

INFLUENCE OF HEALTH WORKER ATTITUDES AND QUALITY OF MATERNAL HEALTHCARE SERVICES ON ANTENATAL CARE ADHERENCE AMONG MULTIPAROUS WOMEN IN RURAL GHANA: A MIXED-METHODS STUDY IN KPASSA, OTI REGION

Author: Anita Adwoa Amofaa Addai

Department of Health Planning, Policy and Management, Faculty of Health and Allied Sciences, Pentecost University Ghana

Phone Number: +233244948694

Email: anitaamofaa@yahoo.com

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ABSTRACT

Maternal mortality remains a major public health concern in developing countries, including Ghana. Antenatal care (ANC) is recognized as an important strategy for improving maternal and neonatal outcomes. Despite the availability of free maternal health services in Ghana, utilisation and adherence to ANC services among multiparous women in rural communities remain inadequate. This study assessed the effect of health worker attitude and quality of maternal health services on antenatal care adherence among multiparous women in rural health facilities, with specific emphasis on the Kpassa community in the Nkwanta North District of the Oti Region. The study adopted a mixed-method research approach. Primary data were collected from 100 multiparous women in their third trimester through purposive sampling techniques. Findings revealed that 76% of them had received ANC service and was influenced by health worker attitude, emotional support, empathy, quality of care, socio-economic conditions, cultural beliefs, and family support systems. Majority of 40 respondents attended their first ANC when they were within the second trimester (13 to 28 weeks) which represent 52% of the total respondents while 15 of the respondents attended their first ANC when they were within the third trimester (29 to 36 weeks) which represent 21%. The study found that poor attitudes of health workers, including lack of empathy, rude behavior, long waiting time, and inadequate emotional support discouraged ANC attendance. The study concluded that improving the quality of maternal healthcare services and promoting positive health worker attitudes are essential in enhancing ANC adherence among multiparous women in rural communities. The study recommends intensified public education on antenatal care, inclusion of men in maternal health education, strengthening interpersonal skills among healthcare workers. The introduction of mobile ANC services to improve accessibility and adherence among multiparous women in rural settings can be achieved.

Keywords: Maternal, healthcare, services, pregnant, multiparous, women

INTRODUCTION

Antenatal Care (ANC) is defined as a healthcare plan that helps pregnant women prepare adequately for childbirth and parenthood (Abeekpeng, 2016). It involves routine nursing and medical care provided to pregnant women to ensure the prevention, early detection, and treatment of pregnancy-related complications (Muchemi, Echoka & Makokha, 2015). Antenatal care also offers opportunities for health education, counseling, nutritional guidance, and preparation for safe delivery (Abir *et al.*, 2017). Globally, maternal mortality remains a serious health challenge, particularly in developing countries. According to the World Health Organization (WHO, 2019), most maternal deaths occur in low-income countries due to poor utilisation of maternal healthcare services. Adequate ANC utilisation is characterized by early initiation of antenatal care and frequent visits throughout pregnancy (Cannavan, 2018). However, ANC adherence among multiparous women in Sub-Saharan Africa remains poor because of socio-economic, cultural, and healthcare-related barriers (Evjen-Olsen, 2008). In Ghana, maternal healthcare services are provided free of charge in public health facilities. Despite this intervention, many women, particularly multiparous women in rural communities, continue to demonstrate poor adherence to ANC services. Studies have shown that healthcare worker attitudes, poor quality of care, long waiting time, lack of emotional support, transportation difficulties, cultural beliefs, and poverty hinder effective utilisation of ANC services (Impact, 2007). Health worker attitude plays a significant role in maternal healthcare utilisation. Pregnant women are more likely to attend ANC when healthcare providers demonstrate empathy, respect, confidentiality, and emotional support (Duffy, 2007). Conversely, rude attitudes, neglect, lack of privacy, and poor communication discourage women from adhering to ANC schedules. Quality maternal healthcare services therefore remain central to improving maternal and neonatal outcomes among multiparous women in rural communities. Maternal mortality remains one of the most pressing public health challenges worldwide, with approximately 287,000 women dying from pregnancy- and childbirth-related complications in 2020, of which nearly 95% occurred in low- and middle-income countries, particularly in sub-Saharan Africa. Although most maternal deaths are preventable through timely access to quality maternal healthcare, inadequate utilisation and poor adherence to antenatal care (ANC) services continue to compromise maternal and neonatal outcomes. The World Health Organization now recommends a minimum of eight ANC contacts, initiated within the first trimester, to improve maternal and fetal outcomes. Nevertheless, many women in Ghana continue to initiate ANC late and fail to complete the recommended contacts despite the implementation of the National Health Insurance Scheme, which provides free maternal healthcare. This indicates that financial access alone is insufficient to ensure optimal utilisation of ANC services. (Konlan *et al.*, 2020). Evidence suggests that poor provider attitudes including disrespectful treatment, verbal abuse, inadequate communication, lack of empathy, prolonged waiting times, and poor quality of care discourage pregnant women from seeking and continuing antenatal care. These challenges are particularly pronounced among multiparous women, who may underestimate pregnancy risks because of previous childbirth experience and therefore delay or discontinue ANC attendance.

