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Post-Natal Care –Health Seeking Behavior Among Women of Reproductive Age In Homa Bay Town

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ABSTRACT

Postnatal care (PNC) is vital for the life of both mother and child as it reduces both maternal and infant morbidities and mortalities. However, in Kenya, PNC utilization is low (48%) but the cause is not known. Post-natal care –health seeking behavior among women of reproductive age in Homa Bay town. A total of 377 mothers having children aged 6-8 weeks old participated in the study in which a community based cross sectional study using quantitative complemented by qualitative methods of data collection was employed. Quantitative data collection involved structured questionnaires administered to mothers proportionately and systematically randomly sampled. Qualitative data was collected through Key informant interview guide from 10 purposively selected health care providers and 11 lead community volunteers (CHVs). The SPSS version 17.0 and Chi square, Logistic regression and odds ratio were used for quantitative data analysis while thematic approach was used to analyse qualitative data to complement the findings. Majority, 80% understood PNC and utilized such services within 6-8 weeks. About 81% of mothers received information from skilled health workers. Majority, 80% of women received immunization and was significant ($\chi^2 = 12.635$, $p=0.027$) to Utilization of PNC. Close 64% of women attended PNC services between two and three times. 67% mothers mentioned haemorrhage as the likely risk after delivery. Main attitude-related reason for low utilization of PNC service was lack of awareness (50.5%) of PNC, experience, expectation and perception that was significant ($\chi^2 = 11.688$, $p=0.039$) to access to PNC services. Majority who accessed PNC services expected physical examination (49.1%) and immunization of their babies (44.5%) and said the quality was good. On health seeking behaviours, 84% delivered in a health facility and 10.8% delivered home and was significant ($\chi^2 = 11.354$, $p=0.003$) to utilization of PNC. 89% accessed some form of PNC service was significant ($\chi^2 = 21.515$, $p=0.000$). There was a gap between knowing and understanding PNC as majority of the respondents had knowledge of PNC but attended twice and late between 4 and 6 weeks for purposes of immunization and sickness (hemorrhage). The study also revealed that positive attitude regarding reception by health providers, quality of service, expectation, experience and perception of PNC services increased utilization of PNC services. However, Mothers mostly sought PNC services whenever there was need of immunization or sickness hence showed a gap between knowledge and PNC health seeking behaviour. There was need to address the gap between knowledge and understanding, knowledge and health seeking behavior that are linked to utilization of PNC by the respondents as informed by the health care providers that are key informants.

Keywords: Post-Natal Care, Health seeking Behaviour, Knowledge, attitude, cultural beliefs

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INTRODUCTION

Despite the increased scholarly and policy attention to maternal and child health, the reduction of maternal and child mortality in the developing countries, intervention strategists have not paid sufficient attention to the significance of Postnatal Care services (PNCs) as a critical determinant of both maternal and child health outcomes (Koblinsky *et al.*, 2008). In India a study found that utilization of PNC was low 5% (Deepak *et al.*, 2018). In Sub-Sahara Africa PNC was as low as 37.1% (Somefun and Ibisomi, 2016b), Kenya registered 47% PNC utilization rate and former Nyanza province registered PNC of 37 (Akunga *et al.*, 2014). Homa Bay County's PNC uptake is 48% and corresponding MMR of 43 per 100000. Kenyan reported cases of women of reproductive age, who die either on the way to a health facility or due to preventable postpartum complication (Kenya, 2016; M.O.H, 2016).

