FACTORS AFFECTING ACCESSIBILITY OF ANTENATAL CARE SERVICES AMONG PREGNANT TEENAGERS: EVIDENCE FROM THREE HEALTH CENTERS IN LUSAKA.

BY

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THE UNIVERSITY OF ZAMBIA

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ANC-	Antenatal Care
CDCP-	Centers for Disease Control and Prevention
CMHS-	Center for Mental Health in School
CPD-	Cephalo-Pelvic Disproportion
CSO-	Central Statistical Office
DALYs-	Disability Adjusted Life Years
FANC-	Focused Antenatal Care
GBD-	Global Burden of Disease
HBM-	Health Belief Model
HIV-	Human Immunodeficiency Virus
MCH-	Maternal and Child Health
MD-	Maternal Death
MDG-	Millennium Development Goal
MoH-	Ministry of Health
NND-	Neonatal Death
RVF-	Rectal Vaginal Fistula
UNFPA-	United Nations Population Fund
VVF-	Vesicle Vaginal Fistula
WHO-	World Health Organization
YFS-	Youth Friendly Services

DECLARATION

I, **Benetiah Nasengo Kapeta**, hereby declare that the work presented in this study for a Bachelor of Science Degree in Nursing has not been presented wholly or in part, for any other degree and is not been currently submitted to any other degree.

Signed ..... Date 6TH JUNE 2012

(Candidate)

Approved ..... Date 6TH JUNE 2012

(Supervisor)

STATEMENT

I, **Benetiah Nasengo Kapeta,** do hereby certify that this study is entirely the result of my own independent investigations. The various sources to which I am indebted are clearly indicated in the text and reference.

Signed ..... Date ....6TH JUNE, 2012.....

DEDICATION

To my late mother, Kapesa Butusyo Namwai Sengo and my late elder sister, Vivian Nasengo Ng'ambi.

My beloved husband, Stanley Chisenga Kapeta, whose encouragement, counsel, moral, spiritual and financial support I will always be indebted to.

Our adorable children Samuel Chisenga Kapeta, Tusekile Joy Kapeta and Mapalo Stanley Kapeta for their love, patience, understanding and endurance of growing up without the most desirable motherly care during the time I was pursuing my goal.

ABSTRACT

Problem statement and Objective

Despite antenatal care services being provided free and available every working day, pregnant teenagers rarely access the services which may be attributed to lack of recognition of signs of pregnancy and midwives attitude among others. Late accessibility of antenatal care compromises the quality of care the pregnant teenagers receives as it creates missed opportunities for interventions such as early identification of obstetric complications. It is for this reason that the study embarked on exploring factors affecting accessibility of antenatal care services among pregnant teenagers.

Methods

A descriptive cross-sectional study was carried out on factors affecting accessibility of antenatal care services among pregnant teenagers in Lusaka. Semi-structured interviews were conducted with 50 participants. Participants were selected using purposive sampling method. Quantitative data were assigned numerals which were entered manually on the data master sheet. Both quantitative and qualitative data were categorised and coded, then analysed using the Statistical Package for Social Sciences (SPSS) version 16.0. The study was guided by the Health Belief Model.

Results

The results showed that factors that influenced accessibility of ANC services in a positive way were economic status, level of knowledge on ANC services and the perception of midwives attitude towards pregnant teenagers, while social support influenced accessibility in a negative way. Majority of respondents who lacked social support had more accessibility of ANC services. Increased accessibility of ANC services could be attributed to the fact that pregnant teenagers who lacked social support from their homes opted to obtain the support from health practitioners through early access to ANC services while those who had social support may have developed a passive attitude towards accessing ANC services.

Conclusion

Generally pregnant teenagers were accessing ANC services although they did it later than the recommended 16 weeks gestation or below. The late accessibility of ANC services were due to inability to value or understand the importance of antenatal care, not recognizing signs of pregnancy, and feeling shy among others. Therefore, it was recommended that school health services should incorporate teaching on the consequences of sexual intercourse at a younger age, signs of pregnancy, dangers of teenage pregnancy and the importance of accessing ANC services early. This will help in equipping girls with knowledge which will help them make informed decisions on issues pertaining to accessing health care services. Further research on the relationship between social support and accessibility of ANC services should be conducted using different methodology and higher number of respondents that may yield different results in order to gain more insight.

CHAPTER ONE

1.0 INTRODUCTION

Teenage pregnancy and early childbearing is a worldwide health concern. It accounts for about 11 percent of all births worldwide, while maternal conditions in adolescents cause 13 percent of all deaths and 23 percent of all disability adjusted life years (WHO, 2008). Zambia has got one of the highest adolescent fertility rate of 139 per 1,000 girls aged 15 to 19 years in the region (Mills, 2011).

Teenage pregnancy can be defined as a pregnancy in a young woman who has not reached her 20th birthday when the pregnancy ends, regardless of whether the woman is married or is legally an adult (WHO,2008). It is pregnancy of an unmarried girls which is often unintentionally, and for those who are married (child marriage), they violate the international standard for the legal age of marriage for girls which is 18 years (Ringheim and Gribble, 2010; Graczyk, 2007; The United Nations Population Fund, 2009).

Teenage pregnancy is a high risk obstetric occurrence; they pose a great challenge, not only to themselves and their families, to the health sector as well in an effort to reduce infant and maternal mortality so as to attain the fourth and fifth Millennium Development Goals (UNPF, 2009). Antenatal Care (ANC) provides an opportunity to recognize and treat complications in order to enhance the pregnancy outcome for mother and baby. Zambia has adopted the Focused Antenatal Care (FANC) by World Health Organisation (WHO) which advocates for a minimum of four ANC visits with the first visit before 16 weeks of gestation. Despite antenatal care services being provided free and available every working day, these pregnant teenagers rarely avail themselves. They often appear late for the first booking (Fraser and Cooper, 2009) and the next time they show up is during delivery, while others never attend any visit until delivery, compromising pregnancy outcome for both mother and baby.

This study seeks to explore the factors that affect accessibility of antenatal care services among pregnant teenagers in selected clinics of Lusaka Urban.

1.1 BACKGROUND INFORMATION

Teenagers are young people aged between 13 to 19 years of age (Hornby, 2006). The term is a strictly numerical definition used for the ages ending with "teen". On the other hand, adolescent is a formal word which relates to process of growing up. Adolescence encompasses physical changes of puberty as well as cognitive, social, and psychological changes that mark the transition from childhood to adulthood. The World Health Organization (WHO) defines adolescence as the period of life between 10 and 19 years of age (WHO, 2007), but according to Erickson's stages of human development, an adolescent is a person between the ages of twelve and nineteen (Potter & Perry, 2009). In the present study, the terms teenager and adolescent are being used interchangeably.

Adolescents might consider themselves grown up and therefore mature enough to engage in sexual activities. They may often lack knowledge about consequences of unprotected sex such as unwanted pregnancy, Sexually Transmitted Infections (STIs) and Human Immunodeficiency Virus (HIV). According to Murray and McKinney (2006), approximately 75 percent of teenage pregnancies are unintended. Pregnancy may occur because many teenagers fail to recognize their vulnerability, the belief that they cannot get pregnant. Once they realize they are pregnant, they get confused and fearful. On the other hand, there seem to be fewer concerns for married adolescents since early pregnancy for them is a sign of fertility (Ringheim & Gribble, 2010). Ringheim and Gribble (2010) further state that there are many children marriages in some parts of Sub-Saharan Africa. These are often involuntary, a situation which violates the International Agreement that has stipulated 18 years of age for girls to be the legal age of marriage. Since teenagers are physiologically immature, when they get pregnant, there is a decrease in the overall pelvic space during labour. This is due to under-development of the skeletal growth leading to Cephalo Pelvic Disproportion (CPD). Cephalo-Pelvic Disproportion predisposes pregnant teenagers and their unborn fetuses to prolonged labour which may lead to maternal and infant mortality. Among the many obstetric complications pregnant adolescents are prone to antenatally, include pre-eclampsia, anaemia, weight gain or weight loss, urinary tract infections and depression (Murray and McKinney 2006). Postnatally, CPD causes obstetric fistulae; Vesicle Vagina Fistula (VVF) and Rectal Vaginal Fistula (RVF) which are awful consequences for their lives, both physically and socially.

Up to 65 percent of the women affected with obstetric fistulae worldwide, developed them when they were adolescents (WHO, 2008). VVF and RVF are abnormal connections between the vagina and the urinary bladder, **and vagina and the rectum, respectively.**

In addition, pregnancy in adolescence contributes to the cycle of maternal deaths. It further indicates limited access to reproductive health services to adolescents. The fifth Millennium Development Goal (MDG 5) is to improve maternal health. The efforts to reach the fifth MDG have been translated into two targets. The first target is a reduction of Maternal Mortality Ratio (MMR) by three-quarters between 1990 and 2015, and the second target is to achieve universal access to reproductive health by 2015 (WHO, 2007). The measures to reduce the MMR include meeting contraceptive needs of adolescents in order to delay the first births and ensuring antenatal care and skilled attendance at birth (Ringheim & Gribble, 2010). The current Maternal Mortality Ratio for Zambia is 591 deaths per 100,000 live births while the adolescent Maternal Mortality rate accounts for 0.28 births per 1,000 (CSO,2007). Zambia's adolescent fertility rate is at **139 births per every 1,000 girls aged 15-19 years (World Bank, 2011).**

In order to meet the needs of adolescents, reproductive health services have been in existence though not fully utilised. Reproductive health is a spectrum of conditions, events and processes that occur throughout one's life (MoH, 2008). It reflects health during adolescence and adulthood and sets the stage for the quality of health beyond the reproductive years for both women and men. In 1991, the Zambian Health Reforms started formulating the policy on reproductive health in order to address adolescents' needs. With the increasing urbanisation, new patterns of sexual behavoiur among adolescents have emerged. This has made adolescent sexuality a public health concern leading to revision of the National Reproductive Health Policy (MoH, 2008). The Policy has incorporated Maternal and Child Health (MCH), Family Planning (FP), Sexually Transmitted Infections (STIs), and HIV/AIDS. Youth Friendly Services (YFS) which provide reproductive health services to adolescents have also been introduced. It is thought that when the youth friendly services (YFS) are offered in a friendly, non-judgmental way, they effectively attract young people and meet their reproductive health needs. The basic components of the YFS include specially trained providers operating within convenient hours and location (Temin & Levine, 2010).

In addition, as a follow up to attaining the MDGs, Zambia has adopted the WHO goal-oriented guidelines by introducing Focused Antenatal Care (FANC) schedule which provides the framework for quality antenatal care services. It is a new way of organising Antenatal Care (ANC) with emphasis on quality rather than quantity of visits and is based on the premise that every pregnant woman is at risk of complications. Therefore, it relies on evidence-based, goal-oriented interventions that are appropriate to gestational age of pregnancy. The ultimate goal for FANC is a healthy outcome for mother and child. The skilled providers, work towards accomplishing the goals which include early detection of complications and prompt treatment. Women are given Iron and Folate supplementations to prevent Iron Deficiency Anaemia and Tetanus Toxoid vaccine for tetanus prevention. FANC also equips women with knowledge on birth preparedness and complication readiness in an effort to attain the MDGs.

Further, the FANC involves a minimum of four focused visits which are strategically scheduled to meet women's individual needs. The first visit is scheduled to be within the first 16 weeks of gestation where a thorough history is taken in order to facilitate planning for individualized subsequent visits. The second visit is between 24 and 28 weeks of gestation (six to seven months), while the third is at 32 weeks of gestation (eight months). The fourth and final visit is undertaken at 36 weeks of gestation (nine months). In the subsequent visits, an interim history of any problems or issues that have arisen since the last ANC visit helps the provider evaluate the effectiveness of the woman's plan of care and adjusts accordingly to meet the woman's needs. Additional visits are arranged depending on client's special needs as in the case of pregnant teenagers who are a high risk group (MoH, 2008). In order to further accomplish FANC goals and make the services accessible to pregnant adolescents, services are provided every working day of the week and are free, given that maternal and child health (MCH) services have been exempted from any charges.

Despite availability of free reproductive health services in general and the introduction of the Youth Friendly Corners in particular, adolescents rarely access the services. Furthermore, inspite of the introduction of FANC, pregnant adolescent still encounter multiple barriers in obtaining appropriate preventive and curative health services, even though they have full entitlement. This may be attributed to limited staff numbers assigned specifically for adolescents' reproductive health services.

Pregnant teenagers may be uncomfortable being in the same group as order women when accessing ANC service a situation that may become a barrier to accessing ANC services. What might be another challenge faced by pregnant adolescents, especially those who are still in school is the inconvenient hours within which services are provided. As already mentioned, ANC services are provided from 08:00 hours to 16:00 hours during working days.

With the above background in mind, effective accessibility of ANC services through early booking for ANC is crucial to enhancing maternal and fetal health during pregnancy and reducing mortality and morbidity. The provision of ANC also presents an opportunity to teach pregnant teenagers on how to recognize and respond to the signs of obstetric complications. Failure to access ANC early results in potential complications during pregnancy, delivery and puerperium. Therefore, this underscores the importance of exploring the factors that affect accessibility of antenatal services by the pregnant teenagers so that recommendations can be presented and measures taken to increase accessibility of the service and achieve the fourth and fifth MDGs.

1.2 STATEMENT OF THE PROBLEM

Teenage pregnancy is defined by WHO as pregnancy in young women who have not reached the age of 20 when the pregnancy ends. This is regardless of parity, whether the woman is married or not, or has reached 18 years, the age of physical maturity (MoH, 2008). There are two major types of teenage pregnancy, namely intended and unintended pregnancy. Intended teenage pregnancy occurs when the teenager is consciously motivated to fall pregnant. This usually occurs in early or child marriages where there is lack of educational and vocational goals other than motherhood. Child marriage, also called early marriage is any marriage carried out below the age of 18, before the girl is physically, physiologically and psychologically ready to shoulder the responsibilities of marriage and childbearing (United Population Fund, 2005). Pregnant teenagers falling in this group might notice early that they are pregnant and because they are supported by their parents and/or friends, they may seek early Antenatal Care Services. Unintended pregnancy on the other hand, results when the adolescent engages in sexual intercourse without the knowledge of the cause and effect relationship of this activity.

Due to denial, they may fail to recognise that they are pregnant and therefore might seek antenatal care services late (Ringheim & Gribble, 2010; Phafoli, et al., 2007).

Antenatal care is care a woman receives from conception until the beginning of labour. Its aim is to ensure women and their newborns survive pregnancy and childbirth (Fraser & Cooper, 2009).

Teenage pregnancy is risky for the mother and her unborn child, due to many likely obstetric complications associated with teenage immaturity. This highlights the importance of early and consistent accessibility to antenatal care services by pregnant teenagers. Mlilo-Chaibvu (2007) writing from Zimbabwe noted that many pregnant teenagers initiated ANC after the recommended 16 weeks of gestation, while others deliver their babies without accessing any antenatal care service at all. This situation may increase the occurrence of risks attached to teenage pregnancy and childbirth.

Therefore, teenage pregnancy is a world-wide concern. It accounts for 11 percent of all births that occur globally, translating to 16 million women of 15-19 years of age giving birth each year. Ninety five percent of these births occur in low and middle-income countries. The average teenage birth rate in middle-income countries is more than twice as high as that in high-income countries. Zambia has one of the highest adolescent fertility rates of 139 per 1,000 girls in the region (World Bank, 2011). Despite such a high rate of adolescent fertility, the number of pregnant adolescents accessing ANC services is not fully highlighted. The literature revealed did not have figures for the whole category of respondents under study. It only had figures for teenagers below 18 years, while those aged 18 and 19 years respectively are incorporated in the older women (Lusaka District Health Management Team, 2010). Although teenage deliveries account for 11 percent of all births worldwide, they account for 23 percent of the overall burden of disease, calculated using the Disability Adjusted Life Years (WHO, 2008).

In addition to the already mentioned maternal complications, Cephalo-Pelvic Disproportion adversely affects the newborn. It may lead to compromised neonatal outcome with chances of death in the first week of life being 50 percent higher among babies born to mothers younger than 20 years than among babies born to mothers 20-29 years old.

Stillbirths are also common with neonatal deaths of 50-100 percent higher if the mother is an adolescent in comparison with older mothers. Infants of teenage mothers are at increased risk of premature births, low birth weight and neonatal asphyxia, all of which increase the chance of death and future health problems for the baby (WHO, 2008).

Furthermore, there is a likelihood that firstborn children of young mothers have stunted growth, low weight, and may suffer from anaemia as noted by Central Statistical Office (2007). Additionally, the children are one-and-half times as likely to die before the age of five as are children born to women aged between 24 years and 27 years (Ringheim & Gribble, 2010). Despite having more health problems than children of older mothers, children of teenage mothers receive less medical care. They also have a higher risk of poor parenting because, their mothers, and often their fathers as well, are typically too young to meet the demanding job of being parents (Center for Mental Health in School, 2008). This is probably due to non accessibility of ANC services because at antenatal clinic, mothers are taught about how to take care of the babies and themselves. On the other hand, teenagers and their children end up with declined future prospects. Adolescent mothers are less likely to complete high school, and more likely to live in poverty compared to older women. They may pass on to their children a legacy of poor health, substandard education and subsistence living, creating a cycle of poverty that may be hard to break (CMHS, 2008).

It has been noted by other researchers (Atuyambe, 2005; Phafoli, et al., 2007) that factors that may affect accessibility to ANC services by the pregnant teenagers may include stigma, feelings of shame and guilty among others. For others, pregnancy has lead them be disowned by their parents because of the shame and disgrace brought by being pregnant before marriage. Atuyambe (2005) further notes that some pregnant teenagers become destitute as their parents chase them from home, ending up without shelter and social support.

From the above background, it may be concluded that non accessibility of antenatal services for pregnant teenagers can worsen the already awful situation. However, with appropriate support, care and understanding, the young mothers can make an effective transition to parenthood.

Encouraging them to seek timely and adequate antenatal care will lessen the risks as each attendance plays a major role in detecting and treating complications and forms a good basis for appropriate management during and after delivery. Failure to address accessibility factors may threaten the health outcome of the adolescent mother and her newborn child. It further contributes to the already high maternal mortality ratio and pregnancy-related morbidities.

1.3 POSSIBLE FACTORS

Factors that might influence accessibility of ANC services are assumptions that may be considered barriers or hindrances to accessing antenatal care services among pregnant teenagers. Some of these factors have a direct influence while others may have an indirect influence towards accessibility of ANC services among pregnant teenagers.

