CENTRAL UNIVERSITY

SCHOOL OF MEDICINE AND HEALTH SCIENCES

DEPARTMENT OF NURSING

KNOWLEDGE AND PERCEPTION OF PREGNANT WOMEN ON ANTENATAL CARE AND ITS IMPORTANCE USING THE KORLE BU TEACHING HOSPITAL AS A CASE STUDY

BY

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ESTHER ESI KWAKYEWA BISIW

(201800313)

AND

PRISCILLA OPPONG

(201802012)

A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF NURSING, CENTRAL UNIVERSITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE DEGREE IN NURSING

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DECLARATION

We hereby do declare that this long essay is the result of our own original research and supervised in accordance with the guidelines on supervision of long essays laid down by the Central University and that no part of it has been presented for another degree in this university or elsewhere.

Candidate signature ……. ……...…..

Name: **Esther Esi Kwakyewa Bisiw** Date

Candidate signature ……. ……...…..

Name: **Priscilla Oppong** Date

Supervisor's signature…….. ……...…...

Name: **Mrs. May Osae-Addae** Date

DEDICATION

To our families.

ACKNOWLEDGEMENTS

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ABBREVIATIONS

IPT	Intermittent Preventive Treatment
GHS	Ghana Health Service
WHO	World Health Organizations
SDG	Sustainable Development Goal
KBTH	Korle Bu Teaching Hospital
GARH	Greater Accra Regional Hospital
ANC	Antenatal Care
IFA	Iron Folic Acid
NICU	Neonatal Intensive Care Unit
OPD	Out Patient Department
SPSS	Statistical Programme for Social Sciences

ABSTRACT

Poor attendance to antenatal care clinic among mothers has extensively been discussed in the literature. A considerable amount of studies have explored factors that have accounted for this negative attitude. Attempt to increase attendance has been identified to be possible if mothers' knowledge and perception to antenatal care services is increased. However, modern literature has also not paid much attention in evaluating mothers' knowledge and perception to antenatal care services. This knowledge gap required that the current study evaluated knowledge and perception of Ghanaian pregnant women on antenatal care and its importance. A descriptive design was adopted. Using the Korle Bu Teaching Hospital as a case study, fifty (50) pregnant women were sampled from the antenatal clinic of the selected facility. The convenience sampling technique was used. A self-developed questionnaire instrument was used to collect data which was analyzed quantitatively. Pregnant women sampled for the study appeared to have had very good knowledge (80.0%) on ANC services and its essence to total healthcare. They were aware of pregnancy related complications, efficacy of ANC in correcting neonatal deformities, essence of fetal movement, need for better nutrition and physical exercise as well as frequent visit to ANC clinics. Women exhibited positive attitude to ANC services as they considered it less costly, not boring, not time consuming and crucial for their health. The attendance rate was 56.0%. Women were regular attenders to ANC clinics, were not smokers or alcoholics and engaged in physical exercises to improve their health. Managers of ANC clinics were admonished to strategize to increase attendance to ANC clinics. Education on breastfeeding was to be intensified among pregnant women.

CHAPTER ONE

BACKGROUND AND LITERATURE REVIEW

1.0 Introduction to the chapter

This chapter presents a general overview of the issues and concepts under which the study is being carried out. The background information on the study is highlighted and the problem which researcher has identified is also addressed in the chapter. Other items within the chapter include the research objectives and questions, significance of the study and definition of key terms in the study. The chapter equally presents a review of related literature to expand knowledge on the variables being understudied.

1.1 Background of the study

Health care for pregnant women has received much effort and investment from organizations and government agencies to ensure that quality of life of the pregnant woman is not compromised. Among these services, mention can be made of antenatal care services. Antenatal care services could be described as the entire care given to a woman throughout pregnancy tailored to maintain mother and unborn baby's health (Ogunba & Abiodun, 2017). Considered as care before birth, Al hazmi et al. (2017) identifies education, screening, counseling, treatment, monitoring and promoting the well-being of the mother and fetus as services offered under antenatal care. In the view of Nwaeze, Enabor, Oluwasola and Aimakhu (2013), these services are very essential part of preventive medicine that could reduce the risk of pregnancy complications. Similar to the descriptions made, Cumber, Diale, Stanly and Monju

(2016) consider antenatal care as an umbrella term that encompasses all medical procedures and care carried out in pregnancy.

Antenatal care services are based on providing women and their families appropriate advices and information which may help them to be in a good health during pregnancy, delivery, and postnatal recovery and provide mothers with appropriate supplements such as folic acid and vitamins that needed during pregnancy (Bank, 2013; Habib and Hanafi, 2011; Shafqat, Fayaz, Rahim & Saima, 2015; Zahra & Mouseli, 2013). Relatedly, Shafqat et al. (2015) describes antenatal care as a back bone of obstetrical services, substantial for health of pregnant women in which maternal and fetal complications are determined and managed. Essential interventions in antenatal care, particularly in Ghana include intermittent preventive treatment for malaria during pregnancy (IPTp), identification and management of obstetric complications such as preeclampsia, tetanus toxoid immunisation, intermittent and identification and management of infections including HIV (Ghana Health Service [GHS], 2016). These services are captured in the Sustainable Development Goal (SDGs) 3 aimed at preventing Neonatal death and maintaining the health of the women during pregnancy (Cumber et al., 2016; World Health Organization [WHO], 2017). Target 2 of the SDG 3 aims to: By 2030, end preventable deaths of newborns and children under five years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

WHO (2017) reiterates that there remains a high rate of neonatal and maternal mortality and morbidity in low-income and middle-income countries, making specific reference to Sub-Saharan African countries. In 2015, out of the 5.9 million deaths of children under-five estimated globally, half of the number (3 million) was recorded in

Sub-Saharan Africa (UN, MDG report, 2015). In the year 2016, an estimated 2.6 million infant were reported to have lost their lives in the first 28 days of their lives (WHO, 2017). The global mortality rate is projected as 19 deaths per 1000 live births with most deaths occurring in the first week and about 1 million occurring in the next six days (WHO, UNICEF, World Bank Group, Nation U, 2017). Desta et al. (2016) believes that annually, about 3.8 million neonatal deaths continue to occur globally of which 98% occurs in developing countries. Though Africa has only 11% of the world's population, it contributes about 25% of the newborn deaths recorded globally (UNICEF, 2013). Citing Korle Bu Teaching Hospital (KBTH) as an example, a major referral hospital in Ghana, 60 maternal deaths were recorded in 2016 compared to 49 in 2015 and lower records in previous years (KBTH, 2016). A Maternal Mortality Rate of 641 deaths per 100,000 live births was recorded in 2016 indicating an increase on the 2015 figure of 528/100,000 Live Births. This affirms projections of higher trends of mortality among mothers.

The rate at which mothers and babies lose their lives could be reduced significantly through better antenatal care services (Bank, 2013; Habib & Hanafi, 2011; Kuhnt & Vollmer, 2017; Ogunba & Abiodun, 2017; Shafqat et al., 2015). Undetected infections during pregnancy, such as malaria, syphilis, tuberculosis, tetanus or HIV/AIDS, as well as high blood pressure, diabetes and other pre-existing health conditions often complicate or aggravate pregnancy and pose significant risk for mother and child (Imdad & Bhutta, 2012; UNICEF, 2015). Most prevalent complications during pregnancy such as headache, preeclampsia and excessive bleeding are evident and require adequate antenatal care (Islam, Chowdhury & Akhter, 2006). These morbidities are preventable if detected earlier and diagnosed through antenatal care services. Viccars (2003) believes that nursing care in all

antenatal clinics and facilities ought to be instrumental in detecting pregnancy abnormalities.

These abnormalities may include edema, inverted nipples, abnormal fetal presentation and pallor and contributes to poor maternal and fetal health. Such complications must be timely detected and managed to provide mothers and their unborn babies with good and quality health. Antenatal care services help pregnant women by identifying complications associated with the pregnancy or diseases that might adversely affect the pregnancy (Ye, Yoshida, Harun & Sakamoto, 2010).

It could be seen from the ongoing discussion that antenatal care services would reduce maternal and neonatal morbidity and mortality. However, these services have not been widely accessed among pregnant women especially in low-income and middle-income countries. Pregnant women in developed countries appreciate the role of antenatal care and they consider it full-fledged and accredited. On the other hand, its role in the perspectives of pregnant women in developing countries is debatable, thus, poor attendance is noted (Manna, De & Ghosh, 2011; Shafqat et al., 2015).

Issue and Mohammed (2012) stated that the vulnerability to diseases and death during pregnancy are decidedly higher among women who do not follow up in antenatal care clinics in contrast to women who do so. Furthermore, continuity of antenatal care in reachable and high quality clinics prevent problems and lessen deaths during pregnancy (Sanjel, Ghimire & Pun, 2012). Though antenatal care provides mothers and their unborn babies with the best of care and health, reports in the literature points to low attendance of mothers to antenatal clinics. Most of these reports points to middle and low-income countries. A 2016 annual health report by the Ghana Health Service for instance acknowledged successes in the antenatal coverage in Ghana citing more than 80% of pregnant women having at least one contact with a

skilled provider during pregnancy in 2016 (GHS, 2016). However, the report indicated that the country has been recording declines in antenatal coverage over the past three years. Similarly, the report indicated that irrespective of the high coverage of antenatal care services, the coverage of at least four antenatal care visits remains lower at approximately 76 percent which, is a slight improvement over what was recorded in previous years.