Statement of the Problem

Utilization of PNC service by mothers is the most neglected yet is critical in the reduction of maternal and child mortality. Lack of PNC may result in a number of complications which include maternal and neonatal infections, incomplete immunization for the baby, frequent and untimed pregnancies due to lack of family planning access, severe postpartum haemorrhage which claims 25% of maternal deaths and can lead to death within 2 hours in the absence of intervention. In addition the mother could develop undetected High blood pressure, anaemia and obstetric fistula which may result into maternal and neonatal deaths (Bernett and Brown, 1993). The PNC utilisation is neglected and remarkably low (47%) in Kenya (Muchemi and Gichogo, 2014). Whereas, the former Nyanza province reported a low (35%) utilization of PNC services (NCPD, 2013), with a corresponding maternal mortality ratio (MMR) of 362 deaths per 100,000 live births (KNBS *et al.*, 2015). Accordingly, in Homa Bay County, PNC utilization recorded was 48% with details of new-born checked by CHVs or TBAs (18.2%), mothers attended by TBAs at (47.6%) and those seen by skilled attendants rating as low as 38.8% (KNBS., 2013) and MMR being 1,300 to 2,000 deaths per 100,000 live births (UNFPA, 2014) and (International, 2003a).

MATERIALS AND METHOD

Study Area

The study area was Homa Bay Town Sub County of Homa-Bay County. In Homa Bay, the neonatal, infant and under-five mortality rates are 26, 51 and 130 deaths per 1000 live births respectively. The estimated child mortality rate is 57 deaths per 1000 children surviving to the first birthday in the same period (Statistics, 2013a).. Homa Bay county had the 2nd County with highest maternal mortality rate - 583 maternal deaths per 100,000 live births (NCPD, 2015)

It has 11 Sub locations namely: Kothidha (4200), Kanyach Kachar (4702), Kalanya Kanyango (7562), Kobwola Kogwang (3529), Kotieno(1141), Katuma (2400), South Kanyabala(1760), North Kanyabala (3537), Arujo (10337), Homa Bay town (3504) and Asego (4720). Homa Bay Town Sub County has a total of 47321 women of reproductive age (KNBS et al., 2010),

Target Population:

The study population comprised of all women of reproductive age that had children aged 6-8 weeks and resided in Homa Bay Town Sub- County.

Study Design:

Across-sectional descriptive study design describing the situation at a point in time.

Sampling Size Determination and procedure:

The desired sample size of Mothers who had delivered within 6 to 8 weeks in Homa Bay Town Sub County was determined by (Yamane, 1967). The calculation of the sample size is as shown in below:

$$n = \frac{N}{1 + N(e)^2}$$

Where: N = accessible population

n = desired sample size when n is lesser than 10,000.

e = degree of accuracy desired, usually set at 0.05

$n = (2421)/1 + (2421(0.0025)) = 2421/7.0525 = 343$

Calculating 10% of 343 for non-response = 34.3

The final sample size was $343+34.3 = 377$

The representative respondents in each sub location was then selected by systematic sampling technique, where the Kth subject was determined as follows (Mugenda and Mugenda, 1999). Sampling Interval (SI) was calculated as follows: $SI= N/n = K^{th}$. Systematic sampling was used to obtain the desired sample from the CHVs' delivery register by establishing the $k^{th} = 2421/377=6$. The 10 health professionals and 11 Lead CHVs were purposively sampled to provide complementing information as experts in both facility and community health matters respectively.

Data Collection Tools:

Semi structured questionnaires. And Key informant interview(KIIs).

Pre-testing data collection tools:

Study instruments were pretested in Rang we Sub County which borders Homa Bay Town sub County hence shares common characteristics with the study area. Pretesting was done to ensure reliability and validity of the study instruments.

Data Analysis:

SPSS for data management while Chi square test was used to test relationships between dependent (utilization of PNC) and independent (knowledge, attitude and health seeking behaviour), intervening (cultural belief, home delivery, religious belief, economic and demographic) variables at bivariate level whereas logistic regression was used to measure determinants of postnatal care services based on the proposed conceptual framework. All relationships were tested at 5% level of significance. Information obtained was presented by using Tables, Bar charts Pie charts and expressed as frequencies and percentages. Data from KIIs were organized and analysed by use of thematic approach manually. Key issues was presented to complement quantitative findings as applicable.

