



Vol 4, Issue 3, pp 21-31, Oct 31, 2022, © International Research Journal Publishers, ISSN 2710-2742 (online) www.irjp.org

HEALTH SYSTEMS FACTORS INFLUENCING UTILIZATION OF POST NATAL CARE SERVICES IN NGARA HEALTH CENTRE, STAREHE SUB-COUNTY, NAIROBI COUNTY

^{1*}Mary Wanjiru Kamau, ²Dr. Rosemary Okava & ³Mr Daniel Muya

^{1*}Scholar, Mount Kenya University, Kenya

²School of Nursing, Mount Kenya University, Kenya

³School of Nursing, Mount Kenya University, Kenya

Accepted, October 1st, 2022

ABSTRACT

The post-natal period starts within 1 hour after delivery and up to six months after delivery. Post Natal Care (PNC) has proven to decrease the number of infants and maternal morbidities and also the mortalities; though the utilization has been low. In Kenya, it's only around 51% of mothers receive these services from skilled healthcare workers. Minimal research of the factors that are linked with the use of post-natal services has been done. The study sought to determine the health system factors influencing utilization of postnatal care services in Ngara Health Centre, Nairobi County were the objectives of this research. The target population was mothers seeking maternal neonatal child health from the MNCH clinics including the immunization and family planning rooms. The research utilized a descriptive cross-sectional study design. A semi-structured questionnaire was used to gather information on institution-related factors influencing postnatal care. 155 mothers out of 212 responded which was 73% response rate. Turnaround time, the reason for seeing PNC services, client satisfaction and health education of the mother after babies' immunization significantly influenced the utilization of PNC services. The government should ensure that by use of qualified and experienced personnel that they educate the communities on the importance of PNC, health care providers should be time conscious when handling clients at the clinic to reduce the overall turnaround time, to avoid missed opportunities, health care providers should emphasize the need for checking maternal health status so that mothers would come for PNC services, even if the baby does not have any health need or pending immunizations.

Keywords: *Health Systems Factors, Utilization of Post Natal Care Services*

1.0 INTRODUCTION

Post-natal period is the duration within one hour following placenta delivery and it incorporates the six weeks after delivery (WHO, 2010). This phase is known as the post-partum period when its denoting to the mother only and postnatal when indicating to the baby and mother. Services given on this period are known as postnatal care (PNC) services. This "critical" duration while connection with the health facility during the period of post-partum could be very important where the mother and the baby are reviewed by the health personnel;

the needs are identified and acted to accordingly to include any complications after delivery(WHO,2010). This could be in the facility during the first 2 hours indicating after delivery, third to seventh day and the sixth week (Morof & Kerber, 2014).

Maternal health is a major public health issue across the world. When it comes to global health and development talks, the unacceptably high rates of maternal mortality are a prominent topic of discussion. Despite significant gains in certain countries, half of all maternal fatalities worldwide still occur in Sub-Saharan Africa, where little or no progress has been achieved in recent years. According to the World Health Organization, the maternal mortality rate (MMR) in Eastern Asia has reduced by 69 percent, followed by Northern Africa (66 percent), Southern Asia (64 percent), and Sub-Saharan Africa (41%). In addition, in 2010, the MMR was predicted to be 470 per 100,000 in Zimbabwe, 400 in Burkina Faso, 380 in Ghana, and 560 in Nigeria (Izudi et al., 2015), according to the World Health Organization. The presence of a robust health system, trained delivery attendants, and proper postnatal care uptake have all been shown to be important in reducing maternal mortality. However, there is no one simple, uncomplicated measure that can considerably reduce maternal mortality.

Nevertheless, according to Titaley et al (2012), many mothers delivering at hospitals in third-world countries are discharged within 24 hours of delivery having not given a return date on where or when return date on where or when they can obtain continuation of support or care. According to the World Health Organization, more than 300 million women suffered from pregnancy-related problems and impairments in 2015. Every day, eight hundred thirty women die as a result of problems associated with pregnancy (Mrisho et al., 2017). The World Health Organization estimates that around 303,000 women died in low-resource settings as a result of pregnancy-related complications in the year 2015(Mrisho et al., 2017). It is estimated that more than two-thirds of maternal and infant fatalities occur as a consequence of insufficient postpartum care services. Most maternal fatalities (62 percent) occur in the postpartum period, with more than half occurring within a day after delivery of the pregnancy.(who, 2018)

