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Utilization of Postnatal Care Services among Women of Reproductive Age in Homabay County, Kenya

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Abstract

Purpose: The World Health Organization describes postnatal care as the care given to the mother and baby immediately after birth up to six weeks after delivery. This care plays a critical role in improving neonatal and maternal survival by improving maternal knowledge of newborn care and appropriate health-seeking behavior. This study aimed to assess the utilization of postnatal care among women in Mbita Sub County.

Methodology: The study population involved all women of reproductive age with children below nine months of age who reside in Mbita Sub County, Homabay County. Mbita Sub County was selected for the study using purposive sampling. The participants were selected using a multistage sampling technique. Semi-structured questionnaires, key informant interview guides, and focus discussion groups were used to collect data. Qualitative data was entered, coded, and analyzed using SPPS version 26.0 software. The relationship between variables was tested using Pearson chi-square test.

Results: Postnatal care utilization was (167, 45.1%). Factors that predicted utilization of PNC were age of the mother ($\chi2$=18.797, p=0.002), marital status ($\chi2$=16.104, p=0.001), parity ($\chi2$=37.617, p=0.000), household level of income ($\chi2$=15.368, p=0.022), level of education ($\chi2$=19.975, p=0.008), occupation ($\chi2$=28.007, p=0.000), and awareness of cultural practices carried out after delivery ($\chi2$=39.990, p=0.000).

Conclusion: The study concluded that factors that determine the rate of PNC utilization were age, marital status, level of education, parity, occupation of the mother, and household income. The study suggests implementing targeted initiatives to raise awareness about the significance of postnatal care (PNC) services among women and their families. This would involve educating them about the importance of PNC and aligning mothers' appointments with the national PNC follow-up schedule.

Keywords: *Utilization of Postnatal Care Services, individual factors, Women of Reproductive Age*

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1.0 Introduction

Postnatal is a type of care given in four schedules to both the infant and the mother, namely: instantly after delivery, within 48 hours, at 2 weeks, and 6 weeks after birth. This is a major

determinant of the health of the mother and the child (Landge *et al.*, 2017). It is during this period that postnatal care is most needed in detecting and treating complications that occur during delivery and also provides helpful information to the mother on safeguarding her health (Bitew et al., 2017; Ndungu et al., 2018)). Postnatal care seeks to improve maternal and newborn health as it offers an environment that supports family and community health needs (WHO, 2013).

During the postnatal period health care workers establish and maintain contact with the mothers, they are also able to asses infant development (WHO, 2015). For new mothers, this period is important as they receive services like supplementation of iron and folic acid, screening, and treatment of infections. Treatment of postnatal depression, counseling on nutrition, birth spacing, family planning options, and breastfeeding are also done (Mambo et al., 2014). In this period mothers also seek advice on how to take care of the infant, they are taught how to take care of the umbilical cord, and, importance of immunization screening and treating of infections is also done here. Mothers are also taught on assessment of factors leading to infant anemia, special care for infants born preterm and low birth weight infants, and care for HIV-positive neonates (WHO 2018b).

Maternal and child health care is very vital in the reduction of worldwide maternal mortality and high infant mortality rates. Four million children are estimated to die in the first month of their life after delivery, 75 % of whom die in the first 7 days (WHO, 2015). These neonatal deaths have various causes namely: low birth weight complications, sepsis, and birth asphyxia. Studies investigating the time at which cause-specific mortalities occur in infants show that half of them occur during the first week, a quarter at week two, and a third at week 4 after birth (Sankar *et al*., 2016). About 80% of these deaths can be prevented using cost-effective measures such as postnatal visits, thermal care, hygiene, umbilical cord care, promotion of exclusive breastfeeding, training of healthcare workers, and neonatal resuscitation (Askeer *et al.*, 2015; Kangee, Mwanzo & Oyore, 202).