Ethical Considerations:

Ethical clearance to collect data was granted by Maseno University Ethical Review Committee reference number MSU/DRPI/MUERC/00316/16

RESULTS AND DISCUSSION

Socio Demographic and Economic Information

Of the 377 women interviewed, 258(68.4%) were aged between 20 and 29 years. About 167 (44.3%) of the women had attained primary level of education with about 199 (52.8%) having schooled beyond primary education (See table 1). About 286 (75.9%) of the women were married and close to 191 (50.7%) unemployed. 368 (97.6%) of the women were Christians (table 1). About 246 (65%) of the women had their spouses employed and about 38(10%) were unemployed (See table 1). About 196(52%) were comfortable being offered postnatal care services in vernacular, 83(22% preferred Swahili and 98(26%) preferred English. Majority 294(78%) felt that the health facility was a reasonable distance from their homes (<2.0 kms) while 83(22%) was far. See table 1.

In terms of pregnancy and child bearing history and experiences of the women interviewed, 54% of the 377 mothers had 1 or 2 pregnancies from the past and 34% either 3 or 4 deliveries. In about 58% of the past pregnancies, about 57% had resulted in 1 or 2 live births and 83% in total have no experienced any deaths of newborns as a result of pregnancy or delivery related complications See table 2. Of the 64 cases of death of the newborn or child, 66% occurred between 3 and 4 weeks, 23% between 1 and 2 weeks and 11% less than a week after birth.

Table 1: Socio Demographic and Economic Factors associated with PNC women

Characteristics:	Respondents n (%)
Age (in complete years):	
15-19	54 (14.3%)
20-24	150 (39.8%)
25-29	108 (28.6%)
30-34	54 (14.3%)

35+	11 (2.9%)
Highest Level of Education attained:	
None	11 (2.9%)
Primary	167 (44.3%)
Secondary	149 (39.5%)
University/Tertiary	47 (12.5%)
Others	3 (0.8%)
Marital status:	
Married	286 (75.9%)
Not Married	52 (13.8%)
Separated/Divorced	11 (2.9%)
Cohabiting	13 (3.4%)
Others	15 (4.0%)
Occupation of Mothers:	
Unemployed	146 (38.7%)
Employed	191 (50.7%)
Others	40 (10.6%)
Spouses Employment:	
Employed	246 (65%)
Unemployed	38 (10%)
Others(90 (25%)
Religion:	
Christian	368 (97.6%)
Islam	6 (1.6%)
Others	3 (0.8%)

Table 2: Past Pregnancy History of Post – natal care service clients

Description	Respondents n (%)
Number of past pregnancies:	
1-2	204 (54.1%)
3-4	127 (33.7%)
5+	46 (12.2%)
Number past live births:	
1-2	218 (57.8%)
3-4	126 (33.4%)
5+	33 (8.8%)
Total Children dead:	
0	313 (83.0%)
1-2	60 (15.9%)
3+	4 (1.1%)

Table 2: Relationship between understanding of PNC and utilization of PNC services

Understanding of what postnatal care is:	Access to PNC services:		X ² Statistic	df	P-value
	Yes % (n)	No % (n)			
Care of the baby only after delivery	48 (14.4%)	3 (6.8%)	85.404	3	p=0.00*
Care of both baby and mother after delivery	269 (80.8%)	23 (52.3%)			

Care of the mother only after delivery	13 (3.9%)	5 (11.4%)
Others	3 (0.9%)	29.5% (13)

Assessment of Knowledge on PNC Services

To establish each woman's knowledge of PNC, 333 (88%) had attended PNC and 44 (26%) had not attended PNC. The study established that about 292 (77.5%) of 377 women of reproductive age understood post-natal care as the care of both baby and mother after delivery, while nearly 51 (13.5%) of the women of reproductive age understood it to be care of the baby only after delivery, as shown in figure 1:

