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SOCIO- CULTURAL FACTORS INFLUENCING UTILIZATION OF PREVENTION-OF-MOTHER-TO-CHILD-TRANSMISSION OF HIV STRATEGIES AMONG WOMEN ATTENDING ANTENATAL CARE CLINICS IN RACHUONYO NORTH SUB- COUNTY-HOMA-BAY COUNTY, KENYA
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ABSTRACT

Objective: **To assess the sociocultural characteristics influencing HIV positive women attending antenatal care clinics in North Rachuonyo Sub- County**
Design: **Health facility cross sectional study**
Setting: **20 antenatal care clinics in North Rachuonyo Sub-County**
Subjects: **Three hundred and eighty-five HIV infected pregnant women as participants.**
Results: **The mean age of the women interviewed was 25.7 years (range =31) and 67% were married. Majority 60% (95% CI:55.0 -64.8) did not seek permission to know or undertake HIV testing, this contributed to nondisclosures of the HIV status where 13.6% (95% CI:9.0 - 20.1) were in single parenthood and non- committal relationships and perceived fear of stigma and discrimination by partner 25% (95%CI:29.7 – 45.0). Barriers impeding women participation on MTCT awareness programs included cultural practices such as wife inheritance (26.8%), lack of support from partners in attending PMTCT services (25%), fear of losing property inheritance once HIV status is known by the family (22.3%) and cultural sexual ritual and beliefs by unknown partners 17.1%. Public discrimination and stigmatization 52%, protracted high cost of drugs 18% and 7% of health care attitude contributes to underutilization of PMTCT services. There are significant association between age, marital status and occupation with utilization of PMTCT services unlike to women with formal education.**
Conclusion: **The study showed sociocultural impediments with little potential impact to influence, improve and promote PMTCT services. Therefore, there is need to further intervention and educating women by demystifying sociocultural factors associated with HIV/AIDS spread by engaging various players, stakeholders and other community resource persons to increase utilization with a goal towards free HIV generation.**

INTRODUCTION

Mother- to- child transmission (MTCT) of Human immunodeficiency virus (HIV) infection is the transmission of the virus from a HIV – infected mother to her child during pregnancy, labor, delivery or breast feeding [1,2]. More than 90% of children with HIV are infected through

MTCT of which nearly 90% of these infections occur in sub Saharan Africa. Approximately half of these children die within two years if no appropriate treatment is taken [3].

The risk of a HIV infected mother passing the virus to her infant is 5-8% during pregnancy, 10-20% during labor and delivery while 10-15% can be infected during breast feeding. Without any prevention of mother to child transmission {PMTCT} intervention 20-40% of infant would be infected with the virus [3, 4]. Prevention of mother to child transmission of HIV provides an opportunity from preventing new paediatric HIV infections and the risk can be reduced to less than 2% [4].

Effective PMTCT services require women and their infants to receive a cascade of interventions including uptake of antenatal care (ANC) services, HIV testing during pregnancy, use of anti-retroviral therapy (ART) by pregnant women living with HIV, safe child birth practices, appropriate infant feeding, uptake of infant HIV testing and other post-natal health services [5]. These strategies promotes comprehensive prevention of new HIV infections among women of child bearing age, prevent unintended pregnancies among women living with HIV, prevent HIV transmission from a woman living with HIV to her baby and provides appropriate treatment, care and support to mother living with HIV, their children and families [5, 6].

The male parent's involvement in PMTCT has been found to reduce the vertical transmission of HIV from pregnant women to their infants [6].Breast feeding has been shown to be the best way to feed the infants as breast milk provides all nutrients needed during the first few months of life and also contains agents that help to protect against childhood diseases. For HIV infected mothers, breast milk contains HIV but it is worth noting that HIV neutralizing antibodies and Tenascin – C (TNC) protein in breast milk are known to inhibit HIV. This explains why mother to child transmission of HIV does not occur more often as predicted [7].

