FACTORS DETERMINING ANTENATAL HEALTH SEEKING BEHAVIUOR OF ADOLESCENT MOTHERS AT THE ANTENATAL CLINIC IN NAIVASHA DISTRICT HOSPITAL, KENYA

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DATE: Oct/ 2012

DECLARATION

I, **Ilyn Wiysanyuy** declare that this thesis is my original work and that it has not been presented in any institution for the purpose of obtaining a degree or any award or published in any journal.

Signature..... **Date.....**

H56/64876/2010

CERTIFICATE OF APPROVAL

This thesis has been submitted with our approval as university supervisors.

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DEDICATION

I passionately dedicate this work to all adolescent mothers who in spite of their compromised state still take the decision to care for these innocent babies.

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The completion of this work was made possible by the assistance and goodwill of many people.

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ABBREVIATIONS

ARH&D -Adolescent Reproductive Health and Development

ANC - Antenatal care

FANC -Focused antenatal care

GOK -Government of Kenya

HSB -Health Seeking Behaviour

KNBS -Kenyan National Bureau of Statistics

KNHS -Kenya Demographic Health Survey

MDGs -Millennium Development Goals

MOH -Ministry of Health

MOHS -Ministry of Health Statistics

MOPHS -Ministry of Public Health and Sanitation

NDH -Naivasha District Hospital

NCST -National Council for Science and Technology

SPSS -Statistical package of Social Science

UNICEF - United Nation Children's Fund

UNFPA -United Nation Population Fund

UON/KNH -ERC-University of Nairobi & Kenyatta National Hospital Ethics & Research Committee

WHO -World Health Organisation

OPERATIONAL DEFINITIONS

Adolescent pregnant mothers

Pregnant females aged between 10- 19 years.

Adolescent antenatal health seeking behaviour

It is a concept that influences adolescent pregnant mothers to reflect positively on their antenatal maternal health.

Environment

An aggregate of internal and external factors that modify an individual's behaviour and can in turn be modified by the individual.

Parity

The number of times a woman has given birth to a foetus with a gestation age of 24 weeks or more regardless of whether the foetus was stillborn or alive

Antenatal care

Care provided to an expectant mother before birth to ensure foetal and maternal well being.

Focused Antenatal care

The WHO goal oriented Antenatal care package based on four ANC visits whereby each visit must be thorough, comprehensive highly personalised and evidenced based.

Quality antenatal care

Antenatal care that is consistent with evidence based and so increases the likelihood of desired maternal outcomes.

Level four Hospital

A district hospital which serves as a referral hospital for Dispensaries, Health centres, and Private clinics in that district.

Proper timing of ANC

ANC that is commenced in the first trimester through the four visits as recommended by WHO

Ethnicity

A group of people who share the same cultural heritage; traditions, beliefs and values.

Men with established homes

Men who are legally married and are having a legal family at the time they impregnate the adolescent woman.

ABSTRACT

Adolescent pregnant mothers encompass those aged between 10-19 years (WHO 2004). Antenatal health seeking behaviour in these young mothers is a concept that influences them to reflect positively on their antenatal maternal health. It includes personal actions to promote well being in pregnancy. Many factors impact negatively on the antenatal health seeking behaviour of adolescent mothers due to their compromised position in society. This exposes them to low Antenatal care compliance and its many consequences (Atuyambe et al 2008).

This descriptive study was aimed at establishing the prevalence and factors determining antenatal health seeking behaviour of adolescent mothers attending antenatal clinic in Naivasha District Hospital, Kenya. Demographic, economic, socio-cultural, institutional and psychological factors were explored. Data was collected using a semi-structured pretested questionnaire. A sample size of 72 adolescent mothers was randomly selected from the study population. Cleaned data was entered into the computer and analysed using the Statistical Package of Social Science (SPSS), version 17. Descriptive and inferential statistical methods were used to summarise data and to determine associations between study variables. Quantitative results have been presented in descriptive statistical format like frequency tables, bar charts, and pie charts. Qualitative results have been presented verbatim.

Ethical clearance and permission to conduct the research was obtained. Other ethical values and considerations were also put in place.

The mean age of respondents was 17.7years and the modal class 18 years. Prevalence of adolescents with positive antenatal health seeking behaviour was found to be very low (30.6%). A significant association was established between unplanned pregnancy, peer influence and negative health seeking behaviour (p-value, 0.048, 0.007) respectively. Lack of knowledge was seen to have a very negative impact; 83.1% agreed or strongly agreed they knew nothing about Antenatal clinic prior their first visit, this made them to start late (72.2% commenced after 16 weeks). Demographic, socio-economic, institutional and psychological factors showed statistically non significant associations. Marital status, knowledge, attitude of health care workers, family support, and good financial status were factors that determined positive health seeking behaviour.

This study recommends need for education especially community based by Naivasha District Hospital, re-enforcement of insurance schemes, youth friendly services and policies related to antenatal health seeking behaviour of adolescent mothers.

CHAPTER ONE: INTRODUCTION

1.1 Background Information

Adolescence has been defined by WHO (2006) as the period in life when an individual is no longer a child and not yet an adult; a period of enormous bio-psychosocial changes accompanied by sexual maturation often leading to intimate relationships and consequently early pregnancies. WHO clearly recognises that adolescence is a phase rather than a fixed time reason why many studies have differed in their definition of adolescents. In this study, adolescents are defined as those aged 10-19 years of age. This definition corresponds with the standard definition of adolescents adopted the Government of Kenya (Ministry of Health 2007, Ministry of Public Health / Sanitation and Education 2009, Ministry of Health 2005). Adolescent pregnancy is therefore pregnancy occurring in a woman aged 10-19 years (WHO 2004).

Adolescent antenatal health seeking behaviour is a practice that influences these mothers to react differently in relation to their antenatal maternal health; a set of personal actions undertaken by these mothers for the sake of finding appropriate help from the Antenatal Clinics. Quality care during pregnancy is very vital for the health of the mother and the baby in uterus, consequently, WHO (2005, 2006), advocates that essential interventions can be provided over four visits at specific intervals at least for healthy individuals. These visits have proven to result in improved positive outcome for all pregnant mothers (WHO, 2005). Conversely, adolescent mothers who are even considered more vulnerable are the ones who often feature with poor antenatal seeking behaviour because of the many issues which keep them away as a consequence of their position in society. These include low educational, demographic and their poor socio-economic status.

According to Atuyambe et al (2008), adolescent pregnancy is very common in developing countries. Here one quarter to one half of women have their first child by age 18.WHO's recent statistics on the same note reports 115 births per year for every1000girls aged 15-19 (WHO 2011). In Kenya the trend is same; adolescent pregnancy stands at 18% (Kenya Demographic Health Survey, 2010). As earlier mentioned this group of mothers are more disadvantaged in terms of health care seeking and consequently face more challenges during pregnancy and early motherhood compared to adult mothers (Atuyambe et al 2008).The

overall ANC coverage for Kenya according to WHO (2010), stands at 92%. However, according to other documents, it varies from province to province for example rift valley stands at 75%, and from age group to age group. Despite this figure, the quality as regards timing is not satisfactory especially in these young mothers. Consequently, the issue of reducing maternal death still remains a challenge in Kenya (WHO 2011).The government of various countries Kenya included, has embarked seriously on Millennium Development goal number five- reducing maternal mortality by three quarters in view of vision 2015. It is however purported by Maternal Health at a Glance (2011) that Kenya has made no progress over the past two decades and is not on the track to achieve it by 2015.

According to Atuyambe et al (2008), in a study done in Uganda, the use of health services is related to availability, quality, cost of services as well as the social structure, health beliefs, personal characteristics, having to respond to unpleasant questions and procedures. Also , included among the many barriers are, restrictive health polices, judgemental health workers and lack of training in and understanding of adolescents reproductive health needs. These continue over the years to infringe negatively on the health seeking behaviour of adolescent mothers especially in the Sub-Sahara. According to WHO (2006), due to customs, beliefs and most often fear shame and guilt, many of these young women conceal the pregnancy from parents and significant others and can only seek counsel form their peers. Many are rather too young or have never been told about pregnancy and are thus embarrassed and so conceal it thinking it may “pass over”.

Proper antenatal care is as strong pillar for safe motherhood and can go a long way to achieve the Millennium Development Goal five (WHO, 2011).

1.2 Problem Statement

From Naivasha District Hospital, 2010 annual statistics, more than 400 adolescent mothers attended antenatal clinic. This accounted for about 5% of all ANC attendants. Many more however are suspected not to have attended the clinics due to the many confounding factors affecting adolescents. Naivasha hospital is a level four Hospital, and the main referral Hospital in Naivasha District and its environs (North Kiambo, North Narok, South Kinangop and Gilgil). Besides, Naivasha is a cosmopolitan town with a high catchment population (about 500,000 people) due to the presence of flower farms around this hospital. The same reason contributes to the high incidence of adolescent pregnancies in girls who are mostly

children of some of the economically challenged population of the country; the single mothers. Adolescent rape is also a common trend in this area.

In many Research studies, low ANC compliance among adolescents has been noted. Where this occurs, a large number has also been noted to have late attendance, usually in the third trimester. For instance, following a study done at Lesotho, out of the 632 pregnant teenagers sampled 43% visited the Antenatal Clinic for the first time in their third trimester and only 14.9% attended in first trimester, 78% of the 14.9% who attended were married teenagers (Phafoli et al 2007). Atuyambe et al (2008) reported similar findings in his study in Uganda. This is likely to be the same in Naivasha District Hospital catchment area that serves a total population of about 500,000 people. Delay in deciding to seek care in the adolescents subsequently leads to delay in receiving treatment and rather compels them to inadequate treatment. This poses the triple danger which usually occurs when mothers are seen for the first time only during labour; danger for the midwife who is venturing into an unknown zone, danger for the baby and danger for the young innocent mother.

It is known that adolescent mothers have many complications and undesired outcomes. This is because they are children themselves and their bodies are not yet sufficiently developed to handle pregnancy and delivery. It is expected that by attending antenatal clinic they would be equipped with health information on how to care for themselves during pregnancy, delivery and after (Phafoli et al 2007).When many adolescent mothers do not attend clinic, their risky life situation which has been established to be worse than that of other expectant mothers keeps them in a highly compromised situation. It is therefore necessary to establish ways of making them adapt healthy antenatal health seeking behaviour.

1.3 Justification

Reasons why adolescent mothers have inadequate antenatal health seeking behaviour have been elaborated on by many studies. However, reasons why some have developed positive behaviour despite the challenges have not been fully explored. Results of such studies would be used to develop programs which will help in encouraging other adolescents to improve in positive health seeking behaviour uptake. What is more, the healthy ANC seeking behaviour of these minority yet important group of mothers will in a long way result in healthy expectant adolescent mothers who will possibly bring forth healthy babies and so give such a positive bearing on both MDGs four and five.

Positive antenatal health seeking behaviour of adolescent mothers is also very cost effective as most of the problems can be identified and handled in good time, thus preventing cases like emergency caesarean sections, eclampsia and many other medical interventions that are financially unaffordable by many.

It has been noted that the first trimester is a time of rapid development and differentiation of the developing foetus. Antenatal clinic during this time is important as the folic acid given to mothers at this early stage helps in the prevention of such malformations as neural tube defects. Again, education received at the early developmental stage of the foetus can help these young mothers to correct most of their unhealthy behaviours.

This study has thus been designed to determine factors that promote this desired behaviour among those adolescent mothers that attend clinics. It is expected that the findings will be used to reach the non-attendees and encourage them to adopt the desired health behaviour so as to reduce their life risks.

1.4 Research Question.

What are the factors that determine the Antenatal Health seeking behaviour of adolescent pregnant mothers?

1.5 Broad Objective

1. To explore factors determining the antenatal health seeking behaviour among adolescent pregnant mothers.

1.6 Specific Objectives.

1. To determine the prevalence of adolescents seeking quality antenatal care.
2. To establish the demographic characteristics of adolescent mothers and their impact on their antenatal health seeking behaviour.
3. To identify the association between economic factors and antenatal health seeking behaviour.
4. To determine the association between socio-cultural factors and antenatal health seeking behaviour.

5. To examine the institutional factors and their impact on antenatal health seeking behaviour of these mothers.
6. To establish the association between psychological factors and the antenatal health seeking behaviour of adolescent mother
7. To determine the knowledge, attitude and practice of adolescent mothers towards antenatal health seeking.

1.7 Key Variables

1.7.1 Independent Variables

- Demographic factors.
- Economic factors
- Socio-cultural factors
- Institutional factors
- Psychological factors.

1.7.2 Dependent Variables.

- Knowledge
- Attitude.
- Practice

1.7.3 Outcome Variables.

- Positive health seeking behaviour
- Negative health seeking behaviour.

1.8 Theoretical Framework

Many models touch on aspects of the conceptual framework exposed in this study. For example, Dorothy Johnson in her behavioural model expounds on the four elements of a sub-system which motivate behaviour; the drive, the set, the choice and the action. These correlate very well with the variables in this study but for the fact that she focuses on the

environment as the client and family only, leaving out the aggregate of other factors. These include socio-cultural, demographic, economic and psychological factors.

This study therefore will rather adopt the health care utilization model developed by Andersen as a framework to discover conditions that either facilitate or impede the utilisation of health services. The model was first developed in the 1960s and has from then been revised severally. The one illustrated below (developed in the 1990s), has been adopted for this study.

According to this model, an individual's access to and use of health services is a function of three population characteristics; the predisposing factors, the enabling resources and the need factors as shown in fig 1.1 (Andersen 1995).

- The predisposing characteristics according to this same work include:

  Demographics; age and gender.

  Social structure; education ethnicity social interactions and culture.

  Health beliefs (the attitude, knowledge and value people have concerning their health).

- The enabling resources are either individual or provider related and include family and community resources.

- The needs represent the perceived and clinically evaluated needs.

These characteristics influence or are influenced by the environment which according to this model is the aggregate of the health care system (policy, resources, financial arrangement influencing accessibility availability, acceptability), and the external environment which include the climate, politics, relative wealth and societal norms, (Kathryn et al 1998). A later expansion of this model by (Bradley et al 2002), include the social environment with its several dimensions; social interaction, activity level, familiarity and diversity.

