Assessing The Determinants of Postnatal Care Service Utilization in Saboba District, Northern Region, Ghana

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DOI: https://dx.doi.org/10.51244/IJRSI.2025.12110132

Received: 22 November 2025; Accepted: 28 November 2025; Published: 18 December 2025

ABSTRACT

Postnatal care plays an important role in promoting the health of women and children. Despite the enormous benefits, the uptake of postnatal care in developing countries is reported to be low, with increased maternal and child deaths during pregnancy and within the postnatal period. Maternal and child deaths within the postnatal period account for two-thirds of nursing mothers, and two-thirds of babies die within the first to the seventh day of life in the postnatal period.

The study sought to assess the factors influencing utilization of postnatal services in Saboba District. From the study, the majority of the participants were between 20-29 years. Antenatal care utilization was found to be high (96.7%), and low second postnatal care services of 19.5% since over 60% of those who delivered in the health facilities would have received the first PNC service, which is given within the first 24 hours after delivery.

Nursing mothers' postnatal service utilization in the district was reported to be low (19.5%). Factors that predisposed mothers to the uptake of postnatal care were: mother age at first delivery, place of residence, whether living in urban or rural areas, place of recent delivery, either TBA or health facility, and cultural practices like performing a child naming ceremony were strong predictors in determining women's utilization of postnatal care services.

MOH/GHS through the district health directorate should organize regular educational campaigns on PNC and other maternal and child services to educate expectant nursing mothers on postnatal care and as well as certain cultural practices that inhibit PNC practices among mothers.

Definition of Terms

Antenatal care- A Care given during pregnancy. Parity- The number of times a woman has given birth Postnatal care- This is care given to both mother and child immediately after childbirth for about six weeks.

Traditional Birth Attendant (TBA) - refers to a lay person in the community who provides healthcare services during pregnancy and childbirth.

INTRODUCTION

Background of the study

The first day of life is the highest risk period for both mother and baby. The postnatal period is the period that begins immediately after childbirth to about six weeks (WHO, 2016). During this period, the mother goes through many physical and emotional changes while learning to care for her newborn. Postnatal care services include management of normal puerperium, identification and management of any complications, micronutrient supplementation, immunization of baby and mother, counselling, health education, birth registration, among others.

Despite these benefits, the uptake of postnatal care is disproportionately high in developed countries as compared to developing countries. The risk of death of the mother and the child due to pregnancy and childbirth is almost 1 in 7 in the developing countries as compared to 1 in 30,000 in developed countries (Senait et al, 2016). Most of these deaths occur within the postnatal period as two-thirds of babies die within the first week of life whilst two-thirds of nursing mothers die within the postnatal period (Sines *et al.*, 2007).

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue XI November 2025

Statement of the problem

1. They are predisposing determinants that affect postnatal service uptake.
2. A lot of factors enable postnatal service utilization.
3. There are need reasons which influence the uptake of postnatal services

Aim

To assess the factors influencing utilization of postnatal services in Saboba District of the Northern region, Ghana.

Objectives

1. To assess the predisposing factors that affect postnatal service uptake in the Saboba District.
2. To identify the enabling factors of postnatal service utilization.
3. To determine the need factors that influence the uptake of postnatal services.

Research questions

1. What are the predisposing factors that affect postnatal services in the district?
2. What is the extent of the influence of enabling factors on postnatal care?
3. Do factors such as need affect postnatal service?

Rationale of the study

There have been so many studies conducted all over the world, including Africa, and most of these studies included predisposing, enabling, and need factors as their variables of interest in their quest to finding reasons for not so impressive utilization of postnatal services. This poor PNC utilization coverage occurs mostly in African countries despite the various interventions and relatively higher uptake of antenatal care services. Replication of this study in Saboba District will further give credence to those findings and also, identify missing gaps in the available literature.

Scope of study

The study participants included breastfeeding mothers who had stayed not less than 6 months in rural and peri-urban areas prior to the study in the selected sub-Districts in Saboba District of the northern region of Ghana. It is a ten (10) month study using a cross-sectional design.