The low attendance and underutilization of antenatal care services remain a concern to maternal and general health care services. Giving the fact that these services are significant to maternal and neonatal health care, as well as improving family health, it is essential that its utilization and attendance be increased massively. Factors cited to have contributed to the underutilization of these services include financial barriers, low education, misconceptions, prejudices, low awareness and other demographic factors such as employment of the women, education of the women and spouse, marital status, house hold income, exposure to media, obstetrical complications, parity, age, religious belief and culture (Cumber et al., 2016; Prual, Toure, Huguet & Laurent, 2000; WHO, 2011). Among these factors, Ogunba and Abiodun (2017) and Ndidi and Oseremen (2010) have strongly opined that women's understanding and perception of the need of early initiation of antenatal care plays a more dominant role in increasing utilization and attendance of the services for better maternal and neonatal health. It is prudent that pregnant women's knowledge and perception on antenatal care be improved through education and other strategies if good maternal and neonatal health could be achieved. This will equally respond to attaining SDG 3 target 2. There was the need therefore to evaluate mothers' knowledge and perception on antenatal care services to inform health policy and practice.

1.2 Statement of problem

Antenatal care services are crucial in improving maternal and neonatal health care. It equally has significant impact on family health. Its significance have been voluminous and modern literature has equally supported the need for mothers to timely access antenatal care services (Bank, 2013; Habib and Hanafi, 2011; Shafqat, Fayaz, Rahim & Saima, 2015; WHO, 2017; Zahra & Mouseli, 2013). Accessing antenatal care services must be timely and regular, if its impact could be fully realized. If nurses could detect pregnancy complications and other deformities, it is needful that pregnant women attend antenatal clinics regularly and timely (Islam et al., 2006; Imad & Bhutta, 2012; Viccars, 2003; UNICEF, 2015).

However, mothers' attendance to antenatal clinics have been reported to be low and not encouraging. Attendance among mothers in developing countries have been identified to be much higher and impressive as compared to the rate in developing and under developed countries (Manna, De & Ghosh, 2011; Shafqat et al., 2015). In Ghana for instance, GHS (2016) reports that though there is a higher antenatal coverage rate in the country, there is still low attendance to antenatal clinics. This has resulted in higher maternal and neonatal mortality rates in the country. For instance, the maternal mortality rate projected by KBTH in 2016 was 641 deaths per 100,000, higher than previous years' record. This situation has been attributed to late and irregular attendance to antenatal clinic (KBTH, 2016).

Among other reasons attributed to have resulted in poor attendance to antenatal care services is misconception and poor knowledge. This as indicated in the literature plays a major role in determining pregnant women's attendance and utilization of antenatal care services (Cumber et al., 2016; Ndidi & Oseremen, 2010; Ogunba & Abiodun, 2017; WHO, 2011). If higher utilization and attendance to

antenatal care services could be recorded, pregnant women must be knowledgeable and have positive perception towards the services. Modern literature has however not indicated much information on knowledge and perception of Ghanaian pregnant women towards antenatal care services. There is a knowledge gap on this subject though its essence has been widely indicated in the literature. In the wake of this knowledge gap, the current study sought to evaluate knowledge and perception of Ghanaian pregnant women on antenatal care and its importance.

1.3 Purpose of the study

The study sought to evaluate knowledge and perception of pregnant women on antenatal care and its importance using the Korle Bu teaching Hospital (KBTH) as a case study.

1.4 Research objectives

The research specifically sought to:

1. Identify Ghanaian pregnant women's knowledge on antenatal care services.
2. Find out Ghanaian pregnant women's perception on antenatal care services.
3. Identify attitudes Ghanaian pregnant women face in accessing antenatal care services.

1.5 Research questions

The following research questions were proposed to evaluate knowledge and perception of women on antenatal care and its importance.

1. What is the knowledge level of Ghanaian pregnant women on antenatal care services?

2. What is the perception of Ghanaian pregnant women on antenatal care services?
3. What are the attitudes of Ghanaian pregnant women towards antenatal care services?

1.6 Significance of the study

The conduct of this study would make immense contributions to a number of individuals and organizations. Findings of this study would improve the knowledge of pregnant women on the essence of antenatal care services. Pregnant women would also utilize finings of this study to shape and reform their perception on antenatal care services. This knowledge would enable women to willingly utilize antenatal care services knowing how beneficial the services are to their health and that of their unborn babies. Health care professionals would also benefit from the findings of this study as they would be able to develop better educative materials and strategies to improve mothers' attendance and utilization of antenatal care services. Challenges identified in the study would also enable health managers to formulate strategies to address these challenges which would improve attendance and utilization of antenatal care services. Government, who is a policy maker would be served with information to direct its policy and contributions to family health and maternal health in Ghana. Knowledge would also be served with the findings of this study to improve research. Health researchers would be provided with empirical evidence to undertake further researches towards improving health operations.

1.7 Operational definition of terms

Antenatal: Health care offered to pregnant women before delivery.

Knowledge: The education and awareness of pregnant women on antenatal care services

Perception: Opinions and understanding of pregnant women about antenatal care services.

1.8 Literature review

This section presents a review of existing documents in support of the objective proposed for the study. Both theoretical and empirical evidences will be drawn from both primary and secondary sources. Journals, conference papers, articles, research papers, among others were sourced as part of this review. This section has been divided into sub themes in relation to the objectives of the study. Each section drew relevant documents and reports that would broaden the understanding of the variables of study.

1.8.1 Antenatal Care (ANC) Services

Antenatal care is an important determinant to maximize pregnant woman's health through appropriate assessment, screening and preventive intervention through health education (Rumbold & Cunningham, 2008). Viccars (2003), Reza (2008) and Trinh, Dibley and Byles (2007) describes antenatal care as the service received by pregnant women during their gestational period in order to improve their pregnancy outcome. These services are planned series of health care offered to the pregnant woman with an ultimate goal of a healthy mother and infant. It can also be defined as a proper assessment of risk factors and a series of health examinations which enable

health personnel to uncover conditions in the mother that may threaten her or her fetus during pregnancy (Viccars & Urassa, 2002). Regular checkup from early pregnancy would help identify the risk factors that can be diagnosed for timely treatment. Through this care, the pregnant woman can build up a good interpersonal relationship with the nurse to achieve the best outcome of pregnancy (Brown & Muhajarine, 2006).

The objective of the antenatal care is to ensure that the wanted pregnancy culminates in the birth of healthy infant without impairing mother's health (Murray, McKinney & Gorrie, 2002). Caregivers need to observe the progress of pregnancy in order to support maternal physical, psychological, social and spiritual wellbeing as well as normal fetal growth (Hoque et al., 2008; Viccars, 2003). Viccars (2003) outlines activities needed to be followed by nurses if the objective of ANC would be fully achieved: developing a partnership with the woman and their families, providing a holistic approach to meet individual needs of pregnant women, promoting consciousness about health issues for the woman and their families, exchanging information with the women and their families and enabling them to make informed choice about pregnancy and birth, being advocate for the woman and their families and recognizing complications of pregnancy and appropriately referring women to the members of the health tam, among other activities.

All antenatal care services are provided to reduce pregnancy complications (Chowdhury et al., 2007; Islam et al., 2006). ANC has three basic component; early and continuing risk assessment, health promotion and medical and psychological intervention (Murray et al., 2002). The most important component of ANC is assessment. Assessment is continued to identify the risk factors that may have an adverse effect on the mother and her fetus (Murray et al., 2002). During assessment,

the nurse needs to perform various activities of antenatal care provision including history taking, physical examination and laboratory investigation (Boller et al., 2003; Rani et al., 2008; Viccars, 2003). Health promotion is concerned with health care providers giving health information and education about proper nutrition, birth spacing and family planning information, advice on dangers and signs of pregnancy, breastfeeding information and preparation for newborn and postnatal care (Fawole et al., 2008; Lavender & Chapple, 2004; Rani et al., 2008; Trinh et al., 2007). Under medical and psychological intervention, health care personnel are to furnish care to identify risk factors and measure the progress of maternal health status and fetal growth. These include monitoring body weight, measuring blood pressure, recording uterine size, estimating the gestational age of the fetus, recording the time of first fetal movement, fetal presentation and auscultation of fetal heart rate and giving antenatal appointment (Boller et al., 2003; Murray et al., 2002; Rani et al., 2008; Trinh et al., 2007).

Ram and Singh (2006) documented impact of antenatal care services on improvement of maternal health care in rural and urban areas of Varanasi district in Uttar Pradesh. Studies reveal that many routine procedures have little impact on reducing maternal mortality and morbidity. It shows that routine antenatal visits may raise awareness about the need for care during and after delivery or give women and their families a familiarity with health facilities that enables them to seek help more efficiently during a crisis. Fewer than four antenatal visits and the initiation of antenatal care after the first four months of pregnancy could be a great risk factor for maternal mortality (Taguchi et al., 2003). A possible reason for such an outcome could be that knowledge about facilities and contact with health professionals may reduce delays in decision-making about the place of care during an emergency. It is

argued that the use of antenatal care services by women may lead them to seek treatment for various complications occurring during pregnancy and after delivery (Sugathan et al., 2001).

Studies undertaken by Kuhnt and Vollmer (2017) outlined a number of relevance that ANC had on maternal and neonatal health. Observations were made for 752,635 neonatal mortality, 574,675 infant mortality, 400,426 low birth weight, 501,484 stunting and 512,424 underweight. Researchers used nationally representative health and welfare data from 193 Demographic and Health Surveys conducted between 1990 and 2013 from 69 low-income and middle-income countries for women of reproductive age (15–49 years), their children and their respective household. At least one ANC visit was associated with a 1.04% points reduced probability of neonatal mortality and a 1.07% points lower probability of infant mortality. Having at least four ANC visits and having at least once seen a skilled provider reduced the probability by an additional 0.56% and 0.42% points, respectively. At least one ANC visit is associated with a 3.82% points reduced probability of giving birth to a low birth weight baby and a 4.11 and 3.26% points reduced stunting and underweight probability. Having at least four ANC visits and at least once seen a skilled provider reduced the probability by an additional 2.83%, 1.41% and 1.90% points, respectively.