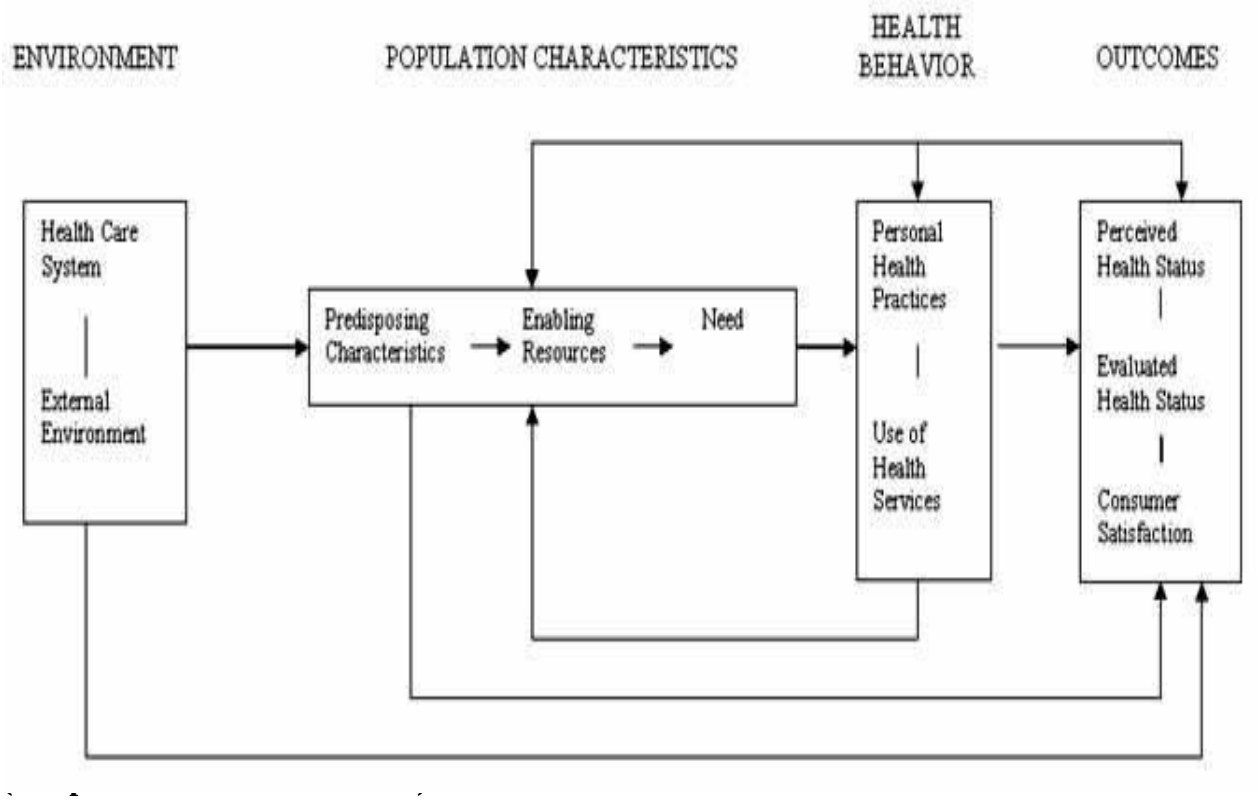
This with modification, translated to the research conceptual framework is interpreted as follows:

Pre-disposing characteristics, enabling resources and their determinants (the environment and the health care system) are related to the independent variables.

Needs and health behaviour is translatable to knowledge attitude and practice.

Outcome factors in this model are translatable directly to the nature of health seeking behaviour in the study (study outcome).

Fig 1.1 Andersen's Theoretical Model Showing Health Care Utilization



1.9 Conceptual Framework

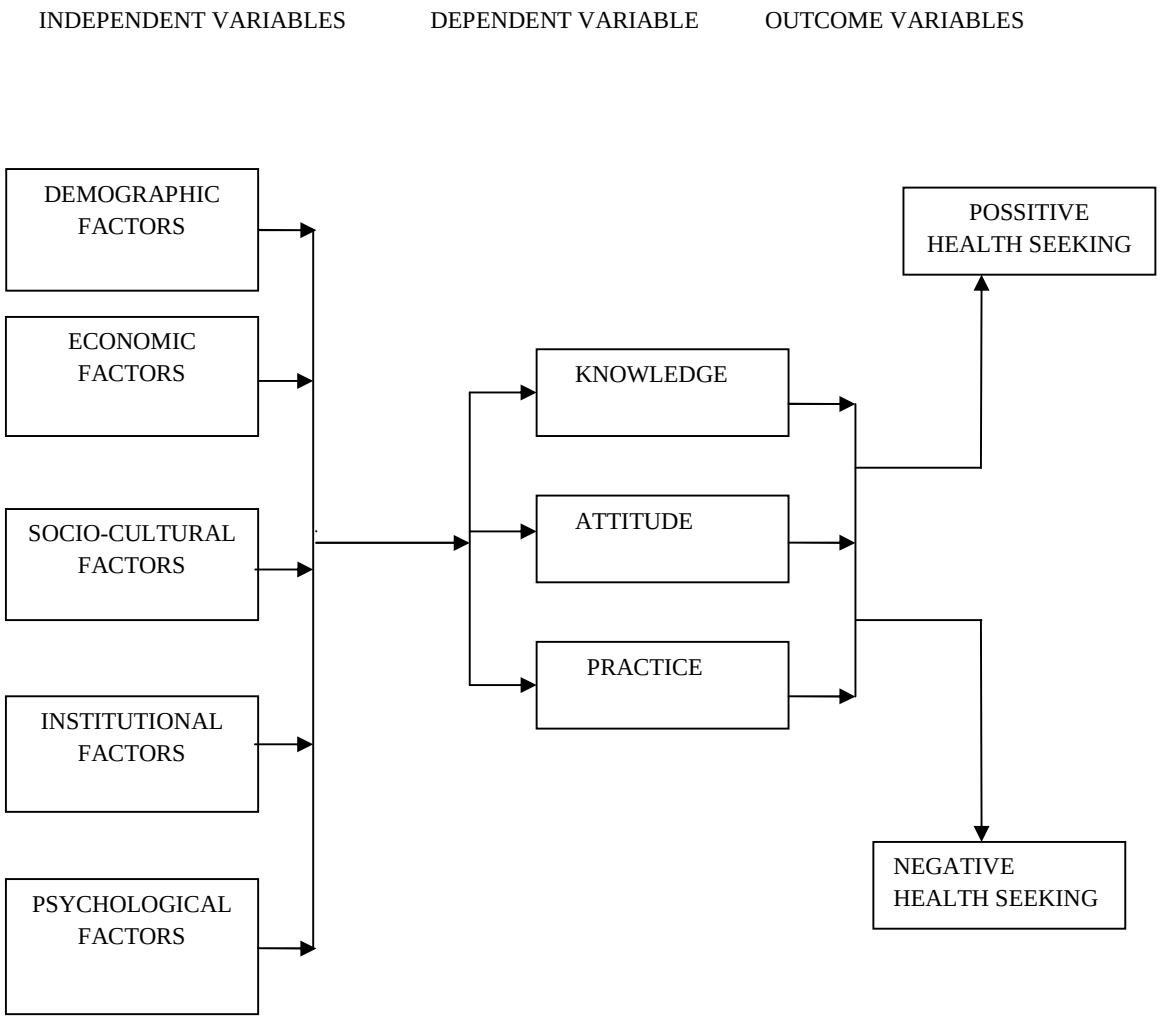


Fig 1.2 The Conceptual Framework

1.10 Operational Framework

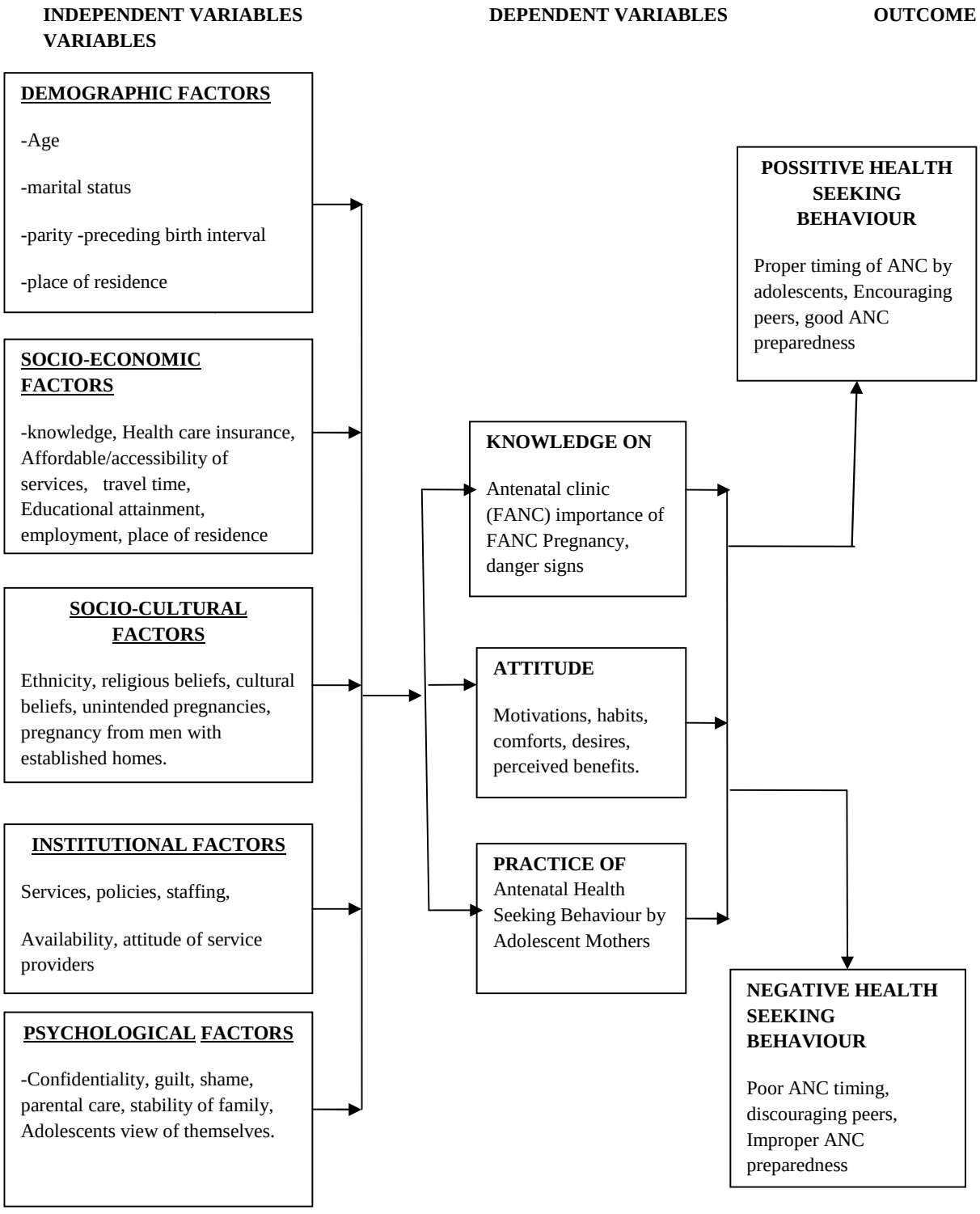


Fig 1.3 An Operational Framework Showing The Relationship Between Study Variables and outcome variables

1.11 Purpose of the Study

The results of the study will be shared with the Administration of NDH. This will promote evidence based practice in helping adolescents seek positive antenatal care. The results will also be published in peer review journals and help in policy review and re-enforcement in adolescent ANC services.

1.12 Expected Benefits

The study findings will help in better understanding of the factors determining the antenatal health seeking behaviour of adolescent mothers. This will improve care of the adolescent mothers and influence their peers to take up positive health seeking behaviours.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The issue of adolescent pregnancy associated with poor ANC health seeking behaviour has been increasingly noted as a critical challenge facing modern society and a real threat to the MDGs. In spite of growing programmatic research interest in addressing the needs of pregnant women, the particular needs of pregnant adolescents in this regards have been poorly addressed and inadequately documented (WHO 2007). Studies however have been done in different parts of the world to evaluate the ANC health seeking behaviour of these young women and a lot of challenges have been noted. According to ARH&DP (2005), despite the challenge posed by the myriad changes in adolescents, it is a time when they are supposed to shape their behaviours through programs that can give them fundamental skills to deal with the challenges of health, ANC being one of them.

Literature review will therefore focus on Adolescent pregnancy in relation to, antennal care as defined by WHO, the importance of ANC, the antenatal health seeking behaviour of adolescent pregnant mothers and the factors influencing this behaviour. It will also note the gaps that exist in studies that have already been done so far.

2.2 Prevalence of Adolescent Pregnancy.

According to WHO (2008), about 16 million adolescent girls give birth each year, roughly 11% of all births worldwide. Almost 95% of these occur in the developing countries. The Adolescent Reproductive Health Policy (2005) shows that one-quarter of young women aged 15-19 are either pregnant or already mothers. Kenya however like most of the Sub-Saharan countries has experienced a bit of decline in teenage pregnancy from 23% in 2003 to 18% in the 2008-2009 KDHS. This figure is yet very significant considering the fact that they are the most at risk group. According to this document however, levels of teenage pregnancies are not evenly distributed; it is highest in Nyanza province (27%) and coast (26%), Rift valley, and lowest in central provinces (KDHS 2008-2009). This corresponds with social indicators such as education, age at marriage and economic background. In the same way, those from poorer backgrounds experience teenage pregnancies more than those from richer backgrounds i.e. 24% as opposed to 16% teenage pregnancies. These social indicators also infringe seriously on the ANC seeking behaviour of this sub group of pregnant mothers leading to serious consequences.

2.3 Antenatal Care

Antenatal care is defined as care provided to an expectant mother by skilled personnel to ensure that the foetal and maternal health are satisfactory (WHO 2006). According to Nisar & White (2010), Ministry of Public Health and Sanitation (MOPHS 2009), Antenatal care is one of the pillars of safe motherhood, an important determinant of mortality rate and one of the basic components of maternal care in which the life of the mothers and babies depend. Conversely, adolescent mothers who should benefit from it the most are the ones who are scarcely seen in these clinics.