LITERATURE REVIEW

CONCEPTUAL FRAMEWORK

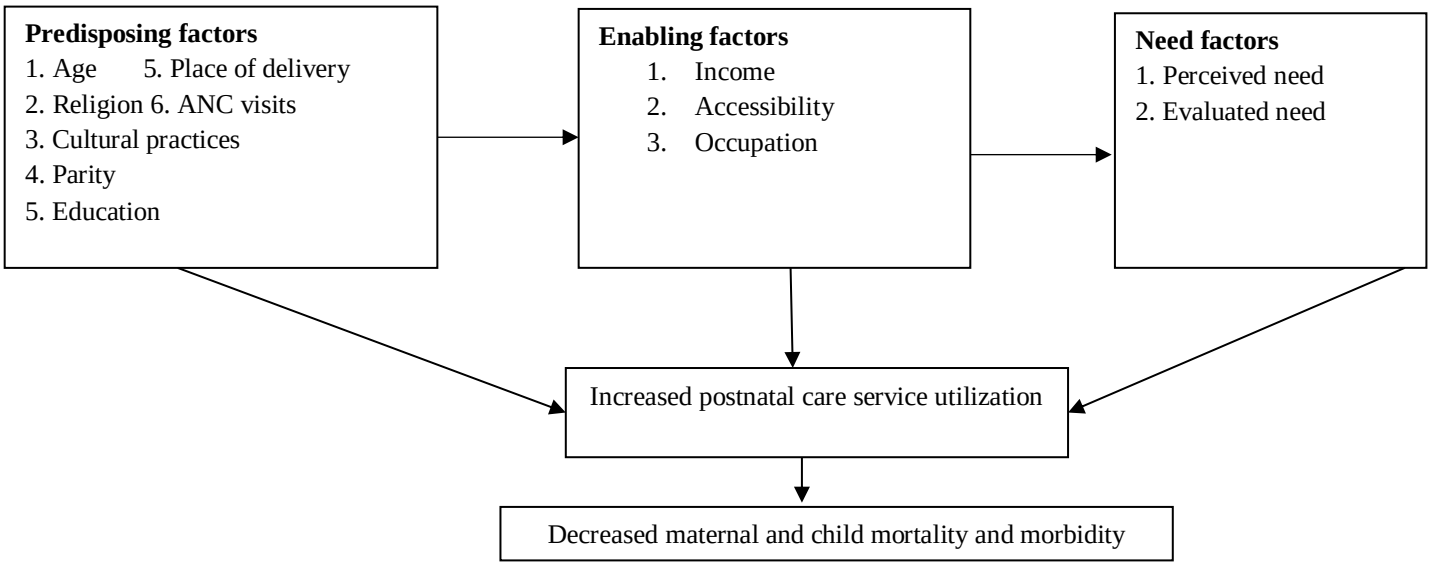

Figure 1.1: conceptual framework

©Source: Adapted from Anderson and Newman as cited by Haque, 2011.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue XI November 2025

Empirical review

Predisposing factors

According to Andersen and Newman, (1995) as cited in Hague (2011, predisposing factors include age, sex, education, occupation, ethnicity, social networks, social interactions, culture, attitudes, values, among others, but this study focused on age, education, culture, parity, ANC attendance, religion, and place of delivery to suit the setting of the study.

Age at birth

Several studies are pointing to the fact that the mother's age at childbirth influences their decision to utilize postnatal services. According to Haque, (2011)Only one-third of the young nursing mothers received postpartum care. However, research findings by Khanal *et al.*, 2014 revealed decreasing utilization of postnatal service with the increasing age of the mother, and this was strengthened by research findings in India by Tej et al, (2011) . Some research findings showed women between the ages of 20-35 years as more likely to utilize postnatal services than other age brackets Paudel *et al.*, (2013). Research conducted in Uganda showed that the younger (below 20 years) and the older (above 34 years) women had the least attendance, while mothers of the age-group 25-29 years attended postnatal services most 67, 20.3%) Oluwaseyi, (2014). A study in Ghana by Abor et al, (2011) also revealed that utilization of maternal health services, especially postnatal services, is influenced by the age of the mother.