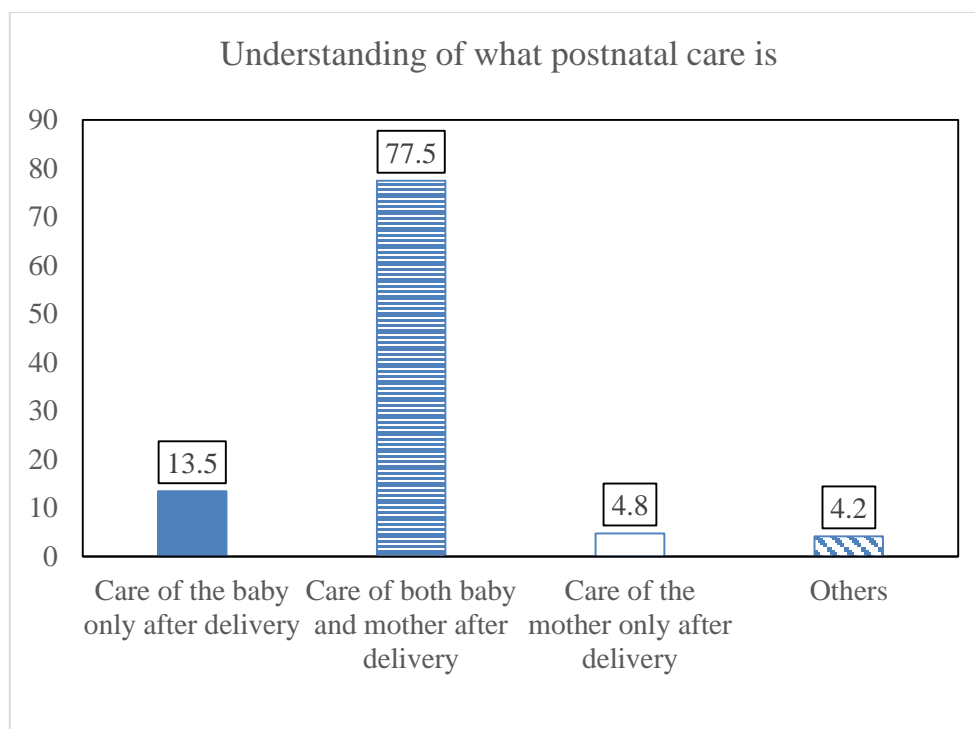


Figure 1: Understanding of PNC in Homa Sub County

A significant relationship between women's understanding of what postnatal care services entails and utilization of such services at $\chi^2 = 85.404$ $p=001$. Majority (80.8%, $n=269$) of the women who had understood PNC services as care for both the baby and the child after delivery had accessed the postnatal care services within the 6 weeks. Of those who had accessed the PNC services in the last 6 weeks preceding the study, 14.3% understood PNC services to be care of the baby only after delivery while only 3.9% understood it as care for the mother only as shown in Table 2

Of the 377 women interviewed, 57% received information of what post-natal care is from a nurse, 9% from clinical officers, 24% received the information from a doctor, slightly less than 9.8% received the information from other sources.

The interviewees were asked whether they had received any PNC service within the last 6 weeks after delivery to which 333(88%) answered in the affirmative and the remaining 44(12%) were either not sure or had not attended at all. Of the 333 who had attended PNC

clinic within the 6 weeks after delivery, 277(80%) of them had attended for purposes of immunization, 21(6.1%) for family planning, 15(4%) for information on feeding of the new born, 3(0.9%) and 30(8.7%) for routine clinical examination of the mother and the baby among other reasons

There was a significant relationship between reasons for attending clinic for post – natal care services and access to post – natal care services at $\chi^2 = 12.635$, $p = 0.027$.

In terms of the problems known to have the likelihood of occurrence to a mother within 6-8 weeks, a relationship was noted in comparison to access to postnatal care services within 6-8 weeks before the study at $\chi^2 (9, N=333) = 24.132$, $p = 0.004$. Majority of those who had accessed postnatal care services between 6 and 8 weeks before the study were aware of that hemorrhage was a problem that is likely to occur to a mother within the same period after delivery (67.9%, $n=226$). The same was noted for such problems as infection (13.5%, $n=45$) and perineum complication as table 3.