Where antiretroviral drugs are provided to pregnant and breast feeding women living with HIV, exclusive breast feeding is recommended for the first 6 months of life [7, 8, 9]. New infections and high viral loads during pregnancy pose the greatest risk of transmission of HIV from mother to the unborn baby, thus primary prevention, ARVs prophylaxis as well as treatment is highly recommended. According to KDHS 2 (2014), HIV prevalence rate in Kenya among women of reproductive age is 6.9% while that for North Rachuonyo sub-county it is 22.2%.

In this sub-county, there are 30 health facilities providing ANC services reaching 88% through HIV testing, 69% receiving maternal ARV prophylaxis and 58% infants receiving infant's prophylaxis (DHS2, 2014). Despite these efforts, 12.5% of infants still acquire HIV through exposure during pregnancy, delivery and breast feeding (KDHS2, 2014).

Under-utilization of PMTCT services is thought to play a critical role in high prevalence of HIV in the sub-county. Better knowledge of, good attitude towards and practicing PMTCT is highly effective intervention and has an enormous potential to improve both maternal and child health. The current study investigated existing barriers towards elimination of mother to child transmission of HIV in North Rachuonyo sub-County. Further, the study investigated the knowledge, attitude, practice and factors affecting PMTCT services among HIV infected pregnant women and mothers of highly exposed infants.

MATERIALS AND METHODS

Study area: The study was conducted in health facilities providing ANC services in Rachuonyo North Sub-County, Homa Bay County. The Sub-County has an area of approximately 438 square kilometers, with two divisions (West and East Karachuonyo) each of which borders Lake Victoria. Rachuonyo North Sub-County has a human population of 185,135 people, with women of reproductive estimated to be 23,614 (KDHS, 2014).

The Sub-County is one of the highly burdened regions with HIV prevalence (22.1% adult HIV

prevalence and 18.7% women of reproductive age HIV prevalence) and approximately 38,000 people living with HIV.The economy of North Rachuonyo is dominated by fishing, small scale farming and small scale business.

STUDY DESIGN AND POPULATION

Facility based descriptive cross-sectional study was conducted in 20 randomly selected ANC clinics in North Rachuonyo, Homa Bay County, Kenya. The study participants were drawn from HIV infected pregnant women and mothers of highly exposed infants. PMTCT providers in the sampled health facilities were used as key informants. Sampling size determination and strategy. The sample size was calculated using the formula described by Mugenda and Mugenda, (2003).

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

n- Represents the sample size (if the target population is more than 10,000).

z- Represents the standard normal deviation at the required confidence level, in this cases its 1.96.

p- Represents the proportion in the target population estimated to have characteristics being measured and when there is no reasonable estimate 50% is used.

q- Represents (1-p) which is equal to 1-0.5=0.5.

d- Represents the degree of accuracy/ level of statistical significance set which is 0.05. 5% sample error

Therefore;

$$n = \frac{(1.96)2 \times 0.5 \times 0.5}{(0.05)2}$$

$$= 385$$

The sample frame of respondents was drawn from 3,575 estimated numbers of pregnancies in the sub-county (KDHS, 2014).From 20 health care facilities offering PMTCT services each facility was allocated 19 respondents. ANC and HEI follow up registers were used by simple random sampling to select 385 eligible pregnant infected mothers/ mothers of HEI attending the clinics.

SAMPLING PROCEDURE

The inclusion criteria to participate in the study included pregnant women who were HIV infected and were on follow up, either tested or known positive, HEI mothers willing to participate in the study and were on follow up, health care staff who must have been in the department/ section for at least 6 months as key informants.Those who were excluded in the study were women who were not pregnant but HIV infected, Staff who had not been in the department for 6 months and above and not in administration level.