Education

Studies have shown a strong relationship between the levels of education of both the nursing mother and her spouse and postnatal service usage. A study by Dhakal *et al.* (2007) affirms the importance of the education of women in the utilization of post-natal care, and even added that the educational level of their husbands influenced them greatly in seeking PNC services. A study in Nepal also revealed the influence of the educational level on the utilization of PNC services. The study indicated that 50% of the research participants who had secondary education and above utilized PNC, while only 22.7% and 23.6% received PNC services for primary and illiterate participants, respectively, during the same period (Paudel *et al.*, 2013). Somefun and Ibisomi (2016) in their study in Nigeria observed that 51.24% of those who patronized appropriate PNC services had secondary education and above, yet only 22.19% and 26.57% of primary and illiterate nursing mothers, respectively, received appropriate PNC services. Ghana Demographic and Health Survey GDHS) (2014) also supported these findings that women with higher education turn to access PNC services more than the uneducated (2014).

Antenatal care

A lot of studies have documented a strong relationship between Antenatal care (ANC) attendance and postnatal care (PNC) utilization. Dhakal *et al.*, (2007) in Nepal, indicated a strong influence of antenatal visits to the utilization of postnatal care services. A study by Oluwaseyi, (2014) in Nigeria indicated that more than half (56.3%) of the mothers of children who did not use ANC services did not go for postnatal care either. According to Paudel *et al.*, (2013),mothers who utilized ANC services were more likely to seek PNC services than those who did not.

Parity

Parity can be explained as the number of times that a woman has given birth to a fetus with a gestational age of 28 weeks or more, regardless of whether the child was born alive or was stillborn. A study in Bangladesh by Khanal *et al.*,(2014) revealed that women were more likely to patronize the services of postnatal care with their first childbirth (Para 1) than the subsequent deliveries. A similar study in Addis Ababa in Ethiopia, indicated that women with their first child) were using postnatal services as compared to multi-parity (Asefa & Giru, 2016).

Place of delivery

Studies have shown that women who give birth in health facilities are more likely to patronize postnatal care, especially the first twenty-four hours after delivery, than those who deliver at home. Workineh and Hailu, (2014)

conducted research in Jabitenah District in Ethiopia on factors affecting utilization of postnatal care service revealed place of delivery was significantly associated with postnatal care service utilization. An earlier study by Tsegay *et al.*, (2013) on determinants of antenatal and delivery care utilization in Tigray region, Ethiopia, showed that health institutional delivery was directly linked to the usage of postnatal services.

Cultural beliefs and norms

Several studies have evidenced that cultural beliefs and practices in a particular society influence the uptake of postnatal services. A study in Nepal by Paudel *et al.*,(2013) indicated that there was a culture of separation of the mother and the newborn for around 12 days after delivery in Nepalese societies. Within this period, mother and newborn were not supposed to be touched by other people, and they were not permitted to go outside the home; they were always kept in an isolated area within the house. As they were limited to the home environment during these periods, the utilization of PNC service remained a major challenge, thus not allowing them the chance to have contact with health service providers. A review of factors associated with the utilization of healthcare services and strategies for improving postpartum care in Africa by Belemsaga *et al.*, (2015) showed how mothers in their quest to apply concoction on the umbilical cords, with the claims of aiding the healing of the cord, which was against the medical advice of leaving it clean, prevented them from attending PNC services.

Religion

Religion has also been proven to have a relationship with PNC service by several researchers. One of such studies was conducted by Oluwaseyi, (2014) In Nigeria, on determinants of postnatal care non-utilization among women showed that Muslim mothers were about two times more likely not to patronize PNC services, and the association was significant. This has supported earlier studies by Singh *et al.*,(2012) in rural India, which revealed that Muslim women are less likely to avail themselves of PNC services. A study in Ghana by Abor et al, (2011) showed that women of the Roman Catholic faith and other Christian sects are more likely to use postnatal care services as compared to the women of Islamic or indicated no religious beliefs.

Enabling factors

These are logistical aspects of obtaining care, such as income, accessible health services, available healthcare services, travel, availability of health personnel, waiting time, and quality of social relations (Andersen, 1995) as cited in Hague, 2011. This research considered income, accessible health services, and available healthcare services.

Income

Many studies have documented evidence that economic and income levels of the nursing mothers and or spouses influence the utilization of PNC services. Lack of money for medical and transportation costs to the health facility was a reason for the non-utilization of postnatal services. Household income was positively correlated with the adoption of the infant immunization schedule. Female income was connected to individual autonomy in deciding to go for health services (Belemsaga *et al.*, 2015).

Accessible health service

Available literature shows that the distance the mother has to cover to access PNC services is a demotivating factor to its utilization. Distance was shown to have a significant association with the low utilization of postnatal care services in Nigeria (Somefun & Ibisomi, 2016).