Binary logistic regression to establish the determinants specific to knowledge and utilization of PNC services in the study area was conducted at 5% level of significance. Regarding knowledge of problems likely to occur to women 6-8 weeks after delivery, it was established that knowledge of perineum complication was 0.07 (0.005 – 0.874) times less likely to occur compared to knowledge of hemorrhage among woman post - delivery. In the same case, maternal knowledge of micturition problems was established to be 0.02 times less likely in comparison to knowledge on hemorrhage among the women interviewed. None of the other variables namely: knowledge of the reasons for attending post – natal care clinic within six, knowledge of the reasons why a mother and her baby should attend PNC clinic within 6-8 weeks after delivery and knowledge regarding the understanding of what postnatal care is, had significant odds ratio to enable inference of association with access to post – natal care services as table 4

Table 3: Relationship between problems and utilization of PNC services

Problems likely to occur to a mother within 6-8 weeks after delivery:	Access to PNC services		χ^2	df	P-value
	Yes (n=333)	No (n=44)			
Haemorrhage	67.9% (226)	61.4% (27)	24.132	9	p=0.004*
Infection	13.5% (45)	13.6% (6)			
Perineum Complication	5.1% (17)	6.8% (3)			
Micturition problem	0.9% (3)	0.0% (0)			
Bowel Problem	0.0% (0)	2.3% (1)			
Breast Problem	4.2% (14)	0.0% (0)			
Backache	4.2% (14)	0.0% (0)			
Psychological Problem	0.0% (2)	0.0% (0)			
Postnatal Psychosis	0.9% (3)	4.5% (2)			
Baby related problem	2.7% (9)	11.4% (5)			

Table 4: Binary logistic regression of knowledge determinants of utilization of PNC services

Assessment of Knowledge on PNC services	Sig	Exp (B)	95% C.I. for EXP (B) Lower	Upper
<i>Problems likely to occur to a mother within 6-8 weeks after delivery:</i>				
Haemorrhage	-	-	-	-
Infection	0.40	0.38	.038	3.714
Perineum Complication	0.04	0.07	.005	.874
Micturition problem	0.02	0.02	.001	.585
<i>Reasons for attending PNC Clinic six weeks:</i>				
Breast Problem	0.75			
Backache	0.13	0.21	.027	1.622
Psychological Problem	0.26	0.28	.031	2.592
Postnatal Psychosis	1.00	100+	-	-
Baby related problem	1.00	100+	-	-
Immunization	1.00	100+	-	-
<i>Reasons why a mother and her baby should attend PNC clinic within 6-8 weeks after delivery:</i>				
Immunization	1.00			
Family Planning	0.38	0.47	.085	2.550
Feeding of the new-born	1.00	100+	-	-
General Hygiene	1.00	100+	-	-
Exclusive breastfeeding	1.00	100+	-	-
Routine clinical examination of mother and baby	1.00	100+	-	-
<i>Postnatal services received when Clinic visited after delivery:</i>				
Immunization	1.00			
Family Planning	0.38	0.47	.085	2.550
Feeding of the new-born	1.00	100+	-	-
General Hygiene	1.00	100+	-	-
Exclusive breastfeeding	1.00	100+	-	-
Routine clinical examination of mother and baby	1.00	100+	-	-
<i>Understanding of what postnatal care is:</i>				
Care of the baby only after delivery	1.00	100+	-	-
Care of both baby and mother after delivery	1.00	0.00	-	-
Care of the mother only after delivery	0.72	0.53	.016	17.412

Attitude of women of reproductive age towards PNC services

Nearly half of the respondents, 181(48%), did not attend scheduled PNC service visits because they live far away from the health facilities, 79(21%) not aware of any, 62(16.4%) attending to other family matters, cultural belief 31(8.2%), and 8 (2.1%) unnecessary

The 377 women interviewed were also asked if at all they had ever gone back to the health facility for check – up after delivery. About 279(74%) of the 377 women interviewed confirmed having gone back for check – up with the remaining proportion 98(26%) not having gone back for such services. The number of times the 279 women who had ever gone back for check – up were as follows; only 9.6% visited four times, 24.2% made three, about 42% visited

twice and There was a significant relationship between maternal knowledge of post-natal care services received when clinic visited after delivery and access to post - natal care services at χ^2 (6, N=279)=11.688, p=0.039. 137(49.1%).