Although several studies in Ghana have examined determinants of ANC utilisation, most have focused on socioeconomic factors, geographical accessibility, or general maternal healthcare utilisation. Few studies have specifically investigated the combined influence of health worker attitudes and quality of maternal healthcare services on ANC adherence among multiparous women in rural communities, where health system constraints and sociocultural barriers are often greatest. In the Kpassa community of the Oti Region, evidence on these relationships remains scarce. Without such evidence, policymakers and programme managers lack context-specific information needed to design interventions that improve respectful maternity care and enhance ANC adherence among high-risk populations. This study therefore seeks to examine the influence of health worker attitudes and the quality of maternal healthcare services on antenatal care adherence among multiparous women attending rural health facilities in Kpassa, Ghana. The study will also guide healthcare managers in improving maternal healthcare delivery through quality service provision, effective communication, emotional support, and respectful maternal care. Additionally, the findings will contribute to existing literature on maternal healthcare utilisation and ANC adherence among multiparous women.

Conceptual Analysis of Antenatal Care services

Antenatal care (ANC) is the care a pregnant woman receives during her pregnancy through a series of consultations with trained health care professionals such as midwives, nurses, and sometimes doctors who specialize in pregnancy and child birth (Kawungezi *et al.*, 2015). It is a personalized healthcare service provided to pregnant women with emphasis on maintaining maternal and fetal wellbeing (Hassan, 2019). ANC enables early detection and management of pregnancy-related complications and promotes positive pregnancy outcomes (Villar *et al.*, 2021).

Benefits of Antenatal Care to the Pregnant Woman

Antenatal care is a key intervention to improve maternal and newborn health (Pell *et al.*, 2013). It provides package of services to monitor both maternal and fetal health for early management and intervention in cases of any pregnancy detected uncertainties prior to ensure safe delivery (Akashi, 2018). The component of essential service package provided at ANC entails monitoring of vital signs to aid in the detection and management of complications, Anaemia and malaria prevention and management, tetanus immunization, micronutrient supplementation and provision of information on critical signs of pregnancy related complications (Kuhnt & Voller, 2017; Warri & George, 2020). Additionally, screening for complications and counseling on a range of issues, including birth preparedness, place of delivery, and referral of mothers with complications, occurs (Akashi, 2018). At ANC, providers are in position to adequately identify women who are likely to have skilled delivery by using their socioeconomic information ("wealth status, class, history of previous birth complication, health insurance coverage, rural or urban residence, and religious group"). This provides an avenue to use routinely collected data to strengthen service delivery and improve health outcomes (Amoakoh-Coleman *et al.*, 2015). According to WHO, ANC is the routine health control of presumed healthy pregnant women without symptoms (screening), in order to diagnose diseases and a complicating obstetric condition without signs and symptoms, and to provide education about lifestyle, pregnancy and delivery. Antenatal services also refer to the interventions to reduce maternal and child mortality. It is a planned program of medical management of pregnant women directed towards making pregnancy and delivery a safe and satisfying experience (Hoffkling *et al.*, 2017). Studies have shown that most of the maternal and neonatal deaths are preventable (Merali *et al.*, 2014, Bhutta *et al.*, 2014). Antenatal service is one of the most important strategies for reducing maternal and neonatal morbidity and mortality directly through detection and treatment of pregnancy related illness, or indirectly through detection of women at risk of complications of delivery and also ensuring that they deliver in a suitable health facility (Khan *et al.*, 2013, Rhoda *et al.*, 2018, Desale *et al.*, 2016). Other studies have established the association between antenatal service attendance and reduction of premature birth, low birth weight, congenital malformations, congenital infections, neonatal tetanus, pre-eclampsia and anemia (Hassan, 2019, Lassi *et al.*, 2014, Yego *et al.*, 2014, Muchemi *et al.*, 2015). An analytical review of the World Health Statistics (2014) showed that ANC coverage, between 2006 and 2013 was indirectly correlated with maternal mortality ratio (MMR) worldwide (Bustreo *et al.*, 2013).