TABLE 1

Prevention of mother to child Transmission sites sampled and number of participants per level of health facility

Health Facility Category	Total Number in Sub county	Number of clinics who Participated	Number of health care providers	Number of clients who participated	Percentage (100%)
Sub County Hospital Level 4	2	1	2	19	5
Health center's: Level 3	7	5	10	95	25
Dispensaries Level 2	15	10	20	195	50
Faith Based Facilities	6	4	8	76	20
TOTAL	30	20	40	385	100%

DATA COLLECTION

The data were collected using interviewer administered pre-tested questionnaires. The questionnaires were prepared to address utilization of PMTCT of HIV as a practice, knowledge and attitude of PMTCT services among women attending antenatal care clinics. The key areas which were investigated in the questionnaire included: cultural issues influencing attendance to ANC clinic, socioeconomic and demographic factors/ issues that influences PMTCT uptake, feeding practices adopted with women infected with HIV attending ANC clinic, reasons for non - utilization of PMTCT services after diagnosed with HIV in ANC clinic [17].

The questionnaires were administered to 384 pregnant women HIV infected and mothers of highly exposed infants who fulfilled the inclusion criteria while they were attending ANC clinic. The women were interviewed by mentor mothers who were trained as data collectors/ research assistants.

DATA ANALYSIS

Data was entered into MS Excel® (Microsoft, USA) and then exported to SPSS version 17® (IBM- Chicago model) for analysis. Descriptive statistics were used to analyze data which involved presenting results in form of text and tables. Correlations between dependable variables were assessed using Pearson regression correlation where P –values less than 0.05 were considered to be statistically significant in all cases. Ethical Consideration Approval and clearance was sought from institutional Ethics Review Committee of Moi University Teaching and Referral Hospital. Further, the North Rachuonyo sub county health management team authorized the study to be undertaken.

Informed consent of patients was obtained before participating in the study. Standard care was given to participants regardless of whether they consented or declined to participate in the study and subjects were not exposed to any risk by participating or declining to participate in the study. The records were coded to eliminate names and other personal identification of respondents throughout the study process to ensure anonymity. No incentives were given to the study subjects.

RESULTS

Socio- demographic and socio – cultural economic characteristics of pregnant women infected with HIV

A total of 385 women (100%) responded to the questionnaires and this was achieved through close follow up of all questionnaires distributed and attached to each research assistant. Majority 43.6% (95% CI: 38.7 – 48.7) of women were within the age group 15 – 24 years with a mean age of the women being 25.7 +/- 5.23 years (sd = 5.23), range of 31 years. Majority (67.3%) were married and 64.7% were house wives, 54.6% had attained basic level of education as they had completed primary level of education while 19% were in formal employment.

Table 2

Socio-demographic of HIV positive women attending antenatal care clinics in North Rachuonyo

Variables Age:	Frequency (n = 385)	Proportion (%)	95% CI
Below 15 years	8	2.1	0.8 - 3.4
15-24 years	168	43.6	38.7 - 4.85
25-34 years	149	38.7	33.8 - 43.6
35-44	38	9.9	7.0 -12.8
45 years and above	4	1.0	0.7 – 1.3
No response	18	4.7	2.6 – 6.8
Marital status			
Married	259	67.3	62.6 -72.0
Single	119	30.9	26.2 -35.6
No response	7	1.8	0.5 – 3.1
Education			
None	24	6.2	3.9 – 8.5
Completed primary school	210	54.5	49.6 - 59.4
Completed secondary school	96	24.9	20.6 - 29.2
Tertiary college	47	12.2	8.9 - 15.5
No response	8	2.1	1.6 -2.5
Occupation			
Housewife	249	64.7	60.0 – 69.4
Employed	73	19.0	15.3 – 22.7
Business	51	13.2	9.9 -16.5
No response	12	3.1	2.6 -3.5

Women seeking permission for HIV test from spouse / partner and disclosure

Majority, 60% (CI: 55.0 – 64.8) of the respondents did not seek permission from their partners to undertake HIV counseling and testing, while 30% (95% CI: 25.7 – 34.9) sought the permission from the spouses whereas 9.9% (95% CI: 7.3 – 13.3) had no knowledge at all on what was expected of them before and after HIV testing. Most of the tests (50%) and (25%) were done in dispensaries and health centers respectively. Once tested, 50.4% (CI: 45.4 – 55.4) of the respondents had disclosed the HIV status to their spouses/partners while 40% (CI: 35.2 – 45.0) had not. Only 9.6% had no clue to what a disclosure meant.