2.3.1 Focused Antenatal Care

The Focused antenatal care is a new approach to ANC which advocates the quality of care instead of the quantity. It emphasizes that each visit must be thorough, comprehensive, highly personalized and evidence based. It challenges the health care providers to view each ANC visit as if it were the only visit a woman might make (MOHS 2009). Hence, in order to promote the health and survival of mothers and babies, the GOK has adopted the focused ANC package (Harriet & Onyango 2006). This is expected to play a serious role in the attainment of a wide range of the MDGs (MOHS 2009). Improved care for adolescents mothers have a direct bearing on two of the eight goals in the millennium development declaration; goal 4 & 5.

Goal 4, aims at reduction of child mortality and in particular under fives mortality rates by two thirds by the year 2015; better care of adolescents will result in healthier babies, better able to thrive.

Goal 5, aims at improvement of maternal health and in particular reduction of maternal mortality ratio by three-quarters by 2015.Pregnant adolescents usually stand a higher risk of dying in or after child birth. Solving this will mean going already a long way to achieving this item of the MDGs and consequently creating a positive impact on four other goals; goals 1, 2, 3 and 6.These include eradicating extreme poverty and hunger, achieving universal primary education, promoting gender equality and women empowerment, combating HIV/AIDS malaria and other diseases respectively.

2.3.2 Importance of Antenatal Care to Adolescents

Early entry to antenatal care is important for early detection and treatment of pregnancy related outcomes. The world Health Organisation recommends that pregnant women in developing countries should seek ANC within the first four months of pregnancy (Adekanle & Isawumi 2008). Nevertheless, this is too far from the practice on the ground resulting in so many adverse consequences. It has been noted that maternal mortality is on an increase in all African countries, Kenya included. The WHO, UNICEF, UNFPA and World Bank (2010) document on the comparism of progress made by countries towards improvement of maternal health between 2005-2008 showed that Kenya has made no progress in this regards. Many other Sub-Saharan countries were classed same. However, some were classed as either making insufficient progress (Cameroon and Burundi), or as making progress (Malawi and Rwanda). In Kenya maternal mortality stands at 488/100,000 live births (KDHS 2008/2009). It has been noted that girls aged 15-19 years are twice as likely to die of pregnancy –related causes as women aged 20-24 years (National Reproductive Health Policy October 2007). According to this same document, adolescent pregnancy has remained high despite decline in other age groups. The most recent figures for birth rate per 1000 female (15-19) is 101/1000 adolescents. The same increase is realised in other countries. Cameroon for example stands at 138/1000 adolescents (Reproductive Health at a Glance Cameroon 2011). This without doubts calls for greater ambition towards strategies that can keep this population healthy. The Adolescent Reproductive Health and Development Policy (ARH&D) of 2007 recognises that the optimal health of the adolescent population of Kenya will increase their productive capacity to contribute to the nation's development (National Reproductive Health Policy October 2007). As a result, many policies have been set up by the Government of Kenya to ensure the health of these teenage mothers and mothers as a whole especially through antenatal care.

The National School Health Policy (2009), for instance demonstrates that "..... both the pregnant student and her parent shall be counselled on the importance of ensuring a good outcome of the pregnancy by attending antenatal clinic and ensuring safe delivery ....." "The student should be supported to start antenatal clinic visit. The School nurse should advise the student to make at least four ANC visits". But is this the practice? Most of the adolescents usually will disappear from school before they are discovered especially those contemplating abortion or just for fear of being spotted.

The Government has also embarked on achieving the millennium development goal number five whose focus is improvement of maternal health; reduction by two thirds, between1990-2015, the maternal mortality ratio. It carries among others the following indicators,

-Antenatal coverage

-Adolescent birth rate

-Proportion of births attended by skilled health personnel (National Road Map 2010).

The principles and aims of antenatal clinic among others include; transmitting the knowledge of what goes on in pregnancy and birth, including medical and antenatal care, hospital routines and assistance during labour (WHO 2006).

2.4 Antenatal Health Seeking Behaviour of Adolescent Mothers

According to Atuyambe et al (2008), Gross et al (2012), the antenatal care utilisation in this sub group of pregnant women is generally insufficient and needs serious improvement. Although the Kenyan Demographic health data indicates a slight increase in the antenatal coverage across all groups of women from 88% in 2003 to 92% in 2008/2009, the adolescents when considered on their own do not seem to have improved that much. An overview of the statistics at Naivasha District Hospital shows such a disparity between those who attend ANC and those who are seen in the labour ward. This is because some only come in labour. This appears to be the general trend in the sub Sahara countries. For instance, (Phafoli et al 2007) in a study at Lesotho reported that out of the 21 pregnant adolescents interviewed, a majority (71.43%), visited ANC during the second trimester while 28.57% started during the third trimester. Atuyambe et al (2008) reported similar findings in his study in Uganda. This poor compliance associated with poor ANC seeking behaviour exposes this delicate group to very poor outcomes.

Teenage pregnancy has therefore been shown by several studies to be associated with several risks (Tebeu et al 2011). As earlier mentioned, these young mothers are children themselves and their bodies are not yet fully developed. Various past researches tend to show a trend that considers whether poor outcomes for teenage mothers and their babies are a consequence of the mothers young age, or of her often disadvantaged circumstances, or of little uptake of antenatal care. Almost all at the end have suggested that all three factors can contribute to poor outcomes, but that timely access to appropriate care and support can help to overcome

many of the risks of such outcomes. Consequently, failure to attend antenatal care early can result in the potential for complications during pregnancy, delivery and pueperium (Phafoli et al 2007, Tebeu et al 2011).

According to Konyuy et al (2008), in his study in Cameroon, adverse foetal outcomes include low birth weight, premature babies, early neonatal deaths, while maternal outcomes include eclampsia, pre-eclampsia, perineal tear, and episiotomy.

Xi-Kuan et al (2007) found additional risk factors amongst others to be increased risk for low apgar scoring; less than seven at 5 minutes. Premature delivery, post partum haemorrhage, and foetal outcomes of intrauterine growth retardation, post term delivery, foetal distress and still births are also outcomes of major concern (Tebeu et al 2011)

Other problems of adolescent pregnancy include Hypertension/eclampsia, anaemia, malaria, HIV infections, iodine deficiency (WHO 2006). This same document also reports preterm and low birth weight as a consequence of poor ANC timing. These if handled on time especially following the focused ANC can lead to very positive outcomes but failure to address these issues can very much threaten the positive health outcome for both the young mother and her baby.

Atuyambe et al (2008) noted that adolescent friendly interventions such as pregnancy groups targeting to empower pregnancy groups, providing information on pregnancy, delivery and early childhood need to be introduced or reinforced where appropriate in order to alleviate this problem.

Understanding adolescent antenatal health seeking behaviour is also very crucial for quality service improvement. For instance, “adolescents have in some studies expressed their views about what they want from health services. They want a welcoming facility where they can “drop in” and be attended quickly. They insist on privacy and confidentiality..., they want a service at a convenient place, at a convenient time that is at least free and affordable. They want staff to treat them with respect and not judge them. They want a range of services and not just to be asked to come back or referred elsewhere” (Atuyambe et al 2008).

2.5 Factors Determining the Antenatal Health Seeking Behaviour of Adolescents

Several authors have identified a number of factors which influence delay in antennal care seeking behaviour. These include:

2.5.1 Demographic Factors

According to WHO (2006), young maternal age, low educational level generally describes women receiving little or no care. Adolescents are usually victims of these, consequently the most disadvantaged as regards health seeking. Phafoli et al (2007), in his own study states that the demographic factors observed to be important include marital status, the length of preceding birth interval and the age of the mother at first birth. On the same trend, Adekanle et al (2008), says various studies have reported factors associated with late ANC entry to include place of residence, age education employment status, parity, intention to get pregnant, use of contraceptives, health insurance and travel time.

2.5.2 Economic Factors

Zwi et al (2009), purports that various costs are associated with health seeking but traditional providers and others may negotiate a pay for "positive outcomes". This can drive the young people to seek refuge elsewhere and especially from the charlatan, the traditional health providers rather than in health facilities. As noted by (Phafoli et al 2007), financial barriers including lack of medical insurance, no eligibility for subsidized antenatal care and hospitalisation costs are impediment to adequate care. However, according to this same study, knowledge is also an important assert since some adolescents delay their entry to care irrespective of their financial status because they may not be able to differentiate vaginal bleeding early in pregnancy from normal menstruation. Many do not know they are pregnant although the signs and symptoms are apparent and even when they know, they try to conceal it, hoping it will "pass over". In Cameroon, both poverty and lack of knowledge are major contributing factors in the rural areas (Mbouzeko R. 2009).

Long distances to health facilities discourage attendance, in particular for cases that women may consider as non urgent and those that require only preventive care. During the wet season, flooded rivers and roads, slippery wet clay tracts reduce access to health facilities (Zwi et al 2009). Mbouzeko R. (2009), in his study in Cameroon, purports that poor access to health centres lead many women in rural areas to seek traditional birth attendants. In most areas, these birth attendants may even be the next door neighbour of the adolescent's family making it comfortable for them to knock at her door even at night. A study done in south Nyanza region confirmed that apart from poor accessibility of maternal care services, poor

physical accessibility is also a major problem even though, according to this study, the appalling poverty situation also aggravate the situation (Magadi 2006)

2.5.3 Socio-Cultural Factors

According to Adekanle et al (2008), ethnicity plays a major role. Atuyambe et al (2008, pp 304-305) on the same note found that some adolescents are chased away by the parents when they are discovered pregnant. Besides, people point fingers at them and so they are forced to stay indoors. Some even leave their destinations to areas where they are not known. Many elderly women who have had babies before or peers who have gathered some erroneous information talk to them about the bad attitude of midwives and make them to believe that they will be badly treated. This same study, also states that many of these adolescents mothers are victims of men who have established homes and so cannot afford the public shame of having messed around with adolescents consequently they do not take responsibilities. Some husbands stop the adolescents from working yet do not give them money. Others end up in men's homes out of frustration and are therefore restricted to taking only what the man has to say. On another hand, most women do not perceive significant health threats during pregnancy and in turn view more than one Antenatal care visit as unnecessary (Ejik et al 2006).

Many adolescents, when they find that they are pregnant, do not think of antenatal care at all, but instead seek ways to terminate the pregnancy. These young mothers are estimated to account for about 14% of all unsafe abortions (WHO 2006).This has contributed drastically to the alarming rate of deaths from criminal abortions. It has also been noted that compared to women whose pregnancies were wanted, those who did not plan for any pregnancies recorded fewer ANC visits (Phafolio et al 2007).

2.5.4 Institutional Factors

Some studies have reported that many adolescents who manage to start ANC lodge complains such as: health workers shout, mock and so they don't go back for the subsequent ANC visits (Atuyambe et al 2008). Some adolescent mothers have reported that inconvenient service hours, long waiting hours and poor levels of treatment constitute a serious determining factor (Phafoli et al 2007).

2.5.5 Psychological Factors

According to phafolio et al (2007), the factors associated with poor or late use of services include, lack of confidentiality, being made to feel guilty by the health workers and the people around, long waiting time. Many of them do not feel at ease attending clinic with women who are more advanced in age or at times with their own mothers.

2.6 Gaps in Literature Review

From literature review, there is evidence of existing knowledge on adolescents having negative antenatal seeking behaviour in different parts of the world, but literature about factors influencing positive behaviour is however scanty. Many studies have not established the prevalence of positive ANC seeking behaviour in adolescents.

Besides, a great deal of factors has been neglected by many studies. For example, many researchers have not considered physical factors with respect to the economic part. This could have a great impact to many in Kenya especially in the remote areas and particularly for this vulnerable group who have to make it sometimes on foot through long distances due to financial constraints. Many for example Zwi et al (2009), have not considered the impact of education, which can be a very great determinant as to how these young people manage their finances or even how they regard and handle issues of health.

Literature review so far indentifies only two studies that have made mentioned of psychological factors however, these have not also considered factors like peer influence, parental care, ethnicity, religion, stability of the adolescent's immediate or extended family and how the adolescents think about themselves in relation to their changing shape and poor fitting dresses.

Although a lot has been mentioned about socio-cultural factors that hinder ANC health seeking behaviour these have not been established in Naivasha. It is important to examine those peculiar to this area which maybe more precise for most of the environs of Kenya. What is more, world-wide, many researchers have rather considered factors that influence ANC seeking behaviour negatively. This study will therefore determine the prevalence of positive antenatal health seeking behaviour in adolescents as well as the demographic, economic, socio-cultural, institutional and psychological factors that can promote this behaviour in them.

CHAPTER THREE: MATERIALS AND METHODS

3.1 Study Design

This was a descriptive cross-sectional quantitative and qualitative study to establish factors determining the antenatal health seeking behaviour of pregnant adolescent mothers.

3.2 Study Area

The study was conducted in the antenatal clinic at Naivasha District Hospital. This is a level four Hospital, located in Naivasha Central Division, in Nakuru District, Rift valley Province, Kenya.

3.3 Study Population

The study population included pregnant adolescent mothers attending ANC in Naivasha District Hospital.

3.4 Inclusion Criteria

Adolescent expectant mothers attending either first or subsequent ANC at Naivasha District. Hospital.

Adolescent expectant mothers who consented to participate in the study.

3.5 Exclusion Criteria

Adolescent expectant mothers seen at the ANC who declined to consent.

Expectant mothers who did not fall within the adolescent age group.

Adolescent expectant mothers not seen in the ANC at Naivasha District Hospital

3.6 Sampling Size Determination

Fischer's formula was used to determine the sample size for the study as follows:

$$n = \frac{z^2pq}{d^2}$$

Where:

n= the desired sample size (if the study population is greater than 10,000).

z= the normal standard deviation at the desired confidence level taken to be 1.96 which corresponds to 95% confidence interval.

P= the proportion in the target population estimated to have characteristics being measured.

q= the proportion in the target population estimated not to have the characteristics being measured (1-p).

d= Standard error at 95% confidence limit (0.05).