Antenatal care contributes to good pregnancy outcomes and often times benefits of antenatal care are dependent on the timing and quality of the care provided, (WHO, 2014). It has been shown that regular antenatal service is important to establish confidence between the woman and the health care professional who is, to individualize health promotion messages, and to identify and manage any maternal complications or risk factors (BANDA, 2013). During antenatal service, essential services such as tetanus toxoid immunization, iron and folic acid tablets, and nutrition education are also provided (Abir *et al.*, 2017). Antenatal care is needed for healthy pregnancy and good health of the mother (Islam and Masud, 2018) and therefore, lack of antenatal care has been identified as one of the risk factors for maternal mortality and other adverse pregnancy outcomes in developing countries (BANDA, 2013). Moreover, many studies have demonstrated the association between lack of antenatal care and prenatal mortality, low birth weight, premature delivery, pre-eclampsia, and anaemia (Tusimin *et al.*, 2016). All these results point to the important role of antenatal care in identifying and mitigating the potential complications during pregnancy.

Antenatal Care Contacts

Starting antenatal care (ANC) service at or before 12 weeks of gestation is crucial for prompt diagnosis and provision of care during undesired gestational related outcomes. The provision of this type of service for pregnant women is an essential component in the safe motherhood programmes, as the ultimate goal aims at an improved pregnancy outcome for both the mother and the fetus (Jeremiah *et al.*, 2015). In a South African study, the outcome variable is the time of ANC initiation (early versus late ANC initiation) during the last pregnancy. In that study, antenatal care service refers to seeking health at a clinic or hospital for the purpose of monitoring and ensuring good health of the pregnant woman. Timing of ANC initiation is referred to as the beginning of antenatal care (Warri and George, 2020). Early registration means seeking the initial care before 17 weeks of pregnancy. This is the prescription for seeking health care during pregnancy for women in the Sub-Saharan African countries (Jeremiah *et al.*, 2015). Beginning antenatal early leads to precise dating of pregnancy, especially in women who are uncertain of the day they started their menstruation (Oluoch *et al.*, 2015). Similarly, it aids early documentation of the woman's baseline physiological and laboratory parameters for subsequent comparison and early detection of anomalies with the progress of pregnancy. It opens avenues for offering health education and preventive health care services such as immunization against neonatal tetanus, prophylactic treatment of malaria through the use of intermittent preventive treatment approach, and human immunodeficiency virus (HIV) counseling and testing. Another advantage is the early detection of modifiable pre-existing medical conditions that may influence the course and outcome of pregnancy such as cervical incompetence, chronic hypertension and diabetes mellitus. Those who do not register for antenatal care or those who register for it late may not benefit from the wide opportunities accruing from it and consequently may have worse maternal and perinatal pregnancy outcomes (Paudel *et al.*, 2017). Late ANC booking is a normal event amongst many developing countries in the Sub-Region of Africa regardless of the associated benefits of attending or initiating ANC before 13 weeks of pregnancy. Inconsistent or absent health care seeking behavior is identified as major cause of mortality among women in South Africa. Even though a country in the Sub-Region dictates that seeking health care during pregnancy should commence early, this prescription has been ignored in many countries including South Africa (Paudel *et al.*, 2017).

Konlan et al (2018) in a study on perception of pregnant women on maternity care services carried out in Volta Regional Hospital reported that 36%, 33%, 20%, 6% of pregnant women made their first ANC contacts at three (3) months, two (2) months and four (4) months and eight (8) months respectively. The remainder made visits at a month (0,8%), two months (1.6%) and four months (3%). Another study carried out in Volta Region, revealed that about 28% of the women had the first ANC contact between 0-3months whilst 27% and 13% having the first ANC contacts at 4-6months and 7-9months respectively (Konlan *et al.*, 2020). According to Pell *et al.*, (2013), multiparous women in Kenya and Malawi due to their accustomed experiences in pregnancy often made their first ANC contacts toward the later stage of the second trimester. The study also shows that women in Ghana start their ANC between the third and fourth month of the pregnancy whilst women in Kenya and Malawi commence their visits around the sixth and seventh month into the pregnancy. However, the findings revealed that those with previous pregnancy related complications seem to seek early ANC during the pregnancy.