According to WHO (2018), up to 8000 women lose their lives globally, attributable to complications arising from pregnancy and childbirth, 99% of which occur in developing countries with 66% of the maternal and neonatal deaths reported in Sub-Saharan Africa, majority of which are 2 days after delivering (WHO, 2015). Minimal attention is given to mothers during the postnatal period in sub-Saharan countries such as Africa. Mothers and their newborns do not receive adequate and skilled postnatal care services during the early days after delivery (Probandari *et al*., 2017). It is estimated that 40% of these women experience complications after delivery and about 15 % develop life-threatening problems. Around 80 % of maternal deaths are caused by direct causes such as high blood pressure, hemorrhage, and infection. Severe postpartum bleeding which occurs within two days after delivery is the major cause of death in both developed and developing countries as it accounts for 34% of all maternal deaths(*WHO Guidelines of PNC*, 2015). It is reported that providing postnatal care services at the right time could result in a decrease in maternal complications

The government of Kenya is undertaking certain interventions which aim at reducing maternal and child mortality. Ministry of Health (MOH) rolled out the ``Kenya Maternal and Newborn Health model''. This model outlines the Targeted Postpartum Care which has six pillars namely: pre-conceptual care and family planning, essential obstetric care, post-abortion care, focused antenatal care, essential newborn care, and targeted postpartum care. Targeted postpartum care recommends that mothers should have at least 4 postnatal care visits(MOH,

2018). The model aims at reducing both maternal and neonatal complications that occur after birth and to prevent transmission of infections such as HIV from the mother to the infant. In Kenya, most women attend ANC and give birth in hospitals with skilled labor but do not attend postnatal care (MOH, 2018).

1.1 Problem Statement

Postnatal period is one of the most important transitional periods necessary for both maternal and child health. It is during this period that complications arising due to delivery are addressed. Despite its importance in improving maternal and child health, this period is the most neglected and underutilized. Kenya has 96% of the mothers attending antenatal care at least once, 62% of mothers had deliveries by skilled attendants only 51% attended postnatal care, and 40% attended PNC within the first 48 hours post-delivery. 81% of those who delivered outside health facilities never got any postnatal services attention (DHIS, 2014). Homabay County where Mbita sub county lies registered a high mortality rate of 583/100000 and 57/1000 for mothers and infants, respectively (NCPD, 2015). The high mortality rates are attributed to factors such as a lack of postnatal care utilization in the county. Only 58.9% of women utilize postnatal care in Mbita sub-county, against the national average of 73% whereas among infants, 59.1% utilize postnatal services against the national average of 65% (DHIS, 2019). Recent estimates show that postnatal utilization in Mbita sub-county is lower as compared to other sub-counties in Homabay county This is despite intervention by the government and other stakeholders to increase postnatal care in the sub-county. Poor utilization of postnatal care may increase maternal and neonatal morbidity and mortality.

1.2 Study Objectives

i. To determine the proportion of women of reproductive age utilizing postnatal care in Mbita Sub-County, Homa Bay County, Kenya.

ii. To assess the individual factors that influence utilization of postnatal care services among women of reproductive age in Mbita Sub-County, Homa Bay County, Kenya.

1.3 Hypothesis

H_{01}: Individual factors do not influence utilization of postnatal care services among women of reproductive age in Mbita Sub-County, Homa Bay County.

2.0 Literature Review

2.1 Utilization of postnatal care

A report on analysis of demographic and health survey data from 23 Sub-Sahara African Countries confirmed that only 13% of home deliveries received postnatal care within 2 days of birth (WHO, 2019). In Africa, this period is most neglected as many mothers and their newborns do not receive optimal care during this period (Manote & Gebremedhin, 2020). Despite the fact that a third of women in sub-Saharan Africa give birth in a health facility only 13 % attended postnatal care two days after delivery (Ndugga *et al*., 2020). This shows that whether deliveries happen in a health facility or at home the rate of postnatal utilization is still low. If postnatal care was given to the mother, newborns, and the mothers would receive optimum care after delivery. In developing countries, it is noted that many women are often discharged hours after delivery despite the fact that the mother may need further care or support (Benova *et al*., 2019). In sub-Saharan Africa, most mothers do not visit the health facility after

birth, this shows that postnatal care has the lowest coverage interventions of all reproductive and child health programs with a median of 28%for count down countries (Sacks & Langlois, 2016). This leads to high mortality rate as maternal deaths averages to 640 deaths per 100,000 live births in Africa (WHO, 2015).