Since P was not known, it was estimated to be 50% (Mugenda & Mugenda, 2003).

Therefore $n = \frac{(1.96)^2 (0.5) (0.5)}{(0.05)^2}$

n= 384 adolescents mothers

If the target population is less than 10, 000, the alternative formula below is applied.

$$nf = \frac{n}{1+n/N}$$

Where:

n_f = the desired sample size (when the population is less than 10,000)

n= the desired sample size (when the population is more than 10,000)

N= the estimated population size within the period of study which was approximately 90.

The above can be substituted as follows:

Therefore $nf = \frac{384}{1+384/90}$

=384/5.266

=72 adolescent expectant mothers

3.7 Sampling Interval

The sampling interval (SI), was determined using the following formula

SI=N/n

Where:

N =Total population at the time of study.

n =sample population size

Therefore SI= 90/72

=1.25

This is approximately 1.Therefore all study subjects were included in the study.

3.8 Sampling Method

On the first day, all adolescent mothers attending ANC had their ANC numbers serialized. The first client was then identified using a table of random numbers. From the first client, every other client in the series was included in the study, since SI was one. This was done same for all other days till the sample size was achieved.

3.8 Data Collection Cleaning and Entry

A semi structured questionnaire was used to collect information from the study subjects with the help of research assistants. The questionnaire was divided into different sections to gather information on demographic, economic, cultural, institutional, psychological, knowledge, attitude and practice factors related to ANC health seeking behaviour of adolescent mothers. Obtained data was cleaned and those from properly filled questionnaires coded and entered into SPSS version 17computer package for analysis at the end of the study.

3.9 Research Assistant Selection and Training

Two research assistants were trained for one week on questionnaire administration and other relevant issues related to the research. They were recruited from among nursing staff working in the antenatal clinic at Naivasha District Hospital.

3.10 Pretesting of Research Tools

Pre-test of the study tool was carried out in Mbagathi District Hospital Antenatal Clinic. Ten percent equivalent of the study population was recruited for this purpose.

3.11 Data Analysis and Presentation

Data was analyzed using SPSS version 17. Statistical measures of central tendency, correlation and significant tests were used to summarize data and to determine the association between study variables in inferential statistics. Descriptive statistics like frequency tables, bar graphs, pie charts and histograms have also been presented to show dispersion or distribution of relevant factors.

3.12 Ethical Consideration

Ethical clearance was obtained from the University of Nairobi and Kenyatta National Hospital Ethics and Research Committee (UoN/KNH-ERC). Permission to conduct the research was sort from Mbagathi and Naivasha District Hospitals Administration.

A written informed consent was obtained from study subjects without coercion.

Confidentiality, dignity, privacy, respect, accountability and trust were also observed. Non consenting subjects had their service rights guaranteed. Subjects also had a right to withdraw or not to answer any questions not comfortable to them. Consent for those below 18years was obtained from their parents or guardians.

3.13 Study Limitations

The study was conducted only in one ANC and therefore, results cannot be generalised for the whole country.

Some clients failed to consent. However, this was less than 10%.

Personal bias could not be completely prevented. It was hoped that adequate training of the research assistance and a conducive research atmosphere for clients could minimise this.

3.14 Financial Disclosure

The funding is from the Maternal Newborn and Child Health grant linked to Partnership for Innovative Medical Education in Kenya (PRIME-K). The project described was supported by Award Number 5R24TW008907 from the US National Institutes of Health. The content is solely the responsibility of the author and does not necessarily represent the official views of the US National Institutes for Health.

CHAPTER FOUR: RESULTS

4.1 Introduction

This chapter presents results of quantitative and qualitative data obtained during the study. A total of 72 expectant adolescent mothers at Naivasha District Hospital Antenatal Clinic were recruited into the study. All the 72 questionnaires distributed were collected giving a respondent rate of 100%. The main objective of the study was to establish factors determining the antenatal health seeking behaviour among adolescent pregnant mothers.

Both descriptive and inferential statistical results have been presented.

4.2: Demographic Characteristics

4.2.1 Age

The ages of the respondents as seen in figure 4.1, ranged from 15 to19 years, with the mean age being 17.7 years and a standard deviation of 1.13. Majority of the respondents, 28(39%) were 18 years old and 3(4%) respondents were aged 15 years. This relates well with the age when majority of the girls are sexually active.

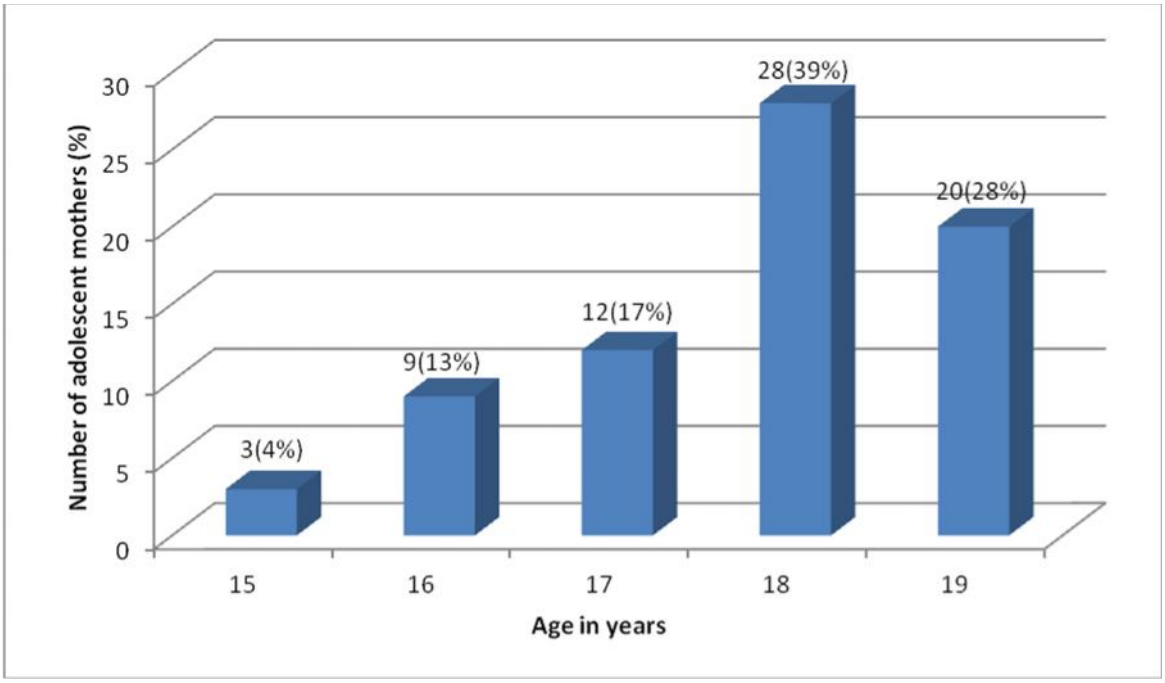


Figure 4.1: Percentage distribution of age among expectant adolescent

4.2.2 Place of Residence

Figure 4.2 shows the distribution of study respondents by place of residence. Thirty eight (53%) respondents reside in the urban area, while 34(47%) reside in the rural area. This corresponds to the rural-urban drift in this area due to the presence of recreational facilities.

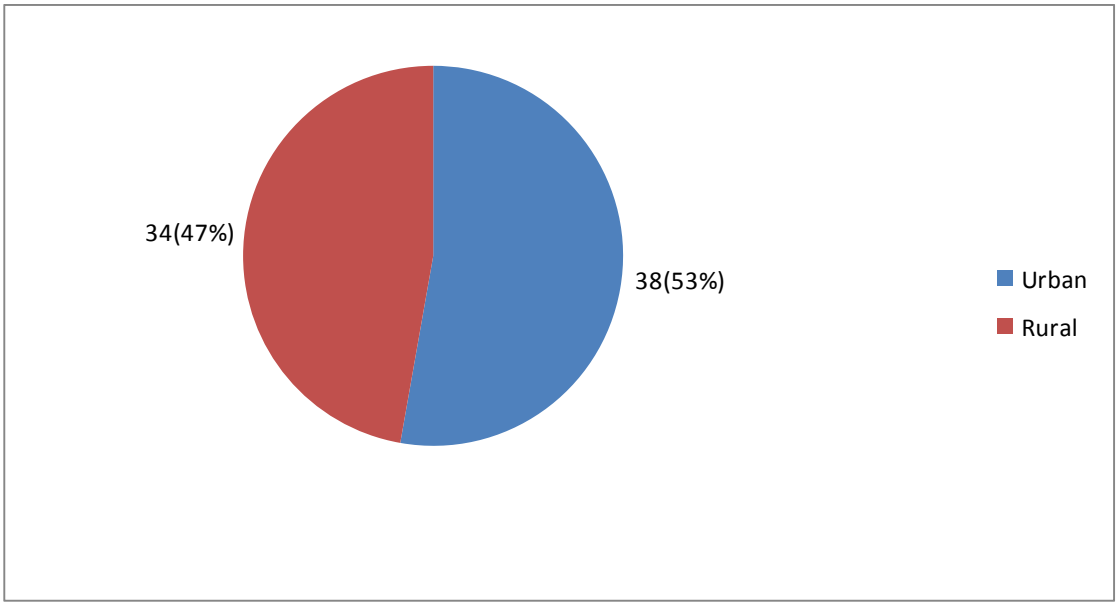


Figure 4. 2: Percentage distribution of respondents according to place of residence

4.2.3 Marital Status

The marital status stated by the expectant adolescents in this study is presented in table 4.1. Out of the 72 adolescents, 51% (n=37) indicated they were married, 46% (n= 33) were single and 3% (n=2) were divorced. This corresponds to early marriages and sex experienced by many girls in this region. Such marriages however tend to be unstable.

Table 4.1: Marital status of respondents

	Number (n)	Percent
Married	37	51%
Single	33	46%
Divorced	2	3%
Total	72	100%

4.2.4 Educational Status

Figure 4.3 presents the findings of the respondent's educational status. All the clients except one, has had basic education. 49% (n=35) attained primary education while 50% (n=36) has attained or attempted secondary education. This corresponds to the low level of education experienced by most adolescents in the developing countries.

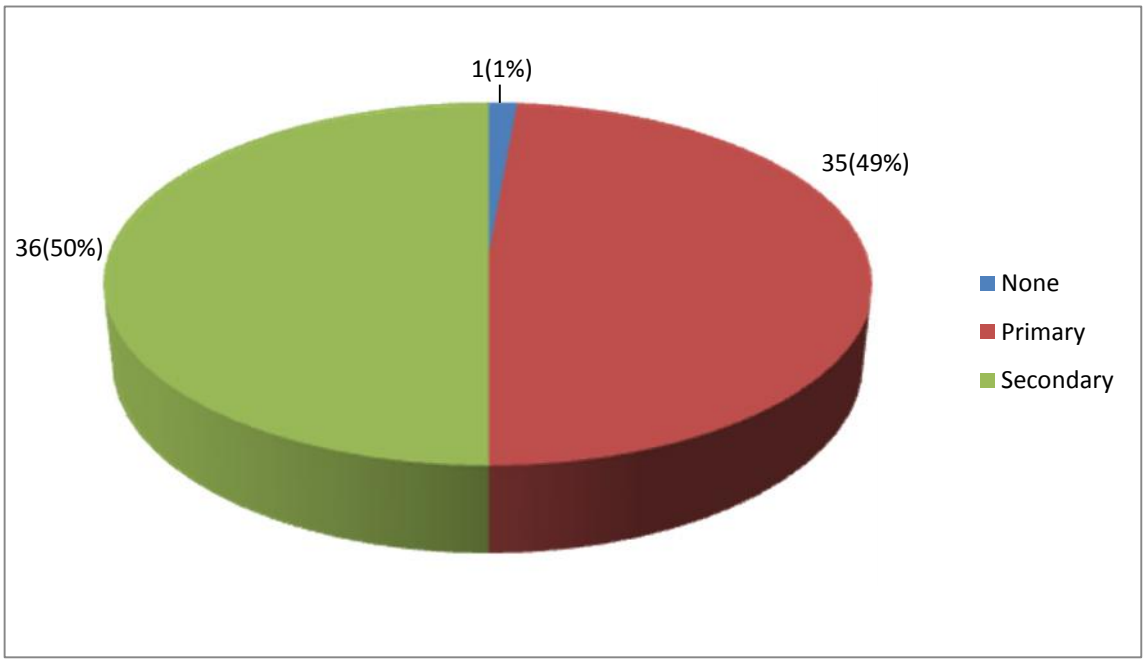


Figure 4. 3: Education level of respondents attending ANC at Naivasha district hospital

4.2.5 Employment Status

Only 19% of the respondents are employed. 81% are either students, housewives or un employed. This relates well with their low level of education in an environment of difficult job market.

Table 4.2: Occupation of respondents attending ANC at Naivasha District Hospital

Employed	**14**	**19%**
Not employed	37	51%
Student		
Primary	5	7%
Secondary	11	15%
Total	72	100%

4.2.6 Ethnic Background of Respondents

Majority of the respondents were kikuyu, 48(67%), while the other ethnic groups made up the remaining 33%.This corresponds with the dominant Ethnic group in the area despite its cosmopolitan nature.

4.3.1 The Prevalence of Adolescents Seeking Quality Antenatal Care

Table 4.3 shows the five main factors that were used to assess respondents' health seeking behaviour. While most 63 (87.5%) respondents preferred seeking care from health facilities, only 19(26.8%) made the decision to begin attending ANC themselves. 43(73.2%) were decided for by either parents a spouse, or others. Six (8.3%) respondents reported that they would be unable to attend ANC due to financial reasons. On occasions they lacked fare, 4 (5.5%) respondents would borrow money. 43 (59.7%) would walk displaying positive health seeking behaviour. Only 7 (9.7%) clients visited a health facility immediately they realised they were pregnant and 20 (27.8%) made the first visit within 16 weeks gestation as recommended in FANC.