Frequency of Antenatal Care Contacts

Evidence suggests that more ANC contacts between pregnant women and health care provider who is knowledgeable, supportive, and respectful is more likely to result in a positive pregnancy experience (Akashi, 2018). It is established that the more ANC contacts made by pregnant women irrespective of the resource setting, result to higher maternal satisfaction (WHO 2016). The 2016 WHO ANC model recommends a minimum of eight (8) ANC contacts, with the first contact starting in the first trimester (up to 12weeks of gestation), two (2) contacts scheduled to begin in the second trimester (20 & 26weeks of gestation), and the five contacts planned to take place in the third trimester (30, 34, 36,38 and 40 weeks) (WHO 2016).

According to the Ghana Demographic and Health Survey (2014), about 97% of pregnant women utilized ANC from Skilled health care provider whilst only 3% of the women in their most recent birth did not access antenatal care services. From Konlan et al; (2018), about 19% of the women visited the ANC for five times, 17% six times, 6% four times whilst the remaining 57% women made more than six contacts with the ANC during their last

pregnancies (Konlan *et al.*, 2018). A study conducted by Amoakoh-Coleman *et al.*, (2015) also revealed that 8 in 10 women (80%) made a minimum of four ANC visits during their pregnancies whilst 14.3% and 2.9% had two to three (2-3) visits and one (1) visit respectively. Another study by Konlan *et al.*, (2020) indicated that slightly more than half (51.0%) of women made fewer than four ANC contacts whilst 7.6%, 13.3% and 28.1% of the women making four (4) contacts, more than four (4) contacts and one contact respectively. However, the findings show that 7 in 10 women (74%) making fewer ANC visits had multiparity status whilst 5 in 10 women (54.5%) making more than four ANC visits also had multiparity status (Konlan *et al.*, 2020). This implies that multiparity is associated with low antenatal care utilisation; and this may be due to varying reasons such as geographic access to the facility, superstition and seeking permission to utilize antenatal care (Konlan *et al.*, 2020). Grand multipara women according to Bezirciolu *et al* (2013) receive fewer antenatal care. Muniro *et al* (2019) also revealed that slightly more than 1 in 2 (52%) grand multiparous clients made lesser antenatal care visits (<4) during the pregnancy in Northern Tanzania.

Determinants of ANC Use

Antenatal care service is a service every woman must make sure to seek and must be made accessible to all. This is extremely relevant considering the benefits derived from antenatal services. It is a period used to assess the pregnant woman to rule out any complication that may result during pregnancy or delivery protecting the well-being of the mother and the baby. Others using the services are not able to attend the WHO recommended 4 visits during pregnancy. Despite the health benefit of antenatal care services, many women still fail to use the service. This may be due to several factors. For instance, financially challenged women in rural areas are likely not to receive adequate health care. This is most particularly true for area with low numbers of professional health workers, such as sub-Saharan Africa and South Asia. Despite the increase in the level of antenatal care in several part of the world during the last decade, 46% of women in poor countries enjoy skilled care during childbirth (WHO, 2012). Dawodu and Nwankwo (2020) assessed how income differentials affect utilisation of antenatal care services among women of reproductive ages in Edo South, Nigeria with emphasis on primigravida and multigravida mothers. The mixed-method research design was used to elicit firsthand information from those primigravida and multigravida mothers. The sample size of 1108 was selected for the study. The simple random sampling and proportionate sampling techniques were combined for the selection of respondents. Three instruments used for data collection were the questionnaire, focused group discussions and interviews. The interviewees were purposively selected from primigravida mothers, multigravida mothers and modern and traditional health care providers. Inferential statistics like percentage and frequency counts were used in answering the research question posed, while chi-square was used in testing the null hypothesis at 0.05 level of significance. The study found that a significant relationship exists between income and utilisation of antenatal care services among mothers. A significant proportion of the respondents indicated readiness or willingness to frequently attend ANC assuming they had adequate financial resources at their disposal. Furthermore, women with low-income status tend to seek traditional healthcare services due to the low cost of services compared to modern healthcare services. The study among recommended among other things the need for adequate poverty alleviation policies and programs to enhance ANC utilisation, reduce inequalities in health outcomes and enhance financial protection for primigravida and multigravida mothers. The study concluded that given income differentials among women of reproductive age, that supportive poverty alleviation programs could constitute important enabling factors for all mothers to access and utilize antenatal care services irrespective of their income disposition. In the same vein, Abekah-Nkrumah and Abor (2015) and Rai, Singh, and Kumar (2016) also found out that household income is linked with frequent use of modern healthcare. Sharif (2020) posited that the income of an individual is a major factor in accessing antenatal care services as well as other health care services. Mekonnen and Asnaketch (2002) noted that maternal age, parity, income, the standard of living of households; antenatal care user's fees and travel distance to antenatal care providers are the common economic factors that have been cited by previous researchers on the factors that affect the utilisation of health facilities.

