

**SCHOOL OF PUBLIC HEALTH
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA**

**ASSESSMENT OF THE QUALITY OF ANTENATAL CARE (ANC)
SERVICES AMONG TEENAGE MOTHERS IN THE MAAMOBI
DISTRICT HOSPITAL IN ACCRA**

**BY
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LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE
AWARD OF MASTER OF PUBLIC HEALTH (MPH) DEGREE**

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DECLARATION

I, Bonso Gloria declare that apart from references to other works which have been duly acknowledged; this study was undertaken by me under supervision and has not been presented elsewhere for another degree.

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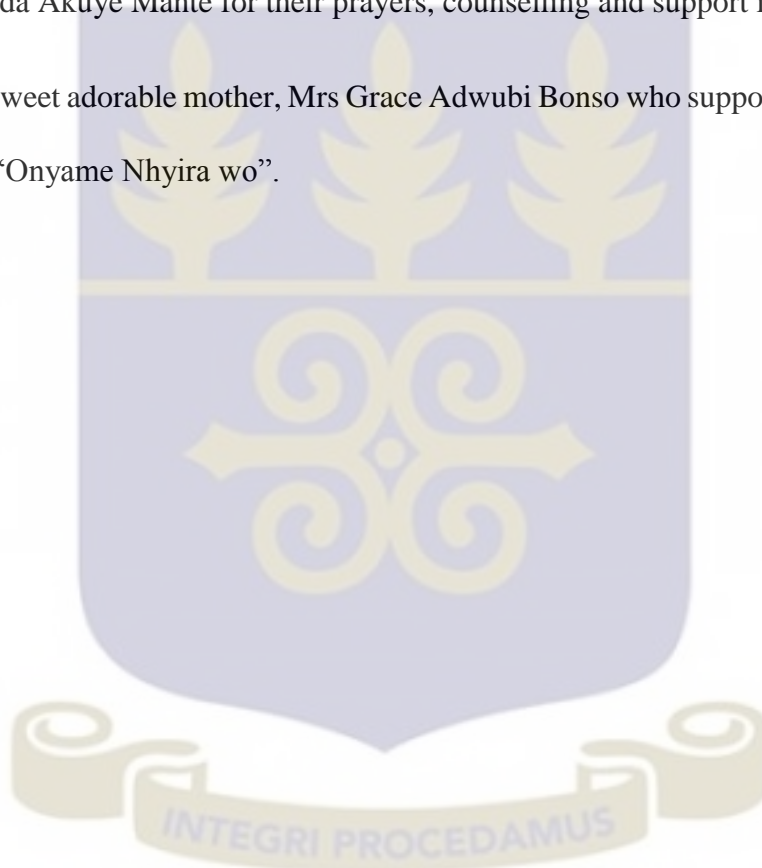
DEDICATION

I dedicate this work to the Almighty God for his mercy and loving kindness he shows me each day, good health and knowledge to be able to complete this work successfully.

I also dedicate it to my lovely children, Michelle Nhyira Koomson and King-David Kelvin Aseda Koomson.

Not forgetting my dear husband Mr. Kenneth Kelvin Papa Kwesi Koomson and my lovely sister Mrs Hilda Akuye Mante for their prayers, counselling and support in my life.

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
CHPS	Community-Based Health Planning and Services
FANC	Focused Antenatal Care
GHS	Ghana Health Service
HIV	Human Immune Virus
MOH	Ministry of Health
NHIS	National Health Insurance Scheme
PMTCT	Prevention of Mother to Child Transmission
RCH	Reproductive and Child Health
STI	Sexually Transmitted Infections
UNICEF	United Nations Children's Emergency Fund
WHO	World Health Organization



DEFINITIONS OF TERMS

Antenatal Care The care and education given to women during pregnancy.

Quality How good or bad a service or product is.

Teenage Pregnant Mothers Individuals who are pregnant between the ages of 13 – 19 years.

Teenage Nursing Mothers Individuals who are breastfeeding between the ages of 13- 19 years.



ABSTRACT

Background: Pregnancy and childbirth complications are the second cause of death among 15 to 19 year olds globally. Early childbearing increases risks for both mothers and their new-born, thus antenatal clinic (ANC) should be started in the first trimester of pregnancy or early in the second trimester (WHO, 2005). Quality health care is the proper performance interventions that are known to be safe and affordable to the society in question and impact positively on morbidity, disability and mortality. The dimensions of quality health care focuses on efficiency, effectiveness, safety, amenities, technical competence, continuity of services, interpersonal relationships and accessibility (GHS, 2005).

Objectives: This study seeks to assess the quality of ANC services available to teenage pregnant mothers at the Maamobi District Hospital by looking at the areas such as the level of satisfaction on the quality of care provided to teenage mothers, and assessing the knowledge of teenage mothers about Focused Antenatal care.

Method: The study was a cross sectional descriptive survey. Data was collected using questionnaires. The study sample included ninety (90) pregnant teenage mothers. Sample subjects were selected using the systematic random sampling technique. Variables measured were quality of antenatal care (ANC) received by pregnant teenage mothers and their demographic characteristics. Associations between these variables were determined using chi-square tests. These are presented in a tabular form.

Results: The results indicated that most pregnant teenage mothers were satisfied with the quality of antenatal care rendered.

Conclusion: Overall, delivery of quality ANC at the Maamobi hospital to pregnant teenage mothers was high with satisfied patronization.

Key words: Quality, Antenatal care, Satisfaction, Accessibility.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background information

The relevance of Antenatal Care (ANC) services to ensuring the health and wellbeing of young mothers and new born cannot be understated, and as noted ANC should be started in the first trimester of pregnancy or early in the second trimester (WHO, 2005). If the pregnant woman has no serious health problems and does not need special attention, only ANC visits suffice (Bearinger, Sieving, Ferguson, & Sharma, 2007; WHO/UNICEF, 1990-2001; WHO, 2003).

Antenatal care refers to the regular medical and nursing care recommended for women during pregnancy and a type of preventive care with the goal of providing regular check-ups that allow doctors or midwives to prevent, detect as well as treat potential health problems that may arise in a pregnant woman (WHO, 2005).

It is noted that adolescent pregnancy occurs in all societies, with considerable variation in magnitude and consequences among different countries and regions (WHO, 2005). In each case, a variety of complex socioeconomic factors are involved. For example, in some societies girls are forced into early marriage and are expected to begin their families during adolescence. In such countries, adolescent childbearing is considered a social norm for marriage or as proof of fertility. WHO (2005) stated that pregnancy and childbirth complications are the second cause of death among 15 to 19 year olds globally. Some 3 million unsafe abortions among girls aged 15 to 19 take place each year, contributing to maternal deaths and to lasting health problems.

Early childbearing increases the risks for both mothers and their new-borns. In low- and middle-income countries, babies born to mothers under 20 years of age face a 50% higher risk of being still born or dying in the first few weeks versus those born to mothers aged 20-29. The

younger the mother, the greater the risk to the baby. New-borns to adolescent mothers are also more likely to have low birth weight, with the risk of long-term effects.

In terms of context, adolescent pregnancies are more likely in poor, uneducated and rural communities. In some countries, becoming pregnant outside marriage is not uncommon. By contrast, some girls may face social pressure to marry and, once married, to have children. More than 30% of girls in low- and middle-income countries marry before they are 18; around 14% before they are 15. Some girls do not know how to avoid getting pregnant: sex education is lacking in many countries. They may feel too inhibited or ashamed to seek contraception services; contraceptives may be too expensive or not widely or legally available. Even when contraceptives are widely available, sexually active teenage girls are less likely to use them than adults. Girls may be unable to refuse unwanted sex or resist coerced sex, which tends to be unprotected (WHO, 2005). Table 1 contains a global incidence of adolescent pregnancy and childbearing from 1995 – 2000.

For all women of reproductive age, (especially for pregnant women) effective use of maternal health care services is a crucial predictor of maternal and infant outcomes, especially in terms of mortality and medical complications. This is particularly important to pregnant women located in socioeconomic settings where poverty is high and public health care services are constrained or expensive. Timely ANC thus as indicated above is a great chance to prevent the direct causes of maternal mortalities and reduce fetal and neonatal deaths related to obstetric complications as found by Loto, Ezechi, Kalu, Loto, Ezechi & Ogunniyi (2004).

Commonly, ANC usually is the first comprehensive health assessment that most pregnant teenagers go through (Reynolds, Wong, Tucker, 2006; WHO/UNICEF, 1990-2001; WHO, 2003), and this is an opportunity to sensitize young mothers on identifying and responding appropriately to signs of obstetric complications since they may likely have limited knowledge

and experience about reproductive health (Reynolds, Wong, Tucker, 2006). Further, ANC services provides young mothers with several immunization treatments such as tetanus toxoid immunization, malaria treatment, anaemia and STIs and the prevention of mother to child transmission of HIV/AIDs. Moreover, young expectant mothers are educated on birth spacing, family planning and use of institutional delivery which improves pregnancy outcomes for both mother and child (Reynolds, Wong, & Tucker, 2006; WHO/UNICEF, 1990-2001; WHO, 2003, Stoltzfus, 2001).

In Ghana, the situation of maternal health care is not so different. As a 3rd maternal health care service objective, the Maamobi District Hospital according to executive summary of their 2014 1st Quarter Report seeks to improve access to quality maternal, neonatal, child and adolescent health services. The hospital prioritized areas such as safe motherhood, family planning, prevention and management of STIs/HIV/AIDs, and post abortion. To help achieve these goals, the hospital currently runs antenatal activities including ; supervised deliveries, family planning, administering IPT, TT immunization, making 4th visit, checking pregnancy complications, HB checks both at ANC service registration and at 36 weeks, monitoring risk factors associated with pregnancy complications, and also undertaking health promotion activities on cholera prevention, and conducting routine and special home visits to educate clients on current health issues, and trace defaulters. However, these attempts have been hampered by numerous internal and external challenges, including lack of adequate equipment for their outreach points in the communities within the Maamobi district, ejection of their reproductive and child health (RCH) staff from some outreach points, and inadequate logistics for the effective running of their services (especially the CHPS programme), including the poor supply of electricity which damages their expensive equipment, understaffing of doctors, faulty electrical wiring, weak infrastructure, late reimbursement of claims from the National Health

Insurance Scheme(NHIS) which reduces the hospital's revenue returns, and the lack of X-ray technicians.

According to the 2013 Annual Report of the Maamobi district hospital, statistics on registered adolescent maternity services show that, in 2010, approximately 1255 number of adolescents registered and accessed antenatal care; in 2011 the number rose to 1338. But however, in the years 2012 and 2013, adolescents accessing antenatal health care declined to 1112 and 798 respectively. Also, statistical trends on adolescents' delivery show that in 2010 a total of 867 successful deliveries were recorded, while in 2011 a sum of 876 were recorded. However, the years 2012 and 2013 again indicated a drop in successful adolescent deliveries of 767 and 639 respectively. Furthermore, on prevention of mother to child transmission (P.M.T.C.T) testing, out of a total number of 1175 adolescents tested at Maamobi District Hospital, 59 tested positive in 2010, in 2011, 2313 were tested and 43 were found positive while in 2012 1875 were tested with 72 reporting positive, while in 2013 an estimate of 58 adolescents reported positive out of 2660, which means no significant changes in this situation recorded.