Table 4.3: Responses to items used to define health seeking behaviour among the respondents at Naivasha District Hospital

	Number (%)
Access to care item	
Decision to start ANC	
Self*	19(26.8)
Parents	26(36.6)
Husband	16(22.5)
Other	10(14.1)
Preferred source of antenatal care	
Modern medical services*	63(87.5)
Friends	4(5.5)
Traditional healer	1(1.4)
Other	4(5.5)
Access to Naivasha District Hospital	
Affordable transportation*	19(26.4)
Walking on foot*	43(59.7)
Borrowing fare for transportation *	4(5.6)
Inaccessible when client lacks fare	6(8.3)
Timing for first ANC visit after establishing client was pregnant	
Immediate*	7(9.7)
Delayed	65(90.3)
Timing for first ANC visit (gestation in months)	
At 16 weeks or less*	20(27.8)
After 16 weeks	52(72.2)
***represents positive health seeking behaviour**	

Based on a positive report of at least 3 out of the five measures of health seeking behaviour shown in table 4.4, only 22(30.6%) of the respondents were identified as showing positive

health seeking behaviour (Figure 4:4). This is not surprising with this age group that tends to be relatively less informed and inexperienced. What is more, many of them (67.5%) were primigravidas.

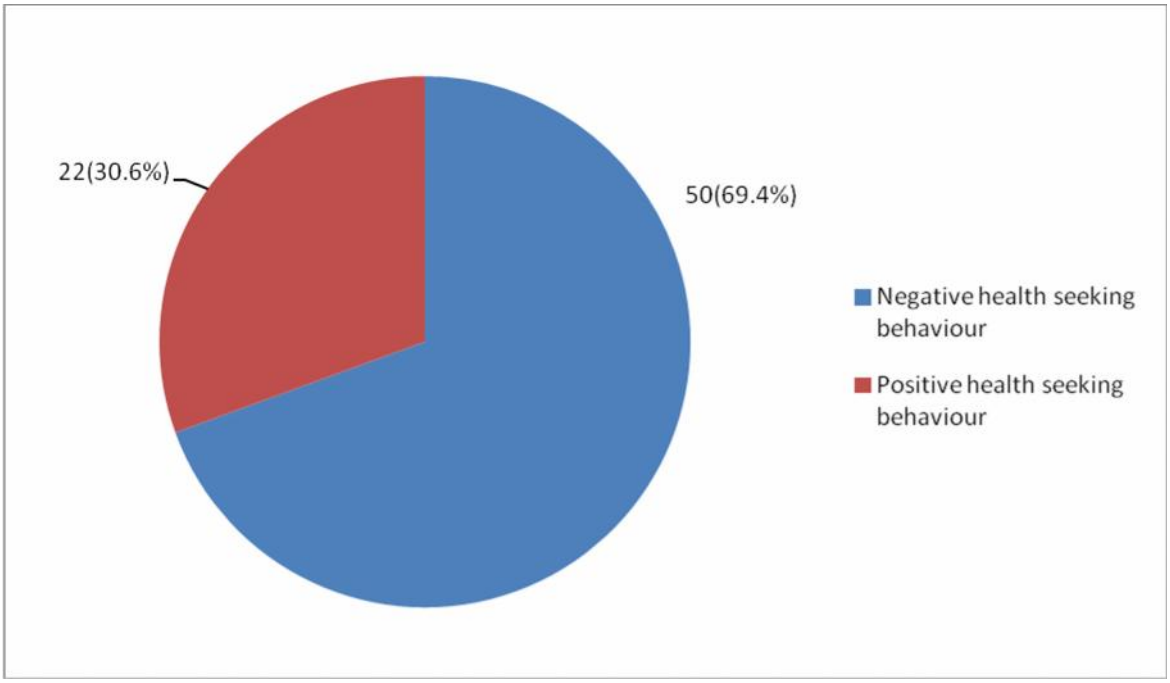


Figure 4:4 Antenatal health seeking behavior among adolescent mothers

4.3.2 Demographic Characteristics and Antenatal Health Seeking Behaviour

Age: The age of respondents did not show a statistically significant association with positive health seeking behaviour. Table 4.5 shows that the average age difference between the group of clients with positive health seeking behaviour and the respondents with negative health seeking behaviour was -0.12 years (95% CI -0.70 to 0.46), p = 0.69.

Table 4.4: Comparison of average age of respondents according to health seeking behaviour

	N	Mean age	Std. Dev.	95% CI		P value
Health seeking behavior						
Negative health seeking	50	17.70	1.11	17.38	18.02	0.69*
Positive health seeking	22	17.82	1.18	17.29	18.34	
Combined	72	17.74	1.13	17.47	18.00	
Difference		-0.12		-0.70	0.46	

*=T-test

The comparison of health seeking behaviour by levels of the remaining demographic factors is shown in table 4.5. The demographic characteristics showed no statistical significance with positive health seeking behaviour. However, positive health seeking behaviour appeared to increase with increasing level of education. None of the respondent with no formal education had positive health seeking behaviour, compared to 9 (25.7%) respondents with primary education and 13 (36.1%) with secondary education who also had positive health seeking.

Respondents living in urban areas appeared to have more positive health seeking behaviour (36.8%) compared to the respondents in rural (23.5%) areas. However, this apparent association was not significant (chi = 1.5, p = 0.221). Prevalence of positive health seeking behaviour was similar across the different occupations, ranging from 28.6% among students and employed respondents to 32.8% among unemployed respondents. (p = 1.00)

Table 4.5: Associations between antenatal health seeking behaviour and respondent' demographic characteristics

	Health seeking behavior			
	Positive	Negative	Chi square	P value
Level of education				
None	0(0.0)	1(100.0)	-	0.613*
Primary	9(25.7)	26(74.3)		
Secondary	13(36.1)	23(63.9)		
Tribe				
Kikuyu	15(31.3)	33(68.8)	-	0.607*
Luo	2(40.0)	3(60.0)		
Luhya	3(37.5)	5(62.5)		
Kamba	1(50.0)	1(50.0)		
Other	1(11.1)	8(88.9)		
Residence				
Urban	14(36.8)	24(63.2)	1.5	0.221
Rural	8(23.5)	26(76.5)		
Marital status				
Married	14(37.8)	23(62.2)		
Single	7(21.2)	26(78.8)	-	0.231*
Divorced	1(50.0)	1(50.0)		
Occupation status				
Employed	4(28.6)	10(71.4)		
Not employed	12(32.4)	25(67.6)	-	1.00*
Student	6(28.6)	15(71.4)		
Previous pregnancy				
Yes	2(28.6)	5(71.4)	-	1.00*
No	20(31.7)	43(68.3)		

*=Fishers' exact test

4.3.3 Association between Economic Factors and Antenatal Health Seeking Behaviour

As shown in table 4.6 there was no statistically significant association between socio-economic factors and health seeking behaviour. Respondents with health insurance cover tended to attend ANC more, 2 (40%) compared to those who did not have cover 20 (29.9%). Similarly, the respondents who reported that they do not struggle to get money for antenatal care also showed a higher positive antenatal care seeking behaviour 12 (33.3%) compared to those who struggle to get money for their ANC 10 (27%). Again, those who provide for themselves are more likely to have positive health seeking behaviour, 2 (40%) than those who are provided for by someone else 20 (29.9%).From these results, favourable economic conditions tend to promote positive health seeking behaviour.

Table 4.6: Associations between Economic factors and health seeking behaviour

	Health seeking behavior			
	Positive	Negative	Chi square	P value
Enrollment in health insurance				
Yes	2(40.0)	3(60.0)	-	0.638*
No	20(29.9)	47(70.1)		
Provides for livelihood				
Self	2(40.0)	3(60.0)	-	0.638*
Someone else	20(29.9)	47(70.1)		
Self rating of financial situation				
Poor	7(36.8)	12(63.2)	0.48	0.488
Average	15(28.3)	38(71.7)		
Availability of finances for ANC				
Struggles to get money	10(27.8)	26(72.2)	0.26	0.609
Does not struggle to get money	12(33.3)	24(66.7)		

***=Fishers' exact test.**

4.3.4 Association between Socio-Cultural Factors and Antenatal Health Seeking Behaviour

Of the socio-cultural factors considered in this study only one factor showed a statistically significant association with health seeking behaviour of adolescent mothers. Table 4.7 showed that health seeking among mothers who had planned to have a pregnancy was two-fold higher than that of mothers who had not planned for the pregnancy (44.4% versus 22.2%, chi = 3.93, p = 0.048).

Family support, (33.3 versus 17.6%) appeared to be higher among mothers with positive HSB but these associations did not attain statistical significance. Similarly, where early pregnancy is regarded as a blessing, many showed with Positive HSB 5 (41%) as compared to where it is either regarded as a shame or a disgrace 15(30.6%) and 1(12.5%) respectively. Established Cultural beliefs do not seem to have an association with positive health seeking behaviour. It was noted, was that respondents rather showed with positive HSB where religious beliefs did not advocate early pregnancy 19(33.9%) as opposed to when it advocated, 2 (22.2%).

Table 4.7: Association between socio-cultural factors and antenatal health seeking behaviour

Socio cultural factors	Health seeking behaviour		Chi square	P value
Planned to have a pregnancy	Positive	Negative		
Yes	12(44.4)	15(55.6)	3.9273	0.048
No	10(22.2)	35(77.8)		
Cultural acceptance of pregnancy (10-19 yrs)				
Yes	3(37.5)	5(62.5)	-	0.189*
No	19(33.3)	38(66.7)		
Don't Know	0(0.0)	7(100.0)		
Cultural beliefs prohibit pregnancy (10-19 yrs)				
Yes	3(27.3)	8(72.7)	-	1.00*
No	15(31.9)	32(68.1)		
Don't Know	4(28.6)	10(71.4)		
Religious beliefs advocate pregnancy (10-19 year)				
Yes	2(22.2)	7(77.8)	-	0.545*
No	19(33.9)	37(66.1)		
Don't Know	1(14.3)	6(85.7)		
Comments made in the community				
Blessing	5(41.7)	7(58.3)	-	0.382*
Disgrace	1(12.5)	7(87.5)		
Shame	15(30.6)	34(69.4)		
Father of baby known to mother				
Yes	21(30.0)	49(70.0)	-	0.521*
No	1(50.0)	1(50.0)		
Father of baby supportive of ANC				
Yes	16(29.1)	39(70.9)	0.2355	0.627
No	6(35.3)	11(64.7)		
How do you rate family relationships				
Strongly supportive	4(25.0)	12(75.0)	-	0.695*
A bit supportive	3(50.0)	3(50.0)		
Everyone minds own business	1(33.3)	2(66.7)		
Not supportive	0(0.0)	2(100.0)		
Impact of family support on ANC attendance				
Negative influence	3(17.6)	14(82.4)	-	
Positive influence	17(33.3)	34(66.7)		0.327*
Others	2(50.0)	2(50.0)		

***= Fishers' exact test**

4.3.5 Institutional Factors and their Impact on Antenatal Health Seeking Behaviour

Respondents reporting that health workers had a good attitude toward patients appeared also to have positive HSB (50% versus 25.9% for respondent indicating poor health worker attitude and 33.3% for intimidating attitude). However, like the other institutional factors presented in the table below respondent rating of health worker attitude was not significantly associated with positive HSB (p = 0.252).There is no association between negative comments made in the community, satisfaction with care and antenatal health seeking behaviour. Instead, 66.7% of unsatisfied clients versus 29% of satisfied clients showed Positive HSB. Likewise 39.1% versus 26.5% of those who have heard negative comments about health workers showed up with Positive HSB.

Table 4.8: Association between institutional factors and antenatal health seeking behaviour

Institutional Factors				
	Health seeking behaviour		**Chi square**	**P value**
	Positive	Negative		
Heard negative comments about health workers				
Yes	9(39.1)	14(60.9)	1.171	0.279*
No	13(26.5)	36(73.5)		
Satisfied with care				
Yes	20(29.0)	49(71.0)	-	0.219*
No	2(66.7)	1(33.3)		
Attitude of health workers				
Intimidating	2(33.3)	4(66.7)	-	0.252*
Poor	14(25.9)	40(74.1)		
Good	6(50.0)	6(50.0)		
Feels safe when asked about personal issues				
Yes	19(31.1)	42(68.9)	-	1.00*
No	3(27.3)	8(72.7)		
Time spent in clinic				
Should be reduced	6(26.1)	17(73.9)	0.318	0.573
Should remain same	16(32.7)	33(67.3)		

4.3.6 Association between Psychological Factors and Antenatal Health Seeking Behaviour

Table 4.9 shows that happy and fulfilled mothers had the highest prevalence of positive HSB (37.5%) followed by women who though that they were not up to the task (23.5%) and those that considered themselves social misfits (13.3%), p = 0.134. Respondents who were not afraid of meeting elderly women, those who never stayed indoors because of shyness and poor fitting dresses showed more positive HSB. However, these factors and the remaining psychological factors presented in table 4.9 including self reported shyness (p = 0.501), and feeling about present pregnancy (p = 0.626) did not show statistically significantly associations with HSB.

Table 4.9: Association between psychological factors and antenatal health seeking behaviour

Psychological Factors				
	Health seeking behaviour		**Chi-square**	**P value**
	Positive	Negative		*=fishers'exact
How do you feel about the present pregnancy				
Very happy	4(44.4)	5(55.6)	-	0.626*
Happy	10(28.6)	25(71.4)		
Ashamed	4(25.0)	12(75.0)		
Terribly ashamed	1(16.7)	5(83.3)		
Terribly afraid	3(50.0)	3(50.0)		
Choice over pregnancy timing				
Now	6(24.0)	19(76.0)	0.776	0.378
Later	16(34.0)	31(66.0)		
Feeling about meeting older women at clinic				
Ashamed	9(23.1)	30(76.9)	2.531	0.112
Encouraged	13(40.6)	19(59.4)		
Stayed indoors due to shyness and poor fitting dressing				
Yes	8(26.7)	22(73.3)	0.453	0.501
No	14(34.1)	27(65.9)		
What do you think about self and pregnancy				
Social misfit	2(13.3)	13(86.7)	5.579	0.134*
Not up to the task	4(23.5)	13(76.5)		
Happy and fulfilled	12(37.5)	20(62.5)		
Others	1(100.0)	0(0.0)		

4.3.7.1 Knowledge of adolescent mothers

The items assessing knowledge of respondents before commencing ANC and the changes post ANC commencement are shown in table 4.10. Most mothers either agreed or strongly agreed that they knew nothing about ANC prior to first visit and that their knowledge increased after their ANC visits. Similarly, 22(31%) strongly agreed while 35(49.3%) agreed that they learnt of the appropriate time to start ANC visits during the clinics; 17(23.9%) and 38(53.5%) agreed and strongly agreed that they had been explained to and understood the various procedures and tests.