Barriers to Antenatal Care Service Utilisation

According to the World Health Organization, evidence demonstrated that poor ANC quality and negative pregnant women's experience affect ANC attendance irrespective of the number of recommended contacts (WHO 2016). A study conducted by Konlan *et al.*, (2018) reported that about 6 out of 10 pregnant women reported that husbands or family relation are not allowed to be with them during labour by health providers whilst one-third (34%) reported some sort of assault during labour. From the Ghana Demographic and Health Survey, evidence shows that 42%, 25%, 16% of women pregnant indicated lack of funds, distance to the facility and not wanting to go alone to the facility respectively as barriers in accessing ANC care in Ghana. Additionally, about 6% of pregnant women reported seeking permission before accessing care as the major barrier to ANC utilisation (GDHS 2014). The survey further revealed that about half (50.3%) multiparous (3 to 4 children) and two-thirds (62%) grand multiparous (5+ children) women mentioned money, distance and not wanting to visit alone and seeking permission from husbands as the main barriers in ANC utilisation (GDHS 2014). However, 7 in 10 women in Volta Region, a neighbour to Oti region indicated the above-mentioned factors as barriers to ANC utilisation with 6 in 10 and 3 in 10 stating money and distance to the facility respectively (GDHS 2014).

In a cross-sectional study carried out in Ho Teaching Hospital among 210 postnatal women to assess the predictors of ANC usage among pregnant women; the result revealed that higher parity was associated significantly with low ANC utilization ($p=0.028$). Also, long distance to the facility of care, seeking permission to access the ANC were found to be linked to low utilisation of ANC ($p=0.001$) (Konlan *et al.*, 2020). The study further revealed that parity and age are the only demographic variables associated with decrease ANC utilisation among pregnant women (Konlan *et al.*; 2020). Worthy to note again by the study findings was superstition-related factors such as witchcrafts affecting ANC utilisation. The study showed that about 5.4% pregnant women reported the fear of losing the pregnancy when seen by witches and wizards visiting the antenatal clinic for care (Konlan *et al.*; 2020). Other factors such as lack of knowledge, no time to attend ANC, and poor attitudes of health providers were shown to be associated significantly with lesser ANC visits (≤ 4) (Konlan *et al.*; 2020).

In a study conducted in three African countries (Ghana, Kenya, and Malawi) on factors affecting ANC attendance, the findings demonstrated that accustomed pregnancy experiences by multiparous women, as well as witchcraft related superstitions are factors affecting early ANC utilisation (Pell *et al.*, 2013). However, drivers such as checking the position of the fetus and progress, obtaining ANC card to avoid reprimands from service providers and experiences of previous pregnancy problems are but few motivators of early ANC utilisation by pregnant women (Pell *et al.*, 2013; Konlan *et al.*, 2020). Another work done on reasons to late antenatal initiation among pregnant women in Cameroon reported long waiting times, rude attitude of health providers, cost of services, distance to the facilities and lack of support from spouses and family members as barriers early utilisation of antenatal care services. More so, the study reported sociocultural beliefs such as bewitchment and stigma associated with cultural beliefs on early attendance of antenatal care (Warri & George, 2020).

Multiparous Pregnancy and ANC Utilisation

Multiparous women are women who have experienced more than one pregnancy or childbirth (Tidy, 2019). Studies indicate that multiparity is significantly associated with low ANC utilisation due to previous pregnancy experience, complacency, and cultural beliefs (Konlan *et al.*, 2020).

Health Worker Attitude and ANC Adherence

Health worker attitude has been identified as a major determinant of maternal healthcare utilisation. Women are more likely to adhere to ANC schedules when healthcare providers demonstrate empathy, confidentiality, respect, and emotional support (Duffy, 2007). Poor attitudes such as rudeness, neglect, verbal abuse, and lack of privacy discourage women from utilizing ANC services (Warri & George, 2020).

Quality of Maternal Health Services

Quality maternal healthcare services include availability of skilled healthcare providers, adequate infrastructure, medical supplies, effective communication, short waiting time, and emotional support (Srivastava *et al.*, 2015).