In the sub-Saharan area, a considerable proportion of mothers do not have access to healthcare throughout the early postnatal period, putting them at risk for illness and death [Darm stat, et.al, 2015]. Around 4 million children do not survive beyond the early postnatal period, and a significant proportion of them are crippled as a result of pregnancies and deliveries that are not properly monitored or treated(Darm stat et al., 2015). The provision of safe maternity and a healthy childhood continues to be a serious concern across Sub-Saharan Africa, and Nigeria is no exception. Maturity rates in Nigeria are extremely high, with maternal death (560 per 100,000 live births) and perinatal mortality (78 per 1000 pregnancies) being among the worst in the world (Darm stat et al., 2015).

In 2013, the worldwide Maternal Mortality Ratio (MMR) was 210 maternal deaths per 100,000 live births. Developing nations accounted for 99 percent of all maternal fatalities, with Sub-Saharan Africa accounting for 62 percent of all maternal deaths in 2013 (WHO, 2013). According to data collected in 2013, the adult lifetime risk of maternal mortality is greatest in sub-Saharan Africa (1 in 31), compared to 1 in 3800 among women in industrialized nations (WHO, 2013). According to the World Health Organization (2010), the adult lifetime risk of maternal death in Kenya is 1:55, resulting in a maternal mortality ratio of 400 deaths per 100,000 live births (WHO, 2013). Maternal fatalities account for 11.3 percent of all deaths among women aged 15-49 years, a figure that has remained relatively stable over the previous decade (WHO, 2013). Prematurity is a problem, and efforts must be made to reach the worldwide target of lowering maternal mortality to fewer than 70 per

100,000 live births by the year 2030. (WHO, 2015). In addition to maternal mortality, about 40% of women endure difficulties following childbirth, with an estimated 15% developing potentially life-threatening conditions as a result (WHO, 2013). Maternal mortality is caused by hazards associated with pregnancy and delivery, as well as by a lack of access to and low-quality of health-care services. Among the most prevalent causes of maternal mortality in Sub-Saharan Africa are haemorrhage (34%), sepsis/infections (10%), hypertensive disorders (9%) and other direct causes (5%); other indirect factors account for around 17% of all maternal deaths (WHO, 2013).

For the newborn, the post-natal period is also extremely important; out of the approximately 130 million infants born annually, four million infants die during the neonatal period, accounting for nearly 40% of all deaths among children under the age of five, with developing countries accounting for 98 percent of all such deaths (WHO, 2013). The African continent accounts for just 11% of the global population but it accounts for more than 25% of the world's infant mortality (up to half a million African newborns die on the day they are born), and for African babies, the first week of life is the most dangerous time for them to die (Darmstat et al., 2015).

The maternal mortality ratio (MMR) in Ethiopia is 676 per 100,000 live births, which is much higher than the rate in poor countries and the worldwide average of 450 per 100,000. Ethiopia's MMR is 12 times higher than the MMR in the United Kingdom and 400 times higher than the world average, respectively. In the United States, the national average for postnatal coverage is just 8%. Postnatal care in Ethiopia has been regarded as a neglected area of maternity care when compared to prenatal care and expert attendance at delivery, especially in safe motherhood programs in Ethiopia, which has been considered as a neglected area of maternity care(Who,2018).

The postpartum period is also very important for newborn; approximately among the 130 million infants annually born, about 4 million newborn die during neonatal period, and this represents about 40% deaths of the children under the age of the 5 years and the third world countries are responsible for 98%of these deaths (WHO 2013). Africa accounts for 11%on the latter, and of the population of the world that is 25%of world's neonates' deaths (up to half million neonates (Darm stat, et.al, 2015). Due to dramatically raised danger of neonatal deaths within the first hours and within the first days after delivery, it is recommended that neonates receive post-natal care immediately after delivery (WHO 2013)

Early care gives the health professionals an opportunity to detect probable complications for the newborns, and to give treatment promptly and initiate immunization. The basic indicators of social economic level of a country are the neonatal mortality rates and its population's quality of life. In order to attain the global goal of terminating avoidable death of the newborns and children under five, a lot of effort requires to be directed at the child health despite the fact that there has been focus and recent progress in child survival (United Nations Development and Program, 2015).