Table 4.10: Knowledge of adolescent mothers on ANC

	SA*	**A***	**No opinion**	**D***	**SD***
Item	N (%)	N (%)	N (%)	N (%)	N (%)
I knew nothing about ANC before the first visit	19(26.8)	40(56.3)	1(1.4)	3(4.2)	8(11.3)
After visiting ANC my knowledge has greatly improved	27(38.0)	43(60.6)	0(0.0)	1(1.4)	0(0.0)
I was taught many things in school but no one ever taught me about ANC	22(31.0)	32(45.1)	7(9.9)	7(9.9)	3(4.2)
Prior to attending ANC I was not aware when a pregnant woman should start ANC nor anything about FANC	17(23.9)	35(49.3)	1(1.4)	14(19.7)	4(5.6)
The various procedures and tests that are to be me have been explained to me and I understood	17(23.9)	38(53.5)	2(2.8)	9(12.7)	5(7.0)
I have been taught about birth preparedness in my current visit and now know what is expected of me	22(31.0)	37(52.1)	2(2.8)	5(7.0)	5(7.0)
*SA-strongly agree; A-Agree; D-Disagree; SD-strongly disagree					

4.3.7.2 Attitudes of adolescent mothers

Table 4.11 shows that with the exception for one (1.4%) mother the respondents reported that ANC was very important. Most mothers either disagree (19.7%) or strongly disagree (53.5%) when asked whether they feared the approach of the date of their next ANC appointment. Forty four (62%) respondents agreed that the ANC nurse is very caring while 34(47.9%) respondent strongly disagreed that the number of hours spent during an ANC visit should be reduced.

Table 4.11: Attitudes of adolescent mothers on ANC

	SA*	**A***	**No opinion**	**D***	**SD***
Item	N (%)	N (%)	N (%)	N (%)	N (%)
ANC is very important	31(43.7)	39(54.9)	0(0.0)	0(0.0)	1(1.4)
I get frightened as date of next ANC appointment approaches	4(5.6)	13(18.3)	2(2.8)	14(19.7)	38(53.5)
I will talk to friends not willing to attend about benefits of ANC	16(22.5)	35(49.3)	7(9.9)	3(4.2)	10(14.1)
The nurse at ANC is very caring	10(14.1)	44(62.0)	4(5.6)	4(5.6)	9(12.7)
In my opinion the number of hours spent at the clinic should be reduced	11(15.5)	16(22.5)	4(5.6)	6(8.5)	34(47.9)

*SA-strongly agree; A-Agree; D-Disagree; SD-strongly disagree

4.3.7.3 Practice of antenatal health seeking behaviour by adolescents

Table 4.12 shows a statistically significant association between one of the four practices of the respondents and HSB (chi = 7.23, p = 0.007). Respondents reporting that they knew friends who decided not to attend ANC were also less likely to attend ANC compared to respondents who did not know friend planning not to attend ANC (15.2% versus 44.7% positive health seeking behaviour). Plans to make all 4 FANC visits after learning about FANC (p = 0.122), feeling obliged to receive all ANC vaccines (p = 0.236) and advice given to friends (p = 0.712) were not significantly associated with HSB.

Table 4.12: Health seeking behaviour and practice of adolescent mothers

	Health seeking			
	Positive	Negative	Chi square	P value
Plans to make all four comprehensive FANC visits				
Yes	20(36.4)	35(63.6)	-	0.122*
No	2(12.5)	14(87.5)		
Knows friends who decided not to attend ANC				
Yes	5(15.2)	28(84.8)	7.23	0.007
No	17(44.7)	21(55.3)		
Feel obliged to receive all ANC vaccines				
Yes	22(32.4)	46(67.6)	-	0.236*
No	0(0.0)	3(100.0)		
Can advice friends to take good care of themselves				
Yes	2(22.2)	7(77.8)	-	0.712*
No	20(31.7)	43(68.3)		

***=Fishers' exact test**

CHAPTER FIVE: DISCUSSION AND CONCLUSION

5.0 Introduction

This chapter presents a discussion of the main findings of the study on factors determining antenatal health seeking behaviour of adolescent expectant mothers at the Antenatal clinic in Naivasha District Hospital. Conclusions are drawn and recommendations made based on the study findings.

5.1.1 Participants Demographic Factors

The demographic factors cited in this study included age, marital status, place of residence, educational status, occupational status, tribe and previous parity.

The age distribution in the study ranged from 15 to 19 years with the mode being 18 years (39%). This corresponds to the older adolescent age group. It is the period when the body takes a more distinct adult form. However decision making and negotiation skills necessary to make informed choices and resist pressure to engage in irresponsible sexual behaviour is still lacking (MOH 2005).

This age group is in consistent with Atuyambe et al (2008), who in his study in Uganda, established that a quarter to a half of adolescents have their first child by 18 years of age. WHO (2011) also confirms that adolescent pregnancy is more common between 15-19 years of age. This corresponds to the range and median age in this study.

A high percentage of study participants (51%) were married, not because of mature marriage age, but mainly due to economic frustrations. Most of them had just completed primary school (49%) or were secondary school drop outs. They were therefore not fully equipped for the job market. This explains why only 19% of the study participants are employed in low grade jobs like house help, restaurant attendant and salonist. This is in consonant with the findings of Phafolio et al (2007) and WHO (2006), which established that young maternal age and low educational levels generally describe women receiving little or no ANC care.

Low education is highly associated with active early sexual involvement and marriage. This is strongly supported by the explanations given in KDHS (2008-2009). It states that

adolescent pregnancy corresponds with social indicators such as low level of education and early age at marriage. This study is in strong support of this perception based on the low education levels established in these young participants.

5.1.2 Prevalence of Adolescents Seeking Quality Antenatal Care.

The prevalence of adolescents seeking quality antenatal care among the study participants was very low. Only 30.6% (n=22) of all study participants had positive health seeking behaviour. This is consistent with WHO (2006) perception on utilization of antenatal care services by adolescents. This established that it is usually insufficient.

Even though many participants preferred services from modern health personnel, and made an effort to walk to the clinic when they had no transport, many never took the initial decision to come to the clinic. This made them start clinics late. Other socio-cultural and economic factors also compromised their power to make decisions.

It was noted that 72.2% of the respondents did not start ANC in the first trimester. Many (39) reported that they had no knowledge, 15 complained of financial constraints, 14 were either afraid or ashamed to come and the others were in school at the time when they realized they were pregnant. These findings are consistent with those in Phafoli et al (2007) and Atuyambe et al (2008) studies. They found that adolescent mothers usually started clinics late.

Victims of adolescent pregnancy are usually not aware of the School Health Policy governing such pregnancies. The policy states that, when these young mothers fall victims of unplanned pregnancies "..... both the students and their parents shall be counselled on the importance of ensuring a good outcome of the pregnancy by attending ANC.....The student should be supported to start ANC.....The school nurse should advise the student to make at least four ANC visits....." (School Health Policy 2009).

Most of the participants stated that they left school even without their parents or school nurse knowing. Some, even in the third trimester, claimed that their parents were not aware of their situation, so they could only trick them to get money for ANC.

5.1.3 Demographic Factors and Antenatal Health seeking behaviour

The ages of the respondents did not show any statistical association with positive health seeking behaviour. However, as cited by Phafoli et al (2007), younger maternal age was associated with reception of little care. This was due to the fact that most of them were unable to make decisions for themselves. For instance, only 26.8% decided on their own to attend ANC. Most were decided for by parents; they stated that they were either afraid or ashamed.

In contrast to Adenkale et al (2008) study results, employed adolescents had more negative health seeking behaviour than the unemployed. This was probably due to the fact that most of them were doing low grade jobs like restaurant attendant, house help and shop keepers. Consequently, most of them were not easily released from work.

Adolescents who were single, lived in the rural areas or less educated showed more negative antenatal health seeking behaviour. Those who are single were probably hit more by the effects of societal expectations that they had apparently violated. This was reflected in their responses. Most of them said “I was being called a prostitute and so I couldn’t come out, I didn’t want to be seen, I was afraid my friends will laugh at me”. Whereas, most of their married counterparts gave different responses such as “I was ashamed because of my age but since I am married I took courage”.

Town dwellers appeared to be more informed than rural ones on health issues. This, and the proximity of the facility, might have made them to be more in this study. However, the difference was not significant.

These findings tie well with Adekanle et al (2008) study. In their study on late antenatal care booking and its predictors in South Western Nigeria, they established that the factors stated above were responsible for late entry to ANC.

5.1.4 Economic Factors

In line with Phafoli et al (2007) findings, the majority of study participants were not enrolled in any insurance (93%). Most of those with no health insurance tended to show more negative health seeking behaviour (70.1%) than those who were insured (60%). Many cited financial

compromise (38.9%) as a cause of no insurance. A large number said they had never heard of insurance (38.9%).

Those who reported they struggle to get money had more negative health seeking behaviour than those who had not struggled (72.2% as opposed to 66.7%). This shows that favourable economic conditions tend to promote positive HSB. Studies in Kenya have also shown that cost of services hinder a significant number of young people from seeking health care. The studies indicated that most of them are usually in school and only dependent on parents or guardians to meet their health care costs (MOH 2005).

These findings compare well with Mbouzeko R. (2009) results. In his study in Cameroon, he established that poverty was a major contributing factor in receiving little or no care. Many subjects in this study confirmed that they either postponed their appointment or started late when they did not have money.

Noted was that the cost of ANC services is relatively low, yet these young mothers were still unable to afford it. It is clearly stated in National Policy for Provision of YFS that "youth friendly delivery sites should work out systems whereby costs are waived/subsidized for young people who are too poor to pay" (MOH 2005). Unfortunately this system is not in place on the ground.

In contrast to Zwi et al (2009) study, these study participants did not take the option of choosing charlatans and traditional providers despite their economic status. Despite their negative antenatal health seeking behaviour, they still made the choice for modern medical personnel care. They reasoned that they were well trained and knew what to do.

This study did not establish distance from service delivery point as a serious factor. Most of the respondents were near the facility (58%). These reported they took less than 30 minutes to reach the facility, 32% said they took 1-2 hours while only 10% took more than 3 hours. A small number said that they do miss appointments when they can't trek long distances.

5.1.5 Socio-Cultural Factors

Socio-cultural factors have been shown to have significant influence on antenatal health seeking behaviour. Consistent with phafolio et al (2007) findings, the respondents who did

not plan for pregnancy recorded the highest negative antenatal health seeking behaviour (Chi square =3.927, p-value of 0.048). Most of these mothers said that they would have preferred to have the pregnancy later. The reasons they gave for this was that they were not yet married, were not financially equipped, had not finished education and would have liked to avoid shame. These reasons most likely contributed to their negative antenatal seeking behaviour.

In contrast to the findings of Atuyambe et al (2008) in his study in Uganda, this study showed no relationship between established cultural beliefs and antenatal seeking behaviour. This is possibly because most of the subjects were not aware of existing beliefs.

However, the study demonstrated an association between other socio-cultural factors and antenatal health seeking behaviour. For instance, in cases where community members regarded pregnancy as a blessing and where family support was positive, there was more positive health seeking behaviour. This was consistent with the findings of Adekanle et al (2008) in Western Nigeria.

Whether the father of the baby was known or not did not have an impact on antenatal health seeking behaviour. However, consistent with Phafoli (2008) findings, few of the subjects, especially those who were raped or didn't know the father of the baby, contemplated an abortion. This made them not to start ANC on time.

5.1.6 Institutional Factors

This study showed no significant association between institutional factors and HSB. However, it demonstrated a negative impact of health workers attitude on antenatal health seeking behaviour. Consistent with Atuyambe et al (2008) findings, respondents who reported the attitude of health care workers as either intimidating or poor tended to show a very negative health seeking behaviour. This was unlike those who reported it as good.

Most of the subjects had no problems with the time spent at the facility. This is because most of them lived with parents and had no responsibilities. All who are employed however complained about the time and feared losing their jobs or customers due to undue delay.

In contrast to the findings of Phafolio et al (2007), (66.7%) of the respondents who said they were not satisfied with care instead demonstrated positive health seeking behaviour as opposed to those who said they were satisfied with care (20%). Those who were not satisfied with care expressed that they 'just have to come because it is important for them and the baby". What is more, contrary to Adekanle et al (2008) findings, respondents who had heard negative comments from elderly women and friends showed more positive antenatal health seeking behaviour. These also saw a need for care for the sake of their health and that of the baby and therefore ignored the comments.

Some adolescent mothers develop positive HSB in spite of the many confounding factors. Reasons for this were established through probing question.

When asked what health workers did that made them want to come back to Clinic, they gave varied reasons including offer of good services, encouragement and giving of good advice, education, polite service providers' attitude and availability. These they said could also enable other adolescent mothers who stayed away to come for ANC.

They likewise named what health workers did which could make them and other adolescent mothers not come to the clinic. The following were some of the things cited; slow services, poor services, they are rude, abuse mothers, lack of privacy and drugs not often available.

5 .1.7 Psychological Factors

In this study, respondents who were not psychologically traumatized had positive health seeking behaviour. The majority of the adolescent mothers (54.2%) said they were ashamed of meeting women who are more than them in age at the clinic. The study also demonstrated that most of them were shy and stayed indoors most of the times (41.7%). A lot of those affected were the single mothers.

Marital status plays a great role on how these mothers think of themselves. Most of the respondents with very negative HSB said that they were still young, were ashamed because they were not yet married, were afraid people would think they were prostitutes, etc. many felt they were social misfits and expressed that they were really ashamed.

The married adolescents, irrespective of their ages, marital conditions or economic situations, felt more confident in themselves and were socially more accepted. This is consistent with Atuyambe et al (2008) study, which says that "being made to feel guilty" is a serious contributing factor to poor HSB among this group of mothers.