Studies show that improved quality of care increases women's confidence in healthcare services and enhances ANC adherence (Nyarko *et al.*, 2016).

Socio-cultural Factors Affecting ANC Adherence

Cultural beliefs and superstition significantly influence maternal healthcare-seeking behavior (Shaikh & Hatcher, 2005). Some communities perceive pregnancy as a normal condition that does not require medical attention, while others believe that early ANC attendance exposes pregnancy to witchcraft attacks (Konlan *et al.*, 2020).

Although previous studies have examined determinants of ANC utilisation in Ghana, most have focused on socioeconomic and geographic barriers. Few have simultaneously examined the influence of health worker attitudes and the quality of maternal healthcare services on ANC adherence among multiparous women in rural settings. Moreover, evidence from the Kpassa community in the Oti Region remains limited. This study addresses these gaps by investigating how provider attitudes and service quality jointly influence ANC adherence among multiparous women in a rural Ghanaian context.

However, the study seeks to determine the level of antenatal care adherence and influence of health worker attitudes among multiparous women attending rural health facilities in Kpassa.

METHODOLOGY

The study adopted a mixed-method research design. The study was conducted in the Kpassa community of the Oti Region. The Kpassa community is the capital of the Nkwanta North District and lies between latitudes 8°29'36.7"N and Longitudes 0°18'14.6"E. The 2021 population census identified Kpassa as the town in the Oti Region with highly vibrant women.



Figure 1: Study Area Map

The target sample population of the study was multiparous pregnant women in Kpassa who were in their third trimester. Sample size determination formula by Nasiurama (2000) was used to determine the suitable sample size for the study: The formular read thus:

$$n = \frac{NC^2}{C^2 + (N-1)e^2} = \frac{(1,327)(0.5)^2}{0.5^2 + (1,327-1)0.05^2} = 100.14 \sim 100 \text{ Respondents}$$

Where **n** is the sample size, **N** is the population, **C** is the coefficient of variation (0.5), **e** is the level of precision (0.05) (Nasiurma, 2000). Records available to the Nkwanta North District health Directorate indicates that some 1,327 women in Kpassa deliver every year. According to the formula, the minimum number of respondents that could be selected from the population was 100. Primary data were collected from 100 multiparous women in their

third trimester through purposive sampling techniques. Purposive sampling was considered appropriate because the study specifically targeted multiparous women in their third trimester who had attended antenatal care services and could provide relevant information on health worker attitudes, quality of maternal healthcare services, and ANC adherence. This ensured that participants possessed the characteristics necessary to address the study objectives.

Data collection instruments included questionnaires and interviews. A questionnaire which was used for the study was self-administered. The questionnaire was validated through expert review by specialists in maternal health and research methodology to assess its content validity, clarity, relevance, and appropriateness. Feedback from the reviewers was incorporated before the final version was administered. The internal consistency of the questionnaire was assessed using Cronbach's alpha, with an overall coefficient of 0.72, indicating acceptable reliability. Data analysis was done with statistical software SPSS version 24 with descriptive statistics, percentages, and thematic analysis. Ethical clearance and informed consent procedures were strictly observed during the study. Ethical approval for the study was obtained from the Institutional Review Board (IRB)/Research Ethics Committee of Pentecost University with reference number PU/9/24/414. Written informed consent was obtained from all participants before data collection, and confidentiality and anonymity were maintained throughout the study.

RESULTS

The response rate was 100% and analysis was presented as follow:

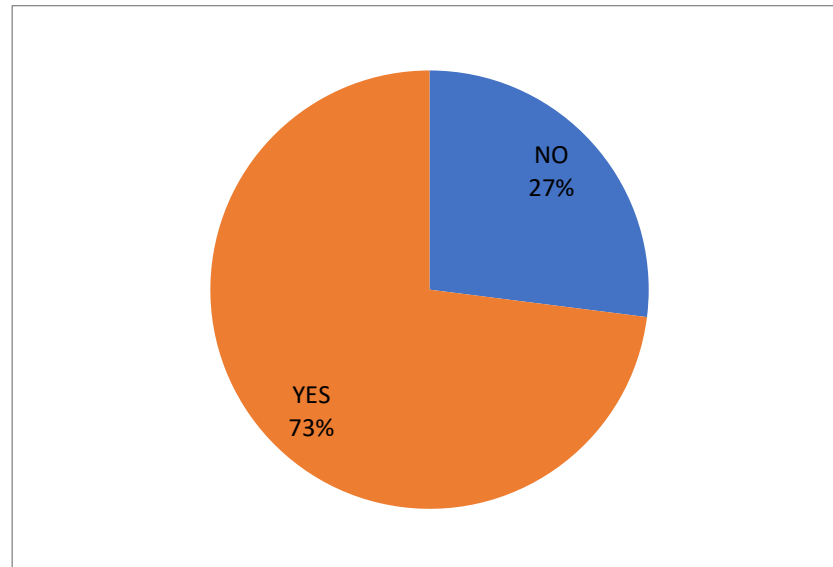
Table 1: Demographic Background of Respondents