Kenya has a maternal mortality ratio of 362 per 100,000 live births whereas that of neonatal is 22/1000 live births (KDHS, 2014). Postnatal care services remain the less utilized service despite the government introducing free maternity services. According to KDHS Report 2014, there was a decrease in postnatal attendance within 48 hours from 42% to 36% compared to KDHS 2008 and 52% did not have postnatal checkups (KDHS, 2014). A quarter of facilities offering antenatal care services have up-to-date registers for postnatal care services in Kenya (M.O.H, 2016).

2.2 Individual factors affecting Postnatal care utilization

In developing countries like Tanzania, a mother's age plays a significant factor in utilization of postnatal care. It is estimated that younger women are more likely to utilize postnatal care than older women (Tanzania Demographic Health Survey, 2015). In a study to determine utilization of postnatal care in Ethiopia women who utilize postnatal services are likely to be women below the age of 35 (Wudineh et al., 2018; Ndedda, 2021). This concurred with a study done by Maiyeka, (2019) on factors affecting utilization of postnatal services in Kisii County where most mothers who utilized postnatal care were mothers aged 21 to 30 years. In another study however (Somefun & Ibisomi, 2016), women of 15-24 years utilize postnatal care services to a lesser extent as compared to those of ages 25-35 years. In another study, women delivering their first-born birth at a younger age were more likely to utilize the services than those delivering at an older age (Yoseph *et al*., 2021).

A woman`s parity is closely related to her likelihood of taking up the postnatal services after birth. This has been found by studies from different parts of the world such as Ethiopia, where it was found that women with higher parity utilized the services more than those who had a lower parity (Wudineh *et al*., 2018; Ndedda, 2018). In a related research article elsewhere it was found that multiparous parents who had experience with postnatal care were more likely to use postnatal care than those women who delivered once (Berhanu *et al*., 2016). However in some studies, the odds of having four children and above decrease one's chance of utilization of postnatal care (Workineh, & Hailu, 2014). This also concurred with a study conducted by Kinuthia (2014) which found that an increase in birth decreases utilization of postnatal care. Those women who gave birth once a year have a higher chance of utilizing postnatal care and maternal services than women who had multiple births in the same year (Akibu *et al*., 2018).

A mother`s level of education equally has an important role in the utilization of maternal health care. Mothers who had little or no formal education are less likely to attend postnatal care (Menya & Kabue, 2014). According to KDHS (2014), 74% of mothers with a lack of formal education did not have postnatal care and 25% of the mothers with formal education did not attend postnatal care. In a related study women who had acquired secondary and primary education were more likely to utilize postnatal care than women with no education at all(Suleman Hassen *et al*., 2021). However, this is subject to further research since other studies have shown no significant association between postnatal care utilization and mother`s level of education (Tesfahun *et al* 2014).

3.0 Methodology

The study was a community-based study and as such, a descriptive cross-sectional design was chosen for this study because of its ability to asses a sample that occurs at one specific point in time. The study population comprised Women of reproductive age (15-49) years living in the Mbita sub-county with infants who were within the postnatal period and less than 9 months of age. Purposive sampling was used to select Mbita sub-county since it is one of the sub-counties in Homa Bay with low rates of postnatal care utilization hence vulnerable to maternal and neonatal mortality. A semi-structured questionnaire which consisted of closed-ended and open-ended questions was used in this study.

Quantitative data was entered and coded using Microsoft Excel and then exported to SPSS version 26.0 for analysis. Pearson's chi-square was used to test association between independent variables and dependent variables and multivariate logistics regression was employed in treatment of data. A P value was set at <. 0.05. Descriptive statistics like frequencies and percentages were used and the findings were presented in form of tables, graphs, and charts. Qualitative data was organized transcribed and translated and presented according to the objectives of the study in form of text. Quantitative data was then sorted cleaned and labelled in themes.