The mothers were asked if they had anything to say about the quality of PNC services at the clinic where they delivered. About 278(74%) had something to say about the quality of such services, while the other 99(26%) of them not having anything to say about the quality of services offered to them. Among the 278 women who had something to say about the quality of the services offered where they had delivered, majority perceived the services as good (55%), 37% as very good, for just about 8% of these women, the services were poor

Health-seeking behaviours towards PNC services

In total 84% had delivered their last child in a health facility, about 12% had delivered at home, while 4% had delivered at the traditional birth attendant's home. Significant relationship was noted between place of delivery of last child and utilization of PNC services at $\chi^2 = 11.354$, p=0.003.

It was established that about 89% of respondents had visited health facility since delivery. Of the 335 who had ever visited a health facility since delivery, 20% had visited between 24 and 48 hours, 38% had visited between 1 and 2 weeks, 30% had visited between 3 and 4 weeks and 12% between 1 and 4 weeks. Significant relationship was noted between whether one has ever visited the health facility after delivery and utilization of PNC care services at $\chi^2 = 21.515$, p=0.000. Majority of those who had visited the health facility at any one point after delivery had also accessed post - natal care services 6 weeks after delivery (92%) compared to those who had not accessed such services within the same period (68.2%)..

Also sought from the women interviewed was whether in their communities, there existed places where one could get post - natal check-up services. It was established in this regard from 54% of the 377 women interviewed that indeed their existed such places in the community. For the other 46%, no such places existed. According to the 205 women who affirmed existence of such services in the community, 65% mentioned some of these places to include private clinics with slightly less than half that proportion (31%) mentioning TBAs and Community Health Worker's homes among other points such as traditional healers.

Some of the reasons advanced for visiting these other places for the chosen PNC check-up were: low cost (18%), being near (36%), being friendly (28%) and shorter waiting time (18%). *Both the CHVs and health personnel interviewed, said there existed other avenues like religious people, private clinics, TBAs and Herbalists visited by mothers.*

In terms of logistics to the health facility, the most common means of transport to the health facility for PNC mothers interviewed was either walking (45%) or public service vehicle/motor cycle (49%) though bicycle ride and private vehicles were options.

In summary, in monetary terms, 51% of those interviewed had used between 20 and 50 Kenya shillings to get to the facility while for the 37% and 7%, between 51 and 100 and over 100 Kenya shillings was spent respectively. *Some CHVs interviewed said some mothers live far from the facilities and that facilities should be built in central place to improve accessibility.*

While at the health facility, 95% of all the women interviewed had paid a fee for the post-natal services provided in the hospital. The other 5% had not paid for such services. For the 359 who had paid a fee, 53% had paid between Kshs. 50 and 100 Kshs., 40% had paid between 20 and 50 Kshs. Only 3% had paid more than 100 Kshs, while about 4% could not remember how much they paid. Test of significance revealed that there was a significant relationship between existence of cost to get to a hospital and access to post - natal care services at $\chi^2 = 6.780$, $p=0.034$.

The women interviewed were asked how easy or difficult it was to meet the cost of post-natal care services, especially those who were charged for such services. 156 women responded to this question. Among those who responded, 26% considered getting such money very difficult, 38% very difficult and 36% did not try looking for such money as table 5 shows.