Still from the same 2013 Annual Report of the Maamobi District hospital, out of a total of 13,100 (68.93%) registered adolescents for antenatal health care services, only 7,148 of them attended clinics while only 3203 were seen throughout the entire 2013 year. Also, out of the total registered number, only an average visit per client of 4.36 was recorded the whole year, while those making at least the fourth(4th) visit were 16,084 (28.14%) reported. However, a total of 1598 abortions were recorded with 761 being spontaneous and 612 being induced abortions due to medical complications.

The main objective of free maternal health care is to improve the quality of care for pregnant women. Quality maternal health care involves before and after pregnancy which Bosu, Bell, Armar-Klemesu and Tornui (2007) stated as an area of concern for government. An evaluation by Ofori-Adjei (2007) found quality of clinical care to be consistently poor and was not

particularly affected by the exemption policy. Deganus and Tornui (2006) also found low scores than expected on the five care components of labour and delivery care at health care centre level, especially in the areas of management of the first stage of labour, use of partograph and for immediate post-partum monitoring of mother and baby.

Furthermore, confidential enquiry techniques also revealed that women received significantly poor quality care in hospitals, leading to many potentially avoidable deaths (Tornui, Armar-Klemesu, Arhinful, Penfold, & Hussein, 2007). Even though they found health system factors such as availability of consumables and basic equipment for providing comprehensive emergency obstetric care to be generally adequate. Moreover, Ofori-Adjei (2007) found through qualitative investigations that there were varied associations between health workers and clients, ranging from positive to antagonistic. And other barriers to skilled delivery care identified also included cost of transportation, medicines and other supplies, long distances to health facilities, cultural and social barriers.

In recognition of the significance of ANC services to maternal and child health, several national policies and programmes have been kept in including the Patient's Rights and Patient's Responsibilities charter implemented by the Ghana Health Service, the introduction of the National Health Insurance Scheme (NHIS), the introduction of the Free Maternal Care Policy which are all geared toward improving upon the quality of ANC services within Ghana.

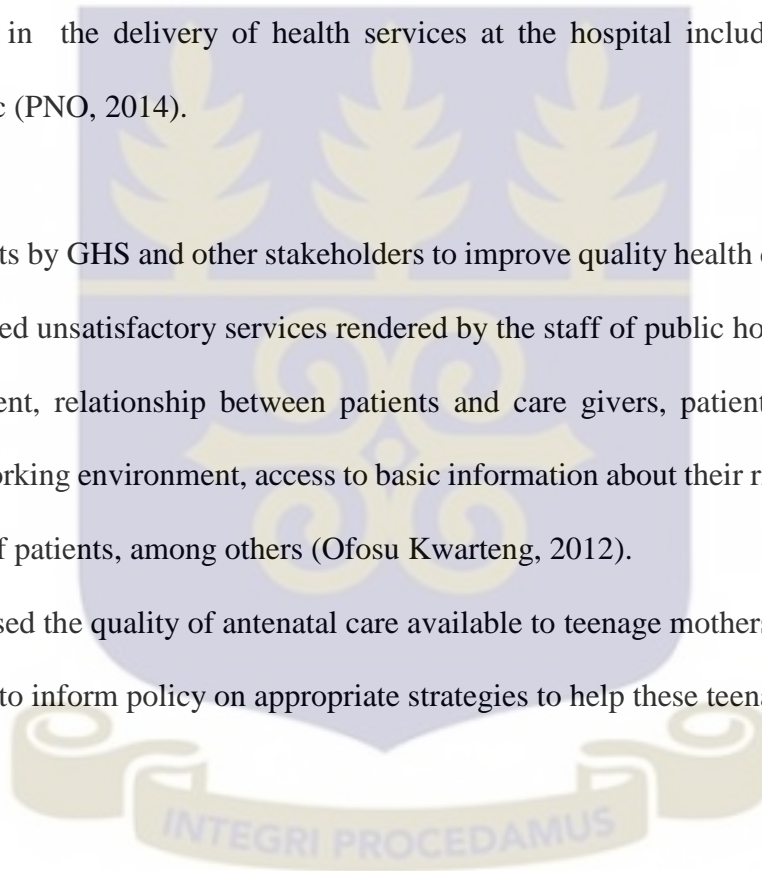
Against this background information, this study seeks to assess the quality of ANC services at the Maamobi District Hospital by looking at the areas such as factors associated with the utilization of ANC services at the hospital by teenagers, and to identify the factors influencing the utilization of ANC services among these teenagers.

1.2 Problem Statement

The quality of care received by teenage mothers are of great concern to public health policy makers worldwide and in sub-Saharan Africa (Ebeigbe & Gharoro, 2007), and these mothers often complain about poor quality of services in public health care facilities (GHS, 2005), especially poor client care, unhealthy environment and apathy of health service Providers (Boadu, 2011). It is not surprising that out of 687 pregnant teenagers registered at Maamobi district hospital in 2013, only 128 made regular visits till delivery (GHS 2013), and there have been challenges in the delivery of health services at the hospital including the antenatal (teenagers) clinic (PNO, 2014).

Despite the efforts by GHS and other stakeholders to improve quality health care delivery, still there are perceived unsatisfactory services rendered by the staff of public hospitals in areas of care and treatment, relationship between patients and care givers, patients confidentiality, sanitation of working environment, access to basic information about their rights, consent and confidentiality of patients, among others (Ofosu Kwarteng, 2012).

This study assessed the quality of antenatal care available to teenage mothers in the Maamobi District hospital to inform policy on appropriate strategies to help these teenage mothers.



1.3 Conceptual framework

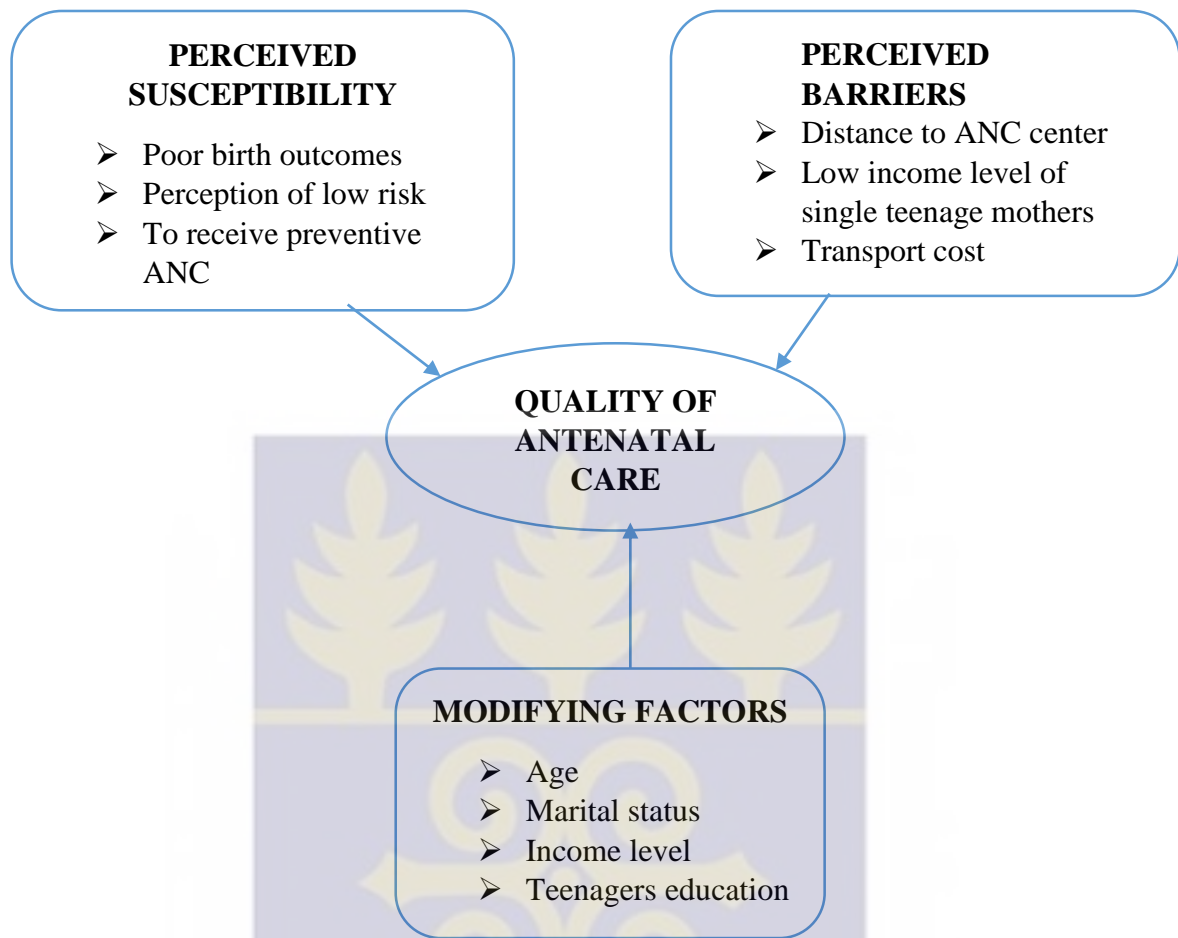


Figure 1: Conceptual framework of quality of ANC, (Modified from Rosenstock, 1974; Maiman & Backer, 1974)

The conceptual frame work (figure 1), shows the factors that were assessed to determine the quality of ANC. This conceptual framework is a modification of Becker and Maiman (1974) and Rosenstock (1974).

The model explains that a range of health behaviours can be predicted based on information from determinants such as perceived susceptibility, perceived severity, perceived benefits/barriers and modifying factors associated with engaging in a behavior and presented as follows:

How the Health Belief Model (HBM) will be applied to the proposed study

Perceived susceptibility refers to an individual's judgement of their risk of contracting a health problem. The likelihood of seeking health interventions increases as the level of perceived susceptibility increases (Rosenstock, 1974). Teenage expectant mothers will be more willing to access and utilize ANC services if they perceive that they are susceptible of developing pregnancy complications or losing the unborn child.

Perceived barriers states that individuals' choice of behavioral options depends on their perception of benefits and barriers. Thus cost-benefit analysis allows a person to evaluate the outcome expectations and assess whether the expected benefits of a behavior outweigh the perceived expenditure incurred by engaging in the behavior (Rosenstock, 1974). Compliance with recommended health seeking behavior is impeded to the extent that perceived barriers outweigh perceived benefits that would result from engaging in the health behavior (Rosenstock, 1974). The discomfort of waiting in long pews for long hours at clinics, distance to the health facility, attitude of health workers towards pregnant teenagers, inadequate resources, lack of adequate equipment for outreach programmes, registering teenagers who are not married, frequent migration of pregnant teenagers, home deliveries, low income level of teenagers, and homelessness of most teenagers registered at the hospital, will all act as barriers affecting access and quality of ANC services at the Maamobi hospital. So a pregnant teenage mother would opt not to go to the clinic if they see no benefit in doing so.