1.1 Problem Statement

Post-natal period is a time when the mother transits, her neonate and also her family on social level, emotional and physiological, (WHO, 2013). It offers a chance for an institution of the preventive and also curative actions, given the exceptional level to which deaths of the post-natal woman and newborns happen in the first few days following the delivery, when there is the early assessment and diagnosis of any probable complications during postnatal period for the mother and the newborn can help reduce maternal and neonatal complications and also the deaths. During postnatal care services, any complication having arose from delivery or

that could be arising, are taken care of promptly thus the importance of PNC, and also health messages are given to the mothers on self-care and also the care of the infant.

Among 23 countries in sub-Saharan Africa, the 13% mothers who have home delivery, only 13% acquired care post-natal within 2 days of childbirth (WHO, 2015).

Half of the women, 51% (KDHS, 2014) had gotten postpartum care once within six weeks. The recommended for PNC services are three visits, including within; the 48 hours prior to discharge, at post-natal ward, 2 weeks again at 6 weeks (G.O.K., 2018) and at 6 months. 49% indicates that Kenya has not gained the desired universal access to PNC.

Despite the benefits of PNC services, and the fact that the level 2 and level 3 government facilities offer free PNC care, it has remained deserted in the in third world countries (Tao, Huang, Long, Tolhurst, & Raven, 2011) and in Kenya. The health system seems not to have placed enough energy on postpartum care and this could be attributing to low utilization of postnatal care. Postnatal mothers might be unaware of available postnatal care accorded in the facility, and the community not to comprehend importance the postpartum care. There is no sufficient data to appreciate the causative issues to the low uptake of the PNC in different contexts; therefore the main focus of the study is to determine health system factors influencing timing of postpartum care here in Kenya.

1.2 Objectives

To determine the health systems factors influencing utilization of PNC services in Ngara Health Centre, Starehe sub-county, Nairobi County.

1.3 Null Hypothesis

Health system factors do not significantly influence the utilization of postnatal care services in Nairobi.

2.0 LITERATURE REVIEW

2.1 Empirical Literature

Health systems factors are offered in two major areas: the accessibility and the quality of the health care services that is being offered. The main aim of the available health facility is to reinstate or uphold fairly the health of the clients that are being served.

The health system comprises of institutions, organizations, and resources whose main aim is provision improve the health of the clients who are seeking health services. (WHO, 2010). The general health system comprises of everyone accountable for suitable health, it also includes hygiene, and proper diet, it also involves each division of government, and works within the public sector, the civil society, and the non-for-profit bodies.

In order to access the high-quality health care services, it is built in six major foundation blocks; the governance and leadership, work force that is motivated, proper financial management, the medical supplies and medicine, the health information system, basic health needs addressed by the health care system which addresses the health care needs. Through these foundation blocks, there is provision of quality health services, thus suitable outcomes for the clients and the communities (WHO, 2014).

Focusing on the system of health, there are two individual groups; The providers of health care and clients, the main aim of provision of proper postnatal care is not attained minus influential communication by the collection of the two persons.

The providers of Health care look precisely at the quality; they deliberate on the outcome or the services that encounter or exceed best quality of care, the suitable functioning, and quality at large. Regularly, this is devoted to as the quality assurance or the medical quality, and differs mostly on providers' perceptions, (Donabedian, 2011).

Health Providers usually tend to emphasis on technical competency, infrastructure, and the logistical provision in effort to improve the quality. Clients regularly emphasizes on the

human perspective which includes; the quality care, the respectful handling, the privacy and the confidentiality, the health messages, and also counseling and safety, appropriate settings and the hours it takes to travel, practical time of waiting, cost that is attainable, and hygienic, contented health facility (Kamau, 2014).

The level of maternity services provision and the attitude of staff keep mothers away from hospital delivery. These mothers opt traditional birth attendants who are acknowledged that they are more welcoming than the health care providers (Bowser & Hill, 2015). These undesirable health care provider's attitudes at the healthcare facilities gives the TBAs a chance over health care providers, where the mothers prefer to be attended by the TBAs due to their caring attitude (Fomba et al., 2016).

A mother's personal previous incidents are used to evaluate the lack of respectful maternal care in delivery and post-natally. Their insights have great effect in woman's decision-making criteria for future utilization of the health care facility. If the mother was attended well in the facility, there is high likely hood of her returning to the facility

A discourteous or the offensive measures shelters a variety of health care giver's conducts. some of the negative measures include; shouting at the mothers or reprimanding the mothers, probing for inducements, intimidating to deny the provision of health care, abusing the client physically, desertion in that time of the demand, performing procedures exclusive of mother's approval and also keeping the women or neonates at health facility owing to payment failure.