Table 3

Percentage of women who sought permission from their spouse/partner to do HIV counseling and testing and disclosed to them after testing in PMTCT clinics in North Rachuonyo County, Kenya

Sought permission	Frequency (n=385)	Proportion (%)	95% CI
Yes	116	30.1	25.7 - 34.9
No	231	60.0	55.0 - 64.8
No response	38	9.9	7.3 - 13.3
Disclosure of status to partner/ spouse			
Yes	194	50.4	45.4 - 55.4
No	154	40.0	35.2 - 45.0
No response	37	9.6	7.0 – 13.0

The reasons for non-disclosure were due to perceived fear of stigma and discrimination, 37% (95% CI: 29.7 – 45.0), fear abandonment/ divorced 14.3% (95% CI: 9.6 – 20.8), afraid of physical abuse from spouse/ partner 35.1% (95% CI: 27.9 – 43.0). Others reasons expressed included single parenthood/ non-committal relationship, 13.6% (95% CI: 9.0 – 20.1%).

Table 4

Variable Reasons	Frequency (n = 154)	Proportion (%)	95% CI
Single parent/non-committal relationship	21	13.6	9.0 – 20.1
Afraid of being abandoned/divorced by husband and family	22	14.3	9.6 – 20.8
Afraid of physical abuse/ Violence by husband	54	35.1	27.9 - 43.0
Fear of stigma and discrimination by partner	57	37	29.7 –45.0

Reasons for non-disclosure of HIV result to partner in women from North Rachuonyo County, Kenya

Association between socio-demographic characteristics and PMTCT of HIV among women attending antenatal care clinics in Rachuonyo North Sub–County

The study assessed the association between socio-demographic characteristics and utilization of PMTCT services amongst HIV positive women attending antenatal care clinics in North Rachuonyo Sub-County. There was a significant association between utilization of PMTCT services and women within age limit of 25 -34 years and 35 – 44years (AOR = 0.6, 95% CI: (0.43 – 0.89) and (AOR= 2.54, 95% CI: (1.15 - 5.68) with P- value (<0.001), marital status (AOR = 2.08, 95% CI: 1.33 – 3.42) and P- value (<0.021) and in education there was more significant association to utilization of PMTCT services with those who had secondary and tertiary level of education with a P - value (<0.001) (AOR=2.32, 95% CI: 1.39 – 3.51) and (AOR = 4.38, 95% CI: (1.92 -6.71).

However, the study revealed there was no significant association between utilization of PMTCT services and occupation, (AOR 5.64, 95% CI (3.88 – 8.95) and AOR= 6.07, 95% CI: (7.10 – 11.78) with an overall P - value (0.232).

Table 5

Association between socio-demographic characteristics and knowledge on MTCT of HIV

Variable	ANC for PMTCT (Yes=1, No=0)		COR (95% CI)	AOR(95% CI)	P = Value
	Yes	No			
Age					
<15	6	2	1.00	1.00	___
15-24	120	47	0.51(0.31- 0.85)	0.6 (0.43-0.89)	0.034
25-34	89	60	0.48 (0.29-0.79)	0.59(0.33-0. 69)	<0.001
35-44	30	8	2.54(1.15- 5.68)	1.10 (0.38- 3.10)	<0.001
≥ 45	4	0	7.620(4.47-8.36)	5.64(1.82-6.68)	<0.780
					0.041
Marital status					
Single	80	39	1.00	1.00	___
Married	201	57	2.88 (2.05-3.95)	2.08(1.33- 3.42)	0.021
No response	7	0	5.69 (4.98,8.78)	4.49(2.82- 6.78)	0.234
					0.033
Education level					
None	24	0	1.00	1.00	0.020
Primary school	180	30	1.65 (0.036-0.88)	2.54 (1.28- 4.20)	0.540
Secondary school	70	26	2.55 (1.88-3.50)	2.32 (1.39 -3.51)	<0.001
Tertiary/ College	40	6	5.58 (3.46- 7.88)	4.38 (1.92 - 6.71)	<0.001
No response	8	0	5.21 (3.58- 8,91)	3.49 (1.82 - 6.68)	0.320
					0.020