5.1.8 Knowledge of Adolescent Mothers on Antenatal Clinic

This study established that 83.1% of the respondents had no knowledge of antenatal clinic before the first visit. This explains why most of them had negative health seeking behaviour. For instance, among other reasons advanced for not starting ANC timely, 39 said they did not know when to start. This is in consistent with Mbouzeko R (2009) study on Roadmap for care which asserted that knowledge is a very important factor in attending clinics early. Some adolescents have been noted to delay their seeking for care irrespective of their financial status because of this.

Antenatal care is a recommended essential service package of the National School Guidelines (MOH 2005). It is difficult therefore to explain how these young mothers, especially those who have attempted secondary school, have no clue at all about ANC. Many in this study however reported improved knowledge after visiting the clinic.

5.1.9 Attitude of Adolescent Mothers towards Antenatal Clinic

Overall, adolescent mothers have a positive attitude toward ANC. Almost all (98.6%) expressed that ANC is very important. Consistent with the findings of (Phafoli et al 2007), they stated that the caring attitude of the nurses at the ANC was one of the reasons that made them want to go back to the clinic. The majority were not frightened but rather eager to go for the next appointment. Many of them tended to think that it was their duty to encourage friends who had not come to ANC. However, their attitude only changed when their knowledge improved.

5.1.10 Practice of Antenatal Health Seeking Behaviour by Adolescents

Peer influence showed statistical significance with respect to negative health seeking behaviour (p-value 0.007). This is consistent with Adenkale et al (2008) findings in his study in western Nigeria, which established that peers who had children before or who had been given erroneous information about midwives, would make their friends believe that they would be badly treated.

Many respondents in this study were told by friends that "hands would be put in their vaginas, they would be talked to badly and be made to feel as if they were not human beings". Many who felt obliged to make the four visits and to receive their vaccines still had negative health seeking behaviour. This was confirmed by chi-square test. This could be explained by the fact that they made positive decisions only after gaining knowledge about ANC. Reflected in the fact that 94.4% were willing to take all their vaccines, 76.4% said they were ready to make all the four visits because they had known its importance to them and as well as their babies.

5.2 Conclusion

This study has established that the prevalence of adolescents with positive antenatal health seeking behaviour is very low (30.6%). There is a significant association between unplanned pregnancy, peer influence and health seeking behaviour (p-value, 0.048, 0.007).

All the factors in the study had an impact on antenatal health seeking behaviour of these mothers even though in varying degrees. This study revealed that better financial status, marital status, education, attitude of health care workers and family support were some of the factors determining positive health seeking behaviour. Lack of knowledge and peer influence contributes highly to poor Antenatal health seeking behaviour.

5.3 Study Limitations

The study considered only adolescent mothers who were met in the facility. More studies, especially those that are community based, would be desirable.

5.4 Recommendations

Based on the findings of the study, the following recommendations are made:

- Naivasha District Hospital should re-enforce community outreach and education at all levels through the media, posters and barazars.
- There is need to re-enforce ANC issues in existing policies like National school health policy and Adolescent Reproductive health Policy.
- Youth friendly services and peer education should be re-enforced at all levels.
- More emphases should be put on insurance schemes and its awareness increased.
- The study could be expanded to include pregnant adolescents who do not come to the facility. This would be made possible by community based studies.

REFERENCES

Adekanle D. & Isawumi A. (2008); Late Antenatal Care Booking and its Predictors among Pregnant Women in South Western Nigeria; *Online Journal of Health Allied Sciences;* Vol 7:1; p 2.

Andersen R. M. (1995); Revisiting the Behavioural Model and Access to Medical care: Does it matter? *Journal of Health Social Behaviour;* Vol 36; pp 1-10

Atuyambe et al (2008); Adolescent and Adult First Time Mothers' Health Seeking Practice during Pregnancy and Early Motherhood in Uganda, *Reproductive Health Journal;* Vol 5:4; pp 304-309.

Birungi H. & Onyango W. (2006); Acceptability and Sustainability of the WHO Focused Care Package in Kenya. *Frontiers in Reproductive Health Programs*; Population Council Institute of African Studies, University of Nairobi.

Ejik et al (2006); the use of Antenatal Services and Delivery Care in Women in Rural Western Kenya. *Reproductive Health Journal*; Vol 3:2; p 3.

http://maps.goorgle.co.ke/maps? Visited on 5/02/2012.

Karin G. et al (2012); Timing of Antenatal Care for Adolescent and Adult pregnant women in South Eastern Tanzania, Vol 12:16

Kathryn A.P. et Al (1998); Understanding The Context of Healthcare Utilization, Assessing Environmental And Provider Related Variables In The Behavioural Model Of Utilisation. *Health Service Research;* Vol 33:3; pp 573.

Kenya National Bureau of Statistics (KNBS) and ICF Macro, (2010); Kenya Demographic Health Survey 2008-2009. Calverton, Maryland.

Konyuy E.J. et al (March 2008). Adverse Perinatal Outcomes of Adolescent Pregnancy in Cameroon. *Maternal Child Health Journal;* Vol 12:2; pp147-54. Pembroke, Liverpool.

Magadi, M. (2006); Poor pregnancy outcomes among Adolescents in South Nyanza Region of Kenya. *African Journal of Reproductive Health;* Vol 101; pp 34-37.

Mbouzeko R. (2009); “Roadmap for Care”, Aims to improve Maternal and Newborn Survival in Cameroon. UNICEF

Ministry of Health (2005); Adolescents Reproductive Health & Development Policy: Plan of Action 2005-2015. National Coordinating Agency for Population & Development; Nairobi, Kenya

Ministry of Health (2005); National Guidelines for Provision of Adolescent & Youth Friendly Services in Kenya. Nairobi, Kenya.

Ministry of Health, National Reproductive Health (2007); Enhancing Reproductive Health Status for all Kenyans. MOH, Nairobi, Kenya; pp14.

Ministry of Public Health & Sanitation & Ministry of Education (2009); National School Health Policy. RoK; Nairobi, Kenya; pp23.

Mugenda O.M &Mugenda A. G. (2003); Research Methods. Quantitative & Qualitative analysis. Act Press. Nairobi Kenya.

National Road Map for Accelerating the Attainment of the MDGs Related to Maternal and New Born Health in Kenya. (Aug 2010).Republic of Kenya. Nairobi Kenya; pp 25

Nisar N. & White E. (2010); Factors Affecting Utilisation of Antenatal Care among Reproductive age Group Women (15-49 years) in an Urban Settlement of Karachi. *Journal of Pakistan Medical Association.*

Nyarko et al (June 2006); Acceptability & Feasibility of Introducing the WHO Focused Antenatal Care Package in Ghana. *Frontiers in Reproductive Health Program*. Population Council.

Phafoli S.H. et al (2007); Variables Influencing delay in the Antenatal Clinic Attendance among Teenagers in Lesotho. *Journal of Advanced Nursing;* Vol 49:9; p 17.

Reproductive Health at a Glance (2011). Kenya; p 1

Tebeu P.M. et al (June 2011); *Open Journal of Obstetrics and Gynaecology*; Vol 1:1 pp 47-52.

The Division of Reproductive Health. Ministry of Public Health and Sanitation, ROK. (Aug 2009). Best Practices in Reproductive Health in Kenya. MOH, Nairobi, Kenya.

UNICEF (2008); Progress for Children. A Report Card on Maternal Mortality.

World Health Organisation (2004); Adolescent Pregnancy. Department of Reproductive Health. WHO, Geneva

World Health Organisation (2006); Pregnant Adolescents: Delivering on Global Promises of Hope. WHO, Geneva.

World Health Organisation (2007); Adolescent Pregnancy. Unmet Needs &Undone Deeds; A review of the Literature and Programs, Issues in Adolescent Pregnancy. WHO, Geneva; pp 7-31.

World Health Organisation (2008); Adolescent Pregnancy; Department of Making Pregnancy Safer; WHO, Geneva; Vol 1:1; pp1-4.

World Health Organisation (2011); Indicator Compendium. WHO, Geneva; pp 5, 18-19.

WHO, UNICEF, UNFPA & the World Bank (2010); Trends in maternal mortality 1990-2008. WHO, Geneva.

Xi-Kuan C. et al (2007); Teenage Pregnancy and Adverse Birth Outcome. *International Journal of Epidemiology;* Vol 36:2; pp 368-373.

Zwi et al (2009); Timor-Leste Health Seeking Behaviour Study; The University of New South Wales, Sydney; pp 8-11.

APPENDIXES

Appendix i: Questionnaire

Study Topic: Factors influencing antenatal health seeking behaviour of adolescent mothers at the antenatal clinic in Naivasha District Hospital

Instruction: Fill in the blank spaces or make a tick where relevant.

Section 1: Demographic Data

1. What is your age (in completed years).....?
2. Where is your place of residence? urban ☐ Rural ☐
3. What is your marital Status? Married ☐

   Single ☐

   Divorced ☐

   Never married ☐
4. If married, at what age did you get married (in completed years).....
5. What is your occupational status? Employed ☐

   Not employed ☐

   Student ☐

   If employed or student, specify category.....
6. Have you ever been pregnant before? Yes ☐

   No ☐
7. If yes to question 6, what was the outcome of the pregnancy

   Abortion ☐

   Miscarriage ☐

Delivery ☐

8. If you have been pregnant before, how long is it between your last pregnancy/abortion and this pregnancy? A few months ☐ one year ☐

   More than one year ☐

9. If you have delivered before, did you attend antenatal clinic? No ☐ Yes ☐

   If yes, why.....

   If no, why.....

10. What is your education status? None ☐ primary ☐ secondary ☐ University ☐

11. Which is your tribe? Kikuyu ☐ Luo ☐ Luhya ☐ Kamba ☐ Others (specify).....

Section ii: Socio- Economic Factors

12. Are you enrolled in any insurance? yes ☐ No ☐

13. If no why? Never heard of any ☐ No money ☐ don't find it necessary ☐

    Others (specify).....

14. With whom do you leave? parents ☐ spouse ☐ friends ☐ relatives ☐ alone ☐

    Others (specify).....

15. If leaving with parents/ relative, what is the family type?

    Monogamy ☐ polygamy ☐ single parent ☐ others specify.....

16. Who caters for your livelihood?

    Self ☐ someone else ☐

17. If someone else, who? .....

18. If self, how many other people do you have to cater for? 1-2 ☐ 3-4 ☐

More specify ☐

19. How can you rate your financial situation or that of the one who caters for you?

Poor ☐ Average ☐ Rich ☐ Very rich ☐

20. How long does it take you from your home to reach the clinic?

Less than 30 minutes ☐ 1-2 hours ☐ 3-4 hours ☐ more specify ☐

21. How do you rate the standards of roads from your area of residence to the clinic?

Bad ☐ average ☐ good ☐ very good ☐ Excellent ☐

22. Are you always able to pay for transport when you are coming for Antenatal Clinic?

Yes ☐ No ☐

23. When you are not able to afford transport, how do you make it to the clinic?

On foot ☐ Borrow money from friends ☐ I don't come to clinic ☐

Others ☐ specify.....

24. Do you struggle to get the money for your Antenatal Clinic Services

Yes ☐ No ☐

25. If yes, how does this affect you your coming to Antenatal clinic?

.....

Section iii: Socio-Cultural Factors

26. Did you plan to have a pregnant? Yes ☐ No ☐

Give reasons for your response.....

.....

27. According to your culture are people usually very happy when a girl of about 10-19 years gets pregnant Yes ☐ No ☐ Don't know ☐

28. If No to question 27, do they react positively when the girl is married

Yes ☐ No ☐ don't know ☐

29. Are there cultural beliefs in your tribe that forbid girls of between 10-19 years getting pregnant Yes ☐ No ☐ don't know ☐

If yes, what are they.....

30. Do your religious belief advocate pregnancy for unmarried girls who are aged 10-19 years? Yes ☐ No ☐ don't know ☐

31. If given a choice, whom could you have preferred to sought your antenatal care from?

Traditional birth attendant, ☐ a traditional healer, ☐ modern medical personnel ☐

A friend who understands me well ☐ others ☐ specify.....

Give reasons for your response.....

32. What are some of the comments often made in your community when a woman of 10-19 years gets pregnant?

It's a blessing ☐ It's a disgrace ☐ It is a shame to the family ☐

Others ☐ Specify.....

How did your response to question 32 affect your coming for antenatal clinic?

.....

33. Do you know the father of the baby you are carrying? Yes ☐ No ☐

34. If yes, what is his marital status? Married ☐ Single ☐ divorced ☐ separated ☐

Others ☐ specify.....

35. Has he accepted he is the father of your expected child? Yes ☐ No ☐

If no, why.....

36. Is he supporting your antenatal care? Yes ☐ No ☐

37. How do you rate your relationship with your family?

strongly supportive ☐ a bit supportive ☐ everyone minds her own business ☐

Not supportive ☐ very unsupportive ☐ others ☐ specify.....

38. How has this influenced your Antenatal clinic attendance?

Negative influence ☐ positive influence ☐ others ☐ specify.....

Section iv: Institutional Factors

39. How many times have you attended Antenatal clinic in this current pregnancy.....

40. Are your needs taken care of to your satisfaction when you come for antenatal clinic?

Yes ☐ No ☐

If no, why.....

41. What is the attitude of health care workers in the antenatal clinic towards you?

Intimidating ☐ Poor ☐ good ☐ excellent ☐ others ☐ specify.....

.....

Explain the reason for your response.....

.....

42. Do you feel that you gain anything from the health care service providers when you attend Antenatal clinic? Yes ☐ No ☐

Explain the reason for your response.....

.....

43. How do you view services at the clinic? Enjoy services ☐ motivated to come again ☐ disappointed with services ☐ Saw nothing special ☐ others ☐ specify.....

44. Do you feel safe when they ask you details about your personal issues?

Yes ☐ No ☐

If no, why.....

45. Are you satisfied with the manner they serve clients at the antenatal clinic?

Yes ☐ No ☐

If no, why.....

46. How much time do you often have to spend in the clinic

Less than 2hours ☐ 2-4 hours ☐ more than 4 hours ☐

How does this affect you?.....

.....

47. What can you say about the time spent at the clinics

Should be reduced ☐ should remain same ☐ should be increased ☐

Why.....