The negative approaches at the health facilities which includes forcing the mothers in labor to share the beds, could be due to inadequate resources in the health system, (Bowser & Hill, 2016). The health care providers should enhance positive affiliation with the mothers so as to acquire the anticipated health concerns. The mother's memories of childbirth experience are conserved for the lifetime and also they are mostly given out with other mothers, leading to atmosphere of the assurance and no assurance at the time of delivery. Those diverse views on the quality refers to provision of a variety of a safe and real health service provision meeting evidence-based standards and also while satisfying the mother's wishes and the desires (Management Sciences for Health, 2010).

The accessibility of the health care covers both the cost and physical affluence of going to the health care facility. There is some form of payments made to including travel, despite that all maternal neonatal child care services (MNCH) are hypothetically with no cost in Kenya; disbursing for recommended prescribed medications as considerable blocks to obtaining care and the management (Titaley et al., 2014). The time it takes for the client to arrive to the health facility is a hindrance which inhibits mothers from going to health facilities and is also an issue affecting choice to seek the health care (Titaley et al., 2014).

Inaccessibility of public transport or the unavoidable transport cost leads to several mother being forced to stroll or improvise their way of reaching to the health care (Mekonnen 2012). In the health care facilities located in remote areas, the community members are forced to spend out of their pocket for the transport. Other constrains to uptake the health services for the postnatal mothers include; the waiting time, and the unavailability of health care workers especially where there is acute shortage of staffs and this is for the mothers in low financial status the ones depending on the daily incomes (Titaley et al., 2011).

2.2 Theoretical Framework

Rosenstock and colleagues (1988) developed the Health Belief Model (HBM), which was used in this research in accordance with Rosenstock et al. (1988), HBM is a cognitive model for understanding health-risk behavior. This makes HBM an excellent match for the present study. (1) The perception of susceptibility to an adverse health outcome; (2) the perception of the severity of the adverse health outcome and its associated consequential outcomes; (3) the

perceptions of the benefits of given preventive behaviors in terms of assisting the post-natal mothers in avoiding the adverse health outcome; and (d) an individual's perceptions of the benefits of given preventive behaviors when it comes to assisting them in avoiding the adverse health outcome. The HBM predicts whether individuals engage in preventive health behaviors. In addition, the level of perceived self-efficacy, which refers to the degree to which people think they are capable of putting preventative measures in place, is taken into consideration (Rosenstock et al., 1988).

The model advises that use of the health services is a purpose of the disposition to the use of services, the factors that enable the use and need for this service. In order for the mothers to participate in preventative behavior, they must feel that the benefits outweigh the costs, as defined by perceived benefits, which relate to advantages of post-natal care. Understanding on importance of seeking health care behavior even if the mother is not sick encourages mothers to seek assistance from the health care facilities in order to get post-natal care on their maternal and neonatal health issues, as well as to learn on care of their neonates and also their empowerment.

It is believed that mothers should be able to exercise self-efficacy, which is defined as the capacity to effectively seek the post-natal care for all the visits in order to achieve the intended result. In certain cases, perceived obstacles, which show the perceived limitations to doing a given activity, might impact mother's attitudes about accessing services that are made available. The purposefulness of the model is to discover situations that enable or hinders utilization of the postnatal services.

2.3 Conceptual Framework

Dependent variable

Health factors

- Availability
- Accessibility
- Perceived quality
- Previous interaction with health systems
- Place of delivery

Independent variable

Utilization of post-natal care

Figure 1: Conceptual Framework

3.0 METHODOLOGY

The research utilized a descriptive cross-sectional study design. The study was undertaken in Ngara Health Centre among the post natal mothers who had delivered within one year. The rooms visited were postnatal ward, family planning and immunization rooms. The study targeted 212 post-natal Mothers seeking maternal neonatal child health from the MNCH clinics to include the immunization room, family planning room who had delivered within one year.

Sampling was conducted through purposive sampling of the facility, which is the only government facility, The Study respondents were drawn from the immunization and family planning room. Systematic random sampling was applied to mothers with children below one year until the desired sample size was obtained. The number of children <1 year is approximately 450 (DHIS 2020). One hundred and fifty-five women were recruited into the study (response rate of 73%). The sampling distribution was based on the probability proportionate to size. K_{th} interval was calculated based on the study population within the health facility.