Modifying factors may include the demographic factors such as age, educational status, marital status, income level, of pregnant teenage girls in relation to utilization of ANC services (Chivonivoni et al., 2008).

Age: It is expected that older adolescent expectant mothers will be more likely to be adequately informed about pregnancy related issues compared to younger adolescent expectant mothers. Also, there will be less social stigmatization attached to older adolescent expectant mothers since the cultural context of most Ghanaian societies permit marriage of adolescents who appear older in terms of chronological age. However, typically there is a lot of social stigma attached to younger adolescent expectant mothers since typical Ghanaian society may deem them to be “too young to be pregnant”. Hence, it is obvious that these younger adolescent mothers may often shy away from accessing or attending ANC services due to the social stigmatization attached to their age.

Educational status: Educated adolescent expectant mothers may obviously be more exposed, both in school and through health promotion attempts, to reproductive health related issues both at home, school, at the hospital or clinics, or even on TV and radio. Unfortunately, teenage expectant mothers who are uneducated may be limited in terms of exposure to some of these mediums of communication which may impact on their level of access to information on pregnancy related issues. This can thus influence their knowledge and beliefs about, and willingness to access and utilize ANC services. Lack of education may even be a contributing factor to the preference for Traditional Birth Attendants (TBA) and home delivery over institutional delivery under the care of trained birth attendants or nurses. All this can affect the quality of ANC services.

Marrital status: Married adolescents will more likely utilize ANC services because they may have the social and material support provided by their male partners to help cater for ANC services compared to sing expectant adolescent mothers. Also, during delivery, the blood donation needed may easily be acquired from the male partners of 2`married teenage expectant mothers which usually tends to be a problem for the unmarried teenage expectant mothers. All these equally affect the quality and delivery of ANC services as well.

Income Level: Rich or middle class expectant adolescent mothers may obviously have the financial means to afford and cater for regular ANC services compared to their counterpart teenage expectant mothers from poor socio-economic status backgrounds. Therefore, in areas like Maamobi which is predominantly flooded by multi-ethnic groups with low socio-economic status, and most of the registered teenage expectant mothers being heard porters and street hawkers, it is expected that their ability to afford registration fee for the NHIS which could have offered them free antenatal care is not possible. Thus majority of the registered teenage mothers at the hospital may not be regular attenders which will affect the general quality of ANC services.

Employment status: Employed teenage expectant mothers may obviously have moderate or high income levels which will allow them to afford and use ANC services compared to the unemployed teenage mothers. Hence, in terms of service delivery, inability to afford registering for the NHIS or buying of delivery equipments by unemployed teenage expectant mothers will have adverse effects on the hospital's ANC services quality overall since the registered adolescent mothers cannot afford it.

1.3 Justification of the study

The necessity for this study lies in the problems faced by the Maamobi District hospital which may possibly be hindering the effective delivery of quality ANC services. Some of these problems include registering teenagers who are not married, teenagers being residentially unstable and preferring home delivery, teenagers failing to comply with clinic attendance schedules, financial incapability of teenagers to afford ANC services because of not being registered onto the National Health Insurance Scheme (NHIS), and inability of the ANC service staff to carry outreach health activities like home visits and check-ups due to the poor

residential conditions and homelessness of most of the registered pregnant teenagers at the hospital.

There has also not been any study on this topic in the study area and so the need for this study is evident to help inform policy on appropriate strategies on teenage reproductive health related issues as well as develop more effective interventions and health promotion programmes to ensure successful pregnancy outcomes for mother and child during delivery.

1.4 Objectives of the study

1.4.1 General objective

The general objective of this study is to assess the quality of antenatal care services available to teenage mothers in the Maamobi district hospital.

1.4.2. Specific objectives

The specific objectives are to:

1. Assess the demographic characteristics of teenage mothers.
2. Determine the level of satisfaction on the quality of care provided to teenage mothers.
3. Identify the challenges associated with antenatal teenage mothers.

1.5 Research Questions

1. What factors account for the non-utilization of antenatal care by teenage mothers?
2. What is the level of satisfaction on the quality of care provided to teenage mothers?
3. What are the challenges teenage mothers go through during antenatal visits?

CHAPTER TWO

2.0 LITERATURE REVIEW

Banda (2013) conducted a cross sectional quantitative study which aimed to assess the level of knowledge of women of focused antenatal care (FANC) services; to determine factors associated with low utilization of focused antenatal care services among pregnant women in Ntchisi district in Malawi; and to establish the current practices and perceptions of health care providers towards FANC. A total of 120 pregnant women, 84 postnatal mothers and 36 health workers were used as a sample in the study. Two structured questionnaires were used to gather data from the sample, one for both pregnant women and postnatal mothers, and the other one for the health workers. Low use of FANC services among the pregnant women was measured based on number of clinic visits.

Descriptive statistics using the SPSS and cross tabulations with X^2 -test was conducted to explore associations between variables. The results indicated that almost 96% of the sample had at least some knowledge of FANC, and 85% of them agreed that FANC would enable them to receive vaccines, supplements and malaria prophylaxis. Higher parity were also significantly associated with low utilization of FANC ($p < 0.05$). Long distance to the health facility and seeking permission to start and use FANC were also significantly correlated with low utilization of FANC ($p < 0.001$). Maternal perception of showing of the pregnancy was associated with late initiation of FANC visits ($p < 0.001$), and fear associated with witchcraft was marginally linked with low FANC utilization. Almost all the health workers (94%) were conversant with FANC guidelines and principles, only 72% implemented FANC guidelines on individualized health education. Generally, a positive perception towards FANC among health workers was also revealed in the study. So conclusions were that majority of participating mothers knew the importance of FANC, low utilization of FANC among pregnant women and postnatal mothers in Ntchisi district has been shown to be influenced by higher parity, age

range between 21-25 years, long distance, seeking permission and pregnancy associated beliefs notably witchcraft. Health workers are also acquainted with FANC services and demonstrated a positive perception.

Though the design of this study provided a clearer understanding of FANC implementation in the study catchment area, a major limitation with the cross sectional design used is the potential for recall bias regarding issues related to early pregnancy. Also, the sample excluded women who benefitted from mobile health clinic services and women using traditional birth attendants since only women from the health facilities were recruited. So the findings in this study cannot be confidently generalized to the entire population of pregnant women and postnatal mothers within the Ntchisis district. Thus in-depth investigation of demographic and social-cultural issues affecting FANC utilization is also needed.

A cross sectional study by Naariyong, Poudel, Rahman, Yasuoka, Otsuka, and Jimba (2012) compared the quality of antenatal care(ANC) between Community-based Health Planning and Services (CHPS) and non-CHPS areas in the Birim North District of Ghana. Data was collected from 600 women (300 from CHPS areas and 300 from non-CHPS areas) aged 15-49 years using structured questionnaires. Participants had at least one child within 18 months old, and resided in the district for at least 2 years before data collection. Outcomes included: index of ANC utilization (categorized as full or partial), receipt of anti-malarial drugs, testing for HIV infection, and index of knowledge about pregnancy danger signs (expressed in tertiles). Descriptive statistics and multivariate logistic regression methods were employed in the analysing the data. They found that participants in the CHPS areas were 2.7 times (95% CI: 1.66-4.35) more likely to have full utilization score, 4.5 times (95% CI: 2.37-8.51) more likely to receive HIV testing, and 3.7 times (95% CI: 1.72-7.94) more likely to receive anti-malarial prophylaxis during the ANC period. However, scoring high on the index of knowledge was revealed no significant association with the CHPS exposure (OR: 1.2; 95% CI: 0.69-2.00).

They concluded that the CHPS intervention might be useful to improve the quality of ANC in the study area. Thus CHPS intervention coverage in Birim North and other rural districts of Ghana might improve quality of ANC in those areas.

Furthermore, a study by Yeboah (2012) examined the impact of access to social support on prenatal health seeking behaviour of a selected group of pregnant teenage girls in Cape Coast, Ghana. A total random sample size of 170 pregnant teenage girls and another of 170 older mothers were selected from antenatal clinic registers of three Maternal and Child Health Clinics in Cape Coast. Information on initiation of prenatal visits, socio-demographic characteristics, living arrangements and access to social support were gathered using an interview schedule. With multiple regression analysis of data, it was revealed that access to social support was a significant predictor of early initiation of prenatal health care, irrespective of socio-demographic background and living arrangements of the group of mothers studied. Also, the results indicated that a teenage mother-to-be with inadequate social support and living in a poor household is the standard profile of a poor initiator of early prenatal care. Conclusions were that implications of the findings may be more serious in developing countries like Ghana, where teenage childbearing is occurring in the context of inadequate health services, poor state sponsored social services and widespread poverty.

The general socio-cultural context of the research setting of this study is of much relevance to this current study because it was conducted in Ghana. This will allow for cross comparisons of ANC or prenatal findings with this study. Also, it took into consideration the limitations of the study by Banda (2013) which recommended an in-depth examination of the demographic and social-cultural issues affecting FANC utilization. However, since Cape Coast has a slightly different socio-cultural setting from that of Maamobi, and since the focus of this study was not necessarily on the quality of ANC services, it makes it difficult to generalize its findings to that of other pregnant teenage populations like that of Maamobi district. Therefore, this present

study will seek to find out how different ANC service delivery is from that of the Cape Coast ANC service situation.

Utilization of ANC

A study by Singh, Rai, Alagarajan, and Singh (2012) investigated the factors associated with the utilization of maternal healthcare services among married adolescent women (aged 15 – 19 years) in rural India. Data available in public domain from the third wave of National Family Health Survey (NFHS-3, 2005-06) was retrieved and used for this study. Three areas of maternal healthcare service utilization were measured: full antenatal care, safe delivery, and postnatal care within 42 days of delivery for the women who gave birth in the last five years preceding the survey. This study focused on rural areas in the NFHS-3, where about 80% (3,599) of the total adolescent women (5,253) had experience of childbirth in their adolescence. So this study took into consideration only responses of those adolescent mothers who had experience of childbirth in their adolescence (aged 15-19 years) during the five years preceding the survey and residing in rural areas in India. The selection of the socioeconomic, demographic, and cultural factors influencing outcome events as predictor variables was guided by Thaddeus and Maine's (1994) proposed framework on causes of maternal mortality. For the data analysis, Bi-variate analyses including chi-square test were used to determine the difference in proportion, and logistic regression to understand the net effect of predictor variables on selected outcomes. It was found that there were significant differences in the utilization of selected maternal healthcare services by educational attainment, economic status, and region of residence. Muslim women and women who belonged to Schedule Castes, Scheduled Tribes, and other Backward Classes were also less likely to avail themselves to safe delivery services. Additionally, adolescent women from the southern region utilized the highest maternal healthcare services than the other regions.

An obvious strength of this study is that it comprehensively documented several socioeconomic and cultural factors affecting the utilization of maternal healthcare services among rural adolescent women in India. This will allow for cross-cultural comparisons between the findings of this study and that of the proposed study. Also, this study draws the attention of the study to the extent of influence socio-cultural practices, and the social strata has on ANC service access and delivery by adolescents from different social classes and ethnic groups. This may help explain the observations of this study extensively. And the sample size of this study was very large which makes its findings more reliable, more generalizable and good from cross comparison with this study.