4.0 Results and Discussion

4.1 Proportion of Women of Reproductive Age Utilizing Postnatal Care (PNC)

The majority of women (55%) were not utilizing PNC services, with half of them attending PNC after two weeks, as shown in Figure 1. However, only 19.7% of women attended PNC within the recommended 48 hours after delivery, and 16.5% of women attended PNC after every 4 weeks, while from the FGD, mothers had different responses. In one of the FGDs, one of the members stated "*We have been to the clinic, but we are not aware of the exact number of visits since we were not informed about the specific schedule*. Another agreed "*You visit the clinic several times, but you are unaware of the frequency and specific timing of the visits.*

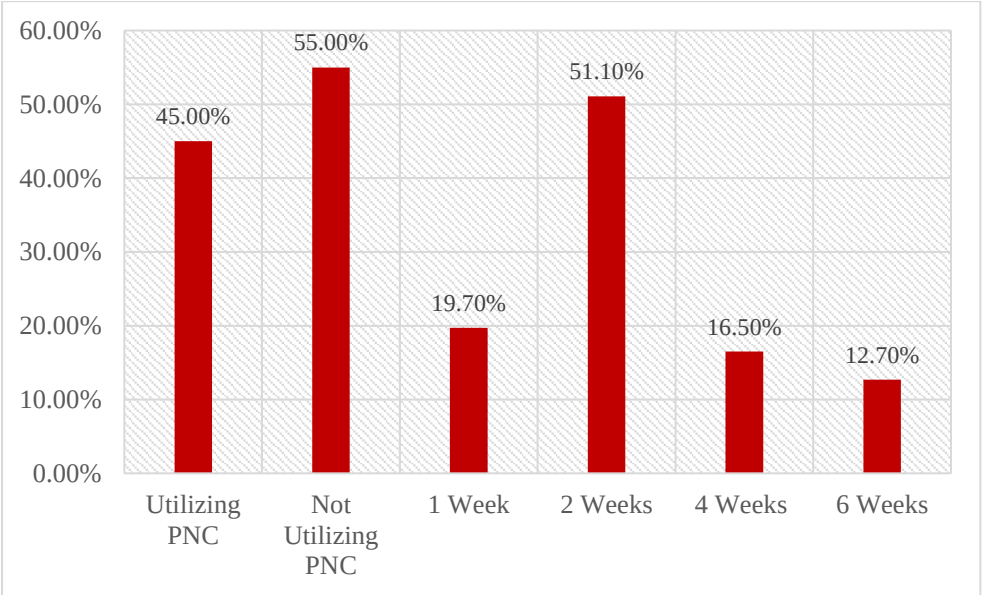

Figure 1: Frequency of Utilization of Postnatal Care Services

4.1.1 Reasons for PNC Attendance

From the results in Figure 2, a majority (50.50%) of the mothers attended PNC for checkup reasons, 37.30% for immunization of children, and 10.80% for treatment whereas only 1.40% were attending PNC to seek family planning services. This was supported by some of the mothers during an FGD, "*coming to the hospital before six weeks was purely for the baby to be checked on".* Women who did not attend PNC had their reasons for not attending the clinic. Some stated, "*A mother's clinic is finished after delivery and then the child's clinic begins. It is therefore a waste of time because they were fine after delivery".* One of the younger mothers added, "I *have no money to take a motorbike to the clinic. I don't want to waste the little I have taken the baby to the clinic especially when the baby is not sick"*. A few of those attending within the recommended schedule said "I *had a few complications after the birth of my first child. That`s why I always come to clinic four times within the first six weeks".* A key informant was also of the idea not to bother the mothers with frequent visits as echoed below "*We tell them to come to the clinic at four weeks after delivery for check-up of both the mother and the baby".*