1.3.1 SOCIAL SUPPORT

Social support is the physical and emotional comfort we get from our family, friends, and the community. Feeling that we are a valued part of the lives of others is important to everyone's sense of well-being (Cardiovascular Research Foundation, 2011). Social support plays an important role in pregnant teenager on how she will adjust to the new demands of pregnancy. It further influences whether pregnant teenage will access ANC services early and consistent or not. The age of pregnant adolescents portrays their inexperience and lack of knowledge on the importance of seeking ANC services or the existence of the services. Among other reasons some teenagers may think ANC services are not intended for unmarried young girls, while others may be in denial of their pregnancy. Those in denial may come to acceptance of the pregnancy after months have elapsed and therefore may access ANC service later in the second or third trimester. Some adolescents may lack social support because they conceal their pregnancy from their parents/guardians for fear of being chased away from home. In some instances, they may be forced to discontinue school in an effort to reduce the embarrassment brought upon the family. By the time the pregnancy becomes visible, it may be in the second trimester and they would have missed the WHO recommended time of early ANC booking which is within 16 weeks of gestation. For others, it could be due to shame and fear of stigmatization. Lack of partner or husband may also hinder accessibility to ANC services.

This is especially where the boy or man who impregnanted the girl denies responsibility of pregnancy (Atuyambe 2005; Phafoli, et al., 2007).

1.3.2 ECONOMICAL STATUS

Teenage childbearing tends to aggravate the problems of poverty and family instability many young women already face. As Atuyambe's (2005) study noted that teenage pregnancy was perceived as an added economic burden to the families' already strained economic situation. Many pregnant adolescents may still be in school and have no income. They may also be coming from single parent/guardian household. Teenage childbearing is said to be concentrated in poor communities that are characterised by inferior housing, high crime, poor education and limited health services (CMHS, 2008). These factors may all disadvantage the pregnant teenager to accessing ANC considering that some health facilities maybe located far from their homes.

1.3.3 LEVEL OF KNOWLEDGE

Knowledge is the information, understanding and skills that you gain through education or experience (Hornby, 2006). Adolescents may lack knowledge on the availability of ANC services and benefits of accessing the services especially those not aware of Youth Friendly Services (YFS) and have not been involved in school health services. They may also lack knowledge on the signs of pregnancy and dangers associated with pregnancy. They may not have been exposed to reproductive health education due to their young age and their level of education attained. Knowledge on the importance and benefits of antenatal care and dangers of pregnancy at an early age is vital to enable pregnant teenagers make informed decisions in accessing ANC services. Peer pressure may also affect accessibility of ANC services either positively or negatively. Phafoli, et al. (2007) recommended that education about sex, pregnancy and contraceptives should commence in primary level of education when pupils are between ten and twelve years. This early education may enable adolescents to acquire the necessary knowledge to make informed decisions regarding sex and pregnancy.

1.3.4 SERVICE DELIVERY FACTORS

These are factors that are related to the delivery of the health care services. There may include attitude of midwives, and service hours among others. However, the focus in this study is on the attitude of midwives.

1.3.4.1 ATTITUDE OF MIDWIVES

Attitude is the way that you feel, think about and behave towards somebody (Hornby, 2006). Attitude of midwives is a service delivery factor that may influence teenagers from accessing ANC services. The attitudes may include the way teenagers are attended to, the way they are welcomed and the concern shown to their special needs. Attitude of midwives can either be positive or negative. Positive attitude will influence teenagers to access ANC services early and consistently as well as adhering to the IEC being given during ANC health talks. Negative attitude, on the other hand, may discourage teenagers from accessing the service. Judgmental attitudes are attitudes that critic the values, beliefs and actions of others implying blame and guilt (Hornby, 2006).

Other factors may include lack of privacy and confidentiality. Lack of privacy towards teenagers was reported by Phafoli, et al. (2007) and Mlilo-Chaibvu (2007) as combining the teenagers with older women during ANC sessions. This action may contribute to the discomfort felt by teenagers during ANC. Other than midwives attitude, inadequate staffing and increased workload are part of the service delivery factors that affect accessibility of antenatal services among pregnant teenagers. Inadequate staffing levels and increased workload tend to lengthen the waiting hours at the clinic. Service hours may affect accessibility because they may be appropriate only for teenagers who are not in school. Pregnant teenagers who are still in school may not be able to access the services due to the inflexible time the ANC services are provided. As already alluded to, the services are provided during working days and usually in the morning implying that those who are free after school or during weekends may not be able to access the services.

1.4 DIAGRAM OF PROBLEM ANAYSIS

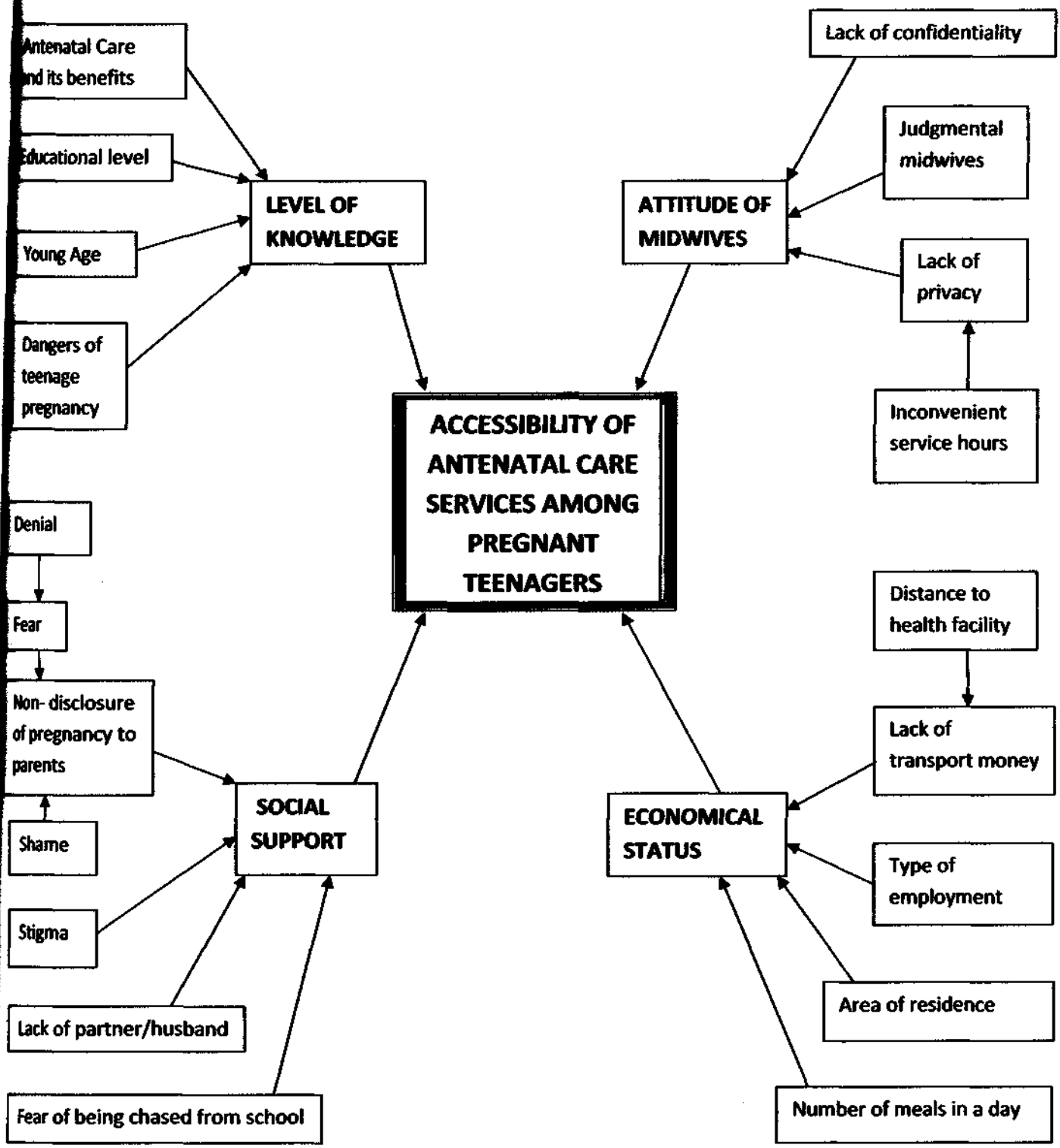


Fig.1.1

1.5 THEORETICAL/CONCEPTUAL FRAMEWORK

A conceptual framework expresses the relationship of concepts that underlie the study problem and support the rationale for conducting the study. It is also a frame of reference that is a base for research designs and generalization among others. It serves as a guide to the systematic identification of logical, precisely defined relationship among variables (Basavanthappa, 2007). There are different types of theoretical/conceptual frameworks but, the Health Belief Model has been used in this study.

1.5.1 THE HEALTH BELIEF MODEL

The Health Belief Model (HBM) is a psychological illustration that attempts to explain and predict health behaviours. The HBM, as a conceptual framework, attempts to explore why some people who may not be ill take certain actions to prevent illness, while others do not take such measures The model attempts to justify the premise that health-seeking behaviour is influenced by the individual's perceptions of threats posed by the health problem and the perceived benefits of taking actions to minimize such a health problem.

The HBM in the present study assist to explain why some pregnant adolescents take action to prevent health complications during pregnancy by attending ANC early in pregnancy, while others access ANC services late or do not access it at all. The HBM also assists to determine pregnant adolescent's views about ANC and what factors may influence accessibility of ANC services. The principle of HBM is that individual pregnant adolescents' health beliefs are influenced by their perceptions of the ANC services. Social and economical factors also influence the pregnant adolescents' decision as to whether or not to access ANC services.

The framework is seen as useful in identifying those pregnant adolescents who are susceptible to several inhibiting factors and unlikely to initiate early ANC booking and consistence visits according to the individualized care plan. Those adolescents who book late and make inconsistent ANC visits are likely to expose themselves and their babies to health complications that could have been prevented. The HBM could be used to motivate pregnant adolescents to take health actions through attending ANC in time and minimizing obstetric and health complications.

Communicating and educating the community with health information through the media, in schools and communities as well as in the health facilities, counselling and effective social support systems are likely to prompt the adolescents into accessing ANC (Mlilo-Chabvu, 2007).

KEY VARIABLES OF THE HBM

1. **Perceived susceptibility**; this refers to a person's perception that a health problem is personally relevant. In this study, a teenager who is pregnant perceives her inadequateness in the childbearing phase considering her lack of experience. She also perceives the risks to herself and her unborn baby of being pregnant at a tender age; the pregnancy-related complications.

2. **Perceived severity**; even when one recognizes personal susceptibility, action will not occur unless an individual perceives the severity to be high enough to cause serious complications. The pregnant teenager should perceive the severity of maternal and fetal complications associated to teenage pregnancy and childbearing.

3. **Perceived benefits**; the effectiveness of strategies to control or prevent pregnancy-related complications. Variables related to perceived benefits such as reduced complications to the teenager and her unborn baby leading to a positive birth outcome might motivate her to access early ANC services.

4. **Perceived barriers**: the physical, psychological and financial factors undermining a negative health action. Perceived barriers such as midwives negative attitude, inconvenient service hours and long distance could influence accessibility of ANC services.

5. **Cues to action**; factors or events that prompt someone to change or take action. The external events that prompt a desire to make a health change include a reminder from a support person or health worker, health talks through electronic media such as Television (TV) or radio and/or having a teenage friend, a neighbour or relative who died or their babies died during pregnancy, labour or after delivery

6. **Self-efficacy**; the beliefs in being able to successfully execute the behaviour required and producing the desired outcome, even under difficult circumstances. The pregnant teenager accessing early ANC and continue accessing despite barriers and setbacks that may undermine motivation. Bandura introduced this concept in 1977 (Basavanthappa, 2008).

1.4.2 Diagram of HBM Conceptual Framework

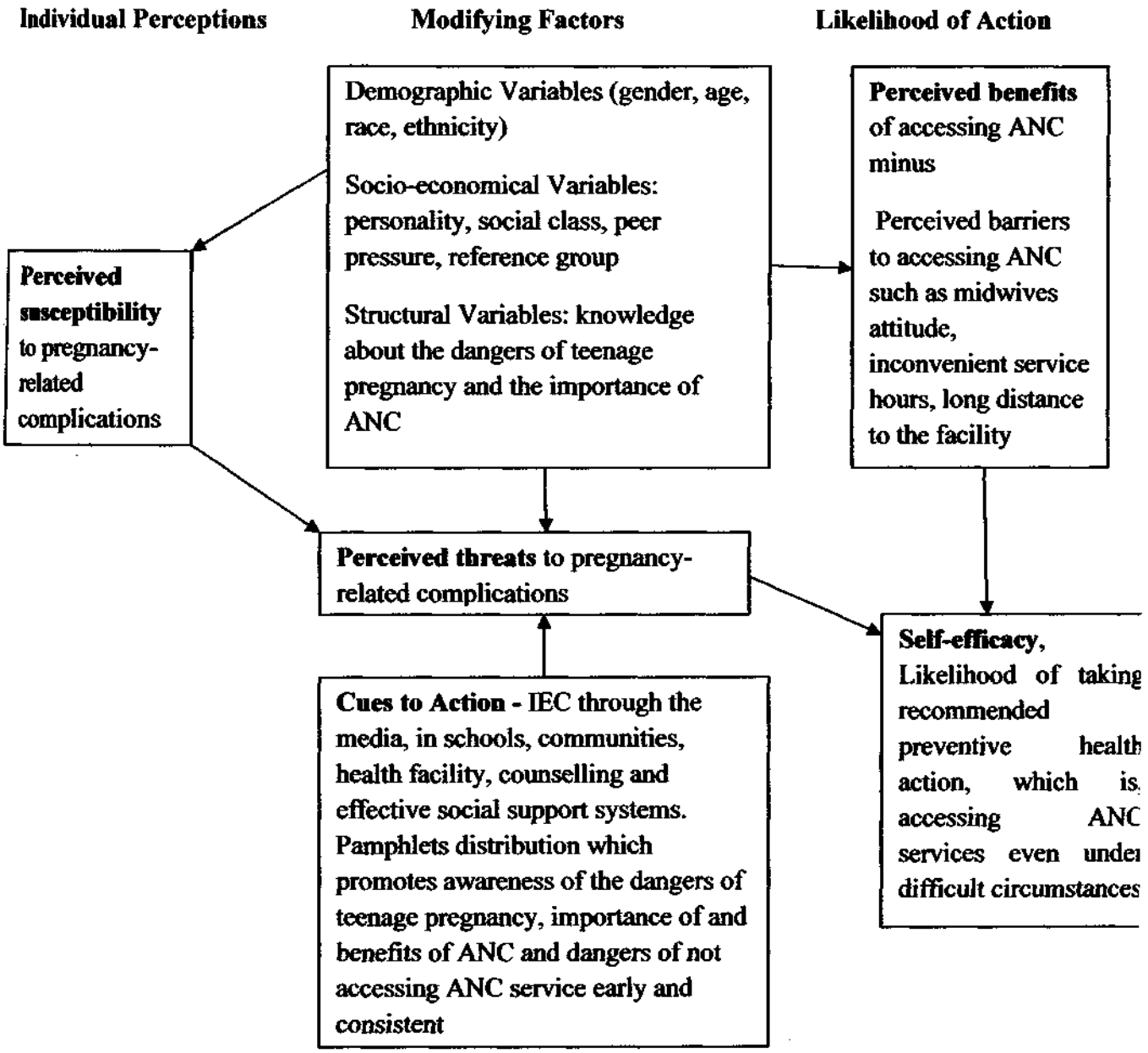


Fig. 1.2: 1974 Becker's Health Belief Model (Basavanthappa, 2008)

1.6 JUSTIFICATION OF THE STUDY

The high adolescent fertility rate of 139 per 1,000 girls as stated by the World Bank (2011) is alarming considering the many obstetric complications associated with teenage pregnancy. Complications such as anaemia, pre-eclampsia, and Cepho Pelvic Disproportion endangers the lives of young mothers and their babies. Effective accessibility of ANC services through early booking is crucial to enhancing teenage maternal and fetal health during pregnancy and reducing mortality and morbidity. Early accessibility to ANC services also presents an opportunity to teach teenagers how to recognize and respond to the signs of obstetric complications. Delayed antenatal accessibility provides little or no time for appropriate screening and management of risk factors. It is important for this study to explore the factors that affect accessibility of antenatal care services among the pregnant teenagers. This will facilitate improvement of the overall adolescent maternal health and provide a systematic body of knowledge for appropriate policy formulation and help the government and stakeholders to review Reproductive Health needs of adolescents by strengthening the utilization of Youth Friendly health Services and school health services.

1.7 RESEARCH OBJECTIVES

1.7.1 GENERAL OR MAIN OBJECTIVE

To explore the factors affecting accessibility of ANC services among pregnant adolescents.

1.7.2 SPECIFIC OBJECTIVES

1. To determine whether the social-support given to pregnant teenagers influences teenagers' accessibility of ANC services
2. To find out whether economical status of the parents/guardians or partner to the pregnant teenager influences accessibility of ANC services
3. To find out whether the pregnant teenagers' level of knowledge influences accessibility of ANC services
4. To find out whether attitude of midwives towards pregnant teenagers influences pregnant teenagers' accessibility of ANC services.

1.8 HYPOTHESES

Hypothesis is a statement of the predicted relationship between two or more variables (Basavanthappa, 2007).

1. The more available social support the pregnant teenager receives; the more likely the pregnant teenager will access early and consistent ANC services.
2. The higher the economical status of the parents/guardians or partner of the pregnant teenager is, the more likely the pregnant teenager will access early and consistent ANC services
3. The more knowledgeable the pregnant teenager is concerning the ANC services, the more likely the pregnant teenager will access early and consistent ANC services.
4. The more positive the midwives attitudes are, the more likely the pregnant teenagers will access early and consistent ANC services.

1.9 CONCEPTUAL DEFINITIONS

1. A **midwife** is a person who, having been regularly admitted to a midwifery educational programme, duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in midwifery and has acquired the requisite qualifications to be registered and/or legally licensed to practice midwifery (Frazer & Cooper, 2009).
2. **Accessibility** is the ability to use a product or service, one which can be used by all its intended users, taking into account their differing capabilities (Ireland National Disability Authority, 2011).
3. **Teenage pregnancy** is defined by WHO as a pregnancy in a young woman who has not reached her 20th birthday when the pregnancy ends, regardless of whether the woman is married or is legally an adult
4. **Knowledge**- the information, understanding and skills that you gain through education or experience (Hornby, 2006).
5. **Attitude**- the way that you behave towards somebody that shows how you think and feel about them (Hornby, 2006).

1.10 VARIABLES AND CUT-OFF POINTS

A variable is a measurable or potentially measurable component of an object or event that may fluctuate in quantity or quality or may be different in quality or quantity from one individual, object or event to another individual, object or event of the same general class (Basavanthappa, 2007).