Variable	Number	Percentage
Age (years)		
18 to 19 years	15	15
20 to 29	18	18
30 to 39	28	28
40 to 49	39	39
Total	100	100
Level of Education		
Illiterate	35	35
Basic education	26	26
Secondary	21	21
Tertiary	18	18
Total	100	100
Marital Status		
Single	14	14
Married	79	79
Divorced	7	7
Total	100	100
Number of children	N	%
2 to 4 children	18	18
5 to 7 children	52	52
8 to 10 children	24	24
Above 10 children	6	6
Total	100	100
Respondents' Tribe		
Akan	3	3
Ewe	5	5
Konkomba	55	55

Baasare	37	37
Total	100	100

Source: Field Data (2023)

Figure 2: Respondents' Adherence to Nutritional Guidelines



Source: Field Data (2023)

The findings indicate that 73% of respondents adhered to the recommended nutritional guidelines during pregnancy, while 27% did not. This suggests that although the majority complied with nutritional recommendations, a substantial proportion of multiparous women remained non-adherent, highlighting the need for strengthened nutrition education during antenatal care. The findings revealed that health worker attitude significantly affects ANC adherence among multiparous women. Women who received emotional support, empathy, respect, and effective communication from healthcare workers were more likely to attend ANC regularly. Poor attitudes such as rude behavior, long waiting time, lack of confidentiality, and inadequate emotional support discouraged women from utilizing ANC services. The study further showed that quality maternal healthcare services positively influenced ANC adherence.

Table 2: Respondents' First Antenatal Consultation

	Number	Percentage
8 to 12 weeks	21	27%
13 to 28 weeks	40	52%
29 to 36 weeks	15	21%
Total	76	100

Source: Field Data (2023)

In view of the fact that this study sought to assess ANC utilisation of multiparous women, there was the need for the study to ascertain whether the pregnant woman started their ANC early or not. Table 2 above therefore presents the stage of respondents' pregnancy when they attended their first ANC. The response indicates that out of the 76 multiparous women who had attended ANC, 21 of them which represent 27% of the total respondents attended their first ANC when they were within their first trimester (1 to 12 weeks) which represent 27%; Only

76 respondents were included in Table 2 because this analysis was restricted to multiparous women who had attended at least one antenatal care (ANC) visit during the current pregnancy. The remaining 24 respondents had not utilized ANC services and were therefore excluded from ANC-specific analyses. Also, a significant majority of 40 respondents attended their first ANC when they were within the second trimester (13 to 28 weeks) which represent 52% of the total respondents while 15 of the respondents attended their first ANC when they were within the third trimester (29 to 36 weeks) which represent 21%.

Table 3: Number of ANC Attendance

	Number	Percentage
1 to 3 times	11	14%
4 to 6 times	57	75%
7 to 10 times	8	11%
Total	76	100

Source: Field Data (2023)

A total of 76 respondent who attended ANC presented their responses as follows: 11 of the respondent had attended ANC for 1 to 3 times which represent 14%; a significant majority of 57 respondents had attended ANC for 4 to 6 times which represent 75% while the remaining 8 respondents had attended ANC for 7 to 10 times which represent 11% of the total respondents.

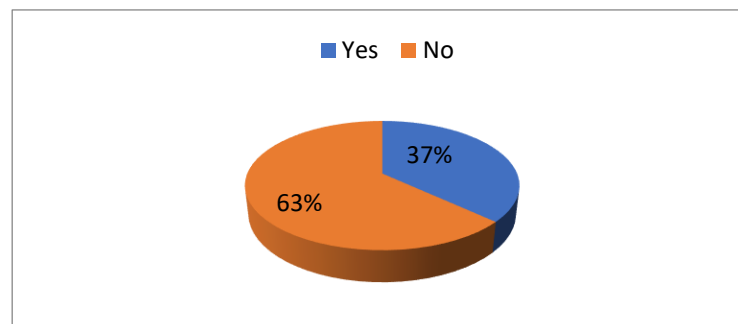


Figure 3: Respondents' Adherence to Medical Prescriptions, Source: Field Data (2023)

