

Barriers and Facilitators of Postnatal Care Utilization under the Linda Mama Program in Kajiado County, Kenya

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Abstract

Purpose: To identify determinants and barriers to postnatal care utilization among mothers in Kajiado County, Kenya, within the framework of the Linda Mama program.

Methodology: The study used a cross-sectional study and was conducted in Kajiado County. The study's population was 137 mothers in Ongata Rongai, 87 mothers in Kitengela, 139 mothers in Kajiado & Loitoktok. Data was collected from the mothers through a structured questionnaire, which was interviewer-administered. The key informants' interviews also had a guide. Descriptive statistics and correlation analysis were conducted. Tables, figures, and narratives were used to present the findings.

Results: The majority of participants (77%) were aged 19-30 years, and 90% were married. The level of awareness of the free PNC services provided by the Linda Mama program was low, with only 4% of mothers being aware and a mere 1% utilizing these services. Employment status significantly influenced PNC utilization, with 67% of mothers being unemployed.

Conclusions and Recommendations: The study identified critical barriers to PNC utilization, including low awareness, misconceptions about costs, financial constraints, and logistical challenges. Despite the availability of free maternal health services, misconceptions about costs and accessibility hinder effective utilization. The study recommends that enhancing awareness, recruiting additional Community Health Promoters (CHPs) for mobile PNC services, and encouraging the acquisition of necessary identification documents could improve PNC uptake. Improved community outreach and education about the NHIF Linda Mama program are essential to address these barriers.

Keywords: *Determinants, Barriers, Postnatal Care, Kajiado County, NHIF Linda Mama Program*

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1.0 Introduction

Maternal and child health has greatly improved in the recent past, and this can be attributed to the United Nations Sustainable Development Goals (UNDP, 2024; WHO, 2020). Child deaths that are preventable dropped by more than half and maternal mortality went down by a similar margin. Considerably, some numbers though have remained high like 6 million children succumbing every year before they attained the age of five years, out of these, 40% die within

the first 28 days of life, (during the neonatal period). It is noted that 45-50% of mothers and newborns die in the first 24 hours after birth, additionally, 65-75% of maternal and newborn deaths occur in the first week (Burnett-Zieman et al., 2021).

Post-natal maternal deaths are the leading cause of maternal deaths in Africa-34% (Ndaruhutse, 2023). This is where 830 women die globally due to postpartum hemorrhage and infection. Among them, 43% of women do not receive post-natal care (KDHS 2022). There are 362/100,000 live births and maternal mortality in Kenya despite measures and programs in place. This is not a failure in the programs but an existing gap in service delivery and utilization. The 3 sustainable development goals geared towards reduction of maternal mortality and morbidity include alleviation of poverty, healthy lives, and achieving gender equality (Finlayson et al., 2023).

The presidential declaration in 2013 abolished maternity fees leading to a free maternity care program (FMC) whereby in 2016(July), FMC was handed over to NHIF and rebranded to “Linda Mama”. This was an NHIF-government entity under the Ministry of Health (social health insurance). Linda Mama was implemented in 3 phases which were including it in the government facilities, ensuring its incorporation in deliveries in private and mission hospitals, and inclusion of ANC and PNC (Javadi et al., 2023).

The program is accessed by all Kenyan pregnant women, on a need basis and not the ability to pay. It has services such as four focused and personalized ANC visits, delivery, and four focused PNC visits (48 hours, 1-2 weeks, 4-6 weeks, and 4-6 months). Akunga et al (2014) noted that several factors determine maternal seeking behavior related to knowledge of the availability of the service and accessibility. Therefore, the main focus of the study was on the socio-demographic characteristics of the mothers, perception of the mothers on the Linda Mama service, knowledge and attitude, and availability of Infrastructure.

1.1 Problem Statement

In Kajiado County, 37,918 mothers had been registered under the same program. The utilization of the services was on the rise where 6,322 deliveries were conducted in the contracted facilities, and the claims were paid to the respective facilities. 21,403 outpatient visits had been recorded, of these, 16,422 were ANC visits and 3,779 were PNC visits (CGK., 2018).

The numbers throughout the continuum of care ought to be consistent, in that the number of mothers seeking antenatal services needed to translate into deliveries assisted by skilled health professionals and also similar numbers ought to continue to the post-natal services up to six (6) months after delivery (World Bank, 2020). This was because when there was low PNC utilization, various post-delivery complications like postpartum hemorrhage, post-partum depression, infection in the umbilical cord, and puerperal sepsis led to high mortality rates among mothers and their babies.

