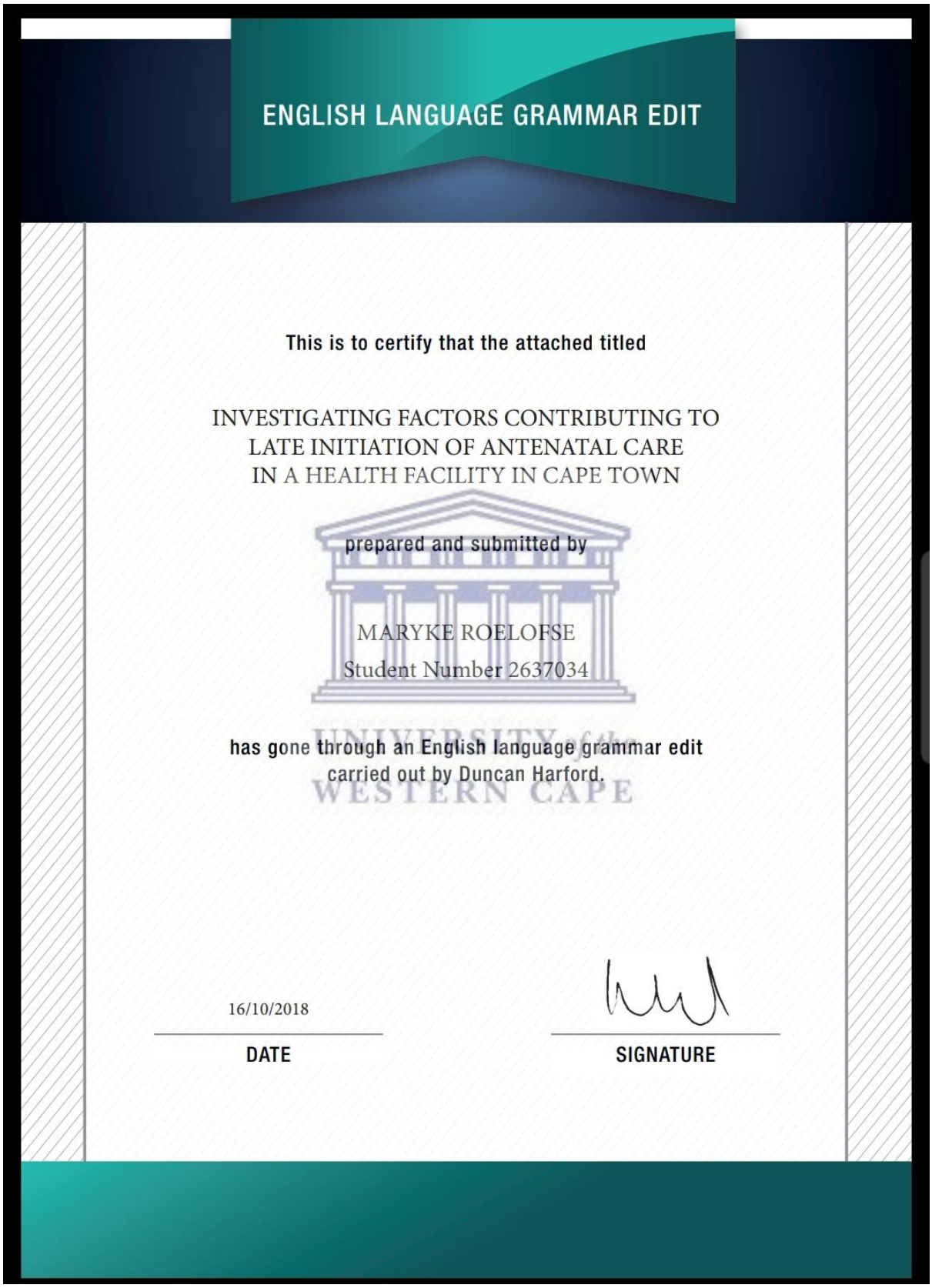
Participant's name……..

Participant's signature…….

Date……

http://etd.uwc.ac.za/

APPENDIX 7 : CERTIFICATE OF ENGLISH LANGUAGE GRAMMAR EDITING



ENGLISH LANGUAGE GRAMMAR EDIT

This is to certify that the attached titled

INVESTIGATING FACTORS CONTRIBUTING TO LATE INITIATION OF ANTENATAL CARE IN A HEALTH FACILITY IN CAPE TOWN

prepared and submitted by

MARYKE ROELOFSE
Student Number 2637034

has gone through an English language grammar edit carried out by Duncan Harford.

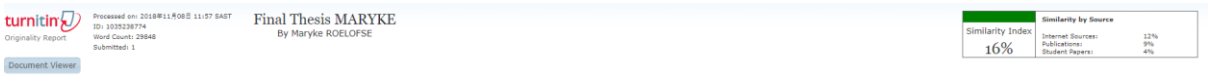
16/10/2018

DATE

SIGNATURE

http://etd.uwc.ac.za/

APPENDIX 8 : TURN IT IN



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WESTERN CAPE

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