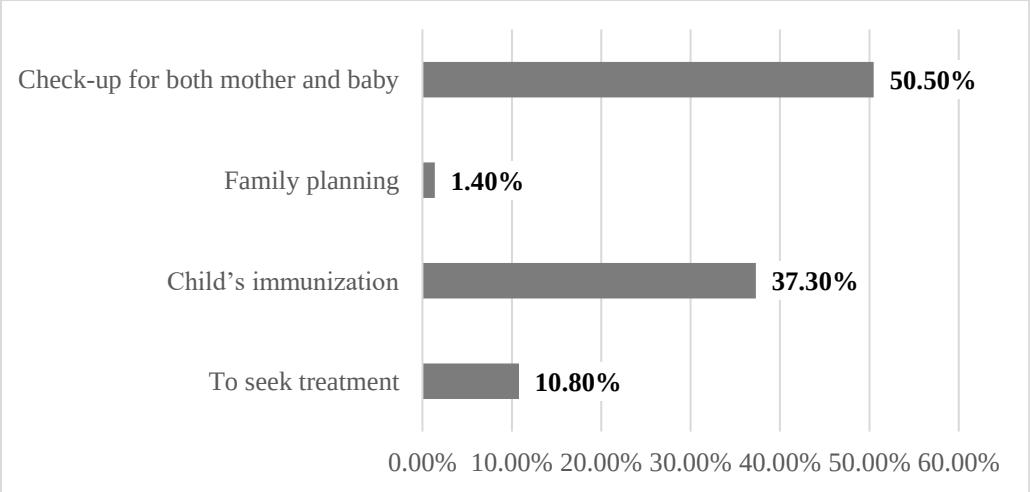

Figure 2: Reasons for Seeking PNC

4.2 Individual Factors Influencing Utilization of Postnatal Care Services

4.2.1 Association socio-demographic factors and Utilization of PNC

Table 1 presents a correlation between socio-demographic factors and the utilization of PNC (Postnatal Care). The results indicate a significant relationship between the age of respondents and the utilization of PNC services ($\chi2=18.797$, $p=0.002$). The data reveals that the highest proportion of women seeking PNC falls within the age range of 26-30 years, constituting 60% of the total. The study also examined the relationship between marital status and utilization of PNC, revealing a significant association ($\chi2=16.104$, $p=0.001$). The findings also showed a significant association between parity and utilization of PNC ($\chi2=37.617$, $p=0.000$). This was confirmed by the FGDs as most mothers who had high parity reported " *For me, I had done this before so I have previous knowledge on how this should be done on taking care of a child*" Another agreed "*I have four kids and they all health I believe that I have enough knowledge on*

taking care of the baby" One of the elder mothers added " *I have no time take care of the child to the hospital when the child is not required because I need to take care of the other children"*

Table 1: Association between Age, marital status, parity, and Utilization of PNC

Variable	Unit	Utilization of Postnatal Care Services		Cross Tabulation	
		Yes, N (%)	No, N (%)	Chi-square Value	P-value
Age	15-20 years	8(21.6%)	29(78.4%)	18.797	**0.002**
	21-25 years	20(20.6%)	77(79.4%)		
	26-30 years	60(40.5%)	88(59.5%)		
	31-35 years	48(92.3%)	4(7.7%)		
	36-40 years	28(90.3%)	3(9.7%)		
	41-45 years	3(60.0%)	2(40.0%)		
Marital status	Single	6(10.5%)	51(89.5%)	16.104	**0.001**
	Married	155(51.7%)	145(48.3%)		
	Divorced	2(40.0%)	3(60.0%)		
	Widowed	4(50.0%)	4(50.0%)		
Parity	1 live birth	20(18.5%)	88(81.5%)	37.617	**0.000**
	2-3 live births	114(53.3%)	100(46.7%		
	4-5 live births	29(70.7%)	12(29.3%)		
	≥5 live births	4(57.1%)	3(42.9%)		

4.2.2 Association between Socioeconomic Factors and Utilization of PNC

The results in Table 2 indicate that there was a significant association between level of education and utilization of PNC ($\chi2=19.975$, $p=0.008$). Occupation was found to have a significant influence on PNC utilization ($\chi2=28.007$, $p=0.000$). Income level was also significantly associated with PNC utilization ($\chi2=15.368$, $p=0.022$). From the FGD one woman reported "I *have no money to take a motorbike to the clinic. I don't want to waste the little I have taken the baby to the clinic especially when the baby is not sick"* Another one added "*Going to the hospital to and back costs money why should I go when I don't need to, I only go when I have an emergency.* The study also examined the relationship between cultural practices and utilization of PNC services, and the findings revealed a significant association ($\chi2=39.990$, $p=0.000$). However, the study found no significant association between respondents' religion and utilization of PNC services ($\chi2=2.862$, $p=0.239$).