TYPES OF VARIABLES

Dependant Variable

The variable that changes as the independent variable is manipulated by the researcher (Basavanthappa, 2007). It is sometimes referred to as the criterion variable; the effect, response, behavoiur or outcome that the researcher can predict, study or explain.

The dependent variable in this study is; Accessibility to antenatal care services

Independent Variable

This is the variable that is purposely manipulated or changed by the researcher (Basavanthappa, 2007). It is that factor which is measured or selected by the researcher to determine its relationship to an observable phenomenon, which constitutes the dependent variable. The independent variable is also called the manipulated variable.

The independent variables in this study are:

1. Social support
2. Economical status
3. Level of knowledge
4. Attitudes of midwives

TABLE 1: VARIABLES, INDICATORS AND CUT-OFF POINTS

Dependent Variable	**Cut-off Points**	**Indicators**	**Questions Numbers**
Accessibility of antenatal care services	Excellent (11-15 points)	Teenagers who book for antenatal services before the end of the first trimester	10,11,12,13,14, & 15
	Good (6-10 points)	Teenagers who book for antenatal services in the second trimester	
	Poor (1-5 points)	Teenagers who book for antenatal service in the third trimester	
Independent Variables	**Cut-off points**	**Indicators**	**Questions Numbers**
Economical status	High (5-6 points)	Partner or Parents/Guardians to the teenager are in employment, affords three meals or more in a day	22 & 23
	Medium (3-4 points)	Partner or Parents/Guardians to the teenager are in employment, affords two meals a day	
	Low (1-2 points)	Partner or Parents/Guardians to the teenager have no income-generating venture and only affords one meal in a day	
Social support	Present (4-6 points)	Partner or parents support	16,17,18,19,20 & 21
	Absent (1-3 points)	No Partner or parents support	

Level of knowledge on ANC services and its benefits, and on the risks associated with teenage pregnancy	knowledgeable (6-10 points)	Teenager aware of ANC services, its benefits and risks associated with teenage pregnancy	24,25,26,27,28, 30 & 31
	Not knowledgeable (1-5 points)	Teenager aware of ANC services, but do not know any benefit and unaware of risks associated with teenage pregnancy	
Attitude of midwives	Positive (6-10 points)	Midwives offer the service in a friendly and non-judgmental manner, privacy and confidentiality maintained	32, 33 & 34
	Negative (1-5 points)	Midwives offer the service in an unfriendly and judgmental manner. No privacy and confidentiality maintained	

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

Literature review refers to broad, comprehensive, systematic, and critical review of scholarly publications, unpublished scholarly print materials, audio visual materials and personal communication relevant to research project (Basavanthappa, 2007). The sources of reviewed literature include books, journals, abstracts, critique reviews, and internet literature published and unpublished, professional and government reports and records, and unpublished doctoral desertions and thesis.

The typical purposes for reviewing existing literature are to generate research questions, to identify what is known and not known about the problem being studied, to identify conceptual theoretical traditions within the bodies of literature and to describe methods of enquiry used in earlier work including successes and short comings (Basavanthappa, 2007).

The literature review in this chapter focuses on the factors affecting accessibility to antenatal care services among pregnant teenagers. It further looks at the cultural beliefs, knowledge on the awareness of ANC services and its benefits, and the risks associated with teenage pregnancy; attitudes of midwives; and the impact of socio-cultural and economical factors that affects accessibility to ANC services.

2.2 OVERVIEW OF THE PROBLEM

Teenage pregnancy is a world-wide concern due to many obstetric complications associated with it, putting both, the young mother and her baby at risk. It further increases the burden on the health sectors especially if the pregnant teenager never accessed ANC services on time and consistently. The time for first ANC visit is critical in that it provides a baseline against which progress of pregnancy will be assessed and gives the health providers time to assess and treat any illness, rectify the misconceptions and refer for further management in time once a complication is detected (Mxoli, 2007). The problem is that pregnant teenagers rarely access ANC services according to the WHO (2007) and MoH (ND) recommendations of 16 weeks of gestation or earlier for initial ANC booking.

Many pregnant teenagers book in the third trimester, and a few in the second trimester, while others never access any ANC services at all but would come to the health facility just for delivery. Thus, the research wishes to explore more factors that affect this unhealthy and risky trend among the pregnant teenagers.

2.3 ACCESSIBILITY OF ANC SERVICES

Accessibility of ANC services involve easily reaching the premises, easily obtaining and understanding the information on antenatal care, and benefits of receiving early and consistent care. The emphasis lies on the first ANC visit within the first 16 weeks (first trimester) and having a minimum of four visits throughout pregnancy. Adolescent health services should be financially, functionally and geographically reachable. It should be adolescent friendly and confidential. In the study done by Phafoli, et al. (2007) in Lesotho, it was discovered that two thirds of the respondents started ANC in the second trimester, while a third started in the third trimester and no one started ANC in the first trimester. The study concluded that antenatal services were not accessed and utilized effectively because services were conducted in hospitals and health centers between 08:00 hours and 16:00 hours on weekdays only. This disadvantaged the pregnant teenagers who were in school. This supports rescheduling of the services times in order to enable the teenagers access the antenatal services after working hours and over the weekends.

Pienaar (2011) writing from South Africa also states that teenagers accessibility of ANC was hampered by the teenagers' feelings of stress, anger, fear and mistrust. The teenagers in this study also cited spending long periods of time at the clinic due to limited number of midwives and excess workload as a waste of time. Increasing the number of service providers may enable them allocate staff specifically for teenagers so that they are attended to in a friendly environment which may lessen the feelings of stress and anger. When teenagers realize that they will have a staff allocated for them, they may be encouraged to seek the services and be free to open-up to the staff assigned for them.

Mlilo-Chaibvu's (2007) findings from the study done in Zimbabwe support Pienaar (2011) by stating that from pregnant adolescents interviewed, the majority booked ANC in their second and third trimester, and only minimum number booked in the first trimester.

Teenagers in this study stated fear of being tested for HIV, lack of confidentiality, fear of unknown, stigma and shame as some of the contributing factors to their inaccessibility of ANC . Therefore, teenagers ought to be educated on the importance of knowing their HIV status and the available measures put in place for those found positive, on Prevention of Mother-To-Child-Transmission of HIV (PMTCT) and issues of positive living. Those found to be HIV negative are encouraged to maintain the status by practicing safer sex through the use of condoms. The teenagers are taught of the benefits found in antenatal care and assurance of confidentiality, for them to be attracted to access ANC early especially that measures for implementing PMTCT are commenced at 14 weeks of gestation or earlier (MoH, 2010).

2.4 SOCIAL AND ECONOMICAL FACTORS

Socio-economical status is defined by an individual's income, level of education and occupation and can include issues related to housing, cultural background, material possession and the perception of having a meaningful role in social life (Hornby, 2006).

A study by Adihikari (2010) in Nepal on Demographic, Socio-economic and Cultural Factors revealed that early marriage is universal, and that it is a disgrace for a couple, particularly for the wife, not having children early in marriage. It is believed in Nepal that high fertility is desired because by producing children, preferably sons, a woman raises her status in the family. This predisposes teenagers to early marriage, teenage pregnancy and all the risks that accompany early teenage pregnancy.

In view of above, governments and other stakeholders have to intervene and discourage early pregnancy. In addition, midwives have to intensify with the health education regarding early ANC booking, the benefits of ANC, and the dangers of teenage pregnancy. This information should reach all the teenagers in schools, churches and any social gathering in the community. The information can be disseminated through the use of electronic media such as television and radio, or Leaflets, health talks, drama groups, debate and focus group discussions.

On the other hand, as earlier stated, the unmarried pregnant teenagers undergo stressful time as pregnancy outside marriage is regarded as a taboo, and brings shame and disgrace to the family (Atuyambe, 2005). They usually lack social support because they conceal their pregnancy for fear of rejection and being misunderstood.

In a study done in South Africa by James, et al (2011) mentioned that teenagers experience change in their relationships with parents and other family members due to expectations that were not met and role confusion which leads to crisis. They further noted that parents experienced overwhelming emotions due to the unexpected pregnancy of their adolescent, and loss of control because the pregnancy could not be reversed. This calls for community sensitization on how to handle teenage pregnancy at family and community level in order to help pregnant teenagers cope. This will further help the pregnant teenagers make healthy informed decisions including early antenatal booking.

In a study conducted in Nicaragua by Lubbak & Stephenson (2008), women have been found to take the role of caretaker of the children as culture demands. Acceptance of this prescribed gender role has left women passive and unable to make decisions on seeking ANC services. The most affected by these cultural beliefs are the teenagers as they consider prenatal care as a means of protecting the health of a child rather than their own.

In regard to social support for the pregnant adolescents, Phafoli, et al. (2007) study in Lesotho revealed that social support does affect attitudes and behaviours, including satisfaction with pregnancy and parenting. It was deduced that denial of the pregnancy by the boy friend seemed to be the key to the delay in accessing ANC services among the unmarried pregnant teenagers, while financial constraints was the main factor among married pregnant teenagers. Pregnant adolescents who have high stress and low social support networks have been found to have more neonatal and obstetric problems than those who have high stress and high social support networks. Phafoli, et al., (2007) further mentioned that early antenatal attendance will assist in the identification of such stress and/or depression, resulting in appropriate management of the identified problems. It is evident that from the mentioned studies, social support is mandatory for the adolescents' early booking and subsequent accessibility of ANC services. Without social support, the teenagers delay accessing ANC services.

2. 5 LEVEL OF KNOWLEDGE

The level of knowledge on ANC services, its benefits and the risks associated with teenage pregnancy may be greatly influenced by one's age, level of educations and accessibility to health educational messages.

The adolescents may be pregnant in their primary, secondary, or in their tertiary level. Depending on the level of education, the teenager will either value ANC services or not. For example, a teenager who gets pregnant at tertiary level tends to have basic knowledge on importance of ANC, and is more likely to seek help compared to the others at lower grades.

According to Chaibva (2007), a woman's age might influence her decision to initiate ANC late or not attend ANC at all. She claimed that adolescents tend to hide their pregnancies because they might be unmarried, attending school, afraid of their parents, or prejudice from health care providers or might simply be too young and ignorant to appreciate the value of ANC.

As commented by Asiimwe (2007) in a study conducted in Western Uganda, the client's level of education could also influence pregnant women's utilization of the health facilities as well as the understanding of the importance of seeking health care promptly. Low educational status has been identified as a major barrier to the utilization of health care services especially ANC. It can also negatively affect the women's comprehension of important information and the ability to make informed decisions including the awareness of their rights. These findings imply that pregnant adolescents who have attained lower level of education may not value accessing early and consistent ANC services, while those who have attained higher level of education may easily access early and consistent ANC services.

Asiimwe (2007) further observed that despite making the control services free of charge, pregnant adolescents' early access and subsequent ANC visits in government health facilities was still limited. Asiimwe (2007) further stated that respondents who attended secondary school were more likely to access ANC services as compared to those without education. Higher education enables teenagers to appreciate the messages in the health advertisements, brochures, and IEC on health promotion through the media or in a group at school, church or health center. Lack of knowledge about dangers of not seeking health care in pregnancy and delivery were major barriers to accessing early ANC services among pregnant adolescents in Uganda. Perceived benefits of utilizing ANC services provide a platform for interacting with the pregnant women, identifying needs or problem, and jointly arriving at possible solutions to these needs. Pregnant adolescents might value the importance of accessing early ANC services if there were aware of its benefits to their health and that of their babies (Asiimwe, 2007).

2.6 ATTITUDE OF SERVICE PROVIDERS

The attitudes of service providers, particularly midwives, have a bearing on the accessibility of antenatal care services by the adolescents. Midwives serve as the entry point to reproductive health services for every teenager. WHO (2007) views the role of interactions between adolescents and health care providers as critical in improving client compliance to the services being rendered. The way the adolescents perceive the conduct of midwives will either encourage or discourage them from any further accessibility of the reproductive health services.

The WHO (2007) discussion paper on adolescents revealed that the primary importance to improve antenatal attendance among adolescents is to incorporate adolescent health needs to antenatal health services. This involves respecting them and having a friendly attitude towards them. Adolescents need more explanation on the content of the care than older women.

A number of studies on pregnant adolescents have revealed several factors that influence their accessibility to ANC services. Factors that featured highly were the impact of social support and the midwives' attitudes towards the pregnant teenagers. The factors need further exploration so that strategies can be put in place to help the pregnant adolescents' access ANC services early and consistently as this is the most appropriate way to fight the many negative outcomes associated with these young mothers and their babies.

Teenage pregnancy comes with a lot of challenges and to help young mothers make a health transition to early parenthood, it calls for the families, health workers, stakeholders and society to accept and embrace the teenagers. Measures ought to be put in place to equip the teenagers on reproductive health services available for them and benefits attached to accessing the services beginning from a tender age before they even become teenagers. The service providers ought to be encouraged to offer individualized services in the friendly, non-judgmental manner in order to gain adolescents' confidence.

2.6 RELATIONSHIP BETWEEN VARIABLES

Relationship implies a significant connection or similarity between two or more things, people or variables (Hornby, 2006). Therefore, relationship between variables implies the way variables are connected and how there influence the problem under study.

In the present study will establish the relationship between the independent variables which are social support, economical status, level of knowledge and attitudes of midwives and how these influence the dependent variable which is accessibility of antenatal care services. Presence of social support to the pregnant teenager will likely encourage the pregnant teenager to access early and consistent ANC services. When economical status of the parents/guardians or partner of the pregnant teenager is high, the teenager is likely to access ANC services. There may be availability of transport money to travel to the health center. High economical status may likely increase the level of knowledge as the teenager is likely to be in school, and possibly be able to obtain more health information through the availability of electronic media such as Television and radio. Easy availability of the ANC services and flexible service hours with positive attitudes from midwives towards pregnant teenagers is likely to encourage pregnant teenagers access early and consistent ANC services. However, the probable end result of this study might prove the relationships between variables either right or wrong.

2.7 CONCLUSION

Antenatal care services lessen the negative impact of teenage pregnancy for both young mothers and their babies. The full benefits to ANC services can be utilised fully by accessing ANC services early, preferably before the first 16 weeks of pregnancy, and consistently thereafter, depending on the individualized care prescribed. The results from these studies reveal a trend of late booking for ANC services among pregnant teenagers due to many barriers or hindrances noted. This underscores the need to explore further on factors that might be influencing late ANC booking and come up with measures that may help improve accessibility to ANC services for teenagers to maximize the benefits.

They are many factors influencing early and consistent ANC services as noted from the above studies for the pregnant teenagers.

Among the socio- economical and cultural factors that may influence pregnant teenagers from accessing ANC services include, presence or absence of social support, economical status that may favour or hinder accessibility, and the cultural beliefs such as pregnancy before marriage being a taboo and bring shame and disgrace to the family.

The pregnant teenagers' level of knowledge concerning the importance of ANC services and the dangers associated with teenage pregnancy may be influenced by the young age of the teenager as well as the level of education attained by the pregnant teenager.

Generally, accessibility of ANC services by pregnant teenagers can be attained by offering the ANC services in a more flexible way regarding the service hours so as to cater for all teenagers who may still be in school. The positive attitude of midwives would also encourage pregnant teenagers access early and consistent ANC services. Specifically, social support may enable pregnant teenagers to access ANC service regardless of assumed barriers such as economical instability, lower education attainment and negative attitudes from midwives.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

INTRODUCTION

This chapter covers research setting, the research design, study population, sample selection, sample size, data collection tools and data collection technique It also includes how validity and reliability of the information gathered was ensured. It further outlines the ethical considerations which were observed and the pilot study conducted prior to the main study. Finally the research methodology includes how data was analyzed, and how research findings will be disseminated.

3.1 RESEARCH DESIGN

A research design is a blueprint for conducting a study that maximizes control over factors that could interfere with the study's desired outcome. The type of determines directs the selection of a population, sampling procedure, methods of measurement, and a plan for data collection and analysis (Burns and Grove, 2009). It is the center of the study because it facilitates exploration of variables in the study in order to ascertain the relationship among variables which help the researcher to reject or accept the hypothesis. The purpose of research design is to provide answers to the research question and to control variance. Controlling varainace implies the measures that are put in place to hold the conditions of the investigation uniform (Basavanthappa, 2007). A good research design should include the following elements; description of research subjects, variables which are the focus of the study; time line in which the research will be conducted; setting where the research will be conducted and the role of the investigator in the study (Basavanthappa, 2007).

A quantitative type of research was conducted using a descriptive cross-sectional study design. A descriptive cross-sectional study is a non-experimental research designed to establish new meaning and to provide new knowledge when there is little known about the phenomenon of interest. In this type of study, data is collected on one occasion with the same subjects and is examined at some point in time (Basavanthappa, 2007). The purpose of descriptive research is the investigation and explanation of phenomena in real-life circumstances.

Descriptive research may be used for the purpose of identifying problems with current practice and making judgments among others (Burns and Grove, 2009). It is designed to describe the dependent variable which in the present study is Accessibility of ANC services, and independent variables, one of which is Midwives attitudes among others, and how they are associated with pregnant teenagers accessibility of ANC services from the three selected health facilities in Lusaka urban.

3.2 RESEARCH SETTING

The research setting is the environment or location where a research study is carried out or conducted (Burns & Grove, 2009).The present study was conducted from Maternal and Child Health (MCH) departments in three health centers in Lusaka. They include Kalingalinga, Kabwata and Chipata Health Centers.

Lusaka Urban District Health Management Board (LUDHMT) is responsible for providing primary health care services for its residents. There are 28 Health Centers, three Health Posts and three Sub-centers. For administrative purposes, the district is divided into four sub-districts with sub-district having a first referral health facility. The district has eight large health centers that offer in-patient facilities. Maternal Child Health (MCH) services are offered in 24 of the 28 health facilities.

3.3 STUDY POPULATION

Study population is the total group of individual people or things meeting the designated interest to the researcher (Basavanthappa, 2007).

The study population included teenage girls aged between thirteen and nineteen years. It comprised of antenatal and postnatal teenagers who received MCH services from the three health facilities already mentioned. The pregnant teenagers who had come for ANC revisits and and postnatal teenage mothers in the puerperium period. Puerperium period is a phase from delivery to six weeks after birth of the baby.