Tao *et al.*, (2011) found that transport problems appear to have influenced the provision of postnatal care in Anhui province, China. It was not easy for township doctors and village health workers to do postnatal visits for women at home when there was no health facility vehicle, and they had to depend on public or private transport. In that same study by Tao *et al.*, (2011) Poor road networks and mountainous terrain all affected the ability of the doctors to visit women at home for postnatal care.

Occupation

Occupation of the husbands tend to influence their decision to utilize PNC service. A study conducted by Khanal *et al.*,(2014) in Nepal revealed mothers who indicated agricultural occupation, and whose partners did

agricultural occupation were less likely to have received at least one postnatal care. Women whose husband's occupation was professional, technical, and managerial other than manual, agricultural or self-employed were observed utilizing PNC services more (Haque, 2011; Jat, Ng & Sebastian, 2011; Regassa, 2011).

Need factors

Based on this perspective, medical need is influenced by both the presence of physical disease and the cultural perception of illness. The need factor is the most direct cause of health service use. Studies by Haque (2011) showed a significant relationship between the perceived need for postnatal care and its utilization.

Perceived need

Perceived need for the care influences the mothers' decision to go for PNC service evidenced in many research findings. Counseling on danger signs, experience of PNC, and PNC counseling and provision of appointment, which increased their perceived need for the care, showed a statistically significant association for their PNC service uptake in Addis Ababa, Ethiopia (Senait et al, 2016).

A lot of studies have shown a positive correlation between a perceived need for postnatal care by the nursing mothers and the utilization of its services. This was emphasized by research conducted by Paudel *et al.*, (2013) which observed that women who did not have information about PNC were the main obstacle to the utilization of postnatal care. The study found that educated women, those who have ever attended postnatal care and antenatal care, had higher perceived benefits of postnatal care; hence majority of them utilized the service no matter their place of delivery. A similar study in Mulago and Mengo hospitals in 2004 showed more than half of the women who partook in the research (53.9%) were unaware of postnatal services(Sr, Asefa & Giru,2016) found that most of those who did not patronize postnatal services gave reasons as not being counseled and given an appointment for postnatal care.

Evaluated need

Mothers who are assessed by a health professional and given knowledge of postpartum obstetric danger signs were observed utilizing the postnatal care service when they witnessed those signs (Workineh and Hailu, 2014). The inability to recognize the danger signs of obstetric complications during the postpartum period influenced their utilization of PNC services in this study (Hales et al.,2016; Dhakal *et al.*, 2007).

METHODOLOGY

Study methods and design

The study was a quantitative and cross-sectional survey that assessed determining factors influencing utilization of postnatal services in the Saboba District of the Northern region of Ghana using an analytic cross-sectional design.

Description of the study area

The Saboba District is one of several Districts located along the eastern corridor belt of the northern region, Ghana. The District is bounded to the west by Gushiegu and Karaga Districts, Yendi to the South-West, River Oti, an international boundary for Ghana and the Republic of Togo, and the Tatali District to the East, Chereponi District to the North, and Zabzugu to the South(Population and Housing Census, 2010). According to the 2010 Population and Housing Census, the District population is 65,706representing 2.7 percent of the Northern region's total population. Females constitute 50.8 percent, and 49.2 percent are males. Approximately ninety-one percent of the population is rural (90.55%) according to the census. The district population is projected to be 80,666 in 2017. According to the District Health Information Management System (DHIMS), the district has one medical centre, four health centres, twenty-eight functional Community-based Health Planning and Services (CHPS), and 25 demarcated CHPS.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue XI November 2025

Population for the study

The selection of the sample was based on those who had given birth to a baby seven (7) weeks prior to the survey and were living within the sub-districts selected and met the inclusion criteria.

Sample and Sampling technique

Appropriate sample size determination was done using the formula for single population proportion, assuming a 95% confidence interval, 5% margin of error, 57% estimated prevalence PNC coverage (GDHS, 2014) for the Northern Region, and 10% non-response rate.

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

Where n = sample size

z=95% confidence interval (1.96)

p=estimated prevalence (0.57)

q=1-p= 1-0.57=0.43

e=level of precision (0.05)

$$n=\frac{1.96^2(0.57)(0.43)}{0.05^2} = 377$$

10% non-response=0.1*377=38

n = 377+38 = 415

The overall sample size was 415 participants which was then adjusted to 423 participants to take care of designed effect and losses. A total of 423 participants were interviewed in the field.