Table 2: Association between socioeconomic factors and Utilization of PNC

Variable	Unit	Utilization of Postnatal Care Services		Cross Tabulation	
		Yes, N (%)	No, N (%)	Chi-square Value	P-value
Level of Education	None	1(20.0%)	4(80.0%)	19.975	**0.008**
	Primary dropout	3(14.3%)	18(85.7%)		
	Primary complete	12(21.4%)	44(78.6%)		
	Secondary	77(37.4%)	129(62.6%)		
	College and above	72(91.1%)	7(8.9%)		
	Others	2(66.7%)	1(33.3%)		
Occupation	Self-employed	7(11.3%)	55(88.7%)	28.007	**0.000**
	Student	1(20.0%)	4(80.0%)		
	Housewife	96(58.5%)	68(41.5%)		
	Maidservant	18(26.9%)	49(73.1%)		
	Farmer	7(50.0%)	7(50.0%)		
	Civil servant	38(65.5%)	20(34.5%)		
Income	Less than 10,000	108(38.2%)	175(61.8%)	15.368	**0.022**
	10,001-20,000	42(62.7%)	25(37.3%)		
	20,001-30,000	11(78.6%)	3(21.4%)		
	40,001-50,000	3(100%)	0(0.0%)		
	More than 50,001	3(100%)	0(0.0%)		
Cultural practice after delivery	No	158(58.1%)	114(41.9%)	39.990	**0.000**
	Yes	9(9.2%)	89(90.8%)		
Religion	Christianity	165(45.0%)	202(55.0%)	2.862	0.239
	Muslim	1(100.0%)	0(0.0%)		
	None	1(50.5%)	1(50.0%)		

4.3 Discussion

4.3.1 Proportion of women utilizing postnatal care

Postnatal care (PNC) is important as far as maternal health is concerned since up to 80% of neonatal mortalities and 40% of complications arising during and after delivery can be prevented with PNC (Probandari *et al.*, 2017). However, this study has demonstrated that PNC has been neglected by most mothers, despite the efforts made by the government to increase its accessibility by offering free services. Only 45% of participants utilized PNC in this study a proportion that is much lower than the national average of 73% (KHIS, 2019). The rate of postnatal care in Kenya is higher than the pooled rates in Sub-Saharan Africa where PNC utilization was found to be 52.48% (Zemenu *et al.*, 2020). However, in Sub-Saharan Africa, the pooled prevalence of PNC utilization was found to be higher than that observed in Mbita sub-county. The rate differs from country to country, Zambia recorded the highest prevalence at 63%, while Nigeria had the lowest at 29%. In Bangladesh, a 52% PNC prevalence was found while Ethiopia`s 36.5% (Tessema *et al.,* 2020). The difference in results can be attributed to the socio-demographic characteristics of this population which was mostly rural and the fact

that most did not experience complications during pregnancy and during birth (Cheptum et al., 2012). Nevertheless, the major reason cited for non-utilization of postnatal services was busy schedule (31.6%) and lack of knowledge (30.5%). This finding is consistent with the studies conducted by Moran *et al.* (2019), Muluneh *et al*. (2020), and Asefa *et al*. (2018). There is therefore need to emphasize to the mothers the need to adhere to this service. In addition, mothers felt it was unnecessary to visit the clinic, as reported by some of them in an FGD *"I had a few complications after the birth of my first child. That`s why I always come to clinic four times within the first six weeks".*

Healthcare workers also play a significant role in the low proportion of postnatal care utilization among mothers. The practice of advising mothers to come for a postnatal checkup only at the end of six weeks, unless they develop a complication, has been reported in this study one key informant said "*we tell them to come to the clinic at six weeks primarily for the infants checkup".* This practice is often driven by a focus on the infant's health rather than the overall well-being of both the mother and the baby (Essendi *et al*., 2017). Healthcare providers may prioritize the newborn's checkup, including vaccinations and growth monitoring while overlooking the importance of postnatal care for the mother (Ickes *et al*., 2017).