3.4 SAMPLING

Sampling is the process of selecting a subset of a population in order to obtain information regarding a phenomenon in a way that represents the entire population (Basavanthappa, 2007). In this study, purposive sampling method, which is a non-probability sampling method was used to select participants. Purposive sampling is a strategy in which the researcher's knowledge of the population and its elements is used to hand-pick cases to be included in the sample. In the present study, which is the highly unusual group, the purposive sampling method has been found suitable because of a challenge to access the study population (LoBiondo-Wood & Haber, 2006). Purposive sampling method has been criticised for failure to control and minimize conscious bias and hence, has limited to generalize because sample is handpicked (Burns & Grove, 2009; LoBiondo-Wood & Haber, 2006). It is appropriate in this study in which random sampling would not be feasible because pregnant teenagers and adolescent mothers rarely visit health centers. The study population was categorised as antenatal and postnatal teenagers in the puerperium phase as already alluded to, aged between 13 and 19 years.

Inclusion in the sample size ensured the selection of teenagers regardless of their gravid and parity. The pregnant teenagers who had come for antenatal care revisits. The revisits were ideal so that teenagers could relate to their previous visits when responding to the interview. Teenage mothers in the puerperium period who had come for postnatal care services given that their memory would not fail because they would be few days and weeks from the time they delivered and stopped accessing ANC services.

The exclusion criteria for the present study were pregnant teenagers who came for their first booking because they could not relate to any experience when responding to the interview. The postnatal mothers who were above six weeks post delivery given that purperuim ends at six weeks and as such would have possibilities of not remembering their antenatal experiences accurately. The teenagers below 18 years regardless of coming for antenatal care revisit or being within the purperium phase with no older support person were also excluded for ethical purposes.

3.5 SAMPLE SIZE

A sample size is a subset or portion of a population to represent the entire population in order to obtain information regarding a phenomenon (Basavanthappa, 2007).

The decision as to the size of the sample is determined primarily by considerations such as the degree of precision required, the type of sampling procedure to be used, the homogeneity of the population, the cost and convenience. According to Basavanthappa (2007), a sample should be large enough to achieve representativeness, and if the population is identical, a smaller sample size may be adequate for generalization.

Fifty respondents participated in the study. The size had been influenced by resource constraints specifically limited time, inadequate human and financial resources. Due to the small number of 50 participants, the study will only be representative of the areas where the data was collected from.

3.6 OPERATIONAL DEFINITIONS

Operationalizing is a process of translating the concepts that are of interest to the researcher into observable and measurable phenomena (Basavanthappa, 2005).

Below are the terms that have been operationalized for the purpose of this study:

1. **Adolescent and/or teenage pregnancy** interchangeably used in this study to signifies a pregnant female aged between 13 and 19 years, irrespective of gravid, parity and marital status.
2. **Adolescent and/or teenage mother** interchangeably used in this study to denote any woman aged between 13 and 19 years who have delivered a baby irrespective of parity, neonatal outcome or marital status.
3. **Midwife** – in this study means a trained nurse with midwifery qualification and who is working in Maternal and Child Health (MCH) department of a health institution.
4. **Accessibility** – Acquiring antenatal care services by or before 16 weeks of gestation and consistently and having a minimum of four antenatal visits through one's teenage pregnancy.
5. **Social support** – acceptance of pregnancy by receiving physical and emotional comfort from parents or partner, friends and relatives, and being encouraged to access ANC services early and consistently.

6. **Economic status** – parents or partner to the pregnant teenager being in a formal employment were they receive a salary at a regular basis or informal employment were they are invoved in some income generating venture and they are able to afford three meals in a day.
7. **Knowledge**- the pregnant adolescent should be able to define and describe the services available at antenatal clinic, dangers of teenage pregnancy and the importance or benefits of accessing antenatal care early and consistent.
8. **Attitude of midwives** – the way midwives behave towards pregnant teenagers, how they think and feel about them and the way they react towards teenagers' reproductive health needs. It could be positive attitude were midwives offer services in a friendly and non-judgemental manner, while maintaining privacy and confidentiality, and negative attitude is were services offered in an unfriendily and judgemental manner.

3.7 DATA COLLECTION TOOL

Data collection tool is an instrument used to precisely and systemically gather information relevant to address a research problem. It may take the form of questionnaire or interview schedule, checklist, focused group discussion guide or some other type of tool for eliciting information (Burns and Grove, 2009). In the present study, a semi-structured interview schedule was used to collect data.

3.7.1 Validity of the data collection tool

Validity is the determination of the extent to which the instrument actually reflects the abstract construct being measured. When the data collection tool is valid, it reflects the concept it is supposed to measure. Validity comprises internal and external validity. Internal validity refers to interpretation of the findings within the study or data collected. It constitutes internal and external validity. Internal validity is the extent to which the effects detected in the study are a true reflection of reality rather than the result of extraneous variables (Burns & Grove, 2009). To ensure internal validity, the same questions were asked to respondents. The questions were made simple to understand, concise and brief. The questions were clearly constructed and were checked by the supervisor to avoid misunderstanding as already alluded to.

External validity is concerned with the extent to which study findings can be generalized beyond the sample used in the study (Burns & Grove, 2009). To ensure external validity, the sample size comprised all adolescents aged between 13 and 19 years, who were pregnant and had come for antenatal care revisit. It also comprised of adolescent mothers in the puerperium phase, from day one to six weeks post-delivery who had come for postnatal services.

After pre testing the data collection tool, amendments were made to the tool to make it easier to understand. A few of open-ended questions which seemed difficulty for respondents were closed and options provided to enable them attempt all the questions. Open-ended questions ensured validity of the tool as these questions gave the participants an opportunity to respond in their own words. In addition, vigilant listening and accurately recording of the participant's responses was done to ensure validity as well.

3.7.2 Reliability of the data collection tool

Reliability refers to the stability of a measuring instrument over time (Basavanthappa, 2007). The reliability of a measuring tool denotes the consistency of results obtained in the use of a particular instrument (Burns & Groves, 2009). To ensure reliability, the semi-structured interview schedule was measured by pre-testing it in a pilot study as already alluded to. A pilot study was conducted in the setting with similar characteristics as to the setting of the main study in order to test the degree of accuracy. During the pre-test, respondents were allowed to identify ambiguity and problems with understanding of questions. Clarifications and amendments were made before conducting the main study.

3.8 DATA COLLECTION TECHNIQUE

Data collection technique is a systematic and objective way of gathering information needed for a particular study using specific tools in a given method (Basavanthappa, 2007). A semi-structured interview schedule was used to collect data from participants as earlier mentioned.

The tool was appropriate for the study because clarifications and specifications of questions was done for each respondent such that no question was left unanswered, hence, obtaining the needed data from each respondent.

Advantages of semi-structured interview schedule

1. The response rate is almost always higher and this helps eliminate bias in the sample.
2. No question is left unanswered as the tool enables probing of the respondent further or even explain the meaning of the question if not fully answered or understood.
3. It enables all respondent, including the physically challenged or the illiterate to participate because questions are read to the respondents and filling of the answers for all the respondents is done to ensure reliability of the tool.
4. Predetermined sequence of questions are answered in a consistent manner as there is full control over the order of questions (LoBiondo-Wood & Haber, 2006)

Disadvantages of semi-structured interview schedule

1. Its time consuming
2. Presence of the interviewer can influence responses.
3. It loses the spontaneity of natural conversation (Basavanthappa, 2007)

3.9 PILOT STUDY

A pilot study is a smaller scale of the parent study with similar methods and procedures that yield preliminary data that determine the feasibility of conducting a larger scale study. It further establishes sufficient scientific evidence that exists to justify subsequent, more extensive research (LoBiondo-Wood & Haber, 2006).

The reason for conducting a pilot study was to assess the feasibility of the study design and methodology so that necessary adjustments can be made. A pilot study was conducted at Chilenje Clinic before the actual research was done. It tested the validity and reliability of the data collection tool/instrument in order to detect and solve unforeseen problems before the actual study. Five participants were purposively selected for the pilot study, representing ten percent of the total number of participants for the main study. Pilot study participants were not included in the main study to avoid bias.

3.10 ETHICAL AND LEGAL ISSUES

Ethics is a discipline dealing with principles of moral values and moral conduct (LoBiondo-Wood & Haber, 2006).

Therefore, there was need to protect individuals who had participated in the study from any physical or mental harm that might have been experienced before, during and after the research was conducted. In this regard, permission was sought from the District Medical Officer of Health at Lusaka DHMT to conduct the pilot study at Chilenje clinic and the main study in the selected health centers.

Permission was further sought from the Nursing Officers for the health facilities, the Nursing Sisters and MCH Coordinators in the mentioned health centers. This was done after explaining the purpose, nature of the study and what the results were going to be used for. An informed consent was sought from the research participants and from parents/guardians for the under age, those below 18 years before commencing the interview. The nature and purpose of the study was explained to the participants before administering the semi-structured interview schedule. The respondents were informed of the voluntary nature of participation and that withdrawal from the study will be acceptable at any time without risk to their wellbeing and care. They were assured of privacy, anonymity and confidentiality through the use of serial numbers on the semi-structured interview schedule instead of their names. Code names were assigned to each participant when discussing data and only aggregated data was reported.

CHAPTER FOUR

4.0 DATA ANALYSIS AND PRESENTATION OF FINDINGS

INTRODUCTION

This chapter highlights the analysis and findings of the study. The main objective of the study was to explore factors affecting accessibility of ANC services among pregnant teenagers. Data was collected from respondents using a semi-structured interview schedule. A pilot study was conducted and amendments made.

4.1 DATA ANALYSIS

Data analysis is conducted to reduce, organize and give meaning to the data (Burns & Grove, 2009). Qualitative and quantitative data were both collected using a semi-structured interview schedule. Quantitative data is data characterized by numbers (Basavanthappa, 2007). It was collected from respondents through closed-ended questions which had coded options for easy analysis. On the other hand, qualitative data is data characterized by words rather than numbers (Basavanthappa, 2007). It was collected by the use of open-ended questions which allowed the respondent to express their ideas.

After data collection, the interview schedules were counted to ensure the correct number was obtained. They were checked for completeness, accuracy and consistency in the coding. Quantitative data were assigned numerals which were entered manually on the data master sheet. Thereafter, both quantitative and qualitative data were categorised and coded, then analysed using the Statistical Package for Social Sciences (SPSS) version 16.0.

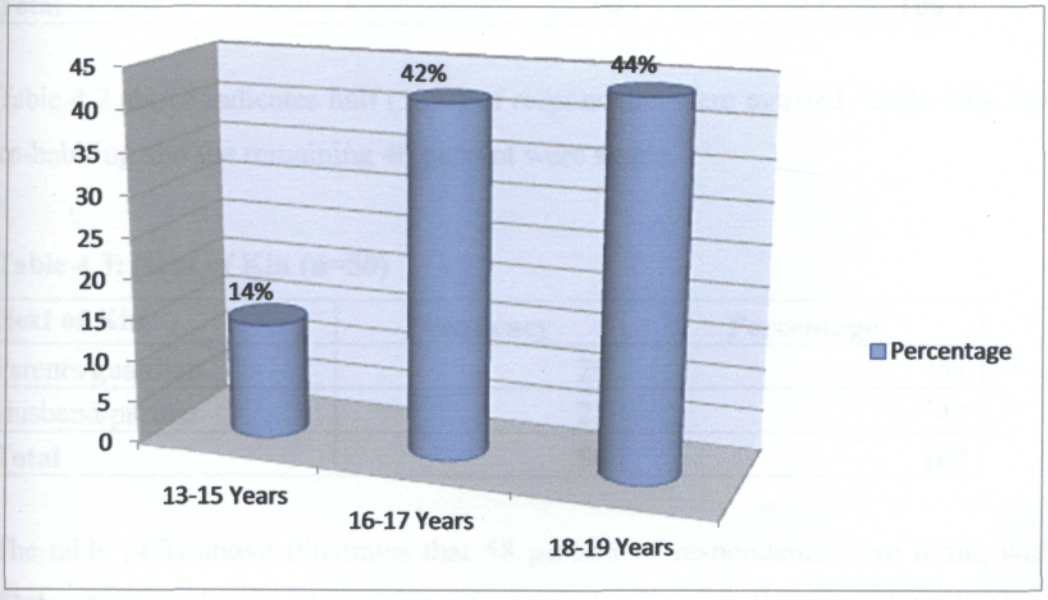
4.2 FINDINGS

Data has been presented in different sections in accordance with the variables under study. Bar charts, frequency tables, and pie charts have been used for easy interpretation. Cross tabulations have been done to show the relationship between the dependent and independent variables.

4.2.1 SECTION A: DEMOGRAPHIC CHARACTERISTICS

This section consists of information on demographic characteristics of respondents. The data from demographic characteristics were used to ascertain factors that may influence accessibility of ANC services by pregnant teenagers. These included age, education level, marital status, next of kin, residential area and religious denomination. Fifty respondents formed the study sample. The response rate was 100 percent given that all the 50 participants were successfully interviewed. The study sample consisted of 60 percent postnatal mothers and 40 percent antenatal mothers. Among the postnatal mothers, 56 percent of the respondents were first-time mothers (prime-parous) while four percent were second-time mothers (multi-parous). On the other hand, among the 40 percent antenatal mothers, 32 percent of the respondents were prime-gravidae while eight percent were multi-gravidae.

Figure 4.1 Age (n=50)



The age of participants ranged between 13 and 19 years. The figure (4.1) above illustrates that majority of participants (44%) were in the age group 18-19 years, while 42 percent were in the age group 16-17 and the least number (14%) of the participants were in the age group 13-15 years. The mean age of participants was 17 (SD 1). Distribution of sample by age was dependent on the purposive sampling method used in the present study.

Table 4.1: Educational Level (n=50)

Education	Frequency	Percentage
None	2	4
Primary	13	26
Secondary	35	70
Total	**50**	**100**

According to the table above (4.1), majority of the respondents (70%) had attained secondary school education while 26 percent had primary education. Only four percent of respondents had never been to school.

Table 4.2: Marital Status (n=50)

Marital status	Frequency	Percentage
Married	25	50
Single	23	46
Co-habiting	2	4
Total	**50**	**100**

Table 4.2 above indicates half (50%) of respondents were married, while only four percent were co-habiting and the remaining 46 percent were single.

Table 4.3: Next of Kin (n=50)

Next of Kin	Frequency	Percentage
Parents/guardian	29	58
Husband/partner	21	42
Total	**50**	**100**

The table (4.3) above illustrates that 58 percent of respondents were living with their parents while the remaining 42 percent of respondents were living with their husbands/partners enlightening high number of early marriages in Zambia.

Table 4.4: Residential Area (n=50)

Residential Area	Frequency	Percentage
High density area	30	60
Medium density area	15	30
Low density area	5	10
Total	**50**	**100**

According to table 4.4 above majority of respondents (60%) reside in high density areas while 30 percent of the respondents reside in medium density areas. Low density areas were represented by a low number (10%) of respondents.

Table 4.5: Denomination (n=50)

Variable	Frequency	Percentage
Denominations		
Roman Catholics	15	30
Pentecostal churches	14	28
SDA	4	8
Reformed church	4	8
UCZ	7	14
New Apostolic church	3	6
Jehovah's witness	2	4
Baptists	1	2
Total	**50**	**100**

All the participants (100%) were Christians. Despite all the participants being Christians, they belonged to different Christian denominations as shown in table 4.6 above. Thirty percent of respondents were Catholics, followed by Pentecostals who represented 28 percent of participants. The Baptists were the least representing two percent of the respondents.

CROSS TABULATIONS

This section present cross tabulation tables which are used to highlight the relationship between Accessibility of ANC services and demographic characteristics which include age, level of education, marital status, number of pregnancies, next of kin and area of residence.

Table 4.6: Accessibility and Age (n=50)

Age	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
13-15	5 (16.1%)	2(10.5%)	0 (0%)	7(14%)
16-17	14 (45.2%)	7(36.8%)	0 (0%)	21 (42%)
18-19	12 (38.7%)	10(52.6%)	0 (0%)	22 (44%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

There were more participants in the age groups 16-17 and 18-19 who had excellent accessibility to ANC services than those in the same age group who had good accessibility. There appears to be an association between accessibility of ANC services and age even though no participant reported poor accessibility.

Table 4.7: Accessibility and Level of Education (n=50)

Level of Education	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
None	1(3.2%)	1 (5.3%)	0 (0%)	2(4%)
Primary	7(22.6%)	6 (31.5%)	0 (0%)	13(26%)
Secondary	23(74.2%)	12(63.2%)	0 (0%)	35(70%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

A high proportion of respondents (74.2%) who had attained secondary school education had excellent accessibility of ANC services, while a negligible (3.2%) who had no education had excellent accessibility of ANC services. These findings therefore reveal that there is an association between accessibility of ANC services and the level of education attained by the respondents, considering that the higher the education level, the more the accessibility of ANC services.

Table 4.8: Accessibility and Marital Status (n=50)

Marital Status	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
Married	17(54.8%)	8 (42.1%)	0 (0%)	25(50%)
Single	14(45.2%)	9 (47.4%)	0 (0%)	23(46%)
Co-habiting	0 (%)	2(10.5%)	0 (0%)	2 (4%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

About half of the respondents (54.8%) who had excellent accessibility were married compared to 45.2 percent of those who were single and while none of the participants who were co-habiting had excellent accessibility of antenatal care. Therefore, there is an association between accessibility of ANC services and marital status, though none of the respondents indicated poor accessibility.

Table 4.9: Accessibility and Number of Pregnancies (n=50)

Number of Pregnancies	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
One pregnancy	27(87.1%)	17(89.5%)	0 (0%)	44(88%)
Second pregnancy	4(12.9%)	2(10.5%)	0 (0%)	6(12%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

A high proportion of respondents (87.1%) who were pregnant for the first time had excellent accessibility of ANC services, while only 12.9 percent of participants who were pregnant for the second time did have excellent accessibility of ANC services. The analysis in the table 4.23 above therefore revealed that there is an association between number of pregnancies and accessibility of ANC services.

Table 4.10: Accessibility and Next of Kin (n=50)

Next of Kin	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
Parents	16(51.6%)	13 (68.4%)	0 (0%)	29 (58%)
Partner	15 (48.4%)	6 (31.6%)	0 (0%)	21 (42%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

There were more participants (68.4%) in the good category of accessibility of ANC services under the custodian of their parents compared to participants (31.6%) under the custodian of their partners. There appears to be an association between accessibility of ANC services and the respondents' next of kin, though no participant reported poor accessibility from either group.

Table 4.11: Accessibility and Residential Area (n=50)

Residential Area	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
High density	17(54.8%)	13(68.4%)	0 (0%)	30(60 %)
Medium density	10(32.3%)	5(26.3%)	0 (0%)	15(30%)
Low density	4 (12.9%)	1(5.3%)	0 (0%)	5 (10%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

A high proportion of respondents (68.4%) who were residing in high density areas had good accessibility of ANC services, while a small proportion (5.3%) of respondents who were residing in low density areas did have good accessibility of ANC services. The findings imply that the poorer the residential area, the better the accessibility of ANC services. Therefore, there is an association between area of residence and accessibility of ANC services though no participant reported poor accessibility.