1.8.2 Knowledge of Pregnant Women on ANC

The knowledge and awareness of especially pregnant women on antenatal care services has been widely emphasized in modern literature, pointing to the need for women to be massively aware and educated on the service. A number of empirical evidence have been published in the literature. However, the level of pregnant

women's knowledge on antenatal care has been found to be varied with a number of reasons accounting for these differences.

Knowledge as asserted by Getachew et al. (2015) revealed that majority of women (92.2%.) knows that, woman needs at least five visits of antenatal follow up throughout her pregnancy However, only 52.8% interviewed women know that the important of using contraceptives methods. About 7.8% of the women did not know that pregnant women needs at least five visits of antenatal follow up throughout her pregnancy. About 39.8% of the women did not know the complication, which may arise with hypertension, that women with high blood pressure will affect the fetus growth in pregnancy. This was evident in assessment undertaken in Tikur Anbessa specialized hospital in Addis Ababa, Ethiopia.

Another study undertaken by Kawungezi et al. (2015) also highlighted knowledge of pregnant women on antenatal care and its component and essence. The multi-center study was undertaken in upcoming areas in Uganda among pregnant women utilizing antenatal care services in various health facilities. Results of the study showed that women who had received antenatal care, 54.5% did not have sufficient knowledge of the service. Only 45.5% had good knowledge. Attitude towards antenatal care is becoming positive due to better outcomes in health of the baby and the mother, though some still consider home deliveries as status quo. Some considered antenatal care as administration policy so they attended in order to achieve their requirement. Some of them considered it a waste of time due to protocol and delays at antenatal care clinics.

The use of antenatal care services, as observed in studies by Faye et al. (2011) was associated with the degree of awareness regarding the level of nutritional use during pregnancy. Women receiving antenatal care pointed to the importance of

acceptable intake of protein, vegetables, fruits and milk during pregnancy. They also knew that green leafy vegetables and organ meat were helpful in preventing anemia. Onasoga et al. (2012) also explored into the knowledge of pregnant women in ANC. The study sampled pregnant women in Ife Central LGA, Osun State, Nigeria and identified the factors that influenced their utilization of ANC services. Most of the women (85%) knew about the benefits in terms of antenatal care and had sufficient knowledge about the importance of antenatal care. Majority of pregnant women (58%) visited regularly antenatal care and 56% booked in the first trimester for provision. The study unraveled that pregnant women were well educated on antenatal care service and were able to outline the benefits and contributions it had on the quality of their life.

Similarly, good knowledge was observed among pregnant women in studies undertaken by Akhtar et al. (2018). The study which was a quantitative cross-section conveniently sampled 133 pregnant women from the community of Hussain Abad Lahore. Pregnant women between the ages of 20 to 45 years were engaged in the study. From the quantitative analysis made, 69.1% identified that pregnant women require to go for their checkup, 69.9% were also aware that pregnant women were required to for ANC even if there is no complication during pregnancy. 69.9% respondents also were aware that the first antenatal check-up should be done in the first 3 months. As many as 88.7% respondents were aware that pregnant women need vitamin supplement and iron folic acid tablet during pregnancy. 82.4% also knew that regular blood pressure examination was necessary. Other knowledge shared by pregnant women were on the probability of high blood pressure affecting the growth of foetus. This high knowledge as observed by Akhtar et al. (2018) was appreciable and contributed significantly to the attitude and utilization of ANC services among

pregnant women. It was supposed that females' qualification was vital for understanding health needs, and able to make decisions regarding their health. The study showed that, significant relationship was found between qualification and knowledge as well as attitude and practice of the women to ANC.

Good knowledge among pregnant women on ANC was observed by Cumber et al. (2016). This descriptive cross-section study selected a total of 50 pregnant women at Buea Regional Hospital in Fako Division of the South West Region of Cameroon. Participants were drawn using a simple random sampling technique. A structured questionnaire developed by the researchers was the main tool used to collect data. Knowledge on ANC assessed concerned nutrition and environmental hygiene; breastfeeding, exercise, signs and symptoms of labor; emergency items; personal and environmental hygiene and adequate nutrition. Knowledge was also assessed in terms of the essence of ANC to mother and baby. 72% were aware and had knowledge on ANC as they defined it as a pregnancy related services provided to pregnant women by health professional, aimed at preventing neonatal deaths and maintaining the health of women during pregnancy. Based on the knowledge about ANC, majority (96%) of the respondents knew the components of ANC which are consultation and family planning. However, a lesser proportion of respondents 4(8%) did not know the components of ANC because of ignorance. All the women had knowledge on topics taught during ANC, as they listed adequate nutrition, environmental hygiene, breast feeding, exercise, signs and symptoms of labour, medications and emergency item. With regard to pregnant women knowledge on the importance of ANC services, 94% said ANC is important on their health and that of their neonate. 74% of these pregnant women knew the importance of starting ANC early. Cumber et al. (2016) concluded that women had knowledge on antenatal care

and that the hospital administration should reduce the fee of antenatal care so that the pregnant women will be encouraged to attend.

Interviewing 250 women with infants between the ages of 0-18 months, Ogunba and Abiodun (2017) identified knowledge of women and its influence on ANC attendance in Southwestern Nigeria. The participants were sampled using simple random sampling technique. The mean ANC attendance was 10.2±7.364 and the overall knowledge score was 2.39±0.535. 56.4% had a medium level of knowledge about ANC attendance. Majority of respondents had knowledge about the importance of attending ANC to prevent and correct malaria, anemia and other pregnancy complications, about ANC preventing newborn deformity, about ANC correcting or improving the micronutrients deficiency. The study found that maternal educational level is a significant factor in determining the knowledge of ANC. The study also confirmed that the utilization of ANC among women with sufficient knowledge about the benefits of ANC and the complications occurring during pregnancy was higher than among women lacking such knowledge.

Eram, Anees and Tamanna (2016) explored into the knowledge of pregnant women regarding ANC. The study was cross-sectional conducted during May-June 2013 in the rural areas of Jawan, Aligarh. A total of 100 mothers were selected for the study. In the study, majority of the mothers (95%) responded that pregnant women needed to go for ANC checkup. However, only 60% knew correctly the minimum number of ANC visits during pregnancy. 99% of mothers knew that tetanus toxoid vaccination should be given during pregnancy, but only 50% knew the correct dose. Although 84% of mothers knew the importance of iron folic acid (IFA) tablet, only 40% knew the correct dose. 85% of mothers knew about birth spacing, and 90% said it to be a good practice. 100% mothers knew that blood pressure should be recorded,

but adverse effects of high blood pressure on fetus growth were reported only by 50% of females. More than half of mothers (56%) knew that emotional disturbances affected fetal growth. Most of the mothers knew the importance of blood and urine investigations. Eram et al. (2016) concluded that through education, awareness should be developed among women on the importance to register early for ANC.

1.8.3 Perception of Pregnant Women on ANC

Perception to antenatal care among pregnant women have been reported extensively in the literature. Pregnant women have been identified to have had some perceptions concerning the service. These perceptions determined the attitudes of the omen towards utilizing antenatal care services. It influenced their attendance towards the services and their timely acknowledging of the service.

Studies by Makinde, Adeyemo and Ogundele (2014) evaluated the perception of pregnant mothers attending ANC in Osogbo, Osun state, Nigeria. 500 participants were sampled from both LAUTECH Teaching Hospital Osogbo and the Community LAUTECH Annex located at Atelewo Health Centre Osogbo in Osun State using the convenience sampling technique. The major instrument used in collecting data was a self-developed questionnaire design ed according to the variables tested in the hypotheses. The results revealed that 294 (58.8%) wanted prenatal exercise to be performed by the expert while 116 representing 23.3% of the total respondents did not prefer expert to perform exercise for them. Findings showed that there was significant relationship in faster labour and preparation for labour endurance as perceived by pregnant mothers on usefulness of prenatal exercise. The result revealed that reduction in weight gain was perceived as significant usefulness of prenatal exercise by pregnant mothers. Also, prenatal exercise was perceived by pregnant mothers

attending antenatal clinic in LAUTECH Teaching Hospital, Osogbo as significant to the usefulness in relief of fatigue, swelling and back pain (X2 critical = 12.59, X2 calculated = 14.39). There were significant relationships between perceptions of pregnant mothers on various usefulness of prenatal exercise. Makinde et al. (2014) concluded that aerobic dance should be done in late gestation to test the effect of maternal exercise on foetal activity.

Al hazni et al. (2017) uncovered the perceptions of Saudi pregnant women on the importance of ANC. The study was carried on 1617 women who attended Maternity and Children's Hospital and National Guard Hospital in Madina during the period from August to September 2016. A face to face interview and a questionnaire was used to collect data on sampled respondents. In the study, 89.7% believed in the importance of antenatal care visits. 89% also believed that the use complementary supplements during pregnancy could prevent some problems. 80.9%had also started following up at first or second trimester and 80.1% were following up their pregnancies consistently and regularly. There was no relation between the regularly attendance to ANC, and age, gravidity, residency, level of education, income of household. But there was a relation between follow-up the regular antenatal care visits throughout the whole period of pregnancy, and level of education.

In studies undertaken by Jallow, Chou, Liu and Huang (2012), pregnant women were identified to have had poor perception concerning ANC clinics in public facilities in Gambia. Patient's perception of antenatal services received in both public and private health facilities was main purpose of the study. Perception was measured in the following areas: willingness to come back, willingness to recommend to others and level of satisfaction. 502 pregnant women were sampled for the study. Those attending public clinics were significantly less satisfied than those attending private

clinics. Pregnant women's poor perception with public facilities (after adjustment) included their unhappiness, with the following dimensions of antenatal care: inadequate privacy, inadequate space and neatness and inadequate communication with care providers. The main complaints were related to the physical environment, technical process and provision of information or reassurance.