Majority of respondents did not adhere to prescribed medications during the course of pregnancy. Poor adherence to prescribed medication may reduce the effectiveness of antenatal interventions and increase the risk of adverse maternal and fetal outcomes, underscoring the need for improved counseling and follow-up during ANC visits. A total of 76 multiparous women who were in their third trimester offered their responses as follows: A significant majority of 48 of the respondents did not adhere to the prescribed medications which represent 36.8% (~37%). The outcome of the study shows that majority of ANC attendants in Kpassa could not adhere prescriptions they received from medical professional.

Table 4: Socio-economic Factors Associated with ANC Utilisation

Socio-Economic Factor	ANC Attendance		
	1 to 3 Time	4 to 6 times	7 to 10 times
Marital status:			
Single	17%	26%	57%
Married	62%	24%	14%
Divorced	11%	15%	74%

Employment Status:			
Employed	51%	31%	18%
Unemployed	18%	21%	61%
Education Level			
Illiterate	75%	11%	14%
Basic education	15%	66%	19%
Secondary Education	20%	32%	48%
Tertiary	14%	19%	67%
Income level (Per month)			
Less than Gh¢ 100	65%	14%	21%
Between Gh¢ 100 and Gh¢ 500	37%	12%	51%
Between Gh¢ 600 and Gh¢ 1000	20%	11%	69%
Above Gh¢ 1000	17%	6%	77%
Social Support			
Access to information	30%	12%	58%
Supportive relatives	15%	18%	67%
Supportive partner	12%	9%	79%

Source: Field Data (2023)

Socio-economic and cultural factors also affected ANC adherence. Women with higher educational levels demonstrated better adherence to ANC schedules.

Table 5: Cultural Factors Associated with ANC Utilisation in Kpassa

Cultural Factors	ANC Attendance		
	1 - 3 Time	4 - 6 times	7 - 10 times
Culture discourages women for exposing their nakedness males	89%	7%	4%
Belief that pregnant women are susceptible to attack of witches	71%	16%	13%
Culture encourages women to receive treatment from herbalist	78%	17%	5%
Belief in pastors and Imams	59%	17%	24%

Source: Field Data (2023)

Superstitious beliefs, poverty, lack of transportation, spousal neglect, and family influence negatively affected ANC utilisation.

DISCUSSION

The findings of this study are consistent with those of Konlan et al. (2020) and Warri and George (2020), who reported that positive health worker attitudes, respectful maternity care, and quality healthcare services significantly improve ANC utilisation, whereas poor communication, long waiting times, and negative provider attitudes discourage adherence. Similarly, the observed influence of socio-cultural and socioeconomic factors

corroborates findings from Pell et al. (2013) and the Ghana Demographic and Health Survey (2014), which identified cultural beliefs, distance, and financial constraints as barriers to ANC utilisation.

The study was limited by its cross-sectional design, which precludes causal inference. The use of purposive sampling and the conduct of the study in a single rural community may limit the generalizability of the findings. In addition, reliance on self-reported data may have introduced recall and social desirability biases.

CONCLUSION

Improving respectful maternity care, strengthening provider–client communication, reducing waiting times, and enhancing the quality of maternal healthcare services should be prioritized by policymakers and health managers to improve antenatal care adherence among multiparous women and contribute to achieving the Sustainable Development Goal target for maternal mortality reduction. The study assessed the effect of health worker attitude and quality maternal healthcare services on ANC adherence among multiparous women in rural health facilities. The findings established that positive health worker attitudes, empathy, emotional support, and quality maternal healthcare services improve ANC adherence among multiparous women.

RECOMMENDATIONS

Based on the findings, health authorities should strengthen respectful maternity care by improving health worker attitudes, enhancing provider–client communication, reducing waiting times, and ensuring the consistent delivery of quality maternal healthcare services. Community-based health education should also be intensified to improve antenatal care adherence among multiparous women in rural communities.

- i. Healthcare workers should be trained on respectful maternal care and interpersonal communication.
- ii. Maternal healthcare facilities should improve emotional support and confidentiality during ANC services.
- iii. Public education on ANC should include spouses and family members.
- iv. Mobile ANC services should be introduced to improve access for rural multiparous women.
- v. Government and health authorities should improve staffing and logistics in rural maternal healthcare facilities.

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