4.2.2 SECTION B: ACCESSIBILITY OF ANC SERVICES

This section presents the dependent variable which is accessibility of ANC services among pregnant teenagers. It will be measured through antenatal booking time, reasons for booking time; service time disadvantages pregnant teenagers, walking time; waiting time and convenient time. The level of accessibility has been grouped into three, excellent accessibility scoring between eleven and fifteen points; good accessibility scoring between six and ten points and poor accessibility with scores ranging from zero to five points.

Table 4.12: Antenatal Care booking time (n=50)

ANC Booking time	Frequency	Percentage
Before or at 4 months of pregnancy	16	32
Between 5 and 7 months of pregnancy	32	64
At 8 months of pregnancy	2	4
Total	**50**	**100**

Illustrations in table 4.12 above, shows that most respondents (64%) started ANC between five and seven months gestation, while 32 percent started ANC before or at four months gestation. Only four percent booked at eight months gestation.

Table 4.13: Reasons for booking time (n=50)

Reason for ANC Booking at the time booked	Before or at four months	Between five and seven months	At eight months	Frequency	Percentage
Didn't know I was pregnant	2	4		6	**12**
Busy at school, was writing grade 12 examinations		1		1	**2**
I was feeling shy, so used to hide the pregnancy	1	9	1	11	**22**
Didn't know I had to come earlier	1	10		11	**22**
Fear of being shouted at		3		3	**6**
Fear of having many visits		3	1	4	**8**
Sent back for going late for booking	1	2		3	**6**
To know how the fetus was growing and how to take care of the pregnancy	11			11	**22**
Total	**16 (32%)**	**32 (64%)**	**2 (4%)**	**50**	**100**

Twenty two of the 32 percent of respondents who booked for ANC in the first trimester gave the reason that they wanted to know how the fetuses were growing, and how to take care of themselves during pregnancy. On the other hand, 20 percent of the 64 percent who booked in the second trimester gave the reason that they did not know there had to come earlier for ANC booking, while 18 percent of the same 64 percent of the respondents gave the reason of feeling shy (hiding the pregnancy). Furthermore, four percent of the respondents who booked in the third trimester gave the reasons that they were feeling shy and that there were afraid of making too many visits. Regrettably, six percent of the respondents gave the reason that they were sent back home because they had arrived late at the health center.

Table 4.14: Service time (n=50)

Service time disadvantages pregnant teenagers	Frequency	Percentage
Strongly agree	5	10
Agree	20	40
Uncertain	4	8
Disagree	20	40
Strongly disagree	1	2
Total	**50**	**100**

In table 4.14 above, 50 percent of the respondents agreed that service time disadvantaged them from accessing ANC services, while 42 percent disagreed to the fact that the service time disadvantaged them from accessing ANC services. A negligeable eight percent of repondents were uncertain.

Table 4.15: Walking Time (n=50)

Walking Time	Frequency	Percentage
Less than 30 minutes	30	60
One hour	11	22
More than an hour	9	18
Total	**50**	**100**

The table (4.15) above shows that it took 60 percent of respondents less than 30 minutes to walk to the health center while it took 22 percent of respondents one hour to walk to the health center. The remaining 18 percent responded that it took them more than one hour.

Table 4.16: Waiting Time (n=50)

Waiting Time	Frequency	Percentage
One to two hours	31	62
Three to four hours	19	38
Total	**50**	**100**

The above table (4.16) reveals that majority of the respondents (62%) reported having waited for one to two hours before being attended to. The remaining 38 percent indicated having waited for three to four hours.

Table 4.17: Convenient Time (n=50)

Convenient Time	Frequency	Percentage
Mornings	44	88
Afternoons	3	6
Weekends	3	6
TOTAL	**50**	**100**

According to the above table (4.17) most respondents (88%) preferred mornings as the most convenient time to attend ANC, while afternoons and weekends timings were preferred by only 12 percent of respondents.

Figure 4.2: Levels of Accessibility (n=50)

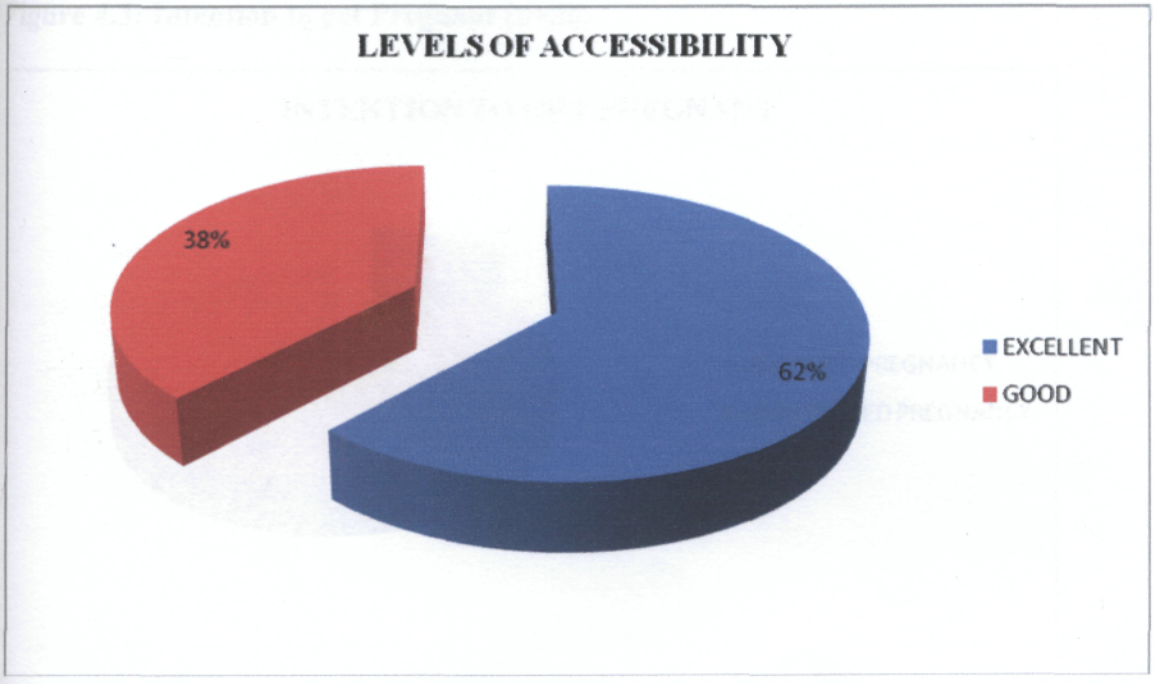


Figure 4.2 above summarises the section on accessibility. It shows that most of the respondents (62%) had excellent accessibility to ANC services, while 38 percent had good accessibility. None reported poor accessibility. Therefore, most of the participants did access ANC services.

4.2.3 SECTION C: SOCIAL SUPPORT

This section serves to presents how social support received by pregnant teenagers was measured. It was measured by accessing if pregnancy was planned or not and how the respondents reacted towards the pregnancy. It was further measured by ascertaining the person to whom pregnancy was disclosed to, how the one pregnancy was disclosed to reacted and how the immediate family reacted towards the teenager's pregnancy Furthermore, it was also measured by who encouraged the teenager to access ANC services. The level of social support was put in two groups: present social support for respondents who had scores ranging from four to six and absent social support for respondents with zero to three points.

Figure 4.3: Intention to get Pregnant (n=50)

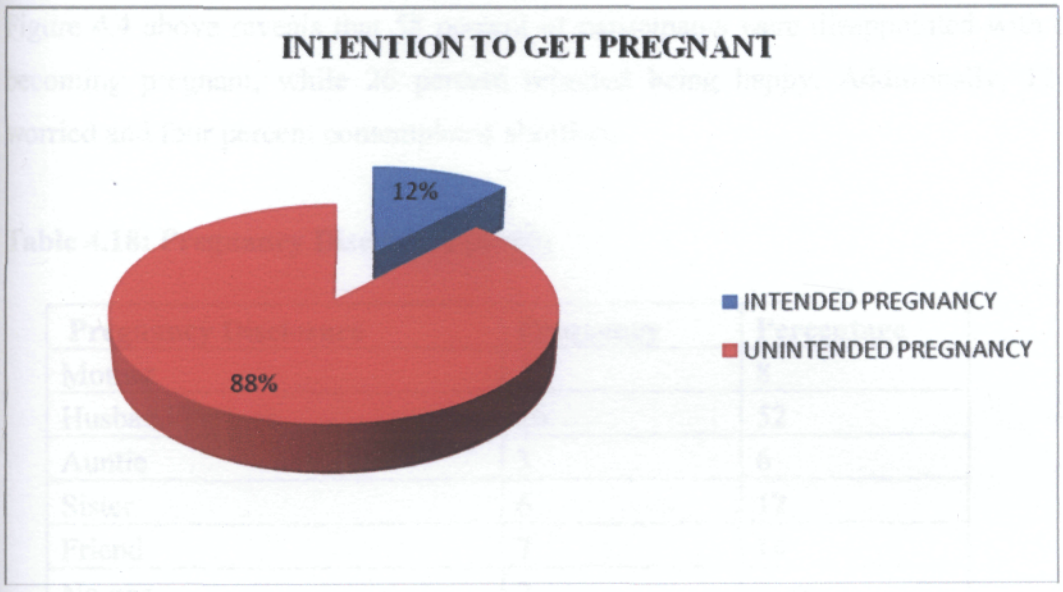


Figure 4.3 above shows that 88 percent of respondents did not intend to get pregnant, while 12 percent had planned for their pregnancy. From these results, it is evident that most teenage pregnancies in the population under study were not planned.

Figure 4.4: Reaction towards the Pregnancy (n=50)

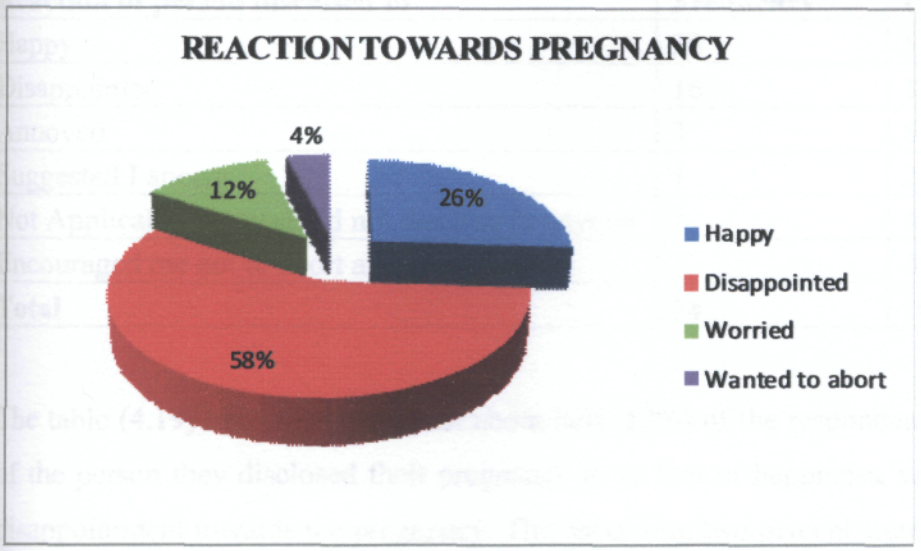


Figure 4.4 above reveals that 58 percent of participants were disappointed with themselves for becoming pregnant, while 26 percent reported being happy. Additionally, 12 percent were worried and four percent contemplated abortion.

Table 4.18: Pregnancy Disclosure (n=50)

Pregnancy Disclosure	Frequency	Percentage
Mother	4	8
Husband/Partner	26	52
Auntie	3	6
Sister	6	12
Friend	7	14
No one	2	4
No one but mother noticed it	2	4
Total	**50**	**100**

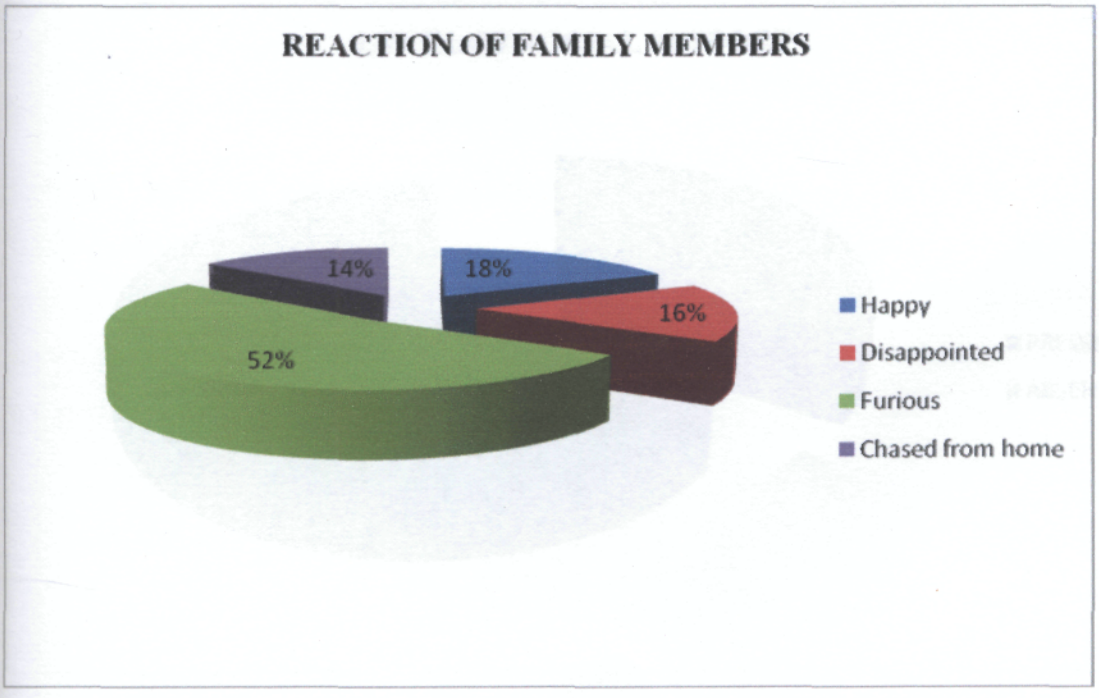
Table 4.18 shows that 52 percent of respondents disclosed their pregnancies to their husbands/partners, 14 percent disclosed to their friends and four percent did not disclose to anyone, but their mothers noticed the pregnancy. Furthermore, another four percent did not disclose to anyone and their parents did not notice the pregnancy.

Table 4.19: Reaction of person disclosed to (n=50)

Reaction of person disclosed to	Frequency	Percentage
Happy	26	52
Disappointed	16	32
Annoyed	3	6
Suggested I abort	1	2
Not Applicable because did not disclose to anyone	2	4
Encouraged me not to abort and to start ANC	2	4
Total	**50**	**100**

The table (4.19) above indicates that about half (52%) of the respondents described the reaction of the person they disclosed their pregnancy to as that of happiness, while 32 percent reported disappointment towards the pregnancy. The remaining two percent were unhappy and suggested an abortion.

Figure 4.5: Reaction of the Family Members towards Your Pregnancy (n=50)



According to figure 4.5 above, 52 percent of respondents reported that their family members were furious about the pregnancy, while 14 percent of the respondents responded having been chased from home.

Table 4.20: Encouragement to Access ANC Services (n=50)

Who encouraged you to Access ANC	Frequency	Percentage
My mother	28	56
Husband/Partner	9	18
Sister	10	20
Friend	3	6
TOTAL	**50**	**100**

The table (4.20) above shows that majority of respondents (56%) were encouraged to access ANC services by their mothers, while six percent were encouraged by their friends. In addition, 20 percent of the respondents were encouraged by their sisters while 18 percent of respondents by their partners. Generally, all the respondents had someone who encouraged them to access ANC services.

Figure 4.6: Level of Social Support (n=50)

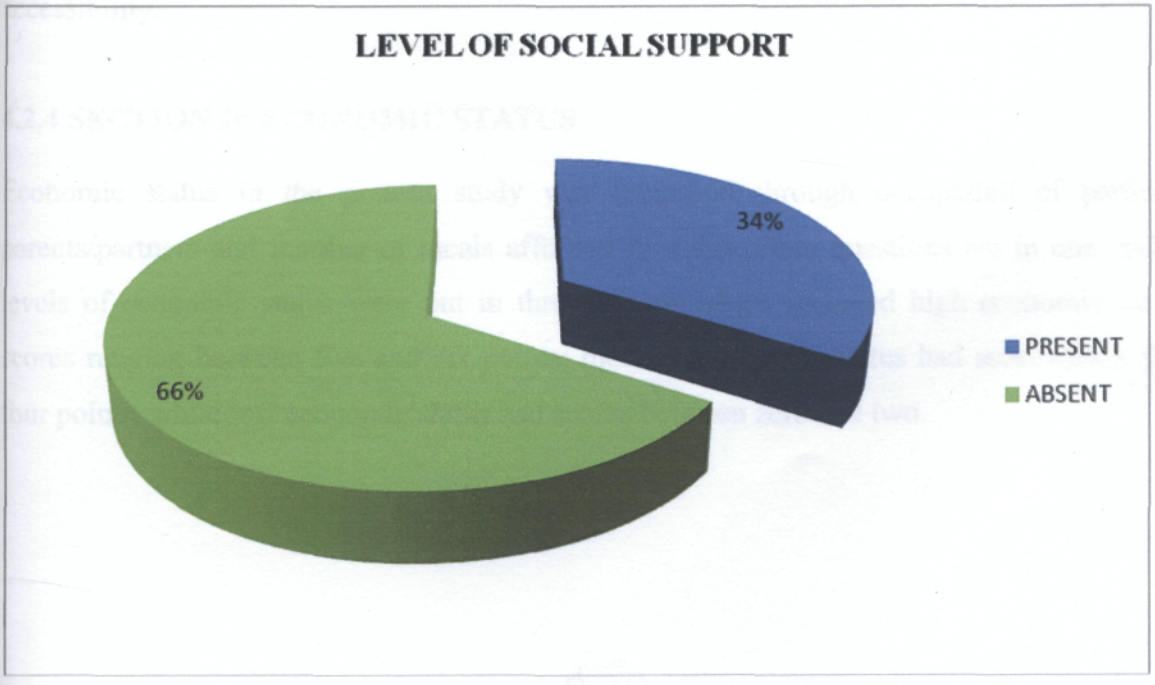


Figure 4.6 above summarises the section on social support. It illustrates that most of the respondents (66%) had no social support, while 34 percent of respondents had social support. This is probably due to stigma attached to pregnancy before marriage.