1.8.4 Attitudes towards ANC

Attitudes of pregnant women to antenatal care services is very crucial. Their behaviour towards the service will determine how beneficial it will be for them and help health personnel achieve the objectives of the service.

Observations made by Dulla et al. (2017) on the use of the antenatal care service was inadequate in accordance with the WHO recommendation, but better than the use of the antenatal services of the Amhara region in Ethiopia, which governs the study area. Low level of education of the mothers, poor decision-making, low economic status of the mother, poor perception of the affected women were the factors that accounted for the negative attitude and underutilization of the service among the sampled women. On the other hand, the mother's experience of abortion and stillbirth increased the probability of using antenatal care.

Dulla et al. (2017) observed that the practice of home delivery is still common act as added risk if women ever wanted to conceive again. About half of the women did not know the complications that might arise among women delivery at home. These high-risk women needed specific antenatal care and recommended for hospital delivery. However, home delivery was still a preferred practice among women seen in this study where about 20.8% of the women reported having experience of home delivery in their previous pregnancies opposing to the good attitude revealed

regarding hospital delivery. Dulla et al. (2017) reiterated that ANC have such attractive benefits and strategies. Every year, at least half a million women and girls die because of complications during pregnancy, childbirth or the six weeks following delivery. Almost all (99%) of these deaths occur in developing countries. This shows that the Antenatal care activity is very weak in developing country. Igboke (2012) also asserts that the cause of maternal mortality in developing countries is mainly due to poor access to maternal health care; because of poor antenatal and maternity ward, as well as inadequacies in available care.

Majrooh et al. (2014) equally evaluated the coverage and quality of ANC provided at primary health care facility in the Punjab province of Pakistan. This evaluation was to understand the coverage rate as well as the quality of the services provided to pregnant women. Expectant mothers indicated that 49% received no antenatal care, even in the presence of no cost and low cost public health sector ANC services. It was reported that out of 900 pregnant women, 811 (90%) had at least one visit. Only 11% of the women had equal or more than four antenatal visits. Pakistan Demographic and Health Survey confirms that maternal deaths are not merely a result of treatment failure; rather they are the final outcome of a complex interplay between a myriad of social, cultural and economic factors.

Affirming the poor attitudes to ANC among Pakistan pregnant women, Birmeta et al. (2013) provides some profound statistics. They comment that the state of women's health in Pakistan is unsatisfactory, with the majority suffering from preventable and treatable risks and diseases associated with child bearing. According to the Demographic Health Survey in Pakistan, 70% of pregnant women have not received antenatal care, 23% receive preventive care by a physician, 3% by a nurse, medical health care or family caregiver, and 4% by trained or untrained traditional

obstetricians (TBAs). There are several factors, which affect the use of antenatal facilities, such as educational level, awareness of the importance of antenatal care. These factors according to Birmeta et al. (2013) have resulted in the poor attitude and underutilization of ANC services among pregnant women in Pakistan.

Studies conducted by Sutan et al. (2016) also identified the attitudes of pregnant women towards ANC. This study sampled antenatal mothers with hypertensive disorders and assessed their health information seeking behaviour in terms of their satisfaction, general attitude to the quality of the services provided them. Half of the women were satisfied with the overall care provided to them. The routine antenatal investigations provided to majority of women were urine, blood, antenatal examination and blood pressure. About 86.2% women said that they had to wait for more than two hours for checkups. Regarding satisfaction with getting medicine 63% were found dissatisfied, 75% of women did not have complete tetanus vaccine. Only 31% received instructions about antenatal care, 46% received information about exercise and 36% were reassured about discussing fear and anxiety.

Attitudes observed among 133 pregnant women from the community of Hussain Abad Lahore as indicated by Akhtar et al. (2018) was affected by education status. In this study, women who were more educated were better aware about almost all the aspects of antenatal care. However, women with lower education were doing better practice about nutrition and other factors. Specifically, 91.5% respondents agreed that early antenatal care booking was good for their pregnancy, 75% believed that vitamin supplement and iron folic acid tablet was good for the fetus. 83.1% also believed that antenatal follow up was good to monitor mothers' and fetus' health. Interestingly, 75% respondents would allow their doctor to check on their blood pressure. The general attitudes of women an ANC was positive, good and in the right

direction. However, only 22.8% sought regular ANC during pregnancy. 11% respondents also waited for the fetus to move before going for ANC. 5.1% respondents had received five ANC visits which is not appropriate for women's health. In terms of power, only 47.8% were of the view that they had the power and authority to decide their visit to ANC. Other respondents asserted power to their partners to decide their going to ANC facilities. There was significant association between qualification and attitude. Qualification effected on the pregnant women attitude. It showed that education have great effect on the practices of pregnant women regarding attaining of antenatal care regularly during pregnancy; p=.001 with chi-square value 94.66a.

Ogunba and Abiodun (2017) also evaluated the attitudes of pregnant women on ANC services in Southwestern Nigeria. Their study reported a mean attitude score of 2.44±0.593. Correlation analysis (r=-0.276, p=0.000) showed that a significant relationship between the respondent's attitude and ANC attendance. About half of the women had no reason for attending ANC while 31.6% were Busy, 2.4% had difficulty with transportation, 4.8% due to Sickness, laziness or tiredness, and 5.2% traveled away from their place of residence. These reasons accounted for the low utilization and attendance to ANC among pregnant women. The study showed that 49.2% women who had a positive attitude towards ANC had a higher proportion of ANC visits than those with a negative attitude. Ogunba and Abiodun (2017) concluded that the importance and benefits of attendance of ANC should be emphasized, especially the number of ANC visits that should be made before delivery.

CHAPTER TWO

RESEARCH METHOD

2.0 Introduction to the chapter

Chapter two presents the specifications on which the entire study was carried out. Elements addressed in the chapter include the study design, population, sample and sampling technique, instrumentation, data collection procedure and analysis adopted for the conduct of the research. The ethical issues considered were also addressed in the chapter.

2.1 Research design

This research was a quantitative descriptive survey. The quantitative research design according to Slevitch (2011) uses measurable data to formulate facts and uncover patterns in research. The design is much structured and is often used to quantify trends, attitudes, opinions, behaviours and other defined variables. The quantitative design equally enables researchers to present objective analysis of phenomenon by establishing the cause-and-effect relationship between problems and factors which could be verified over time (SIS International Market Research, 2018). Since the study was concerned with presenting the knowledge and perception of pregnant women on antenatal care services, using the quantitative research design enabled researchers to present the current trend by quantifying the phenomenon to make generalizations and formal reports. More so, the study was a descriptive survey. Shields and Rangarajan (2013) describes the descriptive survey design as a scientific method that observes and describes the behaviour of a subject without influencing it in any way. This design, as opined by Shuttleworth (2008) is valid for studying

natural phenomenon whereby researchers do not manipulate results. This design was selected because it enabled researchers to presents the current knowledge and perception of pregnant women in Ghana without being bias or manipulative.

2.2 Research setting

Polit and Beck (2008) describe the physical location and conditions in which data collection takes place as the research study setting. In this study, the Korle Bu Teaching Hospital was the setting. The facility is the premier national tertiary referral health facility in Ghana and it is situated in Ablekuma Sub Metropolitan area of Accra. The Ablekuma Sub Metropolitan area has a population of about 763,853 (Sub-Metro, 2009). The centre primarily serves the local population, however, it attends to a wide range of patients coming from the Accra metropolis and beyond. The hospital is just after the Korle lagoon from Accra central and Emmanuel Presby church from Dansoman. The hospital shares boundary with Korle-Gonno to the south 2^0 and Lartebiokorshie North West 89^0. Korle lagoon is to the south east 89^0. The hospital has surgical medical emergency unit, neonatal intensive care unit (NICU), child health block, plastic surgery unit, accident center, maternity unit, medical unit, cardiothoracic unit, obstetrics and gynecology unit, general medical wards, psychiatric center and a polyclinic. The obstetrics and gynecology unit offers antenatal care services to pregnant mothers in around Korle Bu. There are five obstetric units at the facility with each having a fixed antenatal clinic day being a duty day for the unit. Patients seen at the antenatal clinics are transferred from the gynaecology clinic at fourteen to twenty weeks of gestation. These patients belong to at least one of the following groups: pregnancy with medical disorders such as sickle cell diseases, diabetes, anemia, heart disease, asthma, hypertensive disease and rhesus

negative; previous caesarean section and instrumental deliveries; grand multiparity; multiple pregnancy; short nulliparous women (Nulliparous with height 1.54m or less); elderly nulliparous women (age 35 years or more); teenagers (age 16 years or less); previous still birth, neonatal death, preterm delivery or intrauterine growth restriction; pregnancy following treated infertility, myomectomy, fistula repair and pelvic floor repair; previous abnormalities of the third stage.

2.3 Target population

Population, according to Burns and Grove (2005) refers to a group of people who share common traits or attributes of interest to the researcher, from whom a sample will be drawn and to whom the findings will be generalized. These group of elements share attributes that are of interest to researcher and also meet the inclusion criteria set for the study. However, LoBiondo-Wood and Haber (2010) distinguishes between target population and accessible population. Whereas the former refers to the intended group of elements researchers intend to involve in a study, the latter refer to the actual elements which are readily available to be recruited into a study. In this study, the target population was pregnant women visiting antenatal clinic at KBTH. According to available statistics, the monthly attendance of pregnant women at the antenatal clinic of the obstetrics and gynaecology unit is estimated as 7% of all OPD cases (3,776). The population for this study was thus 264 pregnant women.