4.3.2 Individual Factors influencing Postnatal Care utilization

Several studies have identified factors that affect the utilization of postnatal care (PNC) services, including education level, occupation status, awareness of available PNC services, and place of delivery, among others (Ononokpono *et al.*, 2017; Mohan *et al.* 2018; Somefun *et al.* 2021). Likewise, this study also identified several predictors of PNC service utilization among mothers, including the education level of the mother and partner, occupation status of the mother, household income, cultural beliefs, knowledge of available PNC services, age of the mother, and marital status.

Mothers who have completed at least secondary level education were more likely to use postnatal care (PNC) services compared to those who are illiterate. This finding is consistent with previous studies, including a study by Bayissa *et al.* (2020) in Ethiopia, a study by Gebremeskel *et al.* (2019) in Northern Ethiopia, and a study by Mumbare *et al.* (2019) in India, all of which found that women and partners with higher levels of education were more likely to attend PNC services. Similarly, In this study, it was observed that educated mothers with a college education were more likely to utilize postnatal care (PNC) services. This may be because education improves health awareness, knowledge of available healthcare services, the ability to pay for health care, and autonomy to make health-related decisions, leading to better health-seeking behavior. Moreover, education enhances women's autonomy, which allows them to make better decisions about their own health. Literate women are more likely to seek high-quality health services and have a greater ability to utilize healthcare services that offer better health outcomes (Babalola & Fatusi 2017; Workineh *et al*., 2019).

Occupation of the mother was found to be a significant economic factor in predicting the utilization of postnatal care services by mothers. The study revealed that mothers who were employed in civil service or had any income-generating activities were more likely to utilize postnatal care services compared to those whose partners were unemployed. This finding is consistent with the results of studies conducted by Nankwanga (2018), Dhakal *et al*. (2018), and Charkborly *et al.* (2016), which also reported a similar association between maternal occupation and postnatal care utilization. However, there are contrasting findings from other

studies. Smith *et al*. (2017), Wang *et al*. (2018), and Rahman *et al.* (2019) conducted research indicating that the occupation of the mother was not a significant predictor of postnatal care utilization. These studies suggested that factors other than maternal occupation may have a stronger influence on the utilization of postnatal care services.

Age was another factor that was found to predict postnatal care utilization among mothers. The findings are in agreement with the findings from the study, conducted by Tessema *et al*. (2020) who reported that women aged 25-30 had a higher likelihood of utilizing postnatal care utilization. Older mothers may have higher educational attainment, better health-seeking behavior, and greater awareness of the importance of postnatal care, leading to a higher likelihood of utilizing these services. In contrast, a study by Smith *et al*. (2019) found no significant association between maternal age and postnatal care utilization. This suggests that the relationship between age and postnatal care utilization may vary depending on the context, cultural factors, and healthcare systems in different settings.

This study found that parity is a significant factor that influences PNC. This compares with a study conducted in Pakistan where primiparous women were found to be more likely to utilize PNC services compared to multiparous women, with a utilization rate of 92.1% and 63.7% respectively (Saira *et al.*, 2021). A similar finding was reported in a study conducted in Tanzania, where women with no previous children were more likely to utilize PNC services than those with one or more children (Mubyazi *et al*., 2018). This may be attributed to the fact that first-time mothers may have less knowledge and experience in caring for a newborn, and therefore may require one of the mothers who reiterated that she had visited PNC clinic even in her previous birth "*I always come to the clinic several times for the baby's check-up because I am used to it even with my previous births"* A mother with no such experience opted to stay indoors as stated "*I have no previous experience so I opted to stay at home for six weeks"*

The income level of households remains a significant predictor of postnatal care (PNC) utilization among mothers in Mbita Sub- County, with mothers from middle-income families more likely to utilize PNC services compared to those from the poorest households. This is consistent with previous studies by Agha and Carton (2018), Nwaru *et al.* (2017), and Obare *et al.* (2017), which reported that family income affects the utilization of postnatal care services. Mothers from wealthier households are generally more educated, have greater autonomy, and have more resources to pay for healthcare services than those from poor households, who often struggle to pay for healthcare expenses due to their low income.