Nature/Sources of Data.

Data collection was done using primary sources by interviewing the beneficiary of the PNC services

Methods of Data Collection and Instrumentation

The data was collected at the community level using a structured questionnaire. The study was conducted in three selected sub-districts among the six (6) sub-districts in the district using simple random and multistage sampling techniques. Out of the selected sub-districts, ten communities were again selected by a simple lottery method. The total sample size was then proportionally allocated among the selected communities.

Validity and reliability of the instrument

To identify the clarity and consistency of the questionnaire, pretesting was conducted using 10% of the sample size in a similar population in the West Gonja District outside the selected study area, and necessary modifications, such as clarity and consistency of the questions and evidence-based time allocation for each respondent, were made accordingly.

Method of Data Analysis

Three levels of analysis (univariate, bivariate, and multivariate) were applied in the study. At the univariate level, the percentage distribution of the study sample was displayed to show the distribution of respondents by the various characteristics of the research participants. At the bivariate level, Pearson's chi-square test was also used to determine a statistically significant relationship between the independent variables and the dependent variable.

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue XI November 2025

A logistic regression was used to analyze the crude impact of each independent variable and the dependent variable.

Ethical Consideration

Ethical clearance was obtained from the Committee for Human Research Publications and Ethics (CHRPE) of Kwame Nkrumah University of Science and Technology, Kumasi, and the Ghana Health Service at the Saboba District Health Directorate. The clearance letter from the Committee for Human Research Publications and Ethics (CHRPE) was given to the District Health Directorate, which facilitated their approval for the research to be conducted in the district. Participants were informed about the objective of the study. Written consent was obtained from the participants. In order to keep the confidentiality of any information provided by this study, the data collection procedure was anonymous, and participation was on a voluntary basis. Participants could withdraw from the study at any time during data collection.

RESULTS AND DISCUSSION

Research and Analysis

Socio-demographic characteristics of the respondents

A total of 423 participants were recruited into the study, of whom two participants declined consent, leaving 421 participants whose responses are used in this analysis. Nearly one-third (28.3%) of the respondents were adolescents (10-19 years, with four out of 10 (45.6%) being 20-29 years old, and more than one-quarter (26.1%) were above thirty years old (30+). The majority (79.1%) of the respondents were Konkombas, followed by Moshies (10.0%), and the least among the tribes were Ewes (1.4%). More than three-quarters (82.9%) of respondents were married women, and less than 20 (17.1%) were not in marital homes and were single, divorced/separated, or widowed. Among those who were married, 33.3% were living in polygamous homes, while 66.8% were not. Religion is diverse in the Saboba district, with Christians being the majority who constitute 67.7%, Muslims 17.6% and Traditionalists, as well as other religious bodies, were 14.7%. As shown in Table 4.1 below.

Table 4.1: Respondents' Socio-demographic Characteristics

	(N=421)	
Variable	**Frequency (n)**	**Percentage (%)**
Age group		
10—19	119	28.3
20—29	192	45.6
30+	110	26.1
Ethnic group		
Konkombas	333	79.1
Anufo	18	4.3
Ewes	6	1.4
Dagombas	8	1.9
Moshie	42	10.0
Other tribe	14	3.3
Marital status		
Single	18	4.3
Married	349	82.9
Co-habiting	46	10.9
Widowed	6	1.4
Divorced/Separated	2	0.5

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue XI November 2025

Only wife of the husband		
No	140	33.3
Yes	281	66.8
Religion status		
Christianity	285	67.7
Moslem	74	17.6
Traditionalist	62	14.7

Source: Author's construct, 2017

Socio-economic Characteristics of the respondents

Table 4.2 presents findings on respondents' socio-economic characteristics. More than half (57.7%) of the respondents had no formal education, twenty-five percent (25.0%) had basic education (Primary and Junior High School), eleven percent had secondary education, and 6.0% had tertiary education. Two-thirds (60.0%) of the respondents were farmers. Similarly, proportions were traders (15.0%) and artisans, unemployed were 4.8% and those involved in skilled labour represent 4.0%. Most (59.9%) respondents were rural dwellers, with 40.1% living in the urban areas of the district.