Again, Resty (2011) examined factors affecting utilization of antenatal care services among pregnant adolescents in Kampala, Uganda. The Naguru Teenage Health Centre was used as a case study. A total sample of 96 pregnant adolescents and two health workers were used in the study. Information was also gathered using both qualitative and quantitative methods including questionnaires, interview guides and observation guides. Findings showed that some of the reasons affecting utilization of antenatal care services among adolescent pregnant mothers at the centre included long waiting hours, lack of education, and long distances to the centre. Also, a positive finding was that the services at the Naguru Teenage Health Centre were user friendly compared to other maternity clinics.

One visible challenge with this study has to do with its design, the use of a case study. This is because case studies generally always do not yield generalizable findings and so this thus limits the applicability of the findings derived from this study to other similar populations within or outside of Uganda. Also, only teenage expectant mothers visiting the centre were included in the study and this equally affects the reliability of the findings adolescents utilizing the traditional maternity services are not captured in the sample. Culturally however, a cross comparison of this study's findings can be made to those of the study to yield a richer

discussion and scope of the current study. A good thing however is that the study focused largely on both internal or clinic challenges that affects adolescent mothers willingness to patronize the ANC services such as waiting hours at the center, and it also looked at the distance of ANC service facilities from the residence of the expectant young mothers and their educational background which this study hope to consider as well.

To add to the already reviewed studies, Alemayehu, Haida, and Habte (2010) conducted a study which aimed to look at the factors associated with the utilization of ANC services in the Ethiopian context among teenage pregnant women, and to estimate factors influencing the practice of ANC utilization among the teenage women. Data for the study was sourced from the Ethiopian 2005 Demographic Health Survey by a stratified cluster sampling method. The focus was placed on data on women of child age. A total sample of 994 teenage women at the time of their most recent childbirth five years prior to the survey was selected and analyzed. A Bi-variate and multivariate analyses were made to measure the differentials of ANC by explanatory variables. Finding from this analyses revealed that 60% of the women fell in between ages 18-19 years. Also, 90% was from rural settings and 87% were married. Three out of four (72.4%) of those who had given birth had no formal education. Furthermore, and of this, 21% had started their first antenatal visit in the first trimester of pregnancy. However, majority (80.4%) of the women who attended ANC delivered at home without being assisted. Factors identified as predictors for utilizing ANC services were education level of women and male partners, better wealth index and urban residence.

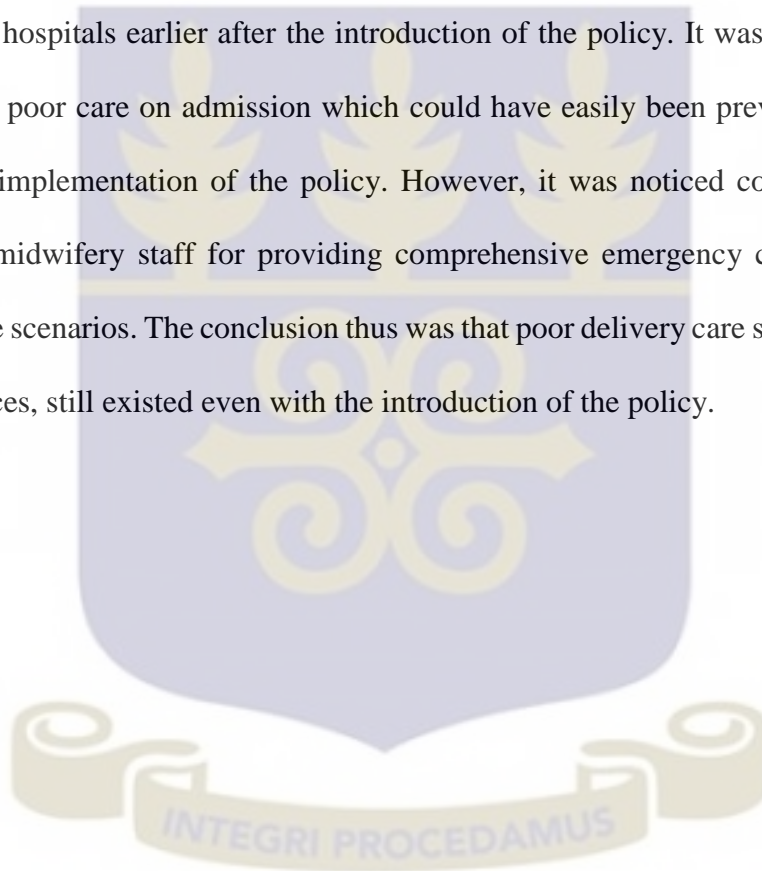
This study is very relevant because it make a cross comparison of rural-urban utilization of ANC services by teenage expectant mothers, which indicates that urban teenage expectant mothers tend to access ANC services more than those located in rural areas. The relevance of this to the study is that it leads to the expectation that teenage expectant mothers in the study setting (Maamobi District), which is a sub-metro area in the urban Greater Accra region, will

be expected to utilize ANC services at the district hospital more. Also, it teases out educational background of the male partner of the teenage expectant mother as an equal important predictor of adolescent mothers' access to ANC services, which the earlier studies failed to investigate. So the study will also include these variables in its objectives and investigate them in-depth.

In addition, an investigation by Chibava, Roos, and Ehlers (2009) which purposed to identify factors influencing adolescents' non-utilization of ANC services in Bulawayo. It used a quantitative, non-experimental, descriptive research design, and data was collected using structured interviews frame within the contextualization of the Health Belief Model (HBM). A sample of 80 adolescent mothers from the postnatal who had delivered their babies without attending ANC were selected based on a purposive sampling technique. Findings indicated that factors influencing these adolescents' non-utilization of ANC services included socio-economic issues, individuals' perception about ANC, limited knowledge about ANC, and policies and structural barriers. Also, policy-related issues like requiring national identity cards from pregnant adolescents (or from their spouses) prohibited some of them from utilizing ANC services. However, these adolescents knew that delivering their babies with skilled birth attendant could enhance the outcomes for the mothers and babies, would help secure documents to facilitate the acquisition of their children's birth certificates, and that obstetric complications required the services of skilled midwives/doctors.

It is obvious that the findings of this study might not be that too different from the situation of ANC service delivery in Ghana, especially policy-related issues such as the challenges that were captured in the Maamobi's 2014 1st Quarter report concerning the late reimbursement of claims from the NHIS which affects their revenue returns. The study would thus include this as a predictor variable for accessing ANC services at the Maamobil District Hospital by pregnant teenagers. However, the sample size of this study was very small which means that the result might not be very reliable. So the study will further test their findings to assess their

reliability. Ansong-Tornui, et al., also conducted a study which aimed to ascertain if changes had occurred in the care provided by reviewing the care given to a sample of maternal deaths before and after introduction of the delivery free exemption policy. Using a sample of 20 women who had died as a result of pregnancy-related complications (maternal deaths) in selected hospitals in two regions, a clinical panel was made to assess the deaths guided by a maternal death assessment form. Results found that clinical care provided before and after the introduction of the free exemption policy did not change, though women with complications were arriving in hospitals earlier after the introduction of the policy. It was revealed that the women received poor care on admission which could have easily been prevented as was the case before the implementation of the policy. However, it was noticed consumables, basic equipment and midwifery staff for providing comprehensive emergency care were usually available in these scenarios. The conclusion thus was that poor delivery care services, generally poor ANC services, still existed even with the introduction of the policy.



CHAPTER THREE

3.0 METHODOLOGY

3.1 Type of study

The study was a cross-sectional descriptive survey which gathered the responses of expectant teenage mothers registered at the Maamobi Hospital Antenatal Care Unit using questionnaires (Appendix 2).

3.2 Study design

The study was a cross sectional descriptive survey in which quantitative data was gathered using questionnaires. This is assumed a more appropriate design for this study because the study seeks to gather the responses of the participants and to analyze and make inferences on the findings of the study. Instrument used were questionnaires. There were two questionnaires (Appendix 2): one for the pregnant teenagers and one for the recently delivered teenagers.

3.3 Study population

The study targeted both pregnant and nursing teenage mothers within the ages of (13 – 19 years) who have been registered at the Maamobi District Hospital.

3.4 Study area

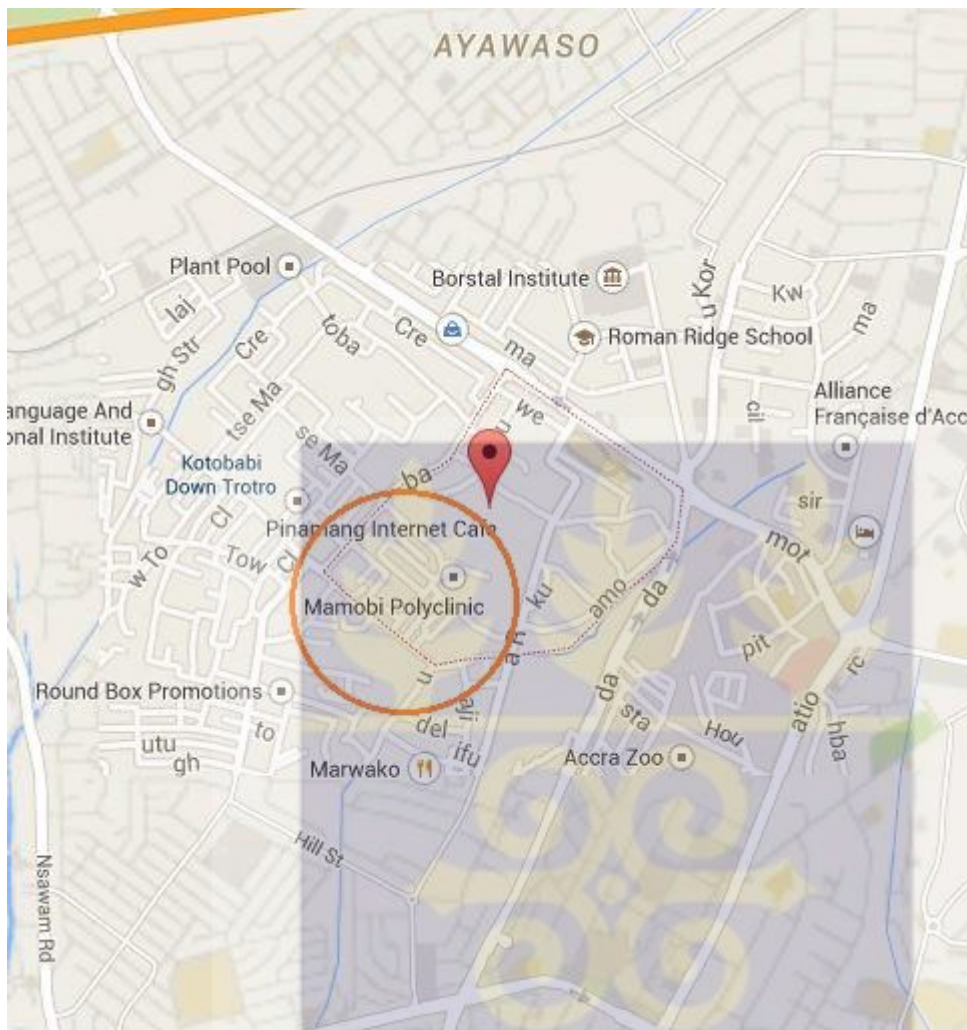


Figure 2: Map of Accra, showing the location of Maamobi District Hospital. Source: Ghanaweb.com and Google Maps

The study was carried out in the Maamobi District (Fig 2) a sub-metropolitan area within the Greater Accra Region. It is one of the densely populated areas in Accra with a population size of 475,092 as indicated in the 2014 1st quarter report of the Maamobi District hospital. It has a variety of ethnic groups including Gas, Akans, Ewes, various tribes from the Northern sector of Ghana and other nationals from the neighboring countries like Burkina Faso, Niger, Mali, Togo, Nigeria etc.