Table 4.21: Cross tabulations on Relationship between Accessibility and Social Support (n=50)

Social Support	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
Present	13(41.9%)	4 (21.1%)	0 (0%)	17(34%)
Absent	18(58.1%)	15 (78.9%)	0 (0%)	33 (66%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

It was interesting to note that a high proportion of respondents (78.9%) that had no social support had good accessibility to ANC services compared to those (21.1%) that had social support. No participant reported poor accessibility. Therefore, there is an association between accessibility of ANC services and social support given that the lower the social support, the more the accessibility.

4.2.4 SECTION D: ECONOMIC STATUS

Economic status in the present study was measured through occupation of participants' parents/partners and number of meals afforded in a day. Both questions are in one table. The levels of economic status were put in three groups which included high economic status for scores ranging between five and six points; medium economic status had scores from three to four points, while low economic status had scores between zero and two.

Table 4.21: Occupation of parent/partner and number of meals afforded in a day

Variable	Frequency	Percentage
Parent/Partner Occupation		
Formally Employed	27	54
Informally Employed	23	46
Unemployed	0	0
Total	**50**	**100**
Meals in a day		
One meal	1	2
Two meals	9	18
Three meals	39	78
More than three meals	1	2
Total	**50**	**100**

The findings in table 4.21 above revealed that 54 percent of respondents who reported that their parents/partners were in formal employment, while 46 percent of respondents indicated that their parents/partners were in informal employment. None of the respondents reported that their parents/partners were unemployed.

The findings further revealed that most of the respondents (78%) afforded three meals in a day, while two percent afforded only one meal and the other two percent afforded more than three meals. Eighteen percent of the respondents afforded two meals.

This gives an impression that all respondents could afford at least a meal in a day. This is further exemplified in the pie chart (4.6) below.

Figure 4.6: Level of Economic Status (n=50)

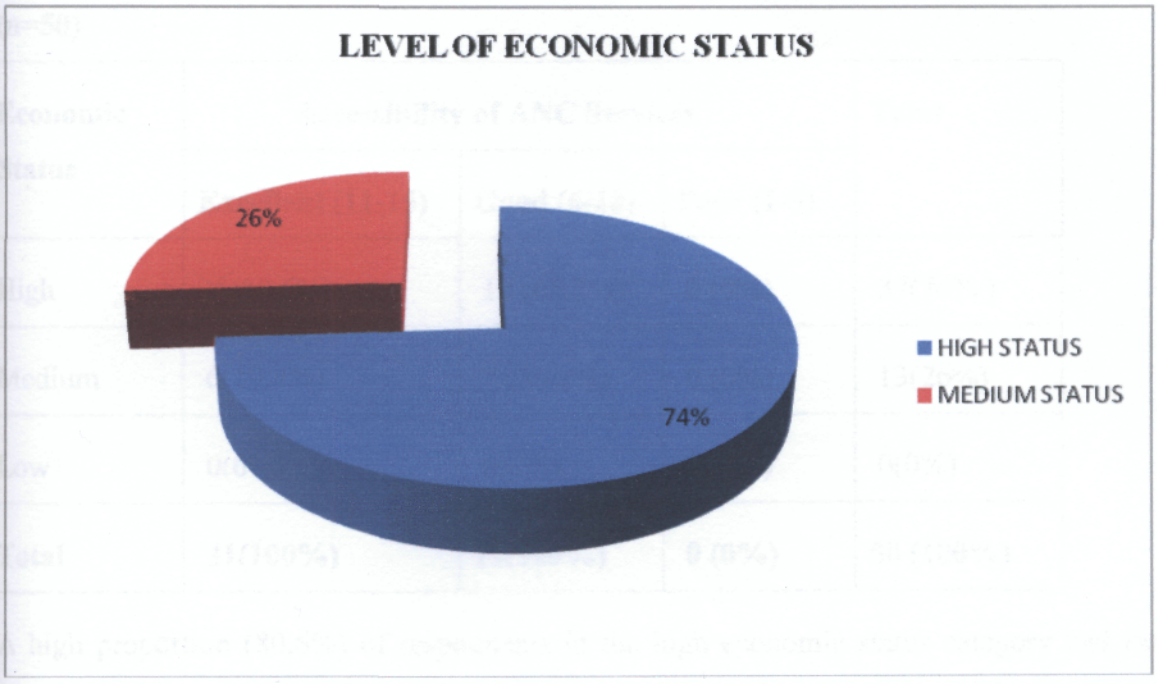


Figure 4.6 above summarises the section on economic status and illustrates that most of the respondents (74%) were in the high economic category, while twenty six percent were in medium economic category. None of the respondents had low economic status. Therefore, the economic status of the population under study was good.

Table 4.22: Cross tabulations on Relationship between Accessibility and Economic Status (n=50)

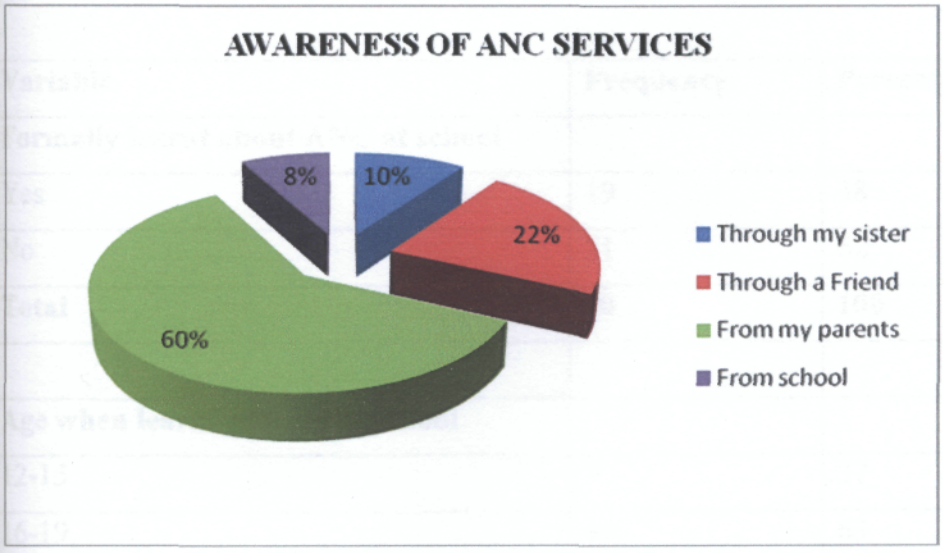
Economic Status	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
High	25(80.6%)	12 (63.2%)	0 (0%)	37(74%)
Medium	6(19.4%)	7 (36.8%)	0 (0%)	13(26%)
Low	0(0%)	0(0%)	0 (0%)	0(0%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

A high proportion (80.6%) of respondents in the high economic status category had excellent accessibility to ANC services compared to those in the medium economic status category. Therefore, there is an association between accessibility and economic status because the higher the economic status the better the accessibility. However, no participant reported being in the low economic status and none had poor accessibility of ANC services.

4.2.5 SECTION E: LEVEL OF KNOWLEDGE REGARDING ANC SERVICES

This section presents level of knowledge regarding ANC services among the pregnant teenagers. It includes questions on awareness of ANC services; formal learning of ANC at school, age and level of education when ANC was learnt at school. It further presents results on the definition of ANC and the benefits of ANC. Levels of knowledge regarding ANC services have been measured into two groups: "knowledgeable", for respondents who had scores between six and ten; and "not knowledgeable" for respondents with scores from one to five.

Figure 4.8: Awareness of ANC Services (N=50)



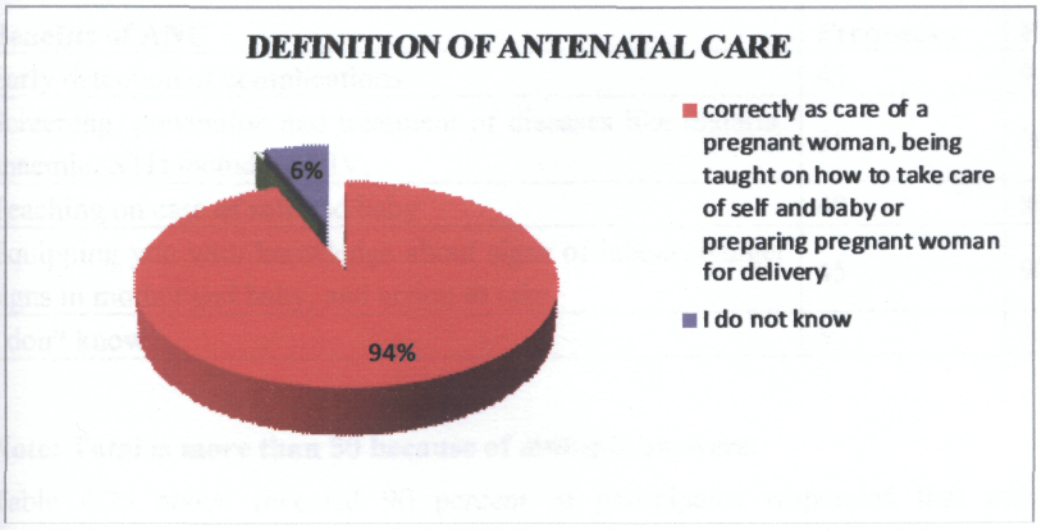
According to the figure (4.8) above, majority of respondents (60%) learnt about ANC services through their parents, while 22 percent learnt through their friends. Ten percent learnt about ANC services through their sisters and a further eight percent learnt about ANC services from school. Generally, respondents were aware of ANC services through their families and friends.

Table 4.24: Formal learning about ANC Services at school; Age and Level of Education when taught about ANC

Variable	Frequency	Percentage
Formally learnt about ANC at school		
Yes	19	38
No	31	62
Total	**50**	**100**
Age when learnt of ANC at school		
12-15	7	37
16-19	12	63
Total	**19**	**100**
Level of education when taught of ANC		
Primary level	6	32
Secondary level	13	68
Total	**19**	**100**

Table 4.24 above illustrates that out of all respondents (100%), only 38 percent had learnt about ANC at school, while 62 percent reported that they did not learn of ANC at school. Of all the participants who learnt about ANC at school, 63 percent learnt when they were aged between16 and 19 years, while 37 percent learnt when they were aged between 12 and 15 years. Furthermore, 32 percent learnt about ANC at primary level while 68 percent learnt about ANC at secondary level.

Figure 4.9: Definition of Antenatal Care (n=50)



According to figure 4.9 above, 94 percent of respondents defined antenatal care correctly either as care of a pregnant woman, being taught on how to take care of self and the baby or preparing pregnant woman for delivery, while six percent respondents did not know the definition of antenatal care.

Table 4.25: Benefits of ANC Services (n=50)

Benefits of ANC	Frequency	Percentage
Early detection of complications	45	90
Screening, prevention and treatment of diseases like malaria, anaemia, STIs including HIV,	35	70
Teaching on care of self and baby	40	80
Equipping you with knowledge about signs of labour, danger signs in mother and baby, and action to take	45	90
I don't know	5	10

Note: Total is more than 50 because of multiple answers.

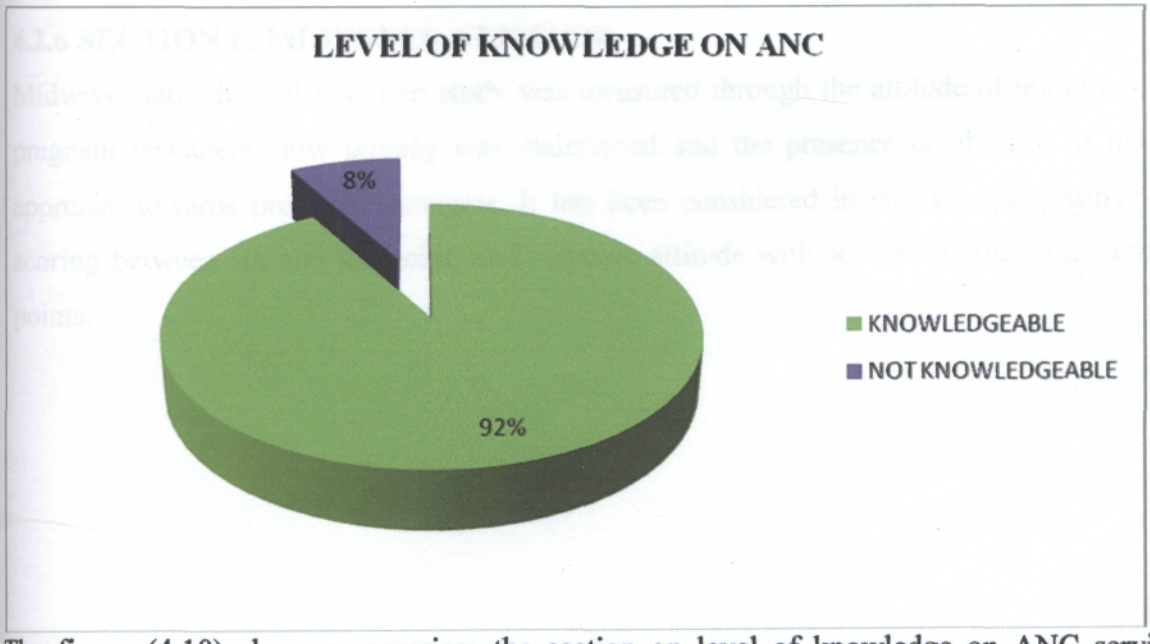
Table 4.25 above revealed 90 percent of participants responded that early detection of complications was a benefit of accessing ANC services, while another 90 percent stated being equipped of knowledge on signs of labour, danger signs on mother and baby and the action to take being the benefits of ANC, 70 percent stated screening, prevention and treatment of diseases such as malaria, anaemia, and STIs including HIV/AIDS and 10 percent of respondents did not know any benefits of ANC services.

Table 4.26: Dangers of Teenage Pregnancy (n=50)

Dangers of Teenage Pregnancy	Frequency	Percentage
Having difficulty deliveries	20	40
Undergoing operations (C/S)	11	22
Death of baby and/or mother	6	12
Contracting STIs including HIV/AIDS	1	2
Unable to complete school	1	2
Not knowing how to take care of baby and self	2	4
I don't know	9	18
Total	**50**	**100**

The table (4.26) above illustrates that 40 percent of respondents stated having difficulty deliveries as a danger of teenage pregnancy, while 22 percent of respondents stated undergoing an operation as a danger. Additionally, two percent of respondents stated that inability to complete school and a further two percent stated contracting STIs including HIV/AIDS as dangers of teenage pregnancy.

Figure 4.10: Level of Knowledge (n=50)



The figure (4.10) above summarises the section on level of knowledge on ANC services. It shows that 92 percent of respondents were knowledgeable regarding ANC service and only eight percent of respondents were not knowledgeable. Generally, respondents had some knowledge regarding ANC services.

Table 4.27: Cross tabulations on Relationship between Accessibility and Level of Knowledge (n=50)

Level of Knowledge	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
Knowledgeable	28(90.3%)	18 (94.7%)	0 (0%)	46(92%)
Not Knowledgeable	3(9.7%)	1 (5.3%)	0 (0%)	4(8%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

A high proportion (90.3%) of respondents who were knowledgeable had excellent accessibility to ANC services while a negligible (9.7%) who were not knowledgeable of the ANC services also had excellent accessibility. No participant reported poor accessibility. Therefore, there is an association between accessibility of ANC services and level of knowledge of ANC services given that the higher the knowledge, the more the accessibility.

4.2.6 SECTION F: MIDWIVES ATTITUDE

Midwives attitude in the present study was measured through the attitude of midwives towards pregnant teenagers, how privacy was maintained and the presence or absence of judgmental approach towards pregnant teenagers. It has been considered in two groups, positive attitude scoring between six and ten point, and negative attitude with scores ranging from zero to five points.

Table 4.27: Midwives attitude and Privacy

Midwives attitude	**Frequency**	**Percentage**
Good	20	40
Fair	22	44
Poor	8	16
Total	**50**	**100**
Privacy		
Examination bed was screened	17	34
Examined in an enclosed room	33	66
Exposed and examined in the presence of other clients	0	0
Total	**50**	**100**

According to table 4.27 above, 44 percent of participants responded that the attitude of midwives towards pregnant teenagers was fair, while 40 percent indicated that the attitude of midwives towards pregnant teenagers was good. Only 16 percent reported the attitude of midwives towards pregnant teenagers was poor.

Privacy while offering ANC services is mandatory in order to uphold clients' dignity. The findings in the present study revealed that 66 percent of the respondents reported that privacy was maintained by being examined in a room, while 36 percent had their examination bed screened. None of the respondents stated that privacy was not maintained.

Table 4.28: Midwives Judgmental (N=50)

Midwives Are Judgmental Towards Pregnant Teenagers	Frequency	Percentage
Strongly agree	12	24
Agree	17	34
Uncertain	3	6
Disagree	15	30
Strongly disagree	3	6
Total	**50**	**100**

The table (4.28) above shows that 58 percent of respondents agreed to the statement that midwives were judgmental towards pregnant teenagers, while 36 percent of respondents disagreed that midwives were judgmental. However, a negligible six percent of respondents were uncertain of the answer.

Figure 4.11: Level of Midwives Attitude (n=50)

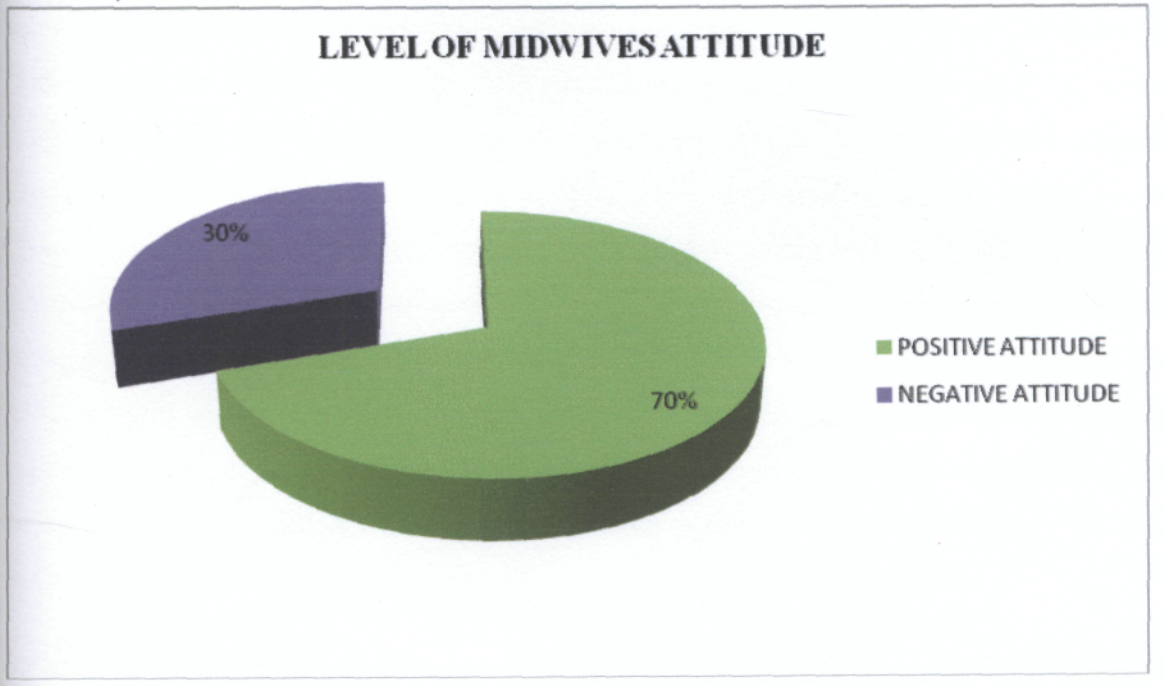


Figure 4.11 above summarises the section on the midwives attitude. It indicates that most of the respondents (70%) stated that midwives had a positive attitude towards pregnant teenagers, while 30 percent stated that midwives had a negative attitude.