Table 4.2: Respondents' Socio-economic Characteristics

Predisposing factors of the respondents to the utilization of Postnatal care

Table 4.3 depicts respondents' predisposing factors to the utilization of postnatal care services in Saboba District. Five in 10 respondents delivered their first child as adolescents aged 10-19 years, and nearly half (49.9%) delivered at aged 20-29 years. Most respondents' recent babies were between seven to eleven months old; only a few babies were twelve months and above. Almost one-third of respondents' babies were their first child, 22.3% of respondents were having their fifth baby, and nearly similar proportions were having their second, third, and fourth babies. Nearly all respondents (96.7%) have ever attended antenatal care (ANC) before delivery, with more than three-quarters (77.6%) of respondents having attended ANC more than four times before delivery. Again, 18.5% reported having the obligation of obtaining permission from their husbands before attending ANC, and 14.0% said they needed new clothes before they could go for postnatal care (PNC) services, as well as 10.9% stating that a naming ceremony had to be performed on the child before they could attend PNC.

Respondents' spouses' educational level

Figure 4.1 depicts the educational level of the spouses of the respondents. Half (50%) of their spouse had no formal education, and both secondary and tertiary education had similar proportions.

Respondent's recent place of delivery for current child

Figure 4.2, nearly two-thirds (63.0%) of respondents delivered their current baby at the health facility (had skilled delivery), 21% delivered with TBA, and 16.0% delivered at home without skilled personnel supervision.

Preferred place of delivery of respondents

In Figure 4.3 below, 8 in 10 of respondents (83.0%) reported preferring delivery at the health facility by skilled personnel, and 12.0% still preferred home delivery, as well as 5% preferred to deliver with a TBA at the health facility.

Respondents' enabling factors for postnatal service utilization

Table 4.4 below shows the enabling factors that enhance the utilization of the postnatal care service in the Saboba district. Over a quarter (47.5%) had to cover a two-kilometre distance in accessing healthcare, while 37.2% had to cover more than five kilometres. More than half (58.7%) walk on foot to the health facility, and 23.3% used

a motorbike, and less than a tenth either used a bicycle or public transport systems for ANC and PNC. Nearly two-thirds (61.3%) of their husbands were farmers, and a little over a tenth are engaged in formal work (15.2%), artisanship 12.4%, trading 5.0% and unemployed 5.7%. The majority of the respondents belong to the poorer households earning less than GHS500 monthly.

Table 4.4: Respondents' enabling factors for postnatal service utilization

Respondents need factors for successful utilization of PNC service

Table 4.5 below indicates the respondents need factors needed for successful utilization of postnatal care services. With regards to things that will cause a mother to go for PNC, more than half (55.6%) of mothers said if they are counselled on the importance of PNC, book appointment for PNC 11.9%, encounter health problem after delivery 4.5%, and about a third (26.8%) said they will need to attend PNC if they encounter more than two of these problems. The ability to recognize obstetric signs of complication by mothers also makes them go for PNC, and was reported as 99.1% and 0.9% said it is not an issue. Also, about 92.2% of mothers said they will go for PNC if, after delivery, they realize any health problems in the child. Postnatal service utilization was reported to be low, with more than a tenth (19.5%) reporting attending PNC service for their last delivery, and more than three-quarters (80.5%) did not attend PNC service for their last delivery.

Table 4.5: Respondents' need factors for PNC service utilization

Health Problems mothers experienced after delivery

Among health problems experienced by mothers before and during delivery include the following: 45% percent of reported bodily weakness, prolapsed uterus was 19%, those who had severe vagina pain were 6%, fever 10%, and among those with profuse vaginal bleeding were 10%. Also, among those who had inflammations of the breast (mastitis) were 7%, and those who delivered and had no breast milk to breastfeed were 3%. These problems were reported among mothers who triggered their need to go for postnatal care services, and without which they would not have gone for the postnatal services, as shown in Figure 4.4 below.

Health problems the child experienced after delivery

From figure 4.5 below, 41% of children born had fever, and among those with skin infection were 19%, and 17% of them had an infected umbilical cord after delivery.

Also, about 15% had problems with breastfeeding, and 8% had difficulty breathing.

Relationship between socio-demographic and postnatal care utilization

Table 5.6 below shows that all socio-demographic variables were found not to have an association with postnatal care utilization among mothers in Saboba district, with a p-value greater than 0.05.