Occupation					
Housewife	200	49	1.00	1.00	___
Employed	70	3	5.75 (3.64-9.02)	5.64(3.88 - 8.95)	0.502
Business	40	10	7.10(7.70-11.78)	6.07 (7.13 - 9.81)	0.101
					0.232

***Association is significant at the 0.05 level and below*
AOR (95% CI) = 1.00, COR (95% CI) =1.00, ANC, PMTCT

Association between HIV infected mothers and feeding therapies initiated in antenatal care clinics

The study also assessed correlation between HIV infected mothers and feeding options they adopt to their highly exposed infants on follow ups.

The bivariate and multivariate analysis revealed that exclusive breast feeding increased the odds of attending ANC for PMTCT even though there was no significant association between exclusive breast feeding and practice of ANC for PMTCT, (AOR=2.78, 95% CI: 2.06-7.68) and p>0.05. There was significant association between mixed feeding and attendance of ANC for PMTCT, (AOR=2.42, 95% CI: 2.06-25.45) p value< 0.021. Mixed feeding increased the likelihood of attending ANC for PMTCT by almost 3 times

Cultural Issues associated with ANC Clinic Attendance for PMTCT mothers.

Among the respondents, 26.8% (95% CI: 22.6 - 31.4) stated that cultural practices such as women inheritance impeded women participation on HIV/AIDS awareness programs, 24.7% (95% CI: 20.6 – 29.2) of respondents indicated that stigma and discrimination as a barrier to PMTCT services, 17.1% (95% CI:13.7 – 21.3) of respondents women believed on sexual rituals to cleanse the homestead after spouse passes on by unknown partners "jackowiny" inform of protecting the family from misfortunes, while 9.1% (95% CI: 6.6 – 12.4) were categorical that use of herbal medicine is a remedy to all problems an expectant mother may diagnoses with at the ANC Clinic.

Table 6.

Cultural issues that influence HIV positive women attending antenatal care clinics in North Rachuonyo

Response	Frequency (n= 385)	Proportion (%)	95% CI
Women inheritance impedes participation in HIV/ AIDS awareness programs.	103	26.8	22.6 -31.4
Men stigmatizing and discriminating HIV positive spouses.	95	24.7	20.6 - 29.2
Community perception/ intimidation against HIV positive women on property inheritance	86	22.3	18.4 – 26.8
Widows carefree sexual rituals – to protect the family- having sex with unknown partners "jakowiny".	66	17.1	13.7 - 21.3
Use of herbal medicine "manyasi" from TBAs as a remedy to antenatal clinic.	35	9.1	(6.6 - 12.4)

Infant Feeding options, proportions and reasons for adoption of the choice of feeding

The respondents indicated that 30.4% (95% CI: 26.0 - 35.2) of the respondents practiced exclusive breastfeeding below six months of babies age while 24.4%, (95% CI: 26.0 - 35.2) exclusively breast fed the babies for periods above six months. Minority, 6% (95% CI: 4.0 - 8.8) of the respondent practiced exclusive formula feeding as an option for infants feeding above six months of age the main feeding options for highly exposed infants as exclusive breast feeding for infants either less than 6 months 30.4% (95% CI: 26.0 – 35.2) or more than 6 months 24.4% (20.4 – 29.0). The reasons given by respondents regarding infant feeding options are that exclusive breast feeding is good for baby's health by 28.6% (95% CI: 24.3 - 33.3), however, it was less costly and readily available compared to the commercial milk formula with approximately 24.9% (95% CI: 20.8 - 29.5).