Since the sample size is less than 10,000, the Yamane formula was employed for this study;

Yamane, 1967 formula was used in for calculating the sample size.

95% was used as the confidence level, $p = .5$.

n denotes the sample size,

N is population size, and;

e is precision level.

$$n = N/1+N(E)^2$$

$$n = 450/1+450(E)^2$$

$$=212$$

To get the interval of mothers to be interviewed, the total estimated number of mothers was divided by the sample needed. Thus; $450/212=2^{nd}$ person. A semi-structured questionnaire, consisting of closed-ended questions, was used to gather primary data by the investigator. The respondents were assured by the researcher that the information they provided would be handled with the strictest confidentiality. The researcher reassured them that the information would be utilized only for the purposes outlined in the study and that no uninvited individuals would come into contact with it in any way at any point in time.

Piloting of the questionnaire was done at Mathare North Health Centre, with just 10 participants taking part in the piloting process. The hospital was selected due of its proximity to Ngara hospital as well as its distinctions from it. The piloting exercise assisted the researcher in identifying confusing questions as well as determining if the procedures to be utilized in the data analysis were suitable for the situation.

The research was both quantitative and qualitative in nature. Using descriptive and inferential methods, the collected data from the field was analyzed, presented, analyzed, described, and interpreted in a systematic manner. Descriptive statistics like percentages and frequencies were employed in the quantitative analysis of the data set. Inferential statistics; chi square and Fisher exact test at p value <0.05 and 95%confidence interval was used. Tables, pie charts, histograms, bar charts and frequency polygons are the forms in which data was presented.

4.0 RESULTS

4.1 Physical accessibility of the facility

The researcher explored the distance the mothers cover to get the postnatal services from the facility. The distance was estimated in kilometers. The majority of the mothers (48.4%, $n=75$) reported to cover 1-5 kilometers to access the facility and the least population (24.5%, $n=38$) covered more than five kilometers.

The majority of the mothers were covering 1-5 km to access the facility, out of 75 who covered this distance 32 of them were utilizing these services at higher level. Half of those covering more than 5km to access the services were also found to utilize the services at high level. This indicates that the distance covered to access the services did not determine the utilization of PNC services. There was a weak association between distance covered and utilization of PNC services at Cramer's V of 0.120 and the results were not statistically significant at p value >0.05 .

Table 1: Association between distances covered to access the facility and utilization of PNC services

Variable	Category	Utilization of PNC services		Total
		Low	High	
Distance covered to access the facility.	Less than 1km	26	16	42
	1-5km	43	32	75
	More than 5km	19	19	38
Total		88	67	155

$$\chi^2 (3, N=155) = 2.217, \text{ Fisher exact test } p=0.461$$

Source: Field Data (2021)

4.2 Number of ANC clinics attended during the latest pregnancy

The mothers are taught on importance of postnatal visits. The researcher wanted to know if those that attended more clinics were utilizing postnatal services more. The results showed that the majority of the mothers (43.9%, n=68) had attended two ANC clinics.

4.3 Turnaround time for delivery and reception of postnatal services

Turnaround time for delivery of services influences demand for the services from a facility. The researcher wanted to establish if the time taken to serve the postnatal mothers influenced their utilization of the service. The results found that the time taken to serve each mother was varying with the majority (47.4%, n=74) being served within 30 minutes.

Table 2: Turn around time for postnatal care service delivery

Turnaround time in postnatal service delivery	Frequency	Percentage
Within 30 minutes	74	47.7
30 minutes – 1 hour	44	28.4
More than 1 hour	37	23.9

Source: Field Data (2021)

The results showed that among the 74 mothers who had been served within 30 minutes previously they had high level of utilizing PNC services compared to 8 mothers out of 36 mothers who spent more than one hour in the clinic. There was a strong association between turnaround time in the clinic and utilization of PNC services at Cramer's V of 0.328 and these results were statistically significant at p value<0.05.