Table 4.6: Socio-demographic characteristics and postnatal care utilization

Association between socio-economic characteristics and utilization of postnatal care

Among all variables in socio-economic characteristics, respondents' educational and occupational levels were found not to show an association with postnatal care utilization. However, respondents' place of residence, where those who delivered in urban areas were significantly more likely to go for postnatal service after delivery than those who delivered in rural areas, with a p-value of 0.01.

Table 4.7: Socio-economic characteristics and utilization of postnatal care

Relationship between respondents' predisposing factors and utilization of postnatal care

Postnatal care utilization increases with age, where the older in age were more likely to attend postnatal care than the younger, as shown in Table 4.8 below, but indicates no association (P=0.16). All other variables were

showing no significant association except performing a naming ceremony for the child before attending postnatal care. The children whose naming ceremony had been performed were significantly more likely to attend postnatal care service than those whose naming ceremony had not been performed (P=0.01).

Table 4.8: Respondents' predisposing factors and utilization of postnatal care

Relationship between the respondent's recent place of delivery and PNC utilization

From Figure 4.6, respondents' recent place of delivery shows a significant association with PNC utilization (P=0.04), where more women were significantly likely to deliver with the traditional birth attendant (TBA) than with the skilled personnel at the health facility, and were likely to have visited the health facility for postnatal care service delivery.

Figure 4.6: Respondents' recent place of delivery and PNC utilization

Source: Author's construct, 2017

Respondents' preferred place of delivery and PNC utilization

Figure 4.7 below shows respondents' preferred place of delivery and subsequent utilization of postnatal care services. From the figure, more women would prefer to deliver at home (30.0%) and the health facility (18.4%), and this was found to indicate no significant association (P=0.12) with the utilization of postnatal care service in the Saboba district.

Figure 4.7: Respondent preferred place of delivery and PNC utilization

Association between respondents' enabling factors and PNC utilization

Table 4.9 below indicates the enabling factors of respondents to the utilization of postnatal services at Saboba. Among all other factors, there was no significant association with postnatal service utilization, indicating p-values greater than 0.05 significant levels. The only variable that was found to show a significant association with postnatal service utilization was respondent household monthly income earned (P=0.03) and the utilization PNC service. Respondents who earned a high income in monthly income were significantly more likely to have used postnatal care services than those who earned less or were poor in household wealth status.

Table 4.9: Respondents' enabling factors and PNC utilization

Association between respondents' need factors and utilization of PNC services

Table 4.10 below shows respondents' need for the utilization of postnatal care services. Among all other variables, such as respondents' ability to recognize obstetric complications (P=0.32), child having health problem after delivery (P=0.12), ever been advised on PNC on date of second visit (0.45), and whether respondents think PNC services are beneficial (P=0.39), were found to have no significant association with PNC service utilization. Notwithstanding, variable such as things that caused respondents the need to go for PNC service was found to show a significant association with postnatal care utilization (P<0.01), in which respondents who were booked for an appointment or encountered any health problem after delivery were significantly more likely to visit the health facility again for postnatal service than their counterparts.

Table 4.10 Respondents' need factors and utilization of PNC services

Health problems after delivery and postnatal care utilization

Figure 4.8: Respondents who, after delivery, had health problems such as vaginal bleeding, fever, vaginal pains, mastitis, bodily weakness, and others were likely to go to the health facility for postnatal care, but did not show any significant relationship (P=0.24).

Health problems of the child after delivery and utilization of the postnatal care service

Figure 4.9; most respondents were significantly more likely to go for postnatal care service (P<0.01) after delivery if they realized that the child had developed a particular problem, such as inability of the child to breastfeed, difficulty in breathing, and others.

Univariate analysis of significantly associated factors and utilization of PNC service

Table 4.11 below presents the univariate analysis of significantly associated factors and the utilization of postnatal care services among mothers at Saboba. Postnatal care service was significantly less likely in the urban area showing 48% less chance of utilization (COR=0.52 (95% CI 0.31-0.88), P=0.02) even though, the urban folds are usually conceived to be pregnant with a lot of health facility than the rural area where women need to cover long distance in accessing healthcare like of PNC; this might be due to the CHPS concepts in Ghana which is making healthcare service such as PNC to be closer to the rural communities and therefore have created some similarity between the urban and rural folds in term of Postnatal care service.