Table 5: Binary logistic regression of the determinants of health seeking behaviour towards post-natal care services and utilization of PNC

Health Seeking Behavior of women of reproductive age towards PNC services:	Sig. (B)	Exp	95% C.I. for EXP(B)	
			Lower	Upper
<i>The person consulted before going for postnatal services for both mother and child:</i>				
No one	-	-	-	-
Husband	0.16	0.52	.213	1.286
Mother - in – law	0.06	0.29	.081	1.038
Others	0.00	0.26	.114	.598
<i>Place of delivery of last child:</i>				
Health Facility	-	-	-	-
At Home	0.15	0.47	.169	1.312
At the TBA/CHV	0.44	0.73	.336	1.606
<i>Existence of cost to get to hospital:</i>				
Yes	0.03			
Don't know	0.01	2.62	1.235	5.577
Nothing	0.50	0.66	.203	2.171
<i>Has ever visited the health facility since delivery:</i>				
Yes	-	-	-	-

The women interviewed were also asked whom they had consulted before going for post-natal services, for both the mother and the child. It was established that only 44(35%) did not consult someone. The other 333(65%) consulted someone, either their husbands, mothers in law or

other people. *KIIs revealed that men are involved in maternal and infants decision making but rarely accompany mothers to the PNC clinic.* There was a significant relationship between a person consulted before one goes for post – natal care services, for both the mother and the child and access to post - natal care services at $\chi^2 (3,333) = 15.183, p=0.002$.

The study sought to establish the knowledge and awareness on the existence of cultural factors that prevent attendance of clinic for post-natal services among the women interviewed. According to 312(83%) of the respondents no cultural factors existed that could prevent attendance of clinic for post-natal services. A significant number 65((17 %,) of respondents were convinced that such factors existed. Of those who felt that certain cultural factors prevented attendance of clinic for post – natal care services, 28(43.1%) mentioned religion, 20(30.8%) taboos while 17(26.1%) mentioned traditions that prevented attendance of clinic for post – natal

Binary logistic regression of the determinants of health seeking behaviour of women of reproductive age towards post-natal care services and access to the same services revealed other people other than self, husband and mother – in – law were 0.26 (0.114 – 0.598) times less likely to be consulted, before going for post-natal care services, for both the mother and child, compared to self. It was also established that women who didn't know whether or not there was a cost attached to getting to the hospital were 2.62 (1.235 – 5.577) times more likely to utilize PNC services compare to those who were aware of existence of such costs. Finally, those who have never visited a health facility since delivery were 2.51 (0.641 – 9.835) times more likely to access the postnatal care services compared to those who have ever visited the health facility since delivery as table 5.

DISCUSSION

Knowledge and Awareness of PNC Services

On knowledge, the finding showed that there was a gap between knowledge and understanding of PNC indicated by what they received. For it would have been expected that the women would either demand or question what they knew should have been provided. Again the women when asked for what they went for should have spelt out the examination of both mother and child which was not the case. The findings concurs with several past studies for instance a study in on knowledge Ethiopia (84.39 %) (Tesfahun *et al.*, 2014c), Uganda (70%) (Nankwanga, 2004) and 78.7% and Kenya (Njoka, 2015) that showed adequate awareness on PNC but poor or negligible seeking of PNC services. However, hospital based research in Nyeri, Kenya, differed as the knowledge on PNC was only 42.5% (Muiruri, 2011). On the other hand this study differed with Muiruri's in that this was a community-based study that directly assessed mothers' knowledge on PNC. This study finds that knowledge of PNC services was

significantly associated to utilization that was supported by the significance of a study in Kiambu, Kenya (Njoka, 2015).

Attitude towards PNC Services

The results implied that respondents were likely to go back for PNC when they felt service given met their need and considered more important than a prevailing situation. The result showed that to increase utilization of PNC, positive attitude should be felt. Overall perception of quality of the services offered was good. In fact, majority of the women who accessed PNC services considered their expectation met and increased their chances of honouring appointment if given.

The above is consistent with a study elsewhere that found 8 out of 10 women's positive attitude increased access towards PNC (Lwelamira *et al.*, 2015b), (Mannava *et al.*, 2015a), (Rabecca, 2012) and (Tesfahun *et al.*, 2014b), a finding which concurs with findings of Tesfahun and colleagues (Tesfahun *et al.*, 2014d) and (Limenih *et al.*, 2016) that when one is served well, they develop positive attitude on PNC follow-up.