This study found that mothers who knew about the availability of postnatal care (PNC) services were more likely to utilize these services compared to those who were unaware of them. This result is consistent with the findings of Ladfors *et al*. (2018) and Milson (2018), who concluded that women need to have knowledge of PNC services to use them. Access to postnatal care services and understanding their importance are crucial for improving the uptake of these services (Nankwanga, 2018). Therefore, knowledge is a crucial factor in the utilization of PNC services, as it allows women to understand the available services, their significance, and when and where to access them (Hailerman *et al*. 2020).

This study also found that mothers who experienced complications during pregnancy and were informed of the same were more likely to utilize PNC services than those with no complications (AOR = 19.928; 95 % CI 0.889–12.968). This is consistent with findings by Chungu *et al*, 2018) who reported that women being aware of a complication were more likely to deliver in

a health facility as well as attend PNC sessions. In contrast to these findings, a study conducted by Smith *et al.* (2019) reported no significant association between experiencing complications during pregnancy and PNC utilization. Furthermore, a study by Rahman *et al.* (2020) found that although women who experienced complications during pregnancy were more likely to attend PNC sessions, the association was not statistically significant.

This study revealed a significant correlation between a woman's marital status and her utilization of postnatal care (PNC), as well as her care after delivery. These findings are consistent with prior research conducted in Northern Ethiopia (Angore et al., 2018) and India (Singh et al., 2012). However, a study conducted by Zhang et al. (2017) in China reported that while marital status exerted some influence on PNC utilization, its significance was overshadowed by factors such as maternal education, parity, and socioeconomic status. This suggests that the utilization of PNC services by women is not primarily determined by variables such as marital status, number of children, or place of residence. However, these variables may have an indirect influence on the relationship between other key determinants and the utilization of PNC services (Smith & Johnson, 2019).

Additionally, the study found that cultural practices, such as staying indoors after delivery and child naming ceremonies, were perceived as barriers to PNC utilization. Similar findings have been reported in previous research conducted in Zambia (Nalwadda *et al.*, 2019) and Nigeria (Ezegwui *et al.*, 2021). However, the influence is not so large but there is a need to address it because this is a homogenous population with strong cultural beliefs. The practice is common among some mothers, as reported by one of them in an FGD "*I stay indoors to avoid people with bad eyes looking at my child".*

5.0 Conclusion

The proportion of women utilizing postnatal care (PNC) services in Mbita sub-county remains low, indicating a gap in the continuum of maternal health care. This low utilization rate may have adverse effects on maternal and neonatal health outcomes.

The utilization of postnatal care (PNC) is influenced by various individual factors, such as age, parity, cultural beliefs, religious beliefs, marital status, knowledge of PNC services, education level, and household income. The results showed a statistically significant relationship between individual factors and PNC utilization, indicating that the null hypothesis is rejected. This study concludes that there is a dependent relationship between individual factors and PNC utilization at a 95% confidence interval.

6.0 Recommendations

Increase awareness and knowledge about the importance of postnatal care (PNC). Address the lack of knowledge and misconceptions surrounding PNC by implementing educational programs targeting both mothers and healthcare providers. These programs should emphasize the benefits of PNC for both the mother and the newborn, dispel myths, and promote the utilization of PNC services.

Integrate maternal and newborn care in healthcare practices. Enhance healthcare providers' understanding of the importance of postnatal care for both the mother and the newborn. Encourage a comprehensive approach to PNC that focuses on the overall well-being of both individuals, rather than solely prioritizing the infant's health. This can be achieved through

training programs, guidelines, and policies that emphasize the integration of maternal and newborn care within healthcare systems.

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