Table 4.29: Cross tabulations on Relationship between Accessibility and Midwives Attitude (n=50)

Midwives Attitude	Accessibility of ANC Services			Total
	Excellent (11-15)	Good (6-10)	Poor (1-5)	
Positive	22(71%)	13(68.4%)	0 (0%)	35 (70%)
Negative	9(29%)	6(31.6%)	0 (0%)	15 (30%)
Total	**31(100%)**	**19(100%)**	**0 (0%)**	**50 (100%)**

A high proportion (71%) of respondents who perceived a positive attitude in the midwives had excellent accessibility to ANC services compared to 29 percent who perceived a negative attitude in the midwives. No participant reported poor accessibility. There is an association between accessibility of ANC services and the perception of the midwives attitude towards the respondents because the more positive midwives attitude is perceived, the more the accessibility.

CHAPTER FIVE

5.0 DISCUSSION

INTRODUCTION

Accessibility of antenatal care services is essential for pregnant teenagers in handling challenges surrounding them. Teenage pregnancy is one of the leading causes of death among young women below the age of 19 years (Graczyk, 2007; WHO, 2008). This is aggravated by late or non accessibility of antenatal care. Therefore, this chapter discusses findings and implications of the results in light of other research findings.

5.1 CHARACTERISTS OF THE SAMPLE

Age of participants was critical because the study specifically targeted teenagers, aged between 13 and 19 years. The findings revealed that majority of respondents who had more accessibility were older teenagers aged 18 to 19 years. Pregnant teenagers revealed challenges peculiar to their age in accessing ANC services such as inadequate or lack of awareness that they were pregnant and feeling ashamed to be seen carrying a pregnancy and unaware of typical pregnancy indicators among others. These results corroborate with the findings of other researchers (Yange et al, 2010; Emdad et al, 2011; Atuyambe et al, 2008 and Downe et al, 2009) who revealed that young aged women attributed their lack of ANC services to feeling embarrassed for carrying a pregnancy at a younger age. No literature was found to show more accessibility among younger teenagers. There is need for health care system to sensitise girls during school health services through Information, Education and Communication (IEC) on the consequences of sexual intercourse at a younger age, signs of pregnancy, dangers of teenage pregnancy and the importance of accessing ANC services early. This will help equip girls with knowledge to make informed decisions on issues pertaining to accessing health care services. The community should also be sensitised through health outreach activities in encouraging younger teenagers to access antenatal care services early because they are the most affected with obstetric complications.

On the other hand, level of education was found to have an influence on accessibility of ANC services in the present study as it revealed a high proportion of respondents with high accessibility who had attained secondary school level of education.

The findings revealed that accessibility of ANC services among pregnant teenagers was being affected by the teenagers' inability to value or understand antenatal care as well as not recognizing signs of pregnancy among other reasons. This was more evident among teenagers who had not been to school and those who had primary school education. The findings of the present study are consistent with those of Yange et al (2010), Emdad et al (2011), Atuyambe et al (2008) and Pembe et al (2009) who attributed level of education and knowledge as the most important predictive factors of accessibility of ANC services.

The present study revealed a prevalence of early (child) marriages because half of the respondents were married, which is a public health concern. Child marriage in Zambia is associated with early childbearing and puts young women at greater obstetric risks including HIV (Graczyk, 2007). The present study further recognized that a relationship exists between marital status and accessibility of ANC services because accessibility was high among married respondents compared to those who were single or co-habiting. The findings of the current study are consistent with those of Atuyambe (2008) and Phafoli et al (2007) who found that married adolescents accessed ANC services earlier than most single pregnant teenagers who may have a negative attitude towards their pregnancy and, due to that, will access ANC much later than the recommended 16 weeks of gestation.

5.2.1 ACCESSIBILITY AND SOCIAL SUPPORT

Social support affects attitudes and behaviours which include timely accessibility of ANC services among pregnant adolescents. The study results showed a relationship between social support and accessibility of ANC services although in an unexpected direction.

It revealed that a high proportion of respondents who had no social support had high accessibility of ANC services compared to respondents who had social support. Lack of social support was measured through mixed reactions received by the respondents after the pregnancy was disclosed to their partners, friends and family members. The reactions ranged from disappointment to furiousness while the extreme reaction involved being chased away from home.

This study results corroborate with Atuyambe et al's (2008) study findings which revealed incidences of pregnant teenagers being sent away from home.

On the other hand, Atuyambe et al's (2008) further revealed that poor accessibility of ANC services among adolescents was being attributed to lack of social support which was evidenced by violence by parents and being sent away from home contrary to the present study which had increased accessibility in the absence of social support. Increased accessibility of ANC services could be attributed to the fact that pregnant teenagers who lacked social support from their homes opted to obtain the missing support from health practitioners through early accessing ANC services while those who had social support may have developed a passive attitude towards accessing ANC services.

According to Oluroumbi (2012) social relations play an important role in the decision to access ANC services and that without support of family members and other adults, pregnant teenagers are less likely to get to their regular prenatal visits. Having at least one trusted, support person is imperative in helping pregnant teenagers get the prenatal care and emotional support they need to stay healthy during this time (Oluroumbi, 2012). Considering the difference in the findings between the present study and previous studies, further research on the relationship between social support and accessibility of ANC services should be conducted using different methodology and bigger number of respondents that may yield different results.

5.2.2 ACCESSIBILITY AND ECONOMIC STATUS OF PARENTS/PARTNER

Economic status was measured through the type of employment parents or partners of the respondents had, and the number of meals afforded in a day. A relationship was found between economic status and accessibility of ANC services because findings revealed that the higher the economic status, the more the accessibility of ANC services.

These findings are consistent with Babalola and Fatusi (2009) who found that with high economic status, there was high accessibility of antenatal care services by pregnant women. This could be attributed to availability of resources such as transport money in the families with high economic status that the pregnant teenager may utilize to access ANC services.

On the other hand, Were (2007) found that teenage pregnancy and parenting often compromises teenagers' economic potential because of lack of educational attainment.

Were (2007) further revealed that daughters of teenage mothers often become teenage mothers themselves with all the accompanying negative consequences. Teenage pregnancy perpetuates the intergenerational cycle of poverty that is hard to break. Therefore, further researches should be conducted using different methodology with increased number of participants to explore the relationship between economic status and accessibility of ANC services among pregnant teenagers given that most teenagers are economically dependent upon their parents and/or their partners.

5.2.3 ACCESSIBILITY AND LEVEL OF KNOWLEDGE

Knowledge of ANC services may affect informed health choices made by pregnant teenagers regarding timely accessibility of the services. The present study revealed an association between level of knowledge and accessibility of ANC services because it showed that the higher the level of knowledge, the more the accessibility. These findings corroborate with the findings of other researchers (Pembe, et al, 2009 and Phafoli, et al, 2007) who suggested that introducing appropriate education on pregnancy in primary schools to girls before they attain menarche and before they become pregnant may provide more understanding of health messages. This may improve early accessibility of ANC services by those who become pregnant because they would understand the benefits of accessing ANC services early. The present findings seem to be consistent with Titaley et al's (2010) study conducted in Indonesia which confirmed that lack of knowledge about the importance of ANC services hindered pregnant teenagers from accessing the services. Furthermore, the high level of knowledge that contributed to high accessibility of ANC services in the present study could also be attributed to the presence of Information, Education and Communication (IEC) midwives give to pregnant women in a group and on one-to-one basis each time women access ANC services.

On the contrary, Anya, et al (2008) reported that most women did not benefit from the Information, Education and Communication (IEC) provided by midwives. This was attributed to the poor provider-client interactions because midwives spent three minutes or less, instead of the recommended 30-40 minutes for first visit and 20 minutes for subsequent visits with the client (Anya, et al, 2008). This may be due to staff shortages and excessive workload. Thus, communicating effectively under these circumstances would be a great challenge.

The difference in the results might be due to the difference in the sample size and sample population as the present study participants consisted of only teenagers, while Anya et al's (2008) study conducted in Gambia, consisted of teenagers and older women.

Therefore, the results of the present study suggest the need to involve academicians and other stakeholders involved in sex education to school going teenagers not only to dwell on sexuality and physiology of pregnancy, but also the consequences of sexual intercourse, dangers of teenage pregnancy and the importance of accessing early ANC services when pregnant.

5.2.4 ACCESSIBILITY AND ATTITUDE OF MIDWIVES

An association between accessibility of ANC services and perception of midwives attitude towards respondents was found. The more positive midwives attitude was perceived, the more pregnant teenagers accessed ANC services. It was recognised that the midwife is a conduit of care for women throughout pregnancy, labour and postnatal period (Mxoli, 2007). Attending antenatal clinic may be the first time some pregnant adolescents visit the health center, and midwives are the first health care providers they may come in contact with. Hence, the first impression pregnant teenagers get from midwives may either encourage or discourage further accessibility of the health care services.

The present findings support Adu-mensah's (2011) study where those respondents who reported having being satisfied with the services received from midwives felt encouraged to go back for antenatal revisits, while some respondents attributed poor staff attitude as the reason for them not to access ANC. Furthermore, the present study results also support Menon et al's (2010) findings of the study done in Zambia although with a different study population which consisted both teenagers and older women. Menon et al's (2010) study used mixed method approach while the present study used quantitative methods.

Menon et al (2010) findings revealed that there was an established feeling that while some nursing staff were kind, the prevailing impression was that nurses were likely to be rude and outspoken and that caused women to be cautious about accessing ANC services. Some respondents from Menon et al's (2010) study stated that nurses had different personalities.

While others answered clients in an embarrassing manner, some nurses were good, making clients feel welcome and relaxed in their presence. This shows that the more positive midwives attitudes are perceived, the more accessible ANC services by pregnant teenagers will be. This serves to encourage midwives to provide a distinct focus on teenage pregnancy as this intervention will mitigate adverse fetal and maternal outcomes of teenage pregnancy and contribute to achieving the fourth and fifth MDGs. However, more research needs to be undertaken at a larger scale with pregnant teenagers using different methodology and from the perspective of midwives to gain more insight on factors affecting accessibility of ANC services by pregnant teenagers.

5.3. IMPLICATIONS

The implications are related to findings of the problem under study, which explored the factors affecting accessibility of antenatal care services among pregnant teenagers. These implications have significance on different aspects of nursing which include practice, administration, education and research.

5.3.1. NURSING PRACTICE

Accessibility of ANC services by pregnant teenagers is hindered by many factors peculiar to their age. The way midwives render the service to pregnant teenagers may either encourage or discourage them to continue accessing the service. A considerable number of pregnant teenagers perceived a negative attitude from midwives as a barrier to their accessing ANC services. It is important that midwives incorporate counseling skills during their provision of care to adolescents in a friendly and non-judgmental manner. It is essential that midwives practice with a positive attitude in order to encourage pregnant teenagers to access early and consistent ANC services. Any contact with adolescents need to be used as a starting point to build good relationship between nurses and teenagers to encourage early accessibility of health services.

Youth Friendly Services and School Health Services should be incorporated during school and community outreach services with an emphasis on consequences of teenage pregnancy and importance of early ANC services to all girls.

Antenatal bookings should be accessed anytime of the day and not restricting it to mornings only as that disadvantages many teenagers who could not manage morning visits.

5.3.2. NURSING RESEARCH

Exploration need to be done to ascertain the content and impact of what girls are being taught during sex education at school with regard to consequences of unprotected sex apart from contracting STIs and HIV/AIDS.

Research on the impact and usage of Youth Friendly Services by adolescents need to be done to identify ways of improving the services and attracting more teenagers to access the services. Further research need to conducted to explore cultural factors and service related factors that affects accessibility of ANC services by pregnant teenagers.

5.3.3. NURSING ADMINISTRATION

Nurse administrators should use research findings to identify gaps in the services that are being provided in order to improve the quality of services. Since factors affecting accessibility of ANC services among pregnant teenagers maybe related to various issues, suggestion boxes should be introduced in the health centers so that suggestions and comments from the public could be used as checks and balances on the services being offered. Nurse administrators should also lobby for more midwives and increase staffing levels in MCH departments to ensure teenagers receive optimal attention during antenatal care. Nurse administrators should provide supervision to midwives to enforce positive attitude during service delivery to pregnant teenagers.

Nurse administrators should initiate and encourage positive attitude towards midwives, lead by example, and in return, midwives will provide antenatal care services with a positive attitude towards pregnant teenagers.

5.3.4. NURSING EDUCATION

Increased and advancing technology with globalization in the young generation could be a challenge if midwives remained static in their knowledge and skills. Thus, it is important that midwives keep advancing their education and equipping themselves with the latest information on how to render quality, efficient and effective midwifery care especially to adolescents. Given that on factors affecting accessibility of ANC services among pregnant teenagers is related to midwives attitude, it would be necessary to include an aspect that addresses attitude in the nursing and midwifery curricula.

The Ministry of Health (MoH), General Nursing Council (GNC) and Zambia Union of Nurses Organization (ZUNO) should also organize workshops to teach positive attitude to nurses and midwives. This would help midwives and nurses change attitude in order to attract teenagers to access early ANC. Midwives should also be trained in psychosocial counseling and Adolescent Reproductive Health Services so that they can effectively provide services to adolescents while understanding their unique needs.

5.4 CONCLUSION

Early childbearing is linked to a number of undesirable health outcomes such as risk of death of mother and baby, pregnancy-related illnesses and delivery complications such as RVF and VVF among others. Timely accessibility of ANC services is one of the measures put in place to mitigate these adverse fetal and maternal outcomes of teenage pregnancy. Drawing from the present study findings which revealed that social support received by pregnant teenagers, economic status of the pregnant teenagers' custodians who were either their parents or partners, level of knowledge on ANC services and the perception of midwives attitude towards pregnant teenagers had associations both negatively and positively with accessibility of ANC services among pregnant teenagers.

Addressing challenges faced by pregnant teenagers should be viewed in totality. Therefore, robust measures should be put in place to help teenagers access early ANC services. Communities and families should be encouraged to offer social support to pregnant teenagers and to further encourage the pregnant teenagers to access early ANC services.

Pregnant teenagers should be encouraged to go back to school after they deliver whether they are married or not. This will assist them to gain knowledge and skill that can help them be economically independent.

Schools and other collaborating stakeholders should intensify sex education, including the consequences of sex and teenage pregnancy to adolescents. Furthermore, midwives should provide services to teenagers in a friendly, confidential and non-judgmental manner to gain teenagers confidence. Youth Friendly Services and School Health Services should be strengthened and used to sensitise the girls on the dangers of teenage pregnancy and importance of early accessibility of ANC services for all pregnant teenagers.

5.5. RECOMMENDATIONS

5.5.1. MINISTRY OF HEALTH

Ministry of Health should conduct capacity building amongst all practicing midwives through short training in Adolescent Reproduction Health and Psychosocial Counseling. By so doing, midwives will be equipped to execute services to adolescents according to their special needs in a friendly and non-judgmental manner. More nurses should be trained in midwifery to cushion the workload and shortage of staff providing MCH services. In addition, MoH through the Health Education Unit should increase the dissemination of information through the media such as Radio and Television to sensitise community in general and teenagers in particular about the importance of accessing ANC early. Health education messages should emphasize on the dangers of teenage pregnancy to both the mother and the baby.

5.5.2. DISTRICT HEALTH OFFICE

The District Health Office should work together with other collaborating partners such as the Ministry of Education (MoE) and Non Governmental Organizations (NGOs) within the District in order to intensify health education in schools and communities about Teenage Pregnancy.

Health education should emphasize on the dangers of teenage pregnancy and how to mitigate those dangers. This could be done through integrating School Health Services with Youth Friendly Services.

District Health Office should train more Peer Educators and lay counselors who should be employed to work in the Youth Friendly Corners to complement midwives efforts in implementing health-based programmes provided for adolescents. Peer Educators serve as role models and advocates for their fellow adolescents and hence, help bring about healthy behavioural change (Panday et al, 2009).

District Health Office, in collaboration with NGOs and the Churches should involve community health volunteers to disseminate the information on the importance of early access to ANC services and dangers of teenage pregnancy. This information should be given to all youth gatherings and groupings.

5.5.3. HEALTH CENTER STAFF

Health care providers in general, and midwives in particularly, should re-evaluate the Information, Education and Communication (IEC) strategies on ANC services with emphasis on delaying pregnancy among teenagers until they are preferably above 20 years. Further emphasis should be on the consequences of teenage pregnancy to enable every teenager perceive the severity of the problem and suspectability to the problem if they do not use contraceptives.

Pregnant teenagers should be encouraged to access ANC services early and to adhere to the appointment dates with emphasis of going back to the health center at any sign of deviation from normal. Health centers management should consider embarking on a deliberate policy to be booking pregnant teenagers anytime they come to the center. Youth Friendly Services (YFS) should be revived and strengthened with a deliberate move to sensitizing girls about its services during the School Health Services. Health centers should utilize Peer Educators during YFS as they complement services provided by midwives and serve as role models for healthy behaviour.

5.6. DISSEMINATION OF FINDINGS

Dissemination of research findings involves communication of research findings through presentation to a variety of audiences and publication, such as policy makers, and health professional (Burns and Grove, 2009). Findings of the present study will be disseminated through the provision of copies of dissertation to the University of Zambia, Department of Nursing Sciences and the School Medical Library.

Ministry of Health who are my sponsors will be given a copy. An executive summary will be given to Lusaka Urban District Health Office. Attempts will be made to disseminate the findings of the study at any scheduled conference or seminar for public knowledge and action toward improving ANC accessibility among pregnant teenagers.