2.3.1 Inclusion Criteria

1. Pregnant women visiting the antenatal clinic
2. Pregnant women willing to participate in the study
3. Pregnant women aged between 20 and 45 years

2.3.2 Exclusion Criteria

1. Pregnant women on admission at the Obstetrics and gynaecology unit.
2. Pregnant women below 20 years.

2.4 Sampling method and sample size

For every research, a smaller group is selected among which variables are studied (Burns & Grove, 2005). This smaller group exhibits same characteristics as the population and as such, observations made on them can equally be generalized to the entire population (Somekh & Lewin, 2005). The sample size for this study will be fifty (50) mothers visiting antenatal clinic of KBTH.

In other to have a true smaller group representation of the entire population, the convenience sampling technique, which is a non-probability sampling technique will be used in drawing participants for the study.

2.5 Data collection tool

The main research instrument that was used in the assessment is the questionnaire. Abawi (2003) postulates that a questionnaire is a data collection instrument that is consistent of a series of questions and other prompts for the purpose of gathering information from respondents. The questionnaire is an effective tool for collecting information from a very large population and is appropriate for literate participants. Information gathered with the questionnaire is easy and convenient to analyze and interpret (Cohen, Manion & Morrison, 2007). A self-developed questionnaire was developed to elicit information from respondents. The instrument was designed to reflect all objectives raised in the study mostly based on concerns and findings made in the literature. The instrument had four main sections. Section A of

the instrument elicited demographic information on respondents. The variables included age, religion, marital status, highest educational level, occupation, estimated family income, gestational age, number of antenatal visit, number of parity and number of living children. Items in Section B evaluated knowledge of respondents on antenatal care services and its essence to maternal health. These items were true/false nature where correct responses were rated 1 and wrong responses rated 0. In Section C, items identified perception of respondents on antenatal care services. These items were on a five-point Likert scale items ranging from strongly disagree to strongly agree. The last section, Section D identified attitude of respondents towards antenatal care services. These items were polar questions that respondents were required to indicate their views on each item.

2.6 Data collection procedure

In collecting the data, researchers personally administered questionnaires to the targeted group. Prior notice was given to the hospital administration to schedule times to administer instrument. This was done after an introductory letter from the Department of Nursing of the Central University had been obtained and shown to the administration of the KBTH and managers of the obstetrics and gynaecology unit. The researchers gave out the questionnaires themselves and present to explain the rationale for the exercise to respondents to ensure objective participation. 10 questionnaires were administered daily. Researchers allowed respondents enough time to respond to the questions and it was collected that very day. This ensured a 100% return rate. Also, a few health officials at the antenatal clinic were contracted to assist in the data administration and collection. The entire collection lasted four weeks.

2.7 Validity and reliability of study

Validity is the degree to which an instrument measures what is it is supposed to be measuring (LoBiondo-Wood & Haber, 2010). For this sake, the questionnaire was designed to meet the objectives of the study. It was then sent to the supervisor for correction and certification before it was administered. Content, construct and criteria validity were ascertained as the instrument was given to the research supervisor and other experts in health research.

The reliability of the same instrument was measured. Reliability, according to LoBiondo-Wood & Haber (2010), looks at the degree at which an instrument can measure and collect the same kind of information given different settings. The Cronbach Alpha test was run to determine the reliability of the instrument after the tool had been pretested.

2.7.1 Pretesting of tool

In order to pretest the tool for reliability, 10 pregnant women were conveniently sampled from the antenatal clinic of the Greater Accra Regional Hospital (GARH) (Ridge Hospital). The selection of this analogous setting was deemed fit since the antenatal clinic of GARH provides similar services as that of KBTH. Similarly, both units receive around the same number of attendants.

2.8 Ethical considerations

Prior permission was sought from the administration of KBTH as well as managers of the obstetrics and gynaecology unit before participants were drawn from the site. None of the participants were coerced or put under any form of duress to provide information for the study. Respondents were at liberty to withdraw from the

study any time of their choice if they wished to do so. Respondents were assured of confidentiality of responses throughout the study period and their consent was obtained.

2.9 Limitation of the study

Undoubtedly, the conduct of this research faced a number of challenges. The unwillingness and lackadaisical attitude of respondents was a major challenge. Pregnant women were not willing when contacted initially to participate in the study. More so, time constraints was a limitation to researchers.

CHAPTER THREE

STUDY FINDINGS AND DISCUSSIONS

3.0 Introduction to chapter

This chapter presents analysis made on data gathered on the evaluation of knowledge and perception of women on antenatal care and its importance. Quantitative analysis is made with simple descriptive statistics on the following research objectives which propelled the study.

1. Ghanaian pregnant women's knowledge on antenatal care services.
2. Ghanaian pregnant women's perception on antenatal care services.
3. Attitudes of Ghanaian pregnant women in accessing antenatal care services.

3.1 Approach to data analysis

IBM SPSS (v.24.0) was used to analyze data collected by researchers from respondents. As a means of reporting on the current knowledge and perception of women an antenatal care and its importance, simple descriptive statistics such as frequency values, percentage scores, mean and standard deviation values were generated using the IBM SPSS software. To make interpretations self-explanatory, figures and tables were used to present results generated from the analysis made.

3.2 Findings

3.2.1 Demographic data

Women sampled from KBTH were required to provide personal basic information to enable researchers understand the personalities and descriptions of individuals whose views were being sought. Age, religion, marital status, occupation,

highest educational level, gestational period and estimated household monthly income were demographic variables measured. Descriptive statistics of scores on these variables are presented in Table 1.

Table 1: Summary descriptive statistics of demographic data

VARIABLE	CATEGORY	FREQUENCY	PERCENTAGE
Age	20-25years	4	8.0
	26-30years	32	64.0
	31-35years	4	8.0
	36-40years	5	10.0
	41-45years	5	10.0
Religion	Christian	36	72.0
	Islam	14	28.0
Marital Status	Single	31	62.0
	Married	14	28.0
	Divorced	5	10.0
Occupation	Unemployed/Housewife	8	16.0
	Trader/Merchant	11	22.0
	Civil Servant	22	44.0
	Private Worker	5	10.0
	Student	4	8.0
Educational Level	Primary	9	18.0
	Secondary/Voc/Tech	24	48.0
	Tertiary	27	34.0
Gestational Age	>12weeks	9	18.0
	13-28weeks	37	74.0
	<28weeks	4	8.0
Monthly Household Income	GH¢100 - GH¢1,000	42	84.0
	GH¢1,000 – GH¢5,000	8	16.0

N = 50; Source: Field survey, 2019

Majority of the respondents were aged 26-30 years. These respondents were 32(64.0%). 5(10.0%) respondents each were 36-40 years and 41-45years. 4(8.0%) respondents each were also aged 20-25 years and 26-30 years. In terms of religion, 36(72.0%) were Christians and 14(28.0%) were Muslims. 31(62.0%) were single, 14(28.0%) were married and 5(10.0%) were divorced. With regards to employment status, 22(44.0%) were government workers, 11(22.0%) were traders, 8(16.0%) were unemployed and 5(10.0%) were engaged by private firms. 4(8.0%) students were also involved in the study. 27(34.0%) respondents had tertiary education, 24(48.0%) had secondary/vocational/technical education and the remaining 9(18.0%) had primary education. 37(74.0%) respondents were within their 13-28 weeks of gestation, 9(18.0%) were less than 12 weeks and 4(8.0%) had reached more than 28 weeks of gestation. In terms of average family monthly income, 42(84.0%) had between GH¢100.00 - GH¢1,000.00 and 8(16.0%) had between GH¢1,000.00 – GH¢5,000.00

Figures 1, 2 and 3 further presents other demographics of respondents in terms of their number of antenatal visits, number of parity and number of living children.

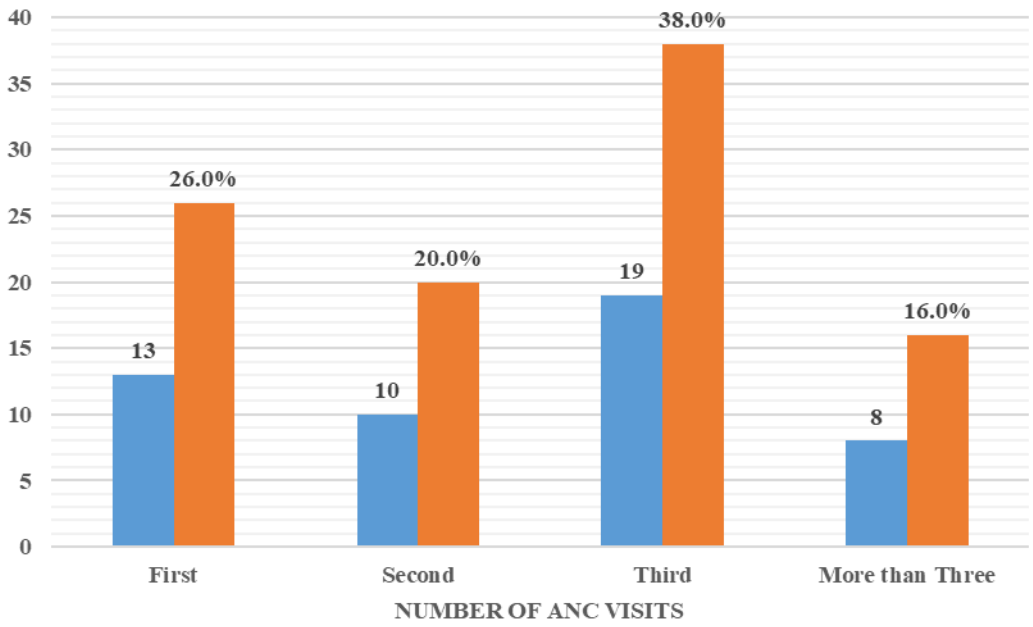

Figure 1: Number of antenatal visits

19(38.0%) respondents were visiting ANC for the third time. 13(26.0%) were visiting for the first time while 10(20.0%) and 8(16.0%) were visiting for the second and four or more times respectively.