The languages spoken include Ga, Akan, Ewe, Hausa, Kotokoli, Chamba, Dagbani, English and French. It is bordered on the North by GIMPA, University of Ghana, Ga East District at the Institute of Professional Studies (IPS) road. On the South it is bordered by the Ring Road starting from Ako-Adjei inter-change down to Kwame Nkrumah Circle. On the East, its boundaries run from the Independence Avenue starting from the Kwame Nkrumah Circle to Apenkwa overhead bridge sharing boundaries with the Osu Clotey sub-district on the west – starting from IPS Junction through 37 Military Hospital to Ako Adjei Inter-change.

The women are petty traders and the men are artisans (e.g. Masons, Carpenters...). Farming is mainly on small scale with vegetables and cassava being the main crops cultivated. Poultry farming and sheep rearing is also a major activity in some residential homes. There are Christians, Muslims, and Traditional Religious groups distributed within the area.

Environmental sanitation in the well-established residential areas is excellent. However, the poor areas within the district are very poor with silted drains filled with solid waste and faecal matter. Waste are littered all over the area due to poor refuse disposal attitude of the indigenes. This leads to unhealthy surroundings and hence higher levels of certain diseases like malaria due to mosquitos.

A large concentration of health facilities exist in the area, with numerous pharmacies and chemical shops. However, traditional medicine practice has also gained roots and recognition as well. Spiritual churches also perform psychic healing and even engage in conducting unauthorized deliveries. Drugs (orthodox and traditional) are sold openly in in the area as well.

3.5 Variables

3.5.1 Dependent Variable:

Quality of Antenatal Care (ANC) service.

3.5.2 Independent Variable:

Demographic variables of teenage mothers including educational level, marital status, income level, age, and employment, and access to ANC are the independent variable.

3.6 Sampling

A total sample size of 90 teenage girls registered with the Maamobi District Hospital was randomly selected using systematic random sampling technique to participate in the study.

This sample size is deemed ideal for the study because Tabachnick and Fidell (1996) proposed a formula for determining sample size which stated that $n > 50 + 8M$ (where n = sample size, 50 is constant, and M = number of independent variables). So from the above formula, the number of independent variables in this study are five, which when multiplied by 8 and added to 50 will produce an initial sample size estimate of 90 participants for this study.

Also, according to Opoku (2005), for a sample size to be representative of the population parameter, there should be an increase in the initial sample size estimate (which is 90 in the present study). Although the initial sample size is 90, a total sample size of 240 teenage pregnant mothers would be used in the study. It is higher than the minimum sample size estimate obtained from the Tabachnick and Fidell (1996) formula which makes it likely to be more representative of the total population under this study. Also the population of the teenage pregnant mothers who visited the Maamobi District Hospital is a heterogeneous one, and therefore an increase in the initial sample size of 90 to 240 was more representative.

The stratified sampling technique was also used because already existing strata of teenage mothers (recently delivered and currently pregnant) was included in the study.

3.6.1 Sample size determination

The Tabachnick and Fidell (1996) formula for calculation of sample size:

$$n \Rightarrow 50 + 8(m)$$

Where:

N = number of participants

50 = constant ample size

M = number of independent variables

8 = constant

Independent variables: age, marital status, income level, educational level, employment status.

Therefore:

$$n > 50 + 8(5)$$

$$n > 50 + 40$$

$$n > 90 \text{ (i.e. the calculated initial population sample size)}$$

So from the above formula, the number of independent variables in this study are five, which when multiplied by 8 and added to 50 will produce an initial sample size estimate of 90 participants for this study.

However, according to Opoku (2005), for a sample size to be representative of the population parameter, there should be an increase in the initial sample size estimate (which is 90 in the present study). Therefore, judging from the proposed sample size (n=240) of the current study,

it is higher than the initial sample size estimate obtained from the Tabachnick and Fidell (1996) formula.

3.7 Data collection procedure

A formal letter was written to the Medical Director of the Maamobi District hospital requesting permission to use the facility for the study. After permission was granted respondents were administered with the questionnaires during their visit to the antenatal clinic. The quantitative data was collected through a structured pre tested questionnaire (Appendix 2). The questionnaire were translated into Twi and Ga and Hausa which are the common languages spoken at the study area which facilitated communication. The variables in the study were background characteristics which includes the educational status, socio-demographic status, and age. The questionnaire seeks information on the background characteristics of pregnant teenage mothers, level of satisfaction of care received by them.

The questionnaire contained questions which were dichotomous, rating of service. The responses was scale ranked from poor to excellent for the dimensions of quality and not satisfied to very satisfy for the level of satisfaction. A period of 30 days was used for the data collection process.

3.8 Quality control

In order to ensure reliability and validity of the data sourced from the sample, a number of measures was put in place which included; random sampling of participants, pre-training of field research assistants, monitoring of research assistants during interview process for those teenagers who cannot read alone, and rewording and putting brief explanatory notes on difficult to understand concepts, and administering the questionnaire to participants individually to avoid influences of others opinions on their responses.

3.9 Data Processing and Analysis

Data were input using Statistical Package for Social Sciences (SPSS), version 18, and analyzed with Stata version 7.

The results were presented using tables, showing the background and sociodemographic characteristics and associations between the outcome and independent variables. A bar chart presented the challenges faced by teenage pregnant mothers.

A chi – square test was performed to show associations between the outcomes (quality of care) and the independent variables (demographic characteristic, perceived barriers and perceive susceptibility).

3.10 Ethical Issues

Before the commencement of data collection, ethical approval for the study was sought from the Ghana Health Service Ethical Review Committee of the Research and Development Division of the Ghana Health Service.

An introductory letter was obtained from the School of Public Health to seek permission from the Head of Administration as well as the Medical Director of Maamobi District Hospital, before the research was started. In addition, all ethical guidelines was duly observed including the solicitation of participants' informed consent before enrolling them into the study, and keeping all their personal information and response under strict confidentiality. They were made to know that participation is voluntary and there was no penalty for refusing to participate.

Efforts were made to ensure that no participant is brought to any sort of harm (psychological, social, or physical) as a result of participating in this study.

Participants were adequately informed about all relevant parts of this study including its aims and objectives, relevance, methods, procedures and findings. The data obtained were analysed and secured, and made available to only my supervisor and authorities from the Institutional Review Board (IRB) if required.

3.11 Pre-testing

The Pre-testing of the study was performed in the Maamobi district hospital, Accra. This involved administering samples of the questionnaire (Appendix I) to 10 expectant and nursing teenage mothers at the Maamobi Hospital to be completed by them alone or assisted by the researcher for those who may not be able to read. This helped to get preliminary trends on difficulties in wording and concepts which the participants may not understand, or any other relevant complaints regarding the questionnaire that the participants may report. Restructuring of the questionnaire through rewording and adding explanations was then be carried out from the results of the pre-testing before the actual study in the field was conducted. To avoid false information during the actual study, teenagers used in the pre-testing was excluded from those to be recruited for the actual study.



CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This part of the study deals with the results of the responses from pregnant teenage mothers.

Ninety (90) teenage pregnant mothers were used for the study.

4.2 Background characteristics of teenage pregnant mothers

The background characteristics of study participants are shown in Table 1. A total of 90 teenage pregnant mothers were studied. More than half (74.4%) of the sample were single; and those married were 25.6%. 24.4% attended primary school, 35.7% attended JHS, 14.4% attended SHS, with tertiary education only 1.1%, and 24.4% had no formal education at all. Most of the expectant mothers' were employed (77.6%), and 22.4% not employed. On daily income level of pregnant teenagers, 37.8% earned a daily income between GH¢ 6.00-10.00, 22.2% (GH¢ 1.00-5.00), 21.1% (GH¢11.00-50.00) and 18.9% were not employed. Furthermore, most pregnant teenagers in the sample reported having had previous deliveries before (71.1%, and not delivered before = 28.9%). Also, 42.2% had to seek permission before attending ANC as 57.8% do not need any permission.

Out of 34 teenage pregnant mothers aged between 13-15, only 17 (81%) were satisfied with ANC services, while 17 (19.5%) were dissatisfied. With those aged between 16-19 years, 32 (61.5%) were satisfied with ANC services. Also 23 teenage pregnant mothers who are married, 13(32.5 %) were satisfied with the ANC services. Those who were educated seems to be satisfied with the ANC services rendered. Teenage pregnant mothers who were employed 49(84.5%) out of 69, were satisfied with ANC services.

Table 1: Demographic characteristics of teenage pregnant mothers

Characteristics	Number of teenage pregnant mothers (% Total)	Number of pregnant teenagers satisfied with ANC services (% Total)
Age		
13-15	34(37.8)	20(38.5)
16-19	56(62.2)	32(61.5)
Marital Status		
Married	23(25.6)	13(32.5)
Single	67(74.4)	27(67.5)
Educational Status		
Primary	22(24.4)	18(29.0)
JHS	32(35.7)	22(35.5)
SHS	13(14.4)	8(12.9)
Tertiary	1(1.1)	1(1.6)
Non	22(24.4)	13(21.0)
Employment Status		
Employed	69(75.6)	49(84.5)
Not employed	22(24.4)	9(15.5)
Daily Income		
GH¢1.00-5.00	20(22.4)	11(18.3)
GH¢ 6.00-10.00	34(37.8)	24(40)
GH¢11.00-50	19(21.1)	17(28.3)
None	17(18.7)	8(13.3)
Delivery Status		
Delivered	64(71.1)	42(72.4)
Not delivered	26(28.9)	16(27.6)
Permission to attend ANC		
Permitted	38(42.4)	29(49.2)
Not permitted	52(57.8)	30(50.8)

4.2 Sociodemographic and other factors associated with teenage pregnant mothers with ANC satisfaction

From table 2, the older age group were more satisfied 80% with ANC services than the younger age group. There was a significant association between an expectant teenage mother and their satisfaction with ANC services $\chi^2 = 5.50, p < .05 = 0.019$.

Most of the single pregnant teenage mother were satisfied with ANC services as compared those who were married, however, there was no significant association between pregnant teenagers' marital status and satisfaction of ANC services.

Also results show that the relationship between the pregnant teenagers educational status and their satisfaction with ANC service was significant, $\chi^2 = 0.83, p < = 0.360$. Most of the pregnant teenage mothers who were not educated were satisfied with ANC services, (61.4%), compared to the educated ones.