In Kajiado County, Kokedo and Chepchirchir (2023) pointed out that there was low PNC utilization which was linked to an upsurge in post-maternal deaths in the region. The disparities signified an existing gap that needed to be addressed to reduce the number of mothers and infants who were exposed to dangers when they failed to seek the available services

1.2 Purpose of the Study

To identify determinants and barriers to postnatal care utilization among mothers in Kajiado County, Kenya, within the framework of the Linda Mama program.

2.0 Literature Review

2.1 Theoretical Review

Anderson's behavioral model for health services utilization (Andersen, 1995), gives an overview of the determinants that influence the uptake and utilization of post-natal services. The framework categorized the factors into four; external factors, predisposing factors, enabling and need factors, need factors, and how they are interrelated in the PNC services utilization. The external factors were the socio-economic and living environment of the mothers and their households. The predisposing factors were those factors associated with the socio-cultural environment or characteristics of the mother, which included the social organization, health principles, knowledge, religion, and culture. Enabling factors facilitated the easiness of accessing PNC services. These factors were associated with the family, personal perception, or community elements. The need factors were the causes of health care utilization and included health problems that necessitated the use of health care services and the perception of the health system.

2.2 Empirical Review

Reviewed studies such as a study carried out in Ethiopia by Akibu and others, cited being healthy after delivery as a major reason for not complying with the recommended post-natal visits. Notably, 48.8% of the women in the said study did not complete the post-natal visits due to various issues such as limited money to cater for costs related to post-delivery complications, and consistent transport charges (Akibu et al., 2018).

The availability of free delivery services does not promise that women would utilize them, it does not guarantee favorable outcomes of the pregnancies nor the satisfaction with the services offered is also not guaranteed (Gitobu et al., 2018). The free maternal health policy implementation in Kenya has been faced with countless challenges, shortage of drugs, and shortage of skilled healthcare workers being some of them (Lang'at et al., 2019). The satisfaction of patients with the quality of healthcare services offered is often measured by the healthcare providers' ability to meet the goals and expectations of the patient as the degree to which the patient's expectations and goals are met by the healthcare service providers. To this effect, reproductive health services like the Linda Mama program satisfy the mothers' needs as this has an impact on their health; the successive utilization of the reproductive health services; and also, the reference of the same services to their peers (Tafa, 2014).

Low uptake of post-natal services in Ethiopia has been attributed lack of awareness of the post-natal services and thinking that the services are not important (Shukure et al., 2018). Minimal or no exposure to the mass media where most of the information about post-natal services is given out was cited as a reason why the mothers did not attend post-natal services (Adams & Smith, 2018). The assumption that post-natal services are for the child to receive vaccinations was also reasons given by mothers as cited by Warren et al. (2010). That is, the mothers only attended the clinics when the babies' vaccinations were due (Warren et al., 2010). Mothers who had received information about post-natal care or had been taught about post-natal services during the ante-natal clinics were more likely to utilize the post-natal care services (Ongera et al., 2018). This is because they would have more knowledge of the advantages of attending the post-natal clinics. The attitude of the clinicians or the health workers toward the mothers was also a factor that would discourage or encourage the mothers to attend post-natal services after delivery (Mwangi et al., 2018).

There are two perspectives of Infrastructure which are the essential facilities and systems that serve a country or a region. These are the services and facilities essential for the proper

functioning of the economy such as roads, bridges, telecommunications, and internet connectivity. Infrastructure in healthcare comprises both medical and non-medical equipment that is required for healthcare delivery at different levels such as medical equipment, furniture, ICT equipment, and ambulatory systems. Components of a satisfactory healthcare infrastructure include physical facilities, consistent supplies of pharmaceutical and other materials, and staff who are adequately trained. It can provide preventative, diagnostic, and curative care, as per the needs of the people being served (Health Care Infrastructure [HCI], 2019).