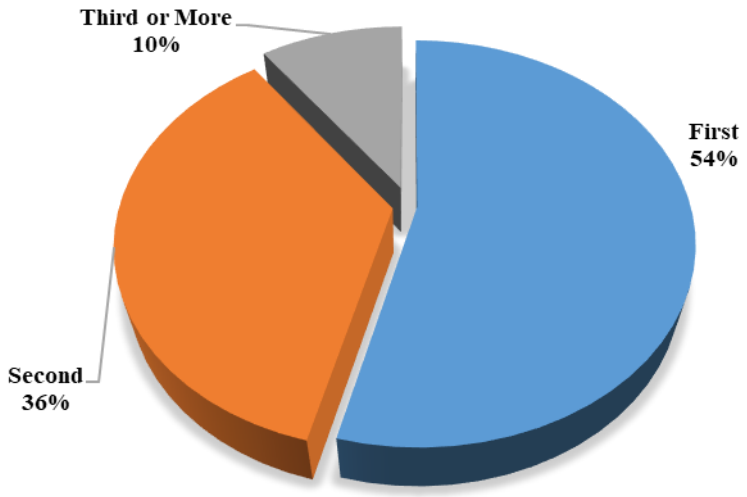

Figure 2: Number of parity

27(54.0%) respondents were having their first time pregnancy, 18(36.0%) were having their second while 5(10.0%) were having either their third or more pregnancy.

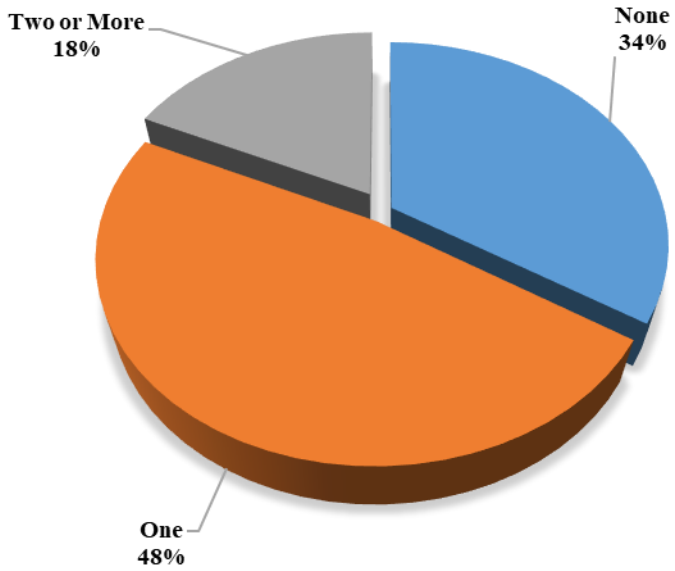

Figure 3: Number of children

24(48.0%) respondents were having only one child, 17(34.0%) had no child aside their current pregnancy and 9(18.0%) had two or more children.

3.3 Analysis of main data

3.3.1 Research objective one

Respondents' knowledge on antenatal care was ascertained. Basic knowledge questions were presented which was supposed to measure their knowledge and awareness to the items on antenatal care. Scores of responses made is presented in Table 2 as frequency and percentages.

Table 2: Knowledge of respondents on antenatal care

Knowledge Statement	True (%)	False (%)	% Correct Response
Attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications	41(82.0)	9(18.0)	82.0
Knowledge on proper child breastfeeding is naturally acquired	26(52.0)	24(48.0)	48.0
Anemia during pregnancy is as a result of too much amount iron in the body	13(26.0)	37(74.0)	74.0
Antenatal care clinic can detect newborn deformity	40(80.0)	10(20.0)	80.0
Antenatal care clinic can correct or improve the micronutrients deficiency	45(90.0)	5(10.0)	90.0
Fetal movement counting is necessary for checking the wellbeing of the fetus	40(80.0)	10(20.0)	80.0
Adequate antenatal care clinic visits should not be more than four visits or less	8(16.0)	42(84.0)	84.0
Pregnant women need to take extra food as compared with non-pregnant women	45(90.0)	5(10.0)	90.0
Regular and strenuous exercise is dangerous and may be unsafe for the health of the fetus	40(80.0)	10(20.0)	80.0
Increase in micronutrients-rich diet is necessary for good birth outcome	46(92.0)	4(8.0)	92.0
TOTAL			80.0

Source: Field survey; N = 50 (*Knowledge scores interpreted as: 0% - 20% = poor, 21% - 40% = fair, 41% - 60% = good, 61% - 80% = Very Good, 81% - 100% = Excellent*)

41(82.0%) agreed that ANC clinic is very important to prevent and correct malaria, anemia and other pregnancy complications. 9(18.0%) were of the reverse view. 26(52.0%) did not know that proper child breastfeeding was learnt and not naturally acquired. 13(26.0%) respondents believed it was true that anemia during pregnancy was a result of too much iron in the body, whiles 37(74.0%) rightly knew it was false. 40(80.0%) respondents also considered it was true that ANC clinic could detect newborn deformity while 10(20.0%) considered it false. 45(90.0%) also aware that ANC clinic could correct and improve micronutrients deficiency. The other 5(10.0%) believed it was not true. 40(80.0%) respondents were also aware that fetal movement counting was necessary for checking wellbeing of the fetus. 10(20.0%) respondents were not aware of this knowledge. 42(84.0%) respondents indicated that it was false that ANC visits should not be more than four times. Only 8(16.0%) respondents believed ANC visits should be less than four times. Considering that pregnant women should take more food than non-pregnant women, 45(90.0%) said it was true and 5(10.0%) said it was false. 40(80.0%) said it was true that regular and strenuous exercises were dangerous and unsafe for the health of the fetus. Similarly, 10(20.0%) respondents said it was false. 46(92.0%) respondents said it was true that increase in micronutrients-rich diet was necessary for good birth outcome. However, 4(8.0%) respondents said it was false. The total knowledge score for all items was 80.0%.

3.3.2 Research objective two

Pregnant women were required to share their perception on antenatal care services. Various statements on perception were presented to pregnant women. Scores of women's perception to ANC services is presented in Table 3.

Table 3: Perception of respondents on antenatal care services

Perception	SD (%)	D (%)	N (%)	A (%)	SA (%)
Limit the frequency of my visit to antenatal care clinic because of the cost of each session	23(46.0)	14(28.0)		13(26.0)	
Advice regarding proper health during pregnancy can be gotten outside the hospital	15(30.0)	22(44.0)	4(8.0)	9(18.0)	
Dislike attending antenatal care clinic because it's boring	20(40.0)	17(34.0)	9(18.0)	4(8.0)	
Dislike antenatal care clinic because it is time consuming	15(30.0)	18(36.0)	4(8.0)	13(26.0)	
Respect would only go with my spouse view about the type of care I receive	15(30.0)	8(16.0)	13(26.0)	14(28.0)	
Prefer going for antenatal care because all other pregnant women go too	15(30.0)	12(24.0)	4(8.0)	19(38.0)	
Attend antenatal care sessions is solely for the health of pregnant women.	4(8.0)	15(30.0)	14(28.0)	13(26.0)	4(8.0)
Nurses at the ANC clinic are not friendly		37(74.0)	5(10.0)	4(8.0)	4(8.0)
The ANC services are substandard and not of quality	17(34.0)	17(34.0)	5(10.0)	11(22.0)	
ANC clinic is distant and not easily accessible	8(16.0)	14(28.0)		24(48.0)	4(8.0)
It is important to follow regular antenatal care visits throughout the period of pregnancy	5(10.0)	9(18.0)	9(18.0)	14(28.0)	13(26.0)

Source: Field survey; 2019 N = 50

Respondents shared their perception on ending their ANC visits as a result of the cost involved. On this variable, 23(46.0) strongly disagreed, 14(28.0%) disagreed and 13(26.0%) agreed. 15(30.0%), 22(44.0%), 4(8.0%) and 9(18.0%) respondents strongly disagreed, disagreed, responded neutral and agreed respectively that the advice on proper health during pregnancy could be gotten outside the hospital facility. With respect to disliking ANC clinic simply because it was boring, 20(40.0%) strongly disagreed, 17(34.0%) disagreed, 9(18.0%) gave a neutral response and 4(8.0%) agreed to the statement. On the statement that pregnant women dislike ANC clinic because it was time consuming, 15(30.0%) strongly disagreed, 18(36.0%) disagreed, 4(8.0%) were neutral and 13(26.0%) agreed. 15(30.0%), 8(16.0%), 13(26.0%) and 14(28.0%) respondents strongly disagreed, disagreed, appeared neutral and agreed respectively they will entirely go with their spouses' view on the type of care to receive. Similarly, 15(30.0%), 12(24.0%), 4(8.0%) and 19(38.0%) respondents strongly disagreed, disagreed, appeared neutral and agreed respectively they preferred going to ANC clinic because all other pregnant women were attending. On the issue of attending ANC for its health benefits, 4(8.0%), 15(30.0%) 13(26.0%) and 4(8.0%) respondents strongly disagreed, disagreed, agreed and strongly agreed respectively. 14(28.0%) respondents were however neutral on their motivation for attending ANC clinic. When asked if nurses at ANC clinic are not friendly, 37(74.0%) disagreed, 5(10.0%) were neutral, 4(8.0%) agreed and 4(8.0%) also strongly agreed. 17(34.0%), 17(34.0%), 5(10.0%) and 11(22.0%) respondents respectively strongly disagreed, disagreed, were neutral and agreed that ANC services are substandard and not of quality. In terms of non-accessibility to ANC services, 8(16.0%), 14(28.0%), 24(48.0%) and 4(8.0%) respondents strongly disagreed, disagreed, agreed and strongly agreed respectively. On the assertion that it was essential to follow regular

ANC visits throughout the period of pregnancy, 5(10.0%) strongly disagreed, 9(18.0%) disagreed, 9(18.0%) were neutral, 14(28.0%) agreed and 13(26.0%) strongly agreed.