Employed expectant mothers were more satisfied (52.9%) with ANC services than those not employed. There was a significant association between pregnant teenage mothers employment status and satisfaction with ANC services $\chi^2 = 4.06, p < .05 = 0.044$.

For income category, expectant mothers who earn a daily income of 6-10gh turns to be satisfied with ANC services as compared to the other categories. Nevertheless, income was not a significant predictor of satisfaction with ANC services $\chi^2 = 4.65, p < .05 = 0.200$.

Expectant teenage mothers who have delivered before were more satisfied with ANC services compared to those who did not deliver. Delivery status was found to have a significant relationship with ANC satisfaction $\chi^2 = 4.15, p < .05 = 0.024$.

It was also found that pregnant teenage mothers who had to seek permission before attending ANC clinic tended to be more dissatisfied about ANC services as compared to those who did

not seek permission. However, there was no significant association between teenage pregnant mothers seeking permission to attend ANC and satisfaction with ANC services $\chi^2=0.05$, $p<.05$ =0.83.



Table 2: Sociodemographic and other factors associated with teenage pregnant mothers with ANC satisfaction

	N	Satisfaction with ANC services		χ^2	p-value
		Satisfied	Not satisfied		
Sociodemographic Characteristics					
<i>Age in years</i>				5.50	0.019
13-15	21	17(80.95)	4(19.5)		
16-19	69	36(52.17)	33(47.83)		
<i>Marital Status</i>				0.07	0.789
Married	23	13(56.52)	10(43.48)		
Single	67	40(59.70)	27(40.30)		
<i>Educational Status</i>				0.83	0.360
Not educated	70	43(61.43)	27(38.57)		
Educated	20	10(50.00)	10(50.00)		
<i>Employment Status</i>				4.06	0.044
Employed	68	36(52.94)	32(47.06)		
Not employed	22	17(77.27)	5(22.73)		
<i>Daily Income</i>				4.65	0.200
None	17	13(76.47)	4(23.53)		
GH¢1.00-5.00	20	10(50.00)	10(50.00)		
GH¢ 6.00-10.00	34	17(50.00)	17(50.00)		
GH¢11.00-50	19	13(68.42)	6(31.58)		
Other factors					
<i>Delivery Status</i>				4.15	0.024
Delivered	64	42(65.63)	22(34.38)		
Not delivered	26	11(42.31)	15(57.69)		
<i>Permission to attend ANC</i>				0.05	0.83
Permitted	18	11(61.11)	7(38.89)		
Not permitted	72	42(58.33)	30(41.67)		



4.3 Sociodemographic and other factors associated with teenage pregnant mothers with ANC accessibility

From table 2, there was no significant association between pregnant teenage mothers age and whether or not ANC services were accessible to them any time they were pregnant $\chi^2 = 0.26$, $p < .05 = 0.606$. Expectant teenage mothers whose ages were between 16-19 years, only 49.28% access ANC clinic, while the ages between 13-15 years, only 9% access ANC clinic.

Teenage pregnant mothers who were single had greater access to ANC services compared to those not married. Marital status therefore had no significant association between married pregnant teenage mothers and their access to ANC services $\chi^2 = 3.77$, $p < .05 = 0.052$. More than half of the pregnant teenage mothers 65.22%, who were married access ANC clinics more often than their counterparts who are not married.

Meanwhile, with educational status, expectant teenage mothers with ANC accessibility was not significant $\chi^2 = 0.54$, with a $p < .05 = 0.463$. With those educated and non-educated, 55.0% and 47.71% access ANC clinics respectively.

Moreover, teenage pregnant mothers who were employed had greater access to ANC services than those who were not employed, however, there was no significant association among pregnant teenage mothers' employment status and their accessibility to the ANC services $\chi^2 = 1.52$, $p < .05 = 0.218$.

Expectant teenage mothers who earn daily income of 6-10gh reported higher access to ANC services as compared to other income categories. The results also shows that, there was no association between pregnant teenage mothers daily income and their accessibility to ANC services $\chi^2 = 2.96$, $p < .05 = 0.40$.

There was also a significant relationship between the delivery statuses of pregnant teenage mothers and their accessibility to ANC clinic $\chi^2=9.38$, $p<.05$ =<0.01. But only 37.5% of these pregnant teenage mothers who have delivered before access the ANC clinic, while majority 62.5% did not access the ANC clinic.

Lastly, expectant teenage mothers who seek permission before attending ANC clinic, reported having lesser access to ANC service, compared to those who did not seek permission before attending ANC. There was a significant relationship between accessibility and pregnant teenage mothers who obtained permission from someone to attend ANC clinic $\chi^2 = 19.64$, $p<.05$ =<0.001. Majority of these expectant mothers 94.44% obtained permission from someone before attending ANC clinic.

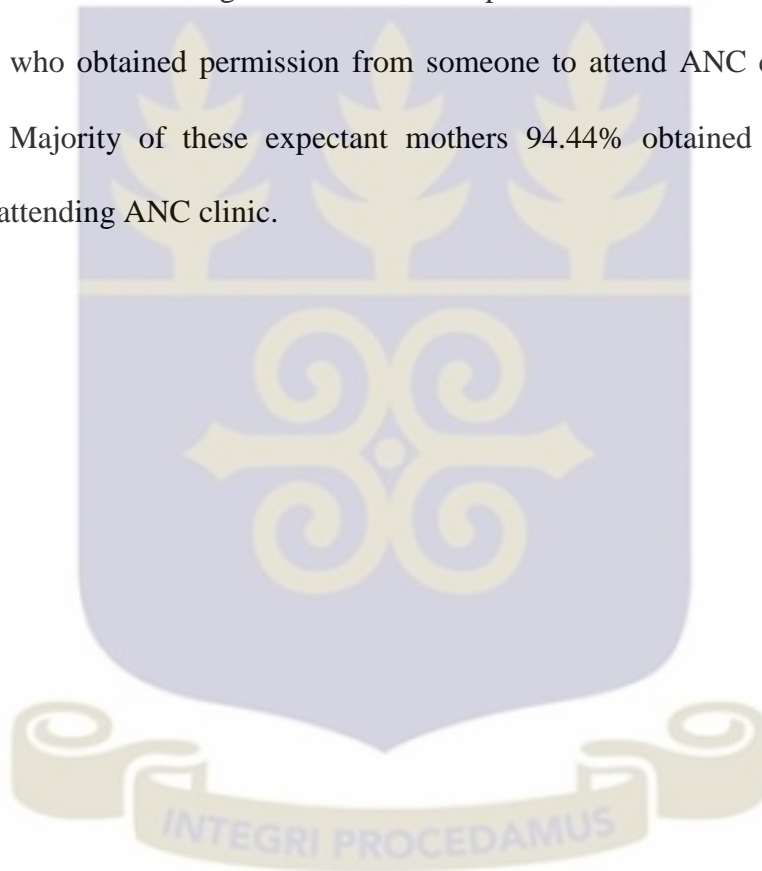


Table 3: Sociodemographic and other factors associated with teenage pregnant mothers with ANC accessibility

Characteristics	N	Accessibility of ANC services		χ^2	p-value
		Accessed	Not accessed		
<i>Age in years</i>				0.26	0.606
13-15	21	9(42.86)	12(57.14)		
16-19	69	34(49.28)	35(50.72)		
<i>Marital Status</i>				3.77	0.052
Married	23	15(65.22)	8(34.78)		
Single	67	28(41.79)	39(58.21)		
<i>Educational Status</i>				0.54	0.463
Not educated	70	32(45.71)	38(54.29)		
Educated	20	11(55.0)	9(45.00)		
<i>Employment Status</i>				1.52	0.218
Employed	68	35(51.47)	33(48.53)		
Not employed	22	8(36.36)	14(63.64)		
<i>Daily Income</i>				2.96	0.40
None	17	5(29.41)	12(70.59)		
GH¢1.00-5.00	20	11(55.0)	9(45.00)		
GH¢ 6.00-10.00	34	17(50.00)	17(50.00)		
GH¢11.00-50	19	10(52.63)	9(47.37)		
Other factors					
<i>Delivery Status</i>				9.38	<0.01
Delivered	64	24(37.50)	40(62.50)		
Not delivered	26	19(73.08)	7(26.92)		
<i>Permission to attend ANC</i>				19.64	<0.001
Permitted	18	17(94.44)	1(5.56)		
Not permitted	72	26(36.11)	46(63.89)		



Figure 3 shows that most of the teenage pregnant mothers 61.1% experienced transport cost as a challenge and thus were not satisfied with ANC services. A higher likelihood of dissatisfaction with ANC services offered appears to exist for most expectant teenage mothers who perceive transport cost to access ANC services as a problem than did their counterparts who did not perceive transport cost as a challenge. Explained in another way, most pregnant teenagers who report transport cost as a challenge in accessing ANC services seem to be more dissatisfied with ANC services rendered by the clinic than did those who did not report the transport cost as a problem to them. Therefore, transport cost will be associated with satisfaction with ANC. Also, 64.4% of pregnant teenage mothers had challenges with long distance to the ANC services. But they have the perception that they were at low risk for accessing ANC clinic. Also, they had no challenge of waiting to seek permission from anyone before starting ANC clinic. Only 16.7% of the pregnant teenage mothers had a challenge with desire to attend ANC. Majority (83.3%) of them did not have the desire to attend ANC clinic. However, 60% of the pregnant teenage mothers had a challenge of not meeting a midwife at the facility to attend to them whenever they visit the ANC clinic.

Finally, only 37.8% of the teenage pregnant mothers had a challenge of limited transport options to access the ANC clinic, but 62.2% of these pregnant teenage mothers, limited transport options was not a problem to them.