3.0 Methodology

This cross-sectional study was conducted in Kajiado County whose latitude is: $-2^{\circ} 00' 0.00''$ and longitude: $36^{\circ} 52' 0.12''$ E. The target population was 37,918 mothers who delivered between April 1, 2019, and September 30, 2019 and were registered in the NHIF Linda Mama program. Additionally, key informants, including mothers receiving care at the facility, a local government official, a community elder, a sub-county nursing officer, and a disease surveillance officer, were included, totaling 25 informants across the five sub-counties. The Cochran sampling formula was used to determine the sample size, resulting in 137 mothers in Ongata Rongai, 87 mothers in Kitengela, and 136 mothers in Kajiado & Loitoktok. Participants were selected using stratified random sampling to ensure representation from different regions. Data was collected from mothers using an interviewer-administered structured questionnaire. Key informants were interviewed face-to-face using semi-structured interview guides. A pre-test was conducted on 36 mothers and 6 key informants in Machakos County to ensure the reliability and validity of the instruments. Cronbach's alpha was calculated to assess internal consistency, while content, criterion, and construct validity were evaluated through expert reviews and pilot testing feedback. Quantitative data from the questionnaires were analyzed using SPSS version 26. Descriptive statistics, including frequencies, percentages, and means, were used to summarize the data. Inferential statistics, such as chi-square tests, were employed to examine associations between variables, with degrees of freedom and significance values reported at ($P < 0.05$). Qualitative data from key informant interviews were analyzed thematically.

4.0 Results and Discussion

4.1 Demographic Characteristics of the Study Population

Notably, 267(74%) mothers returned complete questionnaires. The results presented in Table 1, indicate that the majority (77%) of participants were between 19-30 years old, while 23% were above 30 years. Most participants (90%) were married. Over half (54%) had secondary education, 29% had basic education, and 17% had tertiary education. A significant portion (67%) was unemployed, with 18% formally employed and 15% self-employed. Most participants were Christians (76%), followed by Muslims (20%), and 4% preferred not to say. This indicates that the study population was predominantly young, married, with a secondary education level, and a high unemployment rate. The majority identified as Christians.

Table 1: Demographic Characteristics of the Study Population

Characteristic	% (n)
Sub County	
Kajiado	35 (93)
Kitengala	26 (70)
Loitoktok	15 (39)
Rongai	24 (65)
Age (Years)	
19-30	77 (205)
Above 30	23 (62)
Marital Status	
Married	90 (241)
Not married	10 (26)
Level of Education	
Tertiary	17 (45)
Secondary	54 (144)
Basic Education	29 (78)
Occupation	
Formally Employed	18 (48)
Self Employed	15 (41)
Unemployed	67 (178)
Religion	
Christianity	76 (204)
Islam	20 (53)
Prefer not to Say	4 (10)

4.2 Awareness, Utilization, and Barriers to Linda Mama Program Services

In Table 2 we see that awareness of free delivery services was high (91%), but low for free antenatal (5%) and postnatal care (4%). Utilization of delivery services was very high (97%), while antenatal (2%) and postnatal services (1%) were minimally utilized. The main barriers were a belief that the program required payment (61%), cultural reasons (17%), and concerns about the quality of services (13%). There was a significant awareness gap regarding the full range of services offered by the Linda Mama program, especially for postnatal care.

Table 2: Awareness, Utilization, and Barriers to Linda Mama Program Services

Characteristics	% (n)
Which Services are offered under Linda Mama program?	
Free Ante-natal care	5(13)
Free delivery	91(242)
Free post-natal care	4 (12)
Which services have you previously utilized under the Linda Mama Program?	
Ante-natal services	2(4)
Delivery	97(260)
Post-natal services	1(3)
Reasons for not utilizing Post-Natal Care Services under the Linda Mama program	
Unaware that the services are available	4 (10)
Believed that joining the program requires payment, similar to the NHIF61 program	162(162)
Cultural reasons prevent me from visiting health facilities	17(46)
Previously delivered other babies at home	6 (15)
Concerned about the quality of services in government-run facilities	13 (34)

4.3 Awareness and Utilization of the Linda Mama Program Health Services

The results in Table 3 indicate that a majority (44%) fairly often heard about the program, but often discussed it by a smaller percentage (9%), with 35% discussing it sometimes. About 36% fairly often sought maternal health services. Only 4% of the respondents accessed these services very often. The results indicate that cultural barriers were almost nonexistent, with 99% stating culture and religion did not prohibit them from seeking services. Surprisingly, 98% were not discouraged by the attitude of healthcare workers. There was moderate awareness and discussion about the Linda Mama program among mothers, but actual utilization of postnatal services was low. Cultural and religious barriers were minimal, and healthcare worker attitudes were generally not a deterrent.