Health-seeking behaviours towards PNC services

The results implied that respondents could only be exposed to PNC either when they required immunization or illness and this accounted for the lateness and the number of times most mothers sought PNC. This demonstrates that there is a gap between knowledge and PNC seeking behaviour. An incongruence between knowledge and PNC seeking behaviour was a critical determinant of maternal and child outcomes. This was consistent with the findings of (Kifle *et al.*, 2017) and (Haque *et al.*, 2016a) that showed that the utilization of PNC was skewed toward curative and immunization that but a part of PNC. Accordingly, the results in this study showed immunization aspect of PNC mainly targeted at children, and not both the mother and the child as it should be. This accounts for reasons why PNC was not attended whenever the two are not the issue. This result also reveals immunization and illness could be targeted to improve PNC utilization. The result is even much lower than a study done in Kiambaa, Sub County in Kiambu county where utilization of PNC services was 45.1% with the health care workers informing only 15% of the women to go for PNC services (Njoka, 2015). The same was manifested in Nepal where NDHS also showed that PNC uptake was only 43.2 % (Khanal *et al.*, 2014).

Although Home deliveries, was a small percentage could not be ignored as the place of delivery of last child was found significant in the study area. Since those who delivered at home were not able to seek PNC unless for immunization or were ill. Furthermore, visiting a health facility significantly increased chances utilization of PNC services. This findings was supported by a

study that found being born at home reduced the odds of having PNC (Bupe *et al.*, 2017), compared to mothers who delivered in a health care facility (Somefun and Ibisomi, 2016a). On the other hand, the study found out that some respondents quoted distance having prevented them from going back for PNC distance and cost were also determined utilization of PNC services. This meant that where the distant to facility was far and there was no money then respondents were bound to miss going for PNC. It also came out that those who didn't know the costs of these services were likely to attend, and when there was no cost, majority attended public health facilities for such services. No cost implied little effort required to utilize PNC and encourages the mother to go to the facility and utilize PNC. It also meant that they can find the sevice required and enhances availability of the PNC. The findings implied that availability, reliability, and affordability of means of transport determine the choice of mode of transport and type of health facility to go to. This was consistent with another study finding (Ugboaja *et al.*, 2013). The study found out that husbands supported the respondents where cost existed since they were unemployed. Where there was no cost respondents were likely to utilize PNC depending on their own decision. But where transport was required, respondents had to ask for support for them to find appropriate means to the facility. This suggested that economic factors as opposed to culture are a key determinant of PNC seeking behavior in the study area. This concurred with the findings of studies carried out in both Migori and Homa-Bay Counties(International, 2003b) and Narok and Isiolo (Agola, 2012).

CONCLUSION

There was a gap between knowing and understanding PNC as majority of the respondents had knowledge of PNC but attended twice and late between 4 and 6 weeks for purposes of immunization and sickness (hemorrhage). Majority of the respondents did not attend to scheduled PNC service visits because of lack of knowledge PNC services and competing tasks and chores. However, a significant number of the respondents did go because they were either still weak or sick at the time. Majority expected child to be immunized and treated. Overall perception of quality of the services offered was good. The study revealed a gap between knowledge and health seeking behavior most respondent sought PNC twice and late. Majority of respondents sought immunization, curative and delivery in a health facility. However, a significant number still delivered either at home or at the TBA's home the services in those areas were friendly in terms of cost, distance and reception.

RECOMMENDATIONS

1. There was need to address the gap between knowledge and understanding, knowledge and health seeking behavior that are linked to utilization of PNC by the respondents as informed by the health care providers that are key informants..

2. The policy implementers should find a method of linking other components to the most sought preventive component like immunization to increase access to PNC.
3. Since cost was found to influence health seeking behavior of PNC, the County government should reassess the effectiveness of the free maternity policy, waiver implementation in provision of PNC services in Homa Bay Town Sub –County.

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