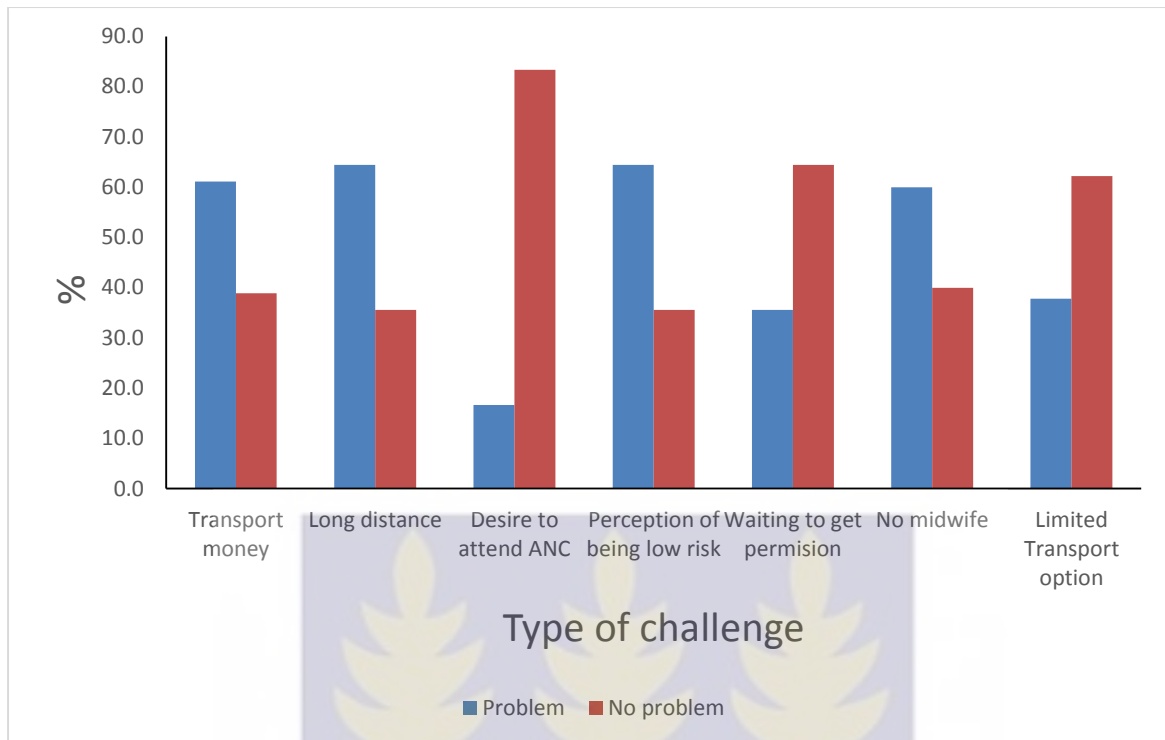


Figure 3: Bar graph showing the level of challenges faced by pregnant teenage mothers



CHAPTER FIVE

5.0 DISCUSSIONS

5.1 Introduction

This chapter discusses the findings obtained from the data analysis gathered from the questionnaires, perceived susceptibility and quality of ANC services, modifying factors and perceived barriers.

From the analysis of the data collected from the sample, it was observed that pregnant teenagers who agree that they visit ANC for its preventive benefits tend to report more ANC visits than both pregnant teenagers who strongly agree and those who disagree. However, between those who strongly agree and those who disagree there was no significant difference in their number of ANC visits during the pregnancy period.

Another finding was that, the older a pregnant teenager is, the higher her ANC attendance. With educational status, there seems to be a higher likelihood for most expectant teenage mothers who have not attended school to perceive ANC services rendered at the hospital to be more expensive than did their counterparts who attended school before.

A higher likelihood to be dissatisfied with ANC services offered appears to exist for most pregnant teenage mothers who perceive transport cost to access ANC services as a problem than did their counterparts who did not perceive transport cost as a challenge. Explained in another way, most pregnant teenagers who report transport cost as a challenge in accessing ANC services seem to be more dissatisfied with ANC services rendered by the clinic than did those who did not report the transport cost as a problem to them. Most of those pregnant teenagers who saw the distance to the ANC center as a problem to them seem to be more dissatisfied with the ANC services rendered than pregnant teenagers who did not see distance to the ANC center as a problem.

It also appears that most pregnant teenagers who had to pay to ANC services perceive cost of ANC services as more expensive than expectant teenage mothers who did not pay for ANC services.

5.2 Sociodemographic and other factors associated with teenage pregnant mothers with ANC satisfaction

From the analysis from the sample, the following findings were observed. It was perceived that the older age group reported more satisfaction with ANC services than the younger age group. Therefore, the association between the age of an expectant mother and their satisfaction with ANC services was significant. The reason for observing this in the study sample might be with the stigma associated with the younger teenagers assessing ANC

Ghanaian society tends to frown on younger teenagers (13-15) who become pregnant as compared to older teenagers (16-19) years. This stigma usually comes in the form of mockery, public insults, and disgrace to the family name, social isolation and rejection, which limits the participation of such teenagers in social activities. Therefore, teenagers who are younger than 16 years would seek to avoid public appearances where they might encounter such stigma which affects their satisfaction with ANC services rendered at the Maamobi District Hospital. Also, such younger pregnant teenagers may have lower social support since society does not approve of their pregnancy. This may negatively affect their satisfaction with ANC services as found by Yeboah (2012), that access to social support was a significant predictor of early initiation of pre-natal health care.

Furthermore, it was also found that single pregnant teenage mothers were more satisfied with ANC services than the married pregnant teenagers. However, the association was not significant. The reason why the marital status of the pregnant teenage mother does not predict the satisfaction of ANC services might be because husbands in the Ghanaian culture do not

usually participate in early child upbringing. Therefore, they do not usually involve themselves in the ANC issues of their wives, this explains why whether a teenager is married or not does not necessarily relate with her satisfaction of ANC services.

In addition, a significant relationship was found between the educational status of expectant teenage mothers and their satisfaction with ANC services at the Maamobi district hospital in the study. An explanation for this observation could be related to the perceptions held about pregnancy in the Ghanaian culture. Uneducated expectant teenage mother may hold maternal perceptions of showing off pregnancy and fear associated with witchcraft, which might prevent them from availing themselves to ANC services whereas the educated expectant teenagers may not hold such perceptions and will be willing to utilize ANC services. As a result, educated expectant teenage mothers may tend to be more satisfied with ANC services compared to the uneducated expectant teenagers. (Banda 2013; Singh et al 2013; Resty 20110).

Another observation in the study was that employed teenage pregnant mothers were more satisfied with ANC services than unemployed pregnant teenagers. Employed pregnant teenage mothers might earn higher daily income compared to non-employed pregnant teenagers which allows them to afford better ANC services, hence explains their satisfaction.

This may be why employment status is a significant predictor of tendency to be satisfied with ANC services. This findings accord with that of Chibava et al (2009), who also found out that socio economic issues limits expectant mothers knowledge about ANC services. However, a contradictory finding in the study, income category per say, was not on its own significantly correlated with satisfaction.

Again, delivery history of pregnant teenage mothers, was significantly related with their satisfaction with ANC services in the study. A clarification of such an observation could be that pregnant teenagers who have delivered before could have had enough education about

pregnancy complications and relevance of ANC services during pregnancy, therefore they would readily seek ANC services and tend to be more satisfied with ANC services than teenagers who are pregnant for the first time. This agrees with (Banda, 2013; Alemayehu et al, 2010) who found out that more than a quarter of most recent child birth had at least one ANC service, and of this, 21% had started their first antenatal visit in the first trimester of pregnancy.

However, seeking permission before attending ANC services was found to have no significance relationship with expectant teenage mothers' satisfaction with ANC services. This was also found to be true in Banda (2013) study where seeking permission to start FANC had low significant correlation with low utilization on FANC.

5.3 Sociodemographic and other factors associated with teenage pregnant mothers with ANC accessibility

On accessibility however, age was no significant predictor of pregnant teenage mothers' access to ANC services at the Maamobi district hospital. Although age was found to determine pregnant teenage mothers' satisfaction at the Maamobi district hospital as addressed earlier on, it has no limitations on their accessibility to ANC services at the hospital itself.

This is because of policies kept in place at the Maamobi district hospital to make ANC services available and affordable to all pregnant teenage mothers irrespective of their sociodemographic status such as age. Services rendered at the Maamobi district hospital including undertaking health promotional activities on pregnancy complications prevention, conducting routine special home visits to educate clients on current health issues and tracing defaulters are all attempts by the hospital to make ANC services irrespective of their location. (Banda, 2013; Naariyong et al, 2012).

Marital status was found to be significantly associated with pregnant teenage mothers with access to ANC services in this study. Due to the extended family system in Ghana, married teenage pregnant mothers may tend to have more barriers preventing them from accessing ANC services compared to single teenage mothers.

Among such barriers could be the need to obtain permission from their husbands or other external family members before starting ANC clinics. (Banda, 2013), depending on external family for social support to afford ANC services (Yeboah, 2012), and negative perceptions of other family members with regard to utilization of ANC services. These factors might not necessarily affect single expectant mothers since they may not depend on husbands or other family members on social support to access ANC services.

This is because single teenage mothers will feel so responsible in taking charge of their own pregnancy compared to the married mothers (Alemayehu, 2010).

In line with earlier discussion on the relationship between educational status and satisfaction with ANC services by pregnant teenage mothers, educational status was also found not to be significantly associated with pregnant teenage mothers' accessibility to ANC services.

The reason for this could be that, the Maamobi district hospital has put in place policies, making ANC services friendly and available to all pregnant teenage mothers irrespective of their educational status. Example of such arrangements could be having translators available during ANC clinics to explain clinic procedures to the non-educated pregnant mothers (Banda, 2013; Singh et al 2012; Resty 2011, Chibava et al).

However, expectant teenage mothers' employment status and level of their daily income were found to have no significant relationship with their access to ANC services. This is because as discussed earlier, due to the collectivistic nature of our Ghanaian society access to social

support may influence expectant teenagers' ability to afford and utilize ANC services rather than their personal employment status and their daily income earnings (Yeboah, 2012).

Delivery status of pregnant teenage mothers and the need to seek permission before attending ANC clinic were both found to be significantly predict pregnant teenage mothers' level of accessibility to ANC services.

Pregnant teenage mothers who have delivered before may have more knowledge regarding the process of accessing ANC services compared to teenage mothers being pregnant for the first time, hence explaining why they have greater access to ANC services (Alemayehu et al, 2010).

Again, most expectant mothers who may not need to obtain permission to access ANC services tend to access ANC services more compared to those who need to seek permission, since the decision to start ANC clinic do not depend on getting the node from any other person than themselves.

5.4 Challenges faced by pregnant teenage mothers

Some challenges that were noted as reported by the sample in the study included long distance to ANC clinic, transport cost to access ANC services and perception of being low risk of pregnancy complications.

It was found out in the study that, most of the expectant teenage mothers express concerns relating to how far their residence was from the ANC clinic and how long it took them to get to the clinic in terms of time. This unfortunately, reduce their level of accessibility of ANC services. This limited their satisfaction with ANC services delivered by the Maamobi District hospital.

This finding might provide explanation for Banda (2013) and Reisty (2011), who observed in their respective studies that long distance to ANC services reduced participant utilization. This

is because, the findings showed that long distance reduced teenage mothers satisfaction with ANC services which intend, thus may reduce their willingness to utilize ANC services.

Another interesting observation made was that majority of the respondents reported perception of being at low risk for complications as a major challenge to them. This prevented most of the pregnant teenage mothers from accessing ANC services at the Maamobi district hospital. However, a report by (WHO, 2005), indicates that , babies born to mothers under age 20 years tend to fall 50% higher risk of being still born or dying first week after delivery.

Also, research by Ebeigbe & Gharoro, (2007); confirms that 5% of maternal deaths are found among teenage girls between 13-19 years. The problem is that since this age group tend to underutilize ANC services and are also found to be at higher risk of pregnancy complications and maternal deaths, more attention needs to be made in identifying factors at play in this situation.

One more challenge that was further revealed by the study was that, most pregnant teenage mothers complained of not meeting a midwife at the ANC clinic during their visits.

5.5 Limitations

This study had the challenge of increasing the coverage to include more respondents, because of inadequate resources and financing. Furthermore, the timing of data collection was a challenge since they only had some allocated days (Tuesdays) for focused antenatal clinic (FANC); hence it was difficult getting the pregnant teenage mothers on other specified days. However, these findings could be used to predict the quality of ANC among expectant teenage mothers.