Table 7

Infant feeding option adopted and reasons given by women attending clinics in North Rachuonyo

Variable		Frequency (%)	Proportion (%)	95% CI
Exclusive breastfeeding	<6 months	94	24.4	20.4 - 29.0
	>6 months	117	30.4	26.0 - 35.2
Exclusive formula feeding	<6 months	38	9.9	7.3- 13.3
	>6 months	23	6.0	4.0 - 8.8
Mixed feeding	> 6 months	60	15.6	12.3- 19.6
	> 6 months	53	13.8	10.7-17.6
Reasons for breast feeding				
Exclusive breastfeeding is healthy to baby		110	28.6	24.3 - 33.3
Less costly and easily available associated with use of baby formula		96	24.9	20.8 - 29.5
Breastfeeding promotes maternal confidence of a mother		80	20.8	17.0 - 25.1
Breastfeeding has sense of achievement and satisfaction for mother and child		68	17.7	14.2 - 21.8
No response		31	8.1	5.7 -11.2

HIV test done for HEI who were on follow up in North Rachuonyo ANC Clinics

From the record of the 385 respondents of HEI who went through PMTCT services, HEI tested at < 6 months were 108 (28.1%). Cases that were not followed up were 42 (10.9%). The HIV positive rate among the tested was 5%. There was 100% linkage to patient support center for those who tested positive. At 12 months 75 (96%) respondents were tested using ELISA-Antibody test and the HIV positivity rate was 4%. All positive infants were transferred to PSC for care.

Table 8
Reasons for lack of utilization of PMTCT Services by women from North Rachuonyo

Opinions	Frequency (%)	Proportion (%)	95% CI
Fear of public discrimination and stigmatization	199	51.7	(46.7- 56.7)
Protracted and high cost of drugs	70	18.2	(14.6 - 22.4)
Perception/ family destabilization	51	13.2	(10.2, 17.0)
Religious beliefs	39	10.1	(7.5 – 13.6)
Poor health care workers attitude	26	6.8	(4.6 -9.7)

The reasons given by the respondents for lack of utilization of PMTCT services, majority 51.7% (95% CI: 46.7- 56.7) sited fear of the discrimination and stigmatization by relatives, whereas 18.2% (95% CI: 14.6 - 22.4) of the respondents felt that protracted cost of services and drugs result into lack of service utilization. However, some respondents, 13.2% (95% CI: 10.2 - 17.0) felt fear of perceptions and 6.8% (95% CI: 4.6 -9.7) health care worker's attitude respectively contributes to lack of PMTCT utilization in the facilities.

DISCUSSION

For the achievement of Sustainable Development Goals (MDGs), creating awareness and enhancing PMTCT practice has important role particularly in the reduction of childhood and maternal morbidity and mortality which in turn has enormous impact on socio-economic development of a given country [8]. The current study investigated the existing barriers towards elimination of mother to child transmission of HIV in North Rachuonyo sub-County. The results of the study showed that majority of the antenatal attendees were within the age group of 15-34 years. At national level, the highest HIV prevalence was reported on this age group showing that HIV control strategies should be focused on this age cohort [9]. The present study showed that HIV testing was a personal decision for majority of pregnant mothers who could undertake it without seeking permission from their spouse/partners. This is considered as a cultural change because traditionally in Africa, women once married were required to seek permission from their spouses in seeking health services [10,11,12] Other studies in Ethiopia reported that 64.9% to 66.8% of married women were not seeking permission in determining their HIV status [11,12]. In urban Uganda, 80% of mothers had disclosed their HIV status to their partners.

All pregnant women are encouraged to know their HIV infection status, as well as that of their sexual partners [12]. Only by knowing one's HIV status can the health workers make appropriate health care management recommendations and the couple make appropriate decisions about maintaining their health and that of their unborn baby. Pre-conception care is encouraged where an opportunity arises and a birth plan is discussed with the pregnant woman [13].