3.3.3 Research Objective Three

As part of evaluating the knowledge and perception of pregnant women to ANC, their attitude towards the service was also ascertained. Table 4 presents scores of women's attitude to ANC services.

Table 4: Attitudes of women to antenatal care services

Attitude Variables	Yes (%)	No (%)	% Positive Attitude
Regular in attending antenatal clinic	28(56.0)	22(44.0)	56.0
ANC clinic is appropriate place for advice on pregnancy	41(82.0)	9(18.0)	82.0
I prefer deciding on duration to breastfeed than being told	28(56.0)	22(44.0)	44.0
I smoke or take alcohol during pregnancy	16(32.0)	34(68.0)	68.0
I exercise during pregnancy period	40(80.0)	10(20.0)	80.0

Source: Field survey; 2019 N = 50

28(56.0%) respondents were found to be regular in attending ANC clinic whereas 22(44.0%) were not regular. 41(82.0%) considered ANC clinic appropriate place for advising women on pregnancy while 9(18.0%) considered it not appropriate. In terms of preferring to take personal decision on how long a baby will be breastfed

than taking advice from ANC clinic, 28(56.0%) said yes and the remaining 22(44.0%) said no. 34(68.0%) respondents were non-smokers nor took alcohol during pregnancy. However, 16(32.0%) smoked or took alcohol in the period of pregnancy. In terms of exercising during pregnancy, 40(80.0%) said yes and 10(20.0%) said no.

3.4 Discussion

3.4.1 Research objective one

Pregnant women sampled for the study appeared to have had very good knowledge on ANC services and its essence to total healthcare. The total knowledge score was computed as 80.0% indicating the massive knowledge respondents had concerning ANC services and its essence. Respondents scored more than 70% on almost all knowledge items raised by researcher. This record comes to confirm the assumption that pregnant women who visit ANC clinic at KBTH are very much aware on basic issues related to ANC and also know its essence to their health and that of their unborn baby. Similar observations were made by Onasoga et al. (2012), Akhtar et al. (2018) and Cumber et al. (2016). The high knowledge expressed by pregnant women on ANC services was however contrary to findings made by Kawungezi et al. (2015) who observed lower knowledge levels on ANC services among pregnant women sampled from Uganda.

Specifically, respondents were aware that attending ANC clinics aided them to prevent and correct malaria, anemia and other pregnancy related complications that may affect their health and that of their unborn baby. Respondents pointed out correctly that ANC services were important in detection of possible complications and abnormalities that may affect their unborn babies. Pregnant women are well informed on the complications that their babies may face, which may danger their health.

Similarly, they were also aware that through ANC services, these complications could be detected and corrected. Knowledge was expressed in terms of the causes of anemia during pregnancy and the possibility of correcting micronutrients deficiency through ANC services. This knowledge is welcoming considering the fact that it would improve women's attendance to ANC services. Similar observations were made among pregnant women sampled from Cameroon by Cumber et al. (2016). Ogunba and Abiodun (2017) also made similar observations among pregnant women sampled from Southwestern Nigeria.

The least score was on knowledge pertaining to attaining proper child breastfeeding. Unfortunately, most of the women were of the view that skills and knowledge on proper breastfeeding practices is acquired naturally. Pregnant women hold the idea that knowing how to breastfeed and the approved duration for the practice comes naturally and thus, there was no need for them to be taught or educated at ANC clinics. This record suggests that, mothers may not pay heed to information provided at ANC clinics and would rely on their natural instincts to decide on ways of breastfeeding their babies. This record however was in contradiction to observation made by Cumber et al. (2016) who asserted that pregnant women considered knowledge on breastfeeding to have been given at ANC clinics, rather than being a natural instinct as indicated in the current study.

Though issues of breastfeeding had low score, higher knowledge was expressed with regards to the essence of fetal movement in checking the wellbeing of the fetus. Pregnant women were aware that the magnitude and frequency of movement of their fetus significantly correlate with the wellbeing of the fetus. If the fetus moved regularly, women were aware it indicated the healthy being of the fetus. The opposite of it is also known to be alarming. This knowledge expressed by women

will ensure that they become very observant as they look out for such movements and know that their babies are doing well. If the mothers do not observe such movement, they would be able to seek for immediate medical attention which will improve the health of the fetus and even their own health. Such knowledge is good and adds to improving maternal and neonatal health.

Higher knowledge was also expressed with regards to the need for pregnant women to take much food as compared to those who are not pregnant. Women knew that it was essential for them during pregnancy to take extra nutritious foods as compared to those who are not pregnant. Taking in much food during pregnancy was significant in improving the health of mothers and will also improve the wellbeing of the fetus. There is the need to supply constant nutrients to the fetus and this is supplied through the diet taken by the mother. This knowledge as shared by mothers is very crucial. It could be deduced that mothers take their diet serious during pregnancy knowing how beneficial it is to their total health and that of their unborn babies. This will ensure constant supply of nutrients to the fetus ensuring that babies are born healthy without any complications and deformities. Similar record was made in studies by Faye et al. (2011) who identified higher knowledge on nutrition demands among pregnant women.

Exercising during pregnancy was also an issue that was known by mothers. Pregnant women knew the role of physical exercise and the contribution it made towards their health and that of their fetus. Mothers were not oblivious to the fact that physical exercises were essential and healthy for pregnant women. Most of them expressed this knowledge advocating for its adherence among other pregnant women. However, they indicated that strenuous physical exercises could be unsafe and unhealthy. Aside knowing they were to engage in some form of physical activities to

improve their health, thy also knew how much they were supposed to engage in such activities, without sustaining injuries. It could be deduced then that women would be engaging in some form of physical exercises to improve their health without also engaging in any form of strenuous activities that could hamper their health.

Lastly, pregnant women also expressed knowledge with respect to the frequency of attending ANC clinic. Women appeared to have been informed on the need to be regular at ANC clinics without having a specific number of visits. Women were of the view that they were supposed to attend ANC clinics not based a definite number of visits. This knowledge presupposes that pregnant women will not express any reservation towards their visits to the ANC clinics, as they consider their attendance to the unit as essential to the total health. Pregnant women will thus be often present at the unit and this will improve their health and that of their fetus. This record affirms reports made by Getachew et al. (2015) and Eram et al. (2016) who asserted that pregnant women were aware of regular attendance to ANC clinics.

In conclusion, pregnant women sampled from KBTH expressed massive knowledge on ANC services and its essence to healthcare. Pregnant women knew much about ANC services and embraced its role in their wellbeing and that of their unborn babies.

3.4.2 Research objective two

Interestingly, respondents indicated that the cost of ANC sessions was not costly. They had the perception that the cost of attending ANC was not costly and that did not make them consider limiting their visits to the units. This perception of respondents may highly be attributed to the subsidized cost of the services provided by the unit. Attending the unit does not place much economic burden on women. This

mostly motivates them to frequently visit the unit to seek healthcare. It could also be inferred that the women understand the essence of the unit in improving their healthcare and that of their fetus. As such, they do not relent on their frequent visit to the unit and hence, has a positive perception on the cost of the services charged by the unit.

Pregnant women also had a positive perception about the integral role of ANC units in offering advice regarding proper health. Women considered the unit as the sole avenue through which proper information could be ascertained concerning better health and lifestyle in pregnancy. This perception of women is very heartwarming and proves that women will not relent on visiting the unit. They will as well embrace education offered by professionals of the unit, knowing how beneficial it is to their total health. This perception will help improve attendance of pregnant women at ANC and ensure that they take up advice and services rendered them.

It was generally observed the pregnant women perceived attending ANC as crucial. They did not consider it boring nor time consuming. Pregnant women generally had positive perception concerning attending ANC clinics. Most women believed that attending ANC clinics was appropriate and they did not express any reservation about it. Women did not express any doubt or unwillingness in attending ANC clinic to receive healthcare. This perception was welcoming and positive. This record was similar to observations made by Al hazni et al. (2017).

Pregnant women also held the perception that nurses at ANC clinic were friendly and welcoming. Most respondents clearly indicated that nurses who were stationed at ANC clinic of KBTH were open and friendly. Based on previous experiences and interactions had with the nurses, pregnant women basically admitted that the nurses were approachable. The nurses attended to the women without any

hostilities nor aggressions. This made the women to feel that nurse are concerned about their health and that of their fetus. This perception is heartwarming and is considered positive. It will motivate pregnant women to frequently visit ANC clinics as they consider the nurses as individuals who are willing to receive them and provide them with the assistance they may need.

Relatedly, pregnant women perceived that ANC services offered at KBTH was standard and quality. Women averred that the services offered at the unit met their expectations. These services were rated as satisfactory and met the health needs of pregnant women. As such, pregnant women considered the unit as providing services that are of quality and standard. This perception indicates that pregnant women consider services offered at ANC clinic as being of good worth and fit for their condition. With this perception, pregnant women be willing to attend the unit and receive advice which will aid improve their total healthcare. This is in consonance to reports made by Sutan et al. (2016) who likewise observed that half of their sample were satisfied with general services offered at ANC clinics.

Generally, pregnant women had positive perception to ANC services, specifically offered at KBTH. They considered ANC services as optimal, essential to improve their healthcare, not costly, not time consuming and also considered nurses at the unit as open and welcoming. Pregnant women also perceived it essential to maintain regular attendance at the unit. These positive perceptions as exhibited by the pregnant women is considered appropriate in improving maternal and neonatal health. This record is in sharp contradiction to conclusions drawn by Jallow et al. (2012) who indicated that pregnant women from Gambia were not satisfied with ANC services offered by public health centres. In the current study, pregnant women had positive

perception and higher satisfaction to ANC services offered at KBTH, which is a public facility.