CHAPTER SIX

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusion

- Quality of ANC delivery and patronization at the Maamobi District hospital is generally high. However, there were minor challenges observed in the study that affected the quality of ANC services.
- The older expectant teenage mothers (16-19 years) were satisfied with ANC services as compared to the younger age group mothers.
- Expectant teenage mothers who have delivered before were more satisfied with ANC services compared to those who have not delivered.
- The key challenges with ANC services include transport cost, long distance to the ANC clinic and midwives not being available at the facility to attend to them.

6.2 Recommendations

- There is the need to deploy more preventive health nurses by the Maamobi district hospital to attend to teenage pregnant mothers in the Maamobi communities during their home visits and should consider home based ANC services to expectant teenage mothers to address the challenges of accessibility of ANC services.
- The Maamobi district assembly should bring out a policy on adolescent sex education to prevent teenage pregnancies within the district.
- The Maamobi district hospital should have a friendly adolescent unit with good provider- client relationship to promote high utilization of ANC services among teenagers.

- Future studies should interpret in detail the interactive effect of employment status and daily earnings of pregnant teenagers on their level of satisfaction with ANC services in Ghana.



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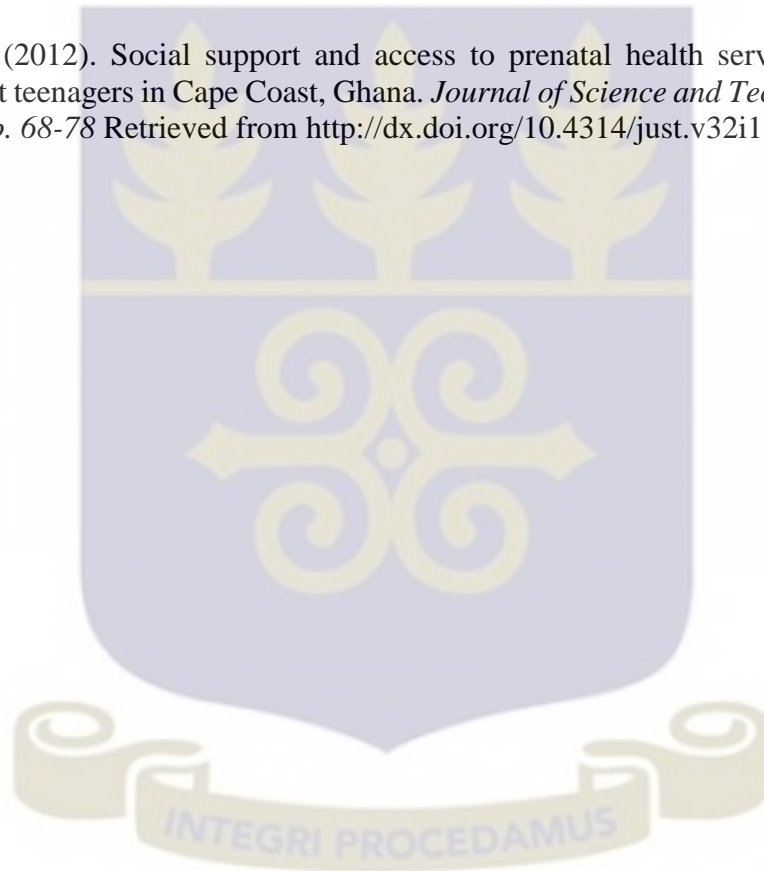
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APPENDICES

Appendix 1: Consent form for study participants

Project Title: Assessment of the quality of antenatal care services among teenage mothers at Maamobi District Hospital.

Affiliated Institution: School of Public Health, College of Health Sciences, University of Ghana, Legon. Department of Health Policy, Planning and Management.

Background of interviewer: My name is Gloria Bonso, a student from the School of Public Health, University of Ghana, Legon who is here to collect data purely for academic work for a degree in Masters in Public Health. The purpose of this study is to determine the assessment of the quality of Antenatal care services among teenage mothers in the Maamobi district hospital.

Procedure: Information required from you for this study includes demographic characteristics and knowledge about focused antenatal care services provided at this facility. Data collection is through the administration of a structured questionnaire.

Risks and benefits: There are no risks if you take part in this study, it is non-invasive and will not cause any harm or discomfort. There are also no incentives but the information you provide will help improve on your health and that of your loved ones.

Right to refuse: Your consent to participate in this study is voluntary and you can withdraw from this study at any time.

Anonymity and Confidentiality: You are assured of strict anonymity and confidentiality on any information you give. Your responses would not be shared with anybody and would be used purely for research purposes.

Before taking Consent

Do you have any questions you wish to ask about the study? Yes/No

If yes, please, indicate the questions below

.....
.....

If you have any further information or questions about the study, you may contact the principal investigator, **Gloria Bonso**, on phone number: **0244627787** or email: bonsog@yahoo.com

Voluntary Consent

I have read the information given above, or the information above has been read to me and I understand. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree, to participate in this study knowing that I have the right to withdraw from this study at any time without affecting future health care services.

Name of Participant:

Signature or Thumb print of Participant:.....

Date.....

Thank you for agreeing to participate:

Name of witness:.....

Signature or Thumb print of witness:.....

Date:.....

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name of Researcher or Principal investigator:.....

Signature of Researcher:.....

Date:.....

Interviewers Statement

I, the undersigned, have explained this consent to the subject in English language/ Twi/ Ewe, Hausa, and that she understands the purpose of the study, procedures to be followed, as well as the risks and benefits of the study.

The participant has fully agreed to participate in the study.

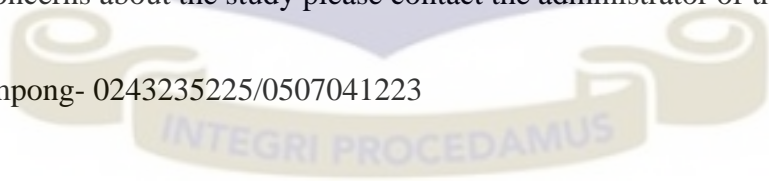
Signature of Interviewer

Date

Address

If you do have concerns about the study please contact the administrator of the GHS-ERC

Ms. Hannah Frimpong- 0243235225/0507041223



Appendix 2: Questionnaire on assessment of the quality on Antenatal care among teenage pregnant mothers

PART A: Demographic Data of Respondents

1. How old are you?
 - a. 13 – 15 years
 - b. 16 – 19 years

2. What is your marital status?
 - a. Married
 - b. Single
 - c. Divorced
 - d. Widowed
 - e. Separated

3. What is your highest level of education?
 - a. Primary school
 - b. Junior High School
 - c. Senior High School
 - d. Tertiary
 - e. None

4. Are you employed?
 - a. Yes
 - b. No

5. What do you do for a living?

6. How much do you earn in a day?
 - a. GHS 1.00 - GHS 5.00
 - b. GHS 6.00 – GHS 10.00
 - c. GHS 20.00 - GHS 50.00
 - d. GHS 60.00 +

7. How many deliveries have you ever had?
 - a. None
 - b. One
 - c. Two
 - d. Three
 - e. Four
 - f. More than four

8. How many children are alive?

- a. None
- b. One
- c. Two
- d. Three
- e. Four
- f. More than four

PART B: Focused ANC services for both Expectant and Nursing Adolescent Mothers

9. With regard to your previous pregnancy, did you attend Antenatal care clinics?

- a. Yes
- b. No

10. Before you started antenatal care, was permission granted before the attendance of the antenatal care clinics?

- a. Yes
- b. No

11. From whom did you ask for permission to attend antenatal care clinics?

- a. Husband
- b. Uncle
- c. Mother
- d. Mother in-law
- e. Other (specify).....

12. At which month of the pregnancy did you start antenatal care?

- a. 0 – 3 months (0-12 weeks)
- b. 4 – 6 months (13 – 24 weeks)
- c. 7 – 9 months (25 – 36 weeks)
- d. Don't know

13. Do you have your antenatal care card for your pregnancy or previous pregnancy?

- a. Yes
- b. No

14. How many antenatal care visits is a pregnant woman supposed to make during the whole pregnancy period? Enter Number:

- a. When there is no problem.....

b. When there are problems

15. How many times have you or did you visit antenatal care for your current or previous pregnancy?.....

16. Were you satisfied with the services offered at this facility regarding focused antenatal care?

- a. Yes
- b. No

17. What do you think are the benefits of antenatal care? For benefits not mentioned probe further.

BENEFIT		Strongly agree	Agree	Not Agree	Not Sure
A	Establishing rapport between pregnant mother and antenatal care provider				
B	For early detection of risk conditions associated with pregnancy				
C	Assist the provider to give individualised health education on importance of FANC				
D	For pregnant women to receive preventive interventions such as TT immunisations, Iron and Folic acid.				

PART C: Knowledge about focused antenatal care

18. Where did you receive information about importance of utilizing focused antenatal care?

- a. Health worker
- b. Radio
- c. Traditional Birth Attendants
- d. Relatives
- e. School
- f. Others (specify).....

19. When you wanted to start focused antenatal care, was each of the following a problem or not?

	Parameter	Problem	Not a problem
A	Transport money		
B	Long distance		
C	Desirability		
D	Perception of being a low risk		
E	Waiting to get permission to start focused antenatal care clinics		
F	Concern that there may not be a midwife		
G	Limited transportation options		

20. What would you like most about focused antenatal care services at this facility?

- a. Good health worker attitude
- b. Short waiting hours
- c. Availability of staff
- d. Flexibility of clinic schedules
- e. Male involvement initiative

21. Do you have to pay in order to start focused antenatal care clinics?

- a. Yes
- b. No

How much is the fee.....

22. How affordable is this amount to you?

- a. Cheap
- b. Fair
- c. Expensive

23. Are there any barriers or pregnancy related traditional beliefs that prevent women from starting antenatal care in the first trimester?

.....

24. What will you suggest should be done about those barriers or beliefs?

.....

PART D: Quality of care rendered for both expectant and nursing teenage mothers

25. What was the health workers attitude's words towards you when you visit antenatal care?

- a. Some very bad
- b. Some good
- c. Some bad/ poor

26. Which of the following services do they render at the antenatal care service?

- a. Screening
- b. Management of minor ailments
- c. Immunization
- d. Health education
- e. Others please specify

27. Where is antenatal care services rendered?

- a. Room built for antenatal
- b. Under a tree
- c. On a veranda

28. How long does it take to access antenatal care service?

- a. 1-20 minutes – excellent
- b. 30-40 minutes – good
- c. 50 – 60 minutes – fair
- d. Above 60 minutes – poor

29. What was the cause of the delay

- a. Lateness of staff
- b. Inadequate staff
- c. Congestion of the clinic
- d. Activities done at the clinic

30. Are you satisfied with the antenatal care service rendered?

- a. Yes
- b. No

31. Are the antenatal services at the hospital accessible to you?

- a. Yes
- b. No
- c. Other (specify)

32. Do you have any other comments?

.....
.....

Thank you for participating in this study.



Appendix 3: GHS-ERC Ethical Approval