The findings of the present study showed that the fear of physical abuse, stigma and rejection, separation and not committed in a relationship necessitated the respondents' not to disclose their status to their spouses. These findings were similar with the study in Uganda where disclosure was more difficult in HIV-positive women owing to the threat it posed to family stability [14]. In this study, some few women accepted to go for HIV counseling and testing as a couple but shifted the burden of disclosure from them to health workers. This was similar with findings on disclosure in a study done on sexual partners in Ethiopia, [14, 15].

The current study observed that male participation in PMTCT services was low and this is similar to a study in Uganda which showed that male participation in the PMTCT activities was low (16%) [15]. Decisions about whether to disclose HIV-positive status are often hindered with profound fear that disclosure would damage the social relations between women and their partners. This fear would manifest in the form of: women being abandoned, beaten, or being accused of bringing HIV infection into the family [16]. Disclosure to and involvement of a male partner in HIV testing has been associated with higher adherence to PMTCT interventions and improved infant outcomes [17].

The study findings revealed that majority of HEI who were on follow up and had actually benefited from the PMTCT services and the results indicated that with proper management HIV among children can be reduced significantly below 2% [17]. This was accordance with a study done in Malawi which showed that proper follow up and linkage is a factor in HIV reduction among children [18] In the present study a number of factors were found to be associated with non-utilization of PMTCT program. These included discrimination and stigmatization by the public, protracted high cost of services and drugs, ignorance on person's status on HIV, denial, having weak perception in PMTCT as a service among mothers attending antenatal clinics and health care workers attitude in providing PMTCT services.

This was similar with findings on towards universal access, scaling up in the health sector report, Kenya [18, 19]. The above findings are similar to those done in in Nigeria which showed that elimination of mother to child transmission of HIV can be done through addressing the socio-economic, cultural and health factors that compel HIV positive pregnant women to stay away from health facilities when they are due to give birth [20].

The current study findings revealed that infants aged twelve months and below were highly exposed to HIV. Early infant diagnosis of HIV provides critical opportunity to strengthen follow up of HIV exposed children, early identification of HIV exposed and infected infants, early linkage to prevention for the exposed and care and treatment, provide reassuring information to families of uninfected children and aid an evaluation of PMTCT interventions [21]. Indeed, a study undertaken in Malawi showed that early exclusive breast feeding reduces the risk of post natal HIV transmission and increases HIV free survival [21].The findings of the present study showed that most respondents preferred exclusive breastfeeding and most mothers viewed processed baby food as expensive. Breast feeding is the best way to feed the infants as breast milk provides all nutrients needed during the first few months of life and also contains agents that help to protect against childhood diseases [21, 22].

If the infant is breast feeding, there is increased risk of acquiring HIV throughout the entire breastfeeding period [23]. However, it is recommended that if the infant is diagnosed at 6-12 months, a confirmatory test must be done after 18 months of age and infant should have stopped breast feeding for more than 6 weeks [21].

CONCLUSION

PMTCT services in North Rachuonyo County in Kenya has the potential of in improvement as more than 60% of women understands the importance of the service and a substantial proportion did not need permission to know their status and disclosure was also done by half of the

women respondents. Further, more than half of women understood the importance of infant feeding options once diagnosed with HIV. Participation in PMTCT services should be encouraged as they can help in decreasing new pediatric HIV infections with a move towards elimination of mother to child transmission of HIV.

Women's empowerment through education, improving ANC follow up status and male involvement were significantly associated with PMTCT utilization knowledge, attitude and uptake of the services. Fear of stigma, discrimination, high cost of health services and socio – cultural practices were noted to discourage women from utilizing PMTCT services efficiently and more so effectively. Therefore, community mobilization through community conversation to demystify the perceived impact is more likely to have a potential to influence, improve and promote PMTCT services with a goal towards free HIV generation.

COMPETING INTERESTS

The authors declare that they have no any competing interests.

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