3.4.3 Research objective three

With respect to the attitude of pregnant women in attending ANC clinic, the regular attendance rate was 56.0%. Most women admitted they regularly attended ANC clinics to receive healthcare. Though the regular attendance rate was high, there was still a sizable section of pregnant women who were not regular attenders to the unit. Generally, pregnant women sampled from KBTH averred to be regular attenders at ANC clinics. This attitude could possibly be as result of the good knowledge and positive perception expressed by the women. It has been observed that pregnant women have good knowledge to ANC services as well as positive perception to all ANC services. This knowledge and perception has translated into higher attendance rate to ANC clinic among pregnant women. This record affirms findings of Onasoga et al. (2012) who equally identified higher utilization rate of ANC services among pregnant women in Ife Central LGA, Osun State in Nigeria. The attendance rate at ANC clinic is also much higher than 22.8% observed by Akhtar et al. (2018) among pregnant women from Hussain Abad Lahore community.

Pregnant women also averred not to have been smoking or taking alcohol in their pregnancy state. Most women admitted they were not smokers nor were they taking in alcoholic content. Knowing the negative effect of these substances on their health and that of their fetus, women avoided them. This attitude could possibly be attributed to the knowledge exhibited by the women concerning ANC services and activities. Women appeared to be aware of the things they ought to do as pregnant

individuals so as to have better health for themselves and their fetus. This knowledge was thus seen in their positive attitude as most of them avoided smoking and alcohol.

Similarly, pregnant women admitted they engaged in some series of physical exercises. Pregnant women sampled from ANC clinic of KBTH indicated they periodically engaged themselves in physical exercises to improve their health. This indication was made by majority of the respondents. Pregnant women basically acknowledged the essence of exercising and further engaged in it. They did not merely express knowledge in physical exercise for pregnant women but also were found to have engaged in the activity.

Generally, a positive attitude of pregnant women to ANC clinic and accompanied services was observed. Women were regular attenders to ANC clinics, were not smokers or alcoholics and engaged in physical exercises to improve their health. The positive attitude of pregnant women to ANC clinic and accompanied services is heartwarming and significant in attaining optimal maternal and neonatal health. This record affirms observations made by Kawungezi et al. (2015) among Ugandan pregnant women and report made by Akhtar et al. (2018). However, report by Birmeta et al. (2013) observed negative attitude to ANC services among pregnant women sampled from Pakistan. The reverse was identified in the current study.

3.5 Conclusion

The general observation made was that pregnant women sampled from ANC clinic of KBTH had higher knowledge to ANC services. These women were aware of the essence of ANC services in improving their health and that of their unborn babies. Women were aware of the possibility of ANC clinic detecting and correcting possibility deformities in their fetus as well as the need to take in good amount of

nutritious meals. The high knowledge and awareness to ANC services affirmed reports of Onasoga et al. (2012), Akhtar et al. (2018) and Cumber et al. (2016). A contradiction was however observed in reports of Kawungezi et al. (2015) ho identified lower knowledge levels to ANC services among pregnant women.

With respect to perception of pregnant women to ANC services, positive perceptions to ANC services were observed. Women considered ANC services as not time wastage, less costly, accessible, essential to their health and considered it imperative to regularly attend ANC clinic. Women also considered nurses at the ANC clinic as open and welcoming. The positive perception as observed in the study affirmed reports of Al hazni et al. (2017) and Sutan et al. (2016). However there was a contradictory observation made in relation to reports of Jallow et al. (2012) who indicated that pregnant women from Gambia were not satisfied with ANC services offered by public health centres.

Pregnant women from KBTH also had positive attitude to ANC services. Women were regular attenders, non-smokers, non-alcoholics and engaged in physical exercises to improve their health and that of their fetus. The positive attitude affirms conclusions drawn by Onasoga et al. (2012), Kawungezi et al. (2015) and Akhtar et al. (2018). However, report by Birmeta et al. (2013) found negative attitude among pregnant women to ANC services which was in contrast to the current findings. Similarly, a contradiction was observed in conclusions made by Akhtar et al. (2018) who identified lower attendance rate to ANC clinic among pregnant women.

3.6 Recommendations

1. Nurses at ANC clinic should intensify education on the need for pregnant women to receive education on breastfeeding practices at the unit.

2. Management at ANC clinics should put in strategies to increase attendance rate at ANC clinics among pregnant women.
3. Similar study should be reduplicated with a wider sample size.
4. Future studies should evaluate satisfaction of ANC services offered by public and private facilities.

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APPENDIX A: SAMPLE QUESTIONNAIRE

CENTRAL UNIVERSITY

DEPARTMENT OF NURSING

QUESTIONNAIRE FOR PREGNANT WOMEN

Dear Respondent,

This questionnaire seeks to draw information on **"Knowledge and perception of pregnant women on antenatal care and its importance**".

This data will be used solely for academic purpose. Be assured that all the information given will be treated with high level of confidentiality. Please do not write your name(s) or anything that will be easily used to identify you on the questionnaire. Thank you for your willingness in the participation of the study. I would be most grateful if you would offer your assistance by responding to the questions raised in this instrument.

By filling this questionnaire, you consent to your full participation in the study.

Thank you.

Instructions: kindly answer the following questions or tick [√] where appropriate.

SECTION A: Demographic Data

1. Age (in years)

20-25	[ ]	36-40	[ ]
26-30	[ ]	41-45	[ ]
31-35	[ ]		

2. Religion

Christian	[ ]	Traditional	[ ]

Islam [ ] Other, specify ……

3. Marital status

   Single [ ] Divorced [ ]

   Married [ ] Other, specify …….

4. Occupation

   Unemployed/House wife [ ] Private worker [ ]

   Civil servant [ ] Student [ ]

   Trader/Merchant [ ] Other, specify ……..

5. Highest educational level

   Primary [ ]

   Secondary/Vocational/Technical [ ]

   Tertiary [ ]

6. Gestational age

   Less than 12 weeks [ ]

   13-37 weeks [ ]

   More than 28 weeks [ ]

7. Number of antenatal visits

   First [ ] Second [ ] Third [ ] Fourth and more [ ]

8. Number of parity

   First [ ] Second [ ] Third and more [ ]

9. Number of living children

   None [ ] One [ ] Two and/or more [ ]

10. Estimated household monthly income

    GH¢100 - GH¢1,000 [ ] GH¢1,000 – GH¢5,000 [ ]

    GH¢5,000 – GH¢10,000 [ ] More than GH¢10,000 [ ]

SECTION B: Knowledge on Antenatal Care

Indicate your agreement to the following statements with regards to the essence of antenatal care services. ***Where: 1 = true and 0 = false***

No.	Knowledge Statement	True	False
11	Attending antenatal care clinic is very important in preventing and correcting malaria, anemia and other pregnancy complications		
12	Knowledge on proper child breastfeeding is naturally acquired		
13	Anemia during pregnancy is as a result of too much amount iron in the body		
14	Antenatal care clinic can detect newborn deformity		
15	Antenatal care clinic can correct or improve the micronutrients deficiency		
16	Fetal movement counting is necessary for checking the wellbeing of the fetus		
17	Adequate antenatal care clinic visits should not be more than four visits or less		
18	Pregnant women need to take extra food as compared with non-pregnant women		
19	Regular and strenuous exercise is dangerous and may be unsafe for the health of the fetus		
20	Increase in micronutrients-rich diet is necessary for good birth outcome		

SECTION C: Perception on Antenatal Care

Indicate your agreement to the following statements with regards to your perceptions of antenatal care services. ***Where: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree and SA = Strongly Agree***

No	Perception	SD	D	N	A	SA
21	Limit the frequency of my visit to antenatal care clinic because of the cost of each session					
22	Advice regarding proper health during pregnancy can be gotten outside the hospital					
23	Dislike attending antenatal care clinic because it's boring					
24	Dislike antenatal care clinic because it is time consuming					
25	Respect would only go with my spouse view about the type of care I receive					
26	Prefer going for antenatal care because all other pregnant women go too					
27	Attend antenatal care sessions is solely for the health of pregnant women.					
28	Nurses at the ANC clinic are not friendly					
29	The ANC services are substandard and not of quality					
30	ANC clinic is distant and not easily accessible					
31	It is important to follow regular antenatal care visits throughout the period of pregnancy					

SECTION D: Attitude to Antenatal Care

32. Are you regular in attending antenatal clinic?

    Yes [ ] No [ ]

33. Do you consider the clinic as the appropriate place for advice on your pregnancy?

    Yes [ ] No [ ]

34. Do you prefer deciding on how long to breastfeed your child than to be told?

    Yes [ ] No [ ]

35. Do you smoke or take alcohol during your pregnant condition?

    Yes [ ] No [ ]

36. Do you exercise during your pregnancy period?

    Yes [ ] No [ ]

THANK YOU!

APPENDIX B: INTRODUCTORY LETTER

CENTRAL UNIVERSITY
FAITH • INTEGRITY • EXCELLENCE

June 26, 2019

Dear Sir/Madam,

TO WHOM IT MAY CONCERN

The bearers of this letter **Esther Esi Kwakyewa Bisiw** and **Priscilla Oppong** are Level 400 undergraduate students of the School of Medicine and Health Sciences, Department of Nursing, Central University.

They are conducting a research on the topic: ***"Knowledge and Perception of Pregnant Women on Antenatal Care and its Importance Using Korle-Bu Teaching Hospital"***, in partial fulfilment of the requirement for the award of BSc. Nursing Degree.

I should be grateful if you could accord them the necessary support they may require.

You may contact me on phone number **0244263678/0303318596** for further verification.

Thank you.

Dr. Mary Opare
Head, Department of Nursing

O. Box 2305, Tema, Ghana • Tel.: (233-28) 954 6164-6 / (233-303) 318580 • www.central.edu.gh