A meeting will be organized for midwives and nurses from the health centers where the research was conducted. This will help midwives and nurses to be knowledgeable of the factors affecting accessibility of ANC services among pregnant teenager and in a way come up with measures of improving service deliver.

5.7. LIMITATIONS OF THE STUDY

The inclusion criterion for the present study was limited to teenagers who had come for subsequent ANC visit and those who were in the pueperium period regardless of their parity. This meant exclusion of those teenagers who had come for first booking and those who were not in the pueperium phase. Their inclusion might have provided a broader and different insight into the factors affecting accessibility of ANC services among pregnant teenagers.

Since the interviews were conducted within the premises of the health facilities, it is possible that some respondents may not have freely talked about the quality of health care given. Participants might have responded just to please the interviewer and not express themselves freely despite the interviewer explaining the purpose of the study and providing privacy during the interview.

In addition, amount of time allocated for data collection and report writing was limited, which made it difficult for the study to be conducted at a wider scale.

The study was further hampered by financial constraints which contributed to limited techniques used in data collection.

Further, while the study was conducted from selected clinics, generalization of findings has been compromised due a small sample size of 50 respondents.

Research design used in the present study might have limited free expressions from respondents. A qualitative research method would likely provide additional insights on factors affecting accessibility of ANC services among pregnant teenagers. Finally, difficulties in accessing locally generated research evidence made it difficult to support findings of the present study.

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Appendix 1: STRUCTURED INTERVIEW

UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

TOPIC:

FACTORS AFFECTING ACCESSIBILITY OF ANTENATAL CARE SERVICE AMONG PREGNANT TEENAGERS

Questionnaire Number.....

Date.....

Place of interview.....

Instructions to Interviewer

i. Introduce yourself to respondent
ii. Explain the purpose of the study to the respondents.
iii. Ask for permission to interview the participant as well as to be taking notes.
iv. Participants should not be forced to be interviewed
v. Assure the respondent of confidentiality.
vi. Do not write respondent's names on this interview schedule
vii. Write/tick reponses in the spaces provided.
viii. Thank the respondent at the end of each interview.

SECTION A

BIOGRAPHIC DATA

for official use

1. How old were you on your last birthday?

   .....

   a) 13-15 years { }
   b) 16-17 years { }
   c) 18-19 years { }

2. Are you in school? Yes/No

   If yes, in which grade?.....

   If no, what was your last grade?.....

3. What is your level of your education?

   a) None { }
   b) Primary school { }
   c) Secondary school { }
   d) Tertiary level (college/University) { }

4. What is your marital status?

   a) Married { }
   b) Single { }
   c) Widow { }
   d) Divorced { }
   e) Separated { }
   f) Co-habiting { }

5. Is this your first pregnancy?

a) Yes { }

b) No { }

6. If "No" to Q 22, how many pregnancies have you had Including this present one? (specify).

.....

7. Who do you live with?

a) Parents/Guardians { }

b) Husband/Partner { }

c) Friends { }

d) Alone { }

8. Where do you live? Indicate the name of the compound/township.

.....

a) High density area

b) Medium density area

c) Low density area

9. What is your religion/denomination

a) Roman Catholic { }

b) Pentecostal { }

c) Seventh Day Adventist (SDA) { }

d) Reformed Church { }

e) United Church of Zambia (UCZ) { }

f) Apostolic Faith { }

g) Jehovah's Witness { }

h) Others (specify).....

SECTION B

ACCESSIBILITY OF ANTENATAL CARE

SERVICES

10. When did you start antenatal care?
    a) Before or at 4 months of pregnancy { }
    b) Between five (5)and seven (7)months of Pregnancy { }
    c) At eight (8) months of pregnancy { }
    d) At nine (9) months of pregnancy { }
    e) Never attended any visit till delivery { }

11. Explain in your own words what made you start antenatal care at the time you did? (referring to your answer for question 10)?
    .....
    .....
    .....
    .....

12. The service time for antenatal services disadvantages the pregnant teenagers
    a) Strongly agree
    b) Agree
    c) Uncertain
    d) Disagree
    e) Strongly disagree

13. How long does it take you to walk to the Clinic?

a) Less than 30 minutes
b) One hour
c) More than one hour

14. How long do you wait at the clinic before being attended to?

a) Less than 1 hour
b) 1 hour to 2 hours
c) 3 hours to 4 hours

15. What could be the most convenient time for you to access antenatal care services?

a) Early in the morning
b) Afternoon
c) Weekends
d) Holidays

SECTION C

SOCIAL SUPPORT

16. Is your pregnancy intended or unintended?

a) Intended { }
b) Unintended { }

17. How did you feel when you realized you were Pregnant?

a) Happy { }
b) Disappointed { }
c) Worried { }
d) Wanted to abort { }

18. Who did you tell first when you discovered you were pregnant?

a) Mother { }
b) Husband/Partner { }
c) Auntie { }
d) Friend { }
e) No one { }

19. What was the reaction of the one you told first that you were pregnant?

a) Happy { }
b) Disappointed { }
c) Annoyed { }
d) Suggested abortion { }

20. What was the reaction of the other members of the family when they learnt of your pregnancy?

a) Happy
b) Disappointed
c) Furious
d) Chased from home

21. Who encouraged you to access antenatal care services?

a) My mother { }
b) Husband/partner { }
c) My sister { }
d) Friends { }

SECTION D

ECONOMICAL FACTORS

22. What do your parents/guardians or partner do for their living?

a) Formally employed { }
b) Self employed (informal employment) { }
c) Unemployed { }
d) Others (specify).....
.....

23. How many meals do you have in a day?

a) One { }
b) Two { }
c) Three { }
d) More than three meals { }

SECTION E

LEVEL OF KNOWLEDGE

24. How did you come to know about antenatal care services?

a) Through my sister { }
b) Through a friend { }
c) From my parent/guardian { }
d) From school { }
e) From church { }
f) Through the radio/television { }

25. Have you had any formal teaching about antenatal care services?

a) Yes { }

b) No { }

26. If yes to Q 25, at what level of your schooling did you Learn about antenatal care services?

a) Primary { }

b) Secondary { }

c) Tertiary (college/University) { }

27. Have you had any formal teaching on the benefits of Antenatal care services?

a) Yes { }

b) No { }

28. If yes to Q 27, how old were you when you were taught about antenatal care services? Specify

.....

29. What do you understand by the term, "Antenatal Care"?

.....

.....

.....

.....

.....

.....

30. What benefits are there in attending antenatal care?

(Tick all correct answers)

a) Early detection of complications { }

b) Screening, Prevention and Treatment of diseases like Malaria, STIs, HIV and Anaemia { }

c) Teachings on care of self and the baby { }

d) Teachings on care of baby and the father { }

e) Equip you with knowledge about signs of labour, Dangers signs and action to take { }

f) I do not know { }

31. What do you think are the dangers of being pregnant at a younger age?

.....

.....

.....

.....

.....

SECTION E

ATTITUDE OF THE MIDWIVES/SERVICE PROVIDERS

32. How did the staff treat you when you first came for Antenatal care services?

a) Good { }

b) Fair { }

c) Poor { }

33. What was done to maintain privacy when you were being attended to? (Tick one answer).

a) Bed was screened { }
b) Examined in public { }
c) Interviewed and examined in an enclosed room { }

34. Some midwives are judgmental towards pregnant teenagers

a) Strongly agree { }
b) Agree { }
c) Uncertain { }
d) Disagree { }
e) Strongly disagree { }

35. What should be done to improve accessibility of antenatal care services among pregnant teenagers?

.....
.....
.....
.....
.....
.....
.....

END OF INTERVIEW

THANK YOU FOR PARTICIPATING

APPENDIX II: INFORMED CONSENT

Dear Respondent,

My name is Benetiah Nasengo Kapeta. I am a fourth year student at the University of Zambia, School of Medicine in the Department of Nursing Sciences. I am pursuing a Bachelor of Science Degree in Nursing. As a partial fulfillment for the degree program, I am obliged to undertake a research project. The title of my study is: **Factors Affecting Accessibility of Antenatal Care Services among Pregnant Teenagers.**

You have been selected to participate in this study. I hereby request your participation in this study. Participation is voluntary and you are free to withdraw at any stage of the study if you wish to do so without any prejudice. The information you will give me will be kept confidential and no name will be written on the interview schedule.

There are no direct benefits from the study or monetary gain, however, the information that you will provide will help the Ministry of Health and other relevant authorities in putting measures to improve accessibility to antenatal care services among pregnant teenagers.

Thanking you in advance.

I (name) .....on .....November 2011 declared that I understand the purpose of this study and I am willing to participate.

Signature/ thumb print of respondent.....

Signature of interviewer.....

APPENDIX: III WORK SCHEDULE

	TASKS TO BE PERFORMED	DATES	PERSONNEL ASSIGNED	PERSONS/DAY REQUIRED
1	Literature Review	Continuous	Researcher	Continuous
2	Finalizing Research Proposal	6th June to 17th October, 2011	Researcher and Researcher Supervisor	17 weeks
3	Permission to conduct Study	26th September to 17th October, 2011	Researcher Supervisor	3 weeks
4	Pilot study data collection	25th October to 31st October, 2011	Researcher	1 week
5	Data collection for the Actual study	1st November to 18th November, 2011	Researcher	3 weeks
6	Data analysis	21st November to 22nd December, 2011	Researcher	4 weeks
7	Report Writing	3rd January to 24th January, 2012	Researcher and Research Supervisor	3 weeks
8	Submission of Draft report to DNS	25th January to 22nd February, 2012	Researcher	4 weeks
9	Submission of Final report	5th March to 2nd April, 2012	Researcher and Research Supervisor	4 weeks
10	Dissemination of findings	3rd April to 2nd May, 2011	Researcher	4 weeks
11	Monitoring and evaluation	Continuous	Researcher and Research Supervisor	

APPENDIX: I V GANTT CHART

Task Performed	Responsible Person	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April
Finalizing Research Proposal	Researcher and Supervisor	←	—	—	—	—	—	→				
Permission to conduct study	Researcher				↔	↔						
Printing of Questionnaire	Researcher					↔						
Pilot study data collection	Researcher					↔						
Data analysis	Researcher					↔	↔					
Report analysis	Researcher and Supervisor						↔	↔				
Report Writing	Researcher and Supervisor							↔	↔	↔		
Submission of draft report	Researcher							↔	↔	↔	↔	
Submission of research report	Researcher										↔	↔
Dissemination of results	Researcher											←
Monitoring and Evaluation	Researcher	←	—	—	—	—	—	—	—	—	—	—

APPENDIX V: BUDGET

DESCRIPTION	QUANTITY	UNIT COST (ZMK)	TOTAL (ZMK)
Stationery			
Notebooks	2	3,500	7,000
Bond paper	3	35,000	105,000
Pencils	5	2,500	2,500
Markers	3	3,500	10,500
Rubber	2	1,000	2,000
Flip chart	1	45,000	45,000
Scientific calculator	1	55,000	55,000
Stapler	1	35,000	35,000
Staples	1 packet	15,000	15,000
Perforator	1	30,000	30,000
Manila files	10	1,500	15,000
Filing clips	1 packet	15,000	15,000
Box file	3	10,000	30,000
Folder	2	3,000	6,000
Ruler	2	1,000	2,000
Research bag	2	25,000	50,000
Sub total			**425,000**
Personnel Costs			
• Researcher (lunch allowance)	1 x 10 days	50,000	500,000
Sub Total			**500,000**

Secretarial services			
• Photocopying	50 *5	200	120,000
• Typing Services	200 pages	2,500	500,000
• Binding	4	75,000	200,000
Sub Total			**820,000**
Transport			
Transport costs for the researcher	1	60,000/day	600,000
Sub Total			**600,000**

BUDGET SUMMARY

NO.	DETAILS	TOTAL AMOUNT
1	Stationery	425,000
2	Lunch allowances for the researcher	500,000
3	Secretarial services	820,000
4	Transport allowances for the researcher	600,000
	Grand Total	**2,345,000**

BUDGET JUSTIFICATION

The budget for the research proposal has been divided into four major parts according to the anticipated needs, namely; stationary, lunch/meal allowances for the researcher as she may be required to work over lunch, transport allowance to and from the clinic where the research will be conducted, and secretarial services. The budget is in such a way that it will facilitate a smooth conducting of the study.

Stationery

Stationery was used in this research for writing the project proposal, preparation of questionnaires, data collection, processing and analysis. Stationery was also essential for writing the final report.

Secretarial

Secretarial services in this study included photocopying, editing, printing and binding the research final copies.

Lunch and transport allowances

During data collection the researcher required lunch and transport allowances as she was required to work outside normal working hours.

THE UNIVERSITY OF ZAMBIA

SCHOOL OF MEDICINE

DEPARTMENT OF NURSING SCIENCES

Telephone: 252453 P.O. Box 50110

Telegrams: **UNZA, Lusaka** **LUSAKA**

UNALUZA 44370

Fax: +260-211-250753

Date: 10th August, 2011.

The District Medical Officer
Lusaka District Health Management Team
P.O Box 50827
Lusaka

Dear Sir/Madam,

The bearer BENETIAH NASENGO KAPETA is a student pursing a Bachelors Degree in Nursing Sciences at the University of Zambia, School of Medicine. She is expected to carry out her research study in partial fulfillment of the requirements of the programme. Her research topic is: FACTORS AFFECTING ACCESSIBILITY TO ANTENATAL CARE SERVICES AMONG PREGNANT TEENAGERS.

Iam requesting your good office to avail her with the information she needs for her study. For any further clarifications, please don't hesitate to contact the undersigned or the Department of Nursing Sciences in the School of Medicine.

Your continued support is highly appreciated.

Thank you.

Dr. Lonia Mwape

SUPERVISOR

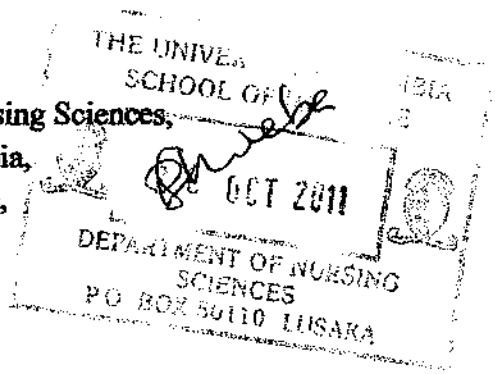
1/11/2011
PLCO
FYA

The University of Zambia,
School of Medicine,
Department of Nursing Sciences,
P.O Box 50110,
Lusaka.
26th October, 2011.

The District Medical Officer,
Lusaka District Health Management Team,
P.O.Box 50827,
Lusaka.

3/11/11
Secretariat
Please draft letter of authority for academic purposes on
See next page for sites.

U.F.S: The Head
Department of Nursing Sciences,
University of Zambia,
School of Medicine,
P.O. Box 50110.
Lusaka.



Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT A PILOT STUDY

I am a fourth year student pursuing a Bachelor of Science (BSc) degree in Nursing at the University of Zambia, School of Medicine, Department of Nursing Sciences.

In partial fulfilment of the BSc Nursing Degree programme, I am required to conduct a research study. The title of my study is **"Factors affecting Accessibility of Antenatal Care Services among Pregnant Teenagers"**. I am therefore requesting for permission to carry out this study at Chilenje Health clinic. I intend to conduct this study between 31st October and 3rd November 2011.

Attached are my interview schedule and consent form. If you need any further clarification, please contact the Head of Department, Department of Nursing Sciences.

Your favourable consideration will be highly appreciated.

Thanking you in anticipation.

Yours faithfully,

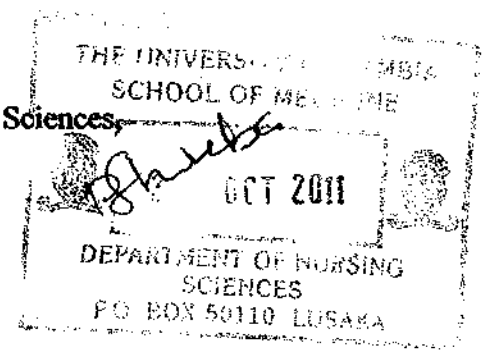
Benetiah Nasengo Kapeta.

The University of Zambia,
School of Medicine,
Department of Nursing Sciences,
P.O Box 50110,
Lusaka.
26th October, 2011.

The District Medical Officer,
Lusaka District Health Management Team,
P.O. Box 50827,
Lusaka.

3/11/11
Approved

U.F.S: The Head
Department of Nursing Sciences,
University of Zambia,
School of Medicine,
P.O. Box 50110.
Lusaka.



Dear Sir/Madam,

RE: PERMISSION TO CARRY OUT A RESEARCH STUDY

I am a fourth year student pursuing a Bachelor of Science (BSc) degree in Nursing at the University of Zambia, School of Medicine, Department of Nursing Sciences.

In partial fulfilment of the BSc Nursing Degree programme, I am required to conduct a research study. The title of my study is **"Factors affecting Accessibility of Antenatal Care Services among Pregnant Teenagers"**. I am therefore requesting for permission to carry out this study at the following clinics; Chipata Health clinic, Kalingalinga Health center and Kabwata Health Center. I intend to conduct this study between 4th November and 28th November, 2011.

Attached are my interview schedule and consent form. If you need any further clarification, please contact the Head of Department, Department of Nursing Sciences.

Your favourable consideration will be highly appreciated.

Thanking you in anticipation.

Yours faithfully,

Benetiah Nasengo Kapeta.

Telephone: 260-211-235554
Fax: 260-211-236429

In reply please quot

No.:.....

REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

LUSAKA DISTRICT HEALTH MANAGEMENT TEAM
P. O. Box 50827
LUSAKA

3 November 2011

Benetiah Nasengo Kapeta
University of Zambia
School of Medicine
Department of Nursing Sciences
P O Box 50110
LUSAKA

Dear Ms. Kapeta

RE: FACTORS AFFECTING ACCESSIBILITY OF ANTENATAL CARE SERVICES AMONG PREGNANT TEENAGERS

We are in receipt of your letter over the above subject.

Please be informed that Lusaka DHMT has no objection for you to carry out a research within some DHMT Health Centres on **"Factors affecting Accessibility of Antenatal Care Services among Pregnant Teenagers"**, as partial fulfillment of programme requirements.

By copy of this letter the respective Health Centre In-charges are herewith informed.

Please ensure that a copy of the summary of findings is also provided to Lusaka District Health Management Team at the end of the research study.

Yours faithfully,

DR. C. MBWILI-MULEYA
PRINCIPAL CLINICAL CARE OFFICER

CC: The Head – Department of Nursing Sciences
CC: In-charge – Chipata, Kalingalinga and Kabwata health centres