Table 4.11: Univariate analysis of significantly associated factors and utilization of postnatal care service

Final multivariate logistic regression model of significantly associated factors and the utilization of postnatal care service

Table 4.12 below presents the final multivariate logistic regression model of significantly associated variables that influenced postnatal care service utilization among mothers at Saboba district. Key among variables include respondents place of resident in which mothers who dwell in urban areas show significant relationship and were 25% chance less likely to have visit the postnatal care clinic for service utilization (AOR=0.75 (95%CI 0.38-1.45, P=0.02) even though there might be abundance of health facility as compared to those who live in rural communities where they probably might have to cover distance before reaching the service site which could prevent the rural women from patronising PNC.

Table 4.12: Final multivariate logistic regression analysis of significantly associated factors and Utilization of postnatal care service

DISCUSSION

Predisposing factors affecting PNC service uptake

Antenatal care utilization does not translate into postnatal service utilization and this was widely reported in literature and in study by the Ghana Demographic and Health Survey, (2014) reporting 95% ANC and 68% PNC utilization, and Belemsaga *et al*, (2015) study in Cameroun equally reporting86% ANC and 37% PNC utilization which are indicating higher ANC and lower PNC utilization by mothers after delivery.

Enabling factors of postnatal service utilization

Among the enabling factors, the key variable that influenced women's postnatal care utilization was household monthly income, where respondents whose household monthly income earned less than GHS500.00 were one-fold more likely not to utilize postnatal care service compared to the households that earned more than GHS1000. This was because the poor households were not able to afford transport and the payment of other costs at the health facility, which could have prevented them from attending the postnatal care services after they had delivered.

Need factors influencing the uptake of postnatal services

Respondents need factors are factors that stimulate the respondents in the utilization of postnatal care services in the district. These factors were reported by several studies, and in our current study findings show that; factors such as respondents' ability to recognize obstetric complications, child health problems after delivery, ever been advice on the date of next postnatal care visit and respondents thinking on the benefits of postnatal care were

found not to have significant association with postnatal care service which can be attributed to the current health education that goes on at the health facility.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summaries of Findings

Strengths and Limitations of the Study

The study was an analytical cross-sectional study and therefore measured the factors that have influenced the utilization of postnatal services in Saboba District within a specific time period, and thus does not represent any longitudinal study that may be conducted in the district. The study limitations include: The study targeted women who were visited at their homes, so there might be selection bias since the visits were conducted during the day.

Conclusion

Nursing mothers' postnatal service utilization in the district was found to (19.5%, and more than 90% utilization of antenatal care service. From the study, factors that predisposed mothers to the utilization of postnatal care services were: mother's age at first delivery, place of residence, whether living in urban or rural areas, place of recent delivery, either TBA or health facility, and cultural practices like performing a child naming ceremony were strong predictors in determining women's utilization of postnatal care services.

Recommendations

Government

1. The government should revamp the current policies on maternal and child health services to address the potential barriers that prevent nursing mothers from accessing postnatal services and other reproductive health services, by building more hospitals and clinics in rural communities to prevent residential status barriers in the Saboba district.

DECLARATION

I hereby do declare that this submission is my own work towards the award of Master of Public Health Degree in Population and Reproductive Health and that, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

ACKNOWLEDGEMENT

Special thanks to GOD ALMIGHTY for seeing me through the completion of this study. I want to express my profound and sincere gratitude to my academic supervisor, who doubles as Head of Department for Population, Family and Reproductive Health at the School of Public Health, KNUST, DR. SAM NEWTON, for his enthusiasm, diligence, and for painstakingly going through my work and making valuable comments, suggestions, and corrections timeously. I equally want to thank Dr. CRISANTUS KUBIO, my field supervisor and the District Director of Health Services, Saboba District, for his personal assistance spanning from getting clearance at the project site to the conclusion of this research. May God bless you abundantly, sir.

I also acknowledge, with profound appreciation, the immeasurable assistance offered me by the staff of Ghana Health Service and the people of Saboba District, whose auspices the material for this study was obtained and administered. I also wish to thank my family, colleagues, staff of the School of Public Health, KNUST, and the university community as a whole for their varying support towards the success of this research work.

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ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XII Issue XI November 2025

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