Table 3: Association between turnaround time in the clinic and utilization of PNC services

Variable	Category	Utilization of PNC services		Total
		Low	High	
Turnaround time in the clinic.	Within 30 minutes	30	44	74
	30 minutes-1 hour	29	15	44
	More than one hour	29	8	37
Total		88	67	155

χ^2 (3, N=155) = 16.675, Fisher exact test p=0.001

Source: Field Data (2021)

4.4 Reasons for seeking healthcare services in the facility

Every mother who comes to the clinic is treated individually and each of them has different reasons for attending the clinic. The researcher therefore wanted to explore the reasons that brought the mothers who participated in the study to the clinic. The findings revealed that majority (74.8%, n=116) had come for the visit because they had been told to come on that date (was given a return date to the clinic on that day), others came because they were unwell, for check-ups, brought sick baby and for both mother and baby check-up.

Table 4: Reason for attending postnatal clinic

Reason for attending postnatal clinic	Frequency	Percentage
For my check-up	4	2.6
For my baby's check-up	8	5.2
I was unwell	15	9.7
My baby was unwell	12	7.7
Health care worker asked me to come on this day	116	74.8

Source: Field Data (2021)

The mothers who reported not to have sought PNC services previously reported that it was because they had not been given a return date to the clinic.

On cross-tabulation, the ill health of either the mother or the baby contributed more to the utilization of the PNC services. Among the 116 mothers who reported to have been given a return date for that day, 79 had low utilization of PNC services. There was a strong association between reason for seeking the postnatal care services and utilization of the PNC services at Cramer's V of 0.475 and the results were statistically significant at p value <0.05.

Table 5: Association between reason for seeking PNC services and utilization of PNC services

Variable	Category	Utilization of PNC services		Total
		Low	High	
Reason for seeking PNC services.	For my check up	4	0	4
	For my baby's check up	1	7	8
	I was unwell	2	13	15
	My baby was unwell	2	10	12
	Health worker asked me to go back	79	37	116
Total		88	67	155

χ^2 (4, N=155) = 34.902, Fisher exact test p<0.001

Source: Field Data (2021)

4.5 Client satisfaction with PNC services during the visit

Satisfaction of the clients with the services offered during the clinic was measured using a Likert scale. The scale had three options: unsatisfied, satisfied and very satisfied. The majority of the clients (77.4%, n=120) reported that they were satisfied with the services while a few mothers (1.3%, n=2) were very unsatisfied.

Those who were satisfied reported to be attended in good time (5.2%, n=8), met friendly staff (51.6%, n=80), and those who generally satisfied by the services were 19.4% (n=30). It was also found out that the few mothers (n=2) who were unsatisfied had been served by unfriendly staffs.

Among the 12 mothers who were very satisfied, 9 had high level of PNC utilization while out of 120 who reported to be satisfied; only 52 were highly utilizing PNC services. It was evident that level of client satisfaction was moderately associated with utilization of PNC services at Cramer's V of 0.230 and the results were statistically significant at p value <0.05.

Table 6: Association between client satisfaction and utilization of PNC services

Variable	Category	Utilization of PNC services		Total
		Low	High	
Extent of client satisfaction with PNC services offered at the facility.	Very satisfied	3	9	12
	Satisfied	68	52	120
	Unsatisfied	16	5	21
	Very unsatisfied	1	1	2
Total		88	67	155

χ^2 (3, N=155) = 8.201, Fisher exact test p=0.037

Source: Field Data (2021)

4.6 Child immunization

According to the Kenyan Ministry of health, the mothers should take their babies for routine child immunization and complete all the sessions. Child immunization is part of postnatal care services offered in health facilities. The researcher wanted to know if the mothers seeking PNC services at Ngara Health Centre came only for child immunization or they also came to seek the other components of postnatal care. This was explored in various ways. First the mothers were asked if they had brought their babies for immunization. The results showed that almost all the mothers (98.7%, n=152) had brought their children for immunization. After immunization, the mothers were asked if the health care provider asked them if their baby had any health problem and, in this majority (54.8%, n=85), said yes. The mothers were then asked if they were examined after the baby had been immunized. The majority of the mothers (67.7%, n=105) reported that they were examined after their baby had been immunized. Lastly the mothers were asked if the healthcare provider gave them health messages during the visit. Majority of the mothers (71%, n=110) reported to have been given the health messages.

The mothers who had been given health messages after immunization of the baby were found to utilize PNC services more than those were never health educated. Out of 109 mothers who received health messages 53 of them had high level of utilizing PNC services compared to 13 out of 45 who never received the health messages. These results were statistically significant at $p < 0.05$.