Table 3: Awareness and Utilization of the Linda Mama Program Health Services

Description (n= 267)	Very Often % (n)	Often % (n)	Fairly Often % (n)	Sometimes % (n)	Never % (n)
How often do you hear of Linda Mama program?	9 (23)	36 (95)	44 (117)	5 (15)	6 (17)
How often do other mothers discuss about the Linda Mama program?	20 (54)	9 (24)	28 (75)	35 (93)	8 (21)
How often do you seek maternal health services from a health facility?	14 (37)	24 (63)	36 (98)	26 (69)	-
How often do you access post-natal services for free?	4 (10)	38 (101)	31 (84)	5 (13)	22 (59)
How often does culture prohibit you from seeking services from medical facilities?	-	0.5 (1)	-	0.5 (1)	99 (265)
Does your religion prohibit you from seeking services from medical facilities?	-	1 (2)	-	-	99 (265)
Does the attitude of the healthcare workers discourage you from seeking health services?	-	-	1 (1)	1 (2)	98 (264)

4.4 Characteristics of Accessibility and Transportation Effect on Clinic Attendance

Table 4 shows that about 66% live more than 5 km from a health facility. Nearly half (49%) used cars, while 44% walked. A majority (41%) spent between 1-199 KES, with 25% incurring no costs. 27% indicated that distance and transport costs affected clinic attendance. Nearly all (99%) reported the presence of healthcare workers at facilities. Distance and transportation were significant barriers for a substantial portion of the population, affecting their ability to attend clinics.

Table 4: Characteristics of Accessibility and Transportation Effect on Clinic Attendance

Description		% (n)
Distance from the Nearest Health facility (Km)	> 5	66 (176)
	< 5	34 (91)
Mode of Transport	Car	49 (132)
	Motorbike	6 (17)
	Walking	44 (118)
Cost of Transportation (KES); 1 USD = KES 130	800- 2,000	2 (5)
	500- 799	5 (13)
	200- 499	27 (71)
	1- 199	41 (111)
	0	25 (67)
Effect of Distance and Transport Cost on Clinic Attendance?	Yes	27 (72)
	No	73 (195)
Health Facility has Healthcare workers	Yes	99 (266)
	No	1 (1)

4.5 Factors Influencing Postnatal Care Service Utilization

The Chi-square analysis results in Table 5 indicate that socio-demographic characteristics, perception of

the Linda Mama services, knowledge and attitudes towards postnatal care, and hospital infrastructure significantly ($P<0.05$) influenced postnatal care service utilization.

Table 5: Factors Influencing Postnatal Care Service Utilization

Characteristic (n= 276)	Chi-square	df	P-value
Socio-demographic Characteristics of the Mothers	326.79	90	0.017
Mothers' Perception Linda Mama Postnatal Services	301.17	40	0.001
Knowledge and Attitude about Postnatal Care	148.15	80	0.028
Hospital Infrastructure Availability	190.32	45	0.001

4.6 Discussion

The study identifies several key factors affecting the utilization of PNC services under the Linda Mama program in Kajiado County. Despite the availability of free services, utilization remains low due to significant awareness gaps and misconceptions about costs. The study population predominantly comprises young, married women with secondary education and

high unemployment rates, indicating potential economic constraints impacting healthcare access. Socio-demographic characteristics, such as financial resources, are crucial for complete PNC utilization, as highlighted by Adams & Smith (2018) and Akibu et al. (2018). Additionally, Finlayson et al. (2023) noted that mothers' decisions to attend PNC services are influenced by those close to them, such as partners and family members. Awareness and knowledge of PNC services significantly impact their utilization. The findings align with Kokedo & Chepchirchir (2023), who reported low utilization of PNC services despite programs like NHIF Linda Mama. Similarly, Shukure et al. (2018) found that low uptake of post-natal services in Ethiopia was due to a lack of awareness and perceived importance of these services. Warren et al. (2010) also noted that mothers often viewed PNC services primarily for vaccination purposes. In contrast, Burnett-Zieman et al. (2021) reported that mothers were willing to follow PNC guidelines, even allowing community health workers to visit their homes when they couldn't attend clinics.

5.0 Conclusion

In conclusion, this study underscores the need for targeted interventions to bridge the gap in postnatal care utilization. By addressing the identified barriers, the Linda Mama program can better fulfill its potential to reduce maternal and infant mortality rates in Kenya. The implications for policy and practice are clear: enhancing awareness, accessibility, and the quality of healthcare services is crucial for improving maternal health outcomes and achieving sustainable development goals related to health, poverty alleviation, and gender equality.

6.0 Recommendations

Implement targeted awareness campaigns to educate mothers about the comprehensive services available under the Linda Mama program and correct misconceptions about costs. Address logistical challenges by improving healthcare infrastructure and community-based services to enhance access and utilization, particularly for those living more than 5 km from health facilities.

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