48. List those things health workers do that make you want to come back to the antenatal clinic which you think can also enable mothers of your age attend Antenatal clinic

.....

.....

49. List those things health workers do that make you <u>not</u> to want to come back to the clinic and which you think can make other mothers of your age not to come to antenatal clinic

.....

.....

50. Have you heard things from your community about health workers that made you not to want to come for Antenatal clinic? Yes ☐ No ☐

51. If yes what were the things.....

52. Who told you about those things? Elderly women ☐ My friends ☐ Others ☐ specify.....

53. What would you personally want or suggest health service providers to improve on at the antenatal clinic?.....

.....

Section v: Psychological Factors

54. How long did it take you to realise that you were pregnant?
one month ☐ two months ☐ three months or more ☐

Did you start clinic immediately you realised you were pregnant? Yes ☐ No ☐

Give reasons for your answer above.....

55. What made you to know you were pregnant? My stomach was increasing in size ☐

I lost my menses ☐ I started gaining a lot of weight ☐ someone told me ☐

Others ☐ specify.....

56. What is the first thought that crossed your mind when you realised you were pregnant to abort the baby ☐ tell your parents ☐ tell the father of your baby ☐ come to antenatal clinic ☐ others ☐ specify.....

57. Who is the first person you informed about your pregnancy.....

58. How do you feel about the present pregnancy?

Very Happy ☐ happy ☐ ashamed ☐ terribly ashamed ☐ terribly afraid ☐
others ☐ specify.....

59. What are your major problems/fears about his present pregnancy?.....

.....

60. If you had a choice could you have wanted this pregnancy now or later?

Now ☐ Later ☐

Why.....

61. Who decided for you to come and start your antenatal clinic on the very first day?
Myself ☐ parents ☐ husband ☐ others ☐ (specify).....

62. How many months was your pregnancy at the time of your first visit.....

63. How do you feel about meeting other women who are of your mothers' age at the Antenatal clinic? Ashamed ☐ encouraged ☐ others ☐ specify.....

.....

64. At the beginning i was very shy and felt odd because my dresses couldn't fit well, i didn't have dresses to put on so i stayed indoors most of the times.

Yes ☐ No ☐

65. What do you think about yourself with a pregnancy?

A social misfit ☐ not up to the task ☐ Happy and fulfilled ☐ others ☐
specify .....

Section: vi

Please do kindly rate yourself on the following by ticking on the appropriate space.

Knowledge of Adolescent Mothers on Antenatal Health Seeking Behaviour

Statement	**Strongly Agree**	**Agree**	**No Opinion**	**Strongly Disagree**	**Disagree**

66. I knew nothing about antenatal clinic before the first visit					
67. After visiting the antenatal clinic my knowledge about antenatal care and pregnancy related issues has greatly improved					
68. I was taught many things in school but no one ever told me anything about antenatal clinic					
69. Before coming to the clinic, I have never heard about when a pregnant woman is supposed to start antenatal clinic, nor anything about focused antenatal clinic					
70. The various procedures and tests that are supposed to be done have been explained to me at this clinic and I have understood very well					
71. I have been taught about birth preparedness in my current antenatal visit, I now know clearly what is expected of me					

Attitude of Adolescent Mothers towards Antenatal Health Seeking

Statement	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
72. I think antenatal clinic is very important					
73. When the day for the next antenatal clinic appointment is approaching I start getting frightened I really do not like the clinic					
74. I will talk to some of my friends who are not willing to come about the benefits of visiting an antenatal clinic					
75. The nurse at the antennal clinic is very caring i just feel like telling her everything about myself					
76. In my opinion, the number of hours spent at the clinic should be reduced i think it is too long					

Practice of Antenatal Health Seeking Behaviour by Adolescent Mothers

77. Do you know some of your friends who have decided not to attend Antenatal clinic again? Yes ☐ No ☐

If yes, why have they decided not to attend?.....

.....

78. Do you feel obliged to receive all the antenatal vaccines explained to you by the midwife?

Yes ☐ No ☐

If yes, why.....

If no, why.....

79. After learning about Focused antenatal clinic and the four comprehensive visits do you think you will make all the visits?

Yes ☐ No ☐

If yes, why.....

If no, why.....

80. I think I'm taking great care of myself in this pregnancy. When I feel unwell I just get to the nearest drug store and get some drugs that can relieve my situation. Given a chance I can advise my friends here to do same

Yes ☐ No ☐

Appendix ii: Time Schedule and Work Plan for the Entire Study

	Weeks → / Activity ↓	2	4	6	10	12	14	16	18	20	22	24	26	28	30
1	Proposal development														
2	Ethical clearance														
3	pretesting of tool & training of research assistants														
4	Data collection														
5	Data processing and analysis														
6	Report writing														
7	Thesis defence														

Appendix iii: Proposed Budget

Component	Activity Description	Item	Unit of Measurement	Unit Cost(Ksh)	Total In (Ksh)
Proposal writing Phase	Search for literature in libraries Internet services	Transport and subsistence Modem air time	2weeks 2weeks	@500 @200	7,000 2,800
	Stationary	A ream of A4 papers	1	@400	400
		Proposal typing	3 drafts	@800	2,400
		Proposal printing	3 drafts	@400	1,200
		Photo copying	6 drafts	@350	2,100
Approvals		KNH ethics committee Ministry of Science &Technology	1 1	@1000 @1000	1,000 1,000
Sub total					**17,900**
Research Phase	Pre-testing	Transport and subsistence	1 day	@800	800
		Printing and photocopying	10 copies	@ 50	500
	Questionnaires & consent form	Photocopying	72 copies	@ 50	3,600
	Data collection	Transport & accommodation subsistence Research assistants	4 weeks 4 weeks 2 for 4weeks	@1,100 @1,000 @500	33,000 30,000 28,000
	Data processing and analysis				20,000
Sub total					**115,900**
Report writing Phase	Draft report	Typing and printing	170 pages	@30	5,100
		Photocopying	5 copies	@600	3,000
	Final report	Correction and printing	170 pages	@10	1,700
		Photocopying	5 copies	@600	3,000
		Binding	5 copies	@1000	5,000
		Transport and subsistence	2 weeks	@500	7,500
Sub total					**25,300/=**
Grand Total					**159,100/=**

Appendix iv: Client Consent Form

I am Ilyn Wiysanyuy a second year post graduate student at the University of Nairobi, College of Health Sciences pursuing a master's degree in Obstetric Nursing /Midwifery.

Dear participants

My aim is to carry out a study on **"factors determining antenatal health seeking behaviour of adolescent mothers at antenatal clinic in the Naivasha District Hospital"**, as part of the requirements for the award of a master's degree in obstetric Nursing/ Midwifery.

I kindly request you to participate in this study by filling this questionnaire.

You are assured that the information you provide will be kept confidential and anonymous and used only for the purpose of investigating this topic. You are therefore not required to write any of your personal particulars on the questionnaire. No harm or pain will be inflicted on you during this process. There are no direct incentives however, the results of the study will be used to improve care of adolescent pregnant mothers.

In case you don't want to participate or feel like withdrawing from the study at any time you will not be victimised. Your participation in the study is therefore voluntary but highly appreciated and very important for the success of this study.

In case of any questions, you are free to contact the principal researcher by phone on 0772270785, email lynswiysah@yahoo.com as well as the secretary to the ethics and research committee Professor A.N Guantai and my supervisors, Dr Omoni Grace on 0727466460 and Dr Blasio Omuga on 0722256080

Thank you.

Ilyn Wiysanyuy (Principal Researcher)

I....., have read the consent explanation and have understood and do voluntarily agree to participate in the study. Signature of participant..... Date.....

Researcher/Research Assistant's signature.....Date.....

Appendix v: Letter to KNH/UoN- Ethics and Research Committee

ILYN WIYSANYUY

Admission No.H56/64876/2010

University of Nairobi,

School of Nursing Sciences

To,

The Chairperson

Kenyatta Ethics Committee

P.O. Box 20723-00100

Nairobi.

Dear Sir/Madam

Re: RESEARCH AUTHORISATION REQUEST

I am a second year postgraduate student pursuing Masters of Science in Obstetric Nursing/ Midwifery.

I am writing to request your permission to carry out research on "Factors determining the Antenatal Health Seeking Behaviour of adolescent mothers in Naivasha District Hospital". The study will be carried out in the Antenatal Ward. Your kind consideration is highly appreciated as it will duly facilitate the timely completion of my study.

I look forward to your favourable response

Thank you

Yours faithfully

ILYN WIYSANYUY

Email lynswiysah@yahoo.com

Mobile No. 0772270785

Appendix vi: Letter From KNH/UoN Ethics And Research Committee

UNIVERSITY OF NAIROBI
COLLEGE OF HEALTH SCIENCES
P O BOX 19676 Code 00202
Telegrams: varsity
(254-020) 2726300 Ext 44355

KNH/UON-ERC
Email: uonknh_erc@uonbi.ac.ke
Website: www.uonbi.ac.ke
Link:www.uonbi.ac.ke/activities/KNHUoN

KENYATTA NATIONAL HOSPITAL
P O BOX 20723 Code 00202
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP, Nairobi

Ref: KNH-ERC/A/69

27th March 2012

Ilyn Wiysanyuy
School of Nursing Sciences
College of Health Sciences
University of Nairobi

Dear Ilyn

RESEARCH PROPOSAL: "FACTORS DETERMINING ANTENATAL HEALTH SEEKING BEHAVIOUR OF ADOLESCENT MOTHERS AT THE ANTENATAL CLINIC IN NAIVASHA DISTRICT HOSPITAL"(P58/02/2012)

This is to inform you that the KNH/UoN-Ethics & Research Committee (ERC) has reviewed and **approved** your above revised research proposal. The approval periods are 27th March 2012 to 26th March 2013.

This approval is subject to compliance with the following requirements:

a) Only approved documents (informed consents, study instruments, advertising materials etc) will be used.
b) All changes (amendments, deviations, violations etc) are submitted for review and approval by KNH/UoN ERC before implementation.
c) Death and life threatening problems and severe adverse events (SAEs) or unexpected adverse events whether related or unrelated to the study must be reported to the KNH/UoN ERC within 72 hours of notification.
d) Any changes, anticipated or otherwise that may increase the risks or affect safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH/UoN ERC within 72 hours.
e) Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. (*Attach a comprehensive progress report to support the renewal*).
f) Clearance for export of biological specimens must be obtained from KNH/UoN-Ethics & Research Committee for each batch of shipment.
g) Submission of an *executive summary* report within 90 days upon completion of the study This information will form part of the data base that will be consulted in future when processing related research studies so as to minimize chances of study duplication and/or plagiarism.

For more details consult the KNH/UoN -ERC website **www.uonbi.ac.ke/activities/KNHUoN**

"Protect to Discover"

Yours sincerely

PROF A.N. GUANTAI
SECRETARY, KNH/UON-ERC

c.c. The Deputy Director CS, KNH
The Principle, College of Health Sciences, UON
The Director, School of Nursing Sciences, UON
The HOD, Records, KNH
Supervisors: Dr. Grace Omoni, School of Nursing Sciences, UON
Dr. Blasio Osogo Omuga, School of Nursing Sciences, UON

"Protect to Discover"

Appendix vii: Letter to the Medical Superintendant Mbagathi District Hospital

ILYN WIYSANYUY

Admission No.H56/64876/2010

University of Nairobi,

School of Nursing Sciences

To,

The Medical Superintendant

Mbagathi District Hospital

Nairobi.

Dear Sir/Madam

Re: RESEARCH AUTHORISATION REQUEST FOR A PILOT STUDY OF DATA COLLECTION TOOL

I am a second year postgraduate student pursuing Masters of Science in Obstetric Nursing/ Midwifery.

I am writing to request your permission to carry out a pilot study in your institution on "Factors determining the Antenatal Health Seeking Behaviour of adolescent mothers in Naivasha District Hospital". The study will be carried out in the Antenatal Ward. Ethical clearance has been obtained from The KNH/UON Ethics and Research Committee. Your kind consideration is highly appreciated as it will duly facilitate the timely completion of my study.

I look forward to your favourable response

Thank you

Yours faithfully

ILYN WIYSANYUY

Email address lynswiysah@yahoo.com

Mobile no 0772270785

Appendix viii: Letter from the Medical Superintendant Mbagathi District Hospital.

MINISTRY OF MEDICAL SERVICES

Tel: 2724712, 2725791, 0721 311 808
Email: mdhnairobi@yahoo.co.uk

Mbagathi District Hospital
P.O. Box 20725- 00202
Nairobi

4th April 2012

Ilyn wiysanyuy
University of Nairobi

Dear Madam,

RE: RESEARCH AUTHORIZATION

This is in reference to your application for authority to carry out a pretest on ***"Factors determining antenatal health seeking behavior of adolescent mothers at the antenal clinic in Naivasha District Hospital."***

I am pleased to inform you that your request to undertake the pretest in the hospital has been granted.

Dr. J. Mwagiru
Secretary - HRC
Mbagathi District Hospital

Appendix ix: Approval from the Medical Superintendant Naivasha District Hospital

LETTER TO THE MEDICAL SUPERINTENDANT NAIVASHA DISTRICT HOSPITAL

ILYN WIYSANYUY
Admission No.H56/64876/2010
University of Nairobi,
School of Nursing Sciences

To,
The Medical Superintendant
Naivasha District Hospital
Nairobi.

18/4/2012
APPROVED

Dear Sir/Madam

Re: RESEARCH AUTHORISATION REQUEST

I am a second year postgraduate student pursuing Masters of Science in Obstetric Nursing/ Midwifery.

I am writing to request your permission to carry out a study in your institution on "Factors determining the Antenatal Health Seeking Behaviour of adolescent mothers in Naivasha District Hospital". The study will be carried out in the Antenatal Ward. Ethical clearance has been obtained from The KNH/UON Ethics and Research Committee. Your kind consideration is highly appreciated as it will duly facilitate the timely completion of my study.

I look forward to your favourable response

Thank you

Yours faithfully

ILYN WIYSANYUY

Email address lynswiysah@yahoo.com

Mobile no 0772270785

Appendix x: Location of Naivasha District Hospital