Table 7: Association between reception of health messages post baby’s immunization and utilization of PNC services

Variable	Category	Utilization of PNC services		Total
		Low	High	
Reception of health messages post baby’s immunization.	Yes	56	53	109
	No	32	14	46
Total		88	67	155

$\chi^2 (1, N=155) = 6.377$, Fisher exact test $p=0.041$

Source: Field Data (2021)

5.0 CONCLUSION

Perceived quality of services was found to be predictive of PNC utilization with bias for good services. It was observed that where people have the choice between several facilities, they sometimes travel further if the target facility is perceived to offer superior quality care. Many women from the area travel to a certain hospital that was reported to offer very good services. Cost of care did not deter the mothers from seeking care and in this study; those who paid for services were more likely to utilize PNC services than those who had free services. This is important in our set up since maternity services are free but the mothers seem to have focused more on quality.

From this, study it evident that the mothers experienced some form of disrespectful care; many HCWs did not inform the mothers about PNC services. The higher utilization of PNC services by women who had delivered in a private and faith-based hospital may be because private hospitals have more resources and therefore may be more likely to provide individualized care to their patients. Quality may have featured prominently in this study because of the high educational level. Turnaround time, reason for seen PNC services, client’s satisfaction and health education of the mother after babies’ immunization significantly influenced utilization of PNC services. The underlying motivation for seeking PNC services is to have the baby checked for illness or to receive pending immunizations.

6.0 RECOMMENDATIONS

The government should ensure that by use of qualified and experienced personnel that they educate the communities on the importance of PNC.

The health care providers should be time conscious when handling clients at the clinic in order to reduce the overall turnaround time, to avoid missed opportunities. The health care providers should emphasize the need for checking maternal health status so that mothers would come for PNC services, even if the baby does not have any health need or pending immunizations.

The research took a survey of some of the ways the clients perceived that can improve the care they receive. These included; ensuring mothers spend less time during the clinics, after health education the mothers to do return demonstrations and mothers to be given feedback.

REFERENCES

- Alcalá, M. J. (2015). *UNFPA World Population 2015: Gender Equity, Reproductive Health, and the Millennium Development Goals: The Promise of Equality*. UNFPA.
- Cimadamore, A., Koehler, G., & Pogge, T. (Eds.). (2016). *A critical assessment of poverty and the Millennium Development Goals*. Inc. (Zed Books)
- Fawole, A. O., Okunlola, M. A., & Adekunle, A. O. (2018). The quality of prenatal treatment as perceived by the patients. *In the Journal of the American Medical Association*
- General, A. (2015). *The 2030 global development goals are reshaping our globe*. UN.
- Kaczor, J. W. (2011). Women's rights, reproductive health, and the Millennium Development Goals are all part of the State of World Population 2015: The Promise of Equality. *Recommendations for Environmental Change and Security Program*
- Kimani, F., Sharif, S. K., & Bashir, I. (2012). Medical Services Ministry and the Ministry of Public Health & Sanitation. 2012-2015.
- Kitui, J., Lewis, S., & Davey, G. (2013). Analysis of the Kenya demographic and health survey, 2008/2009, for factors impacting the location of birth for Kenyan women. *Pregnancy and childbirth*.
- Ministry of Public Health and Sanitation and Ministry of Medical Services GoK. (2011). National Guidelines for Quality Obstetrics and Perinatal Care.
- Oladapo, O. T., Iyaniwura, C. A., & Sule-Odu, A. O. (2017). In southwest Nigeria, the quality of prenatal care at the primary health care level. *Reproductive Health*.
- Rosenfield, A. (2017). The history of the Safe Motherhood Initiative.. *Gynaecology and obstetrics*.
- Tao, F., Huang, K., Long, X., Tolhurst, R., & Raven, J. (2017). Perceptions of key stakeholders about low postnatal care rates in two rural counties of Anhui Province, China.
- Titaley, C. R., Dibley, M. J., & Roberts, C. L. (2012). Risk factors for early newborn death include the kind of delivery attendant, birth location, and maternal age..
- United Nations. (2015). The 2030 global development goals are reshaping our globe. The 70th General Assembly.
- World Health Organization. (2018). No. *WHO/RHT/MSM/98.3. Organization for Disease Control and Prevention*.
- World Health Organization. (2018). The United Nations Population Fund and the World Bank. Maternal mortality rates from 1990 to 2010. WHO and UNICEF estimates.
- World Health Organization. (2015). Maternal and newborn health MDGs in Africa: a roadmap for achieving them faster. Health Organization of the World.