

Behavioral Factors Associated with HIV Transmission among Women attending a Postnatal Clinic at a Rural County in Kenya

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Abstract

Introduction: Although most pregnant women in sub-Saharan Africa are HIV negative, they remain at risk for HIV infection in the breastfeeding period. Several reasons are attributed to the woman's or her partner's sexual behavior and the woman's immediate sexual resumption after birth before complete healing. Emphasis is put on maintaining the HIV negative status of those women not infected in an effort to eradicate HIV infection. The purpose of this study was to describe the Behavioral Factors Associated with HIV transmission among Women of Reproductive Age attending Postnatal Clinic at a Rural County in Kenya.

Methods: This was a descriptive cross-sectional study conducted at Homabay district hospital, in Homa Bay County in Kenya. The sample was 234 breastfeeding women who tested HIV negative at the last HIV test after delivery. Data was collected for 2 months using researchers developed structured questionnaire. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 20.0. Chi-square test was used to determine significance of relationships between nominal variables. A P-value of ≤ 0.05 was considered significant.

Results: The study results showed that having other sexual partners ($p=0.000$), refusal to use condom ($p=0.001$), and forceful sex ($p=0.004$) correlated with mother's post HIV test. It is therefore important that postpartum HIV testing for the mothers of both known and unknown HIV status to be carried out.

Keywords: Behavioral factors, HIV transmission, Reproductive Age mothers

Introduction

Postpartum period is the period after childbirth, where the anatomic and physiologic changes from pregnancy resolve (Mosby's Medical Dictionary, 2009). This is a period which has been most neglected compared to other periods of maternal health

life, though associated with high risk for maternal mortality (WHO et al., 2011). Studies have indicated that many women access antenatal care, but a few access to postnatal care globally. As noted by Rosen et. al (2010) about 75% of women in

Uganda, who had given birth did not receive care during the postpartum period and that only one in five mothers received post-delivery care.

UNAIDS, (2008), found an increasing evidence revealing high rates of new HIV cases during the postpartum period in Homabay County, where the HIV prevalence among women of childbearing age stands at 27.1% (KAIS, 2012). According to a study by (KDHS, 2014), slightly above half (53%) of women age 15-49 who has a live birth in the last two years received postpartum checkup within two days after delivery while more than 2 in 5 women did not receive postpartum care. Its therefore evident that, lack of HIV retesting after delivery represents a missed opportunity that help to reveal women who recently acquire the HIV infection and pose a much higher risk of Mother to Child Transmission MTCT due to their high HIV viral loads (Moodley. et. al, 2011). Therefore, while most pregnant women in sub-Saharan Africa are HIV negative, they still are at risk for HIV infection in the postpartum period (WHO et. al, 2013).

Gregson et. al. (2010) in the study explained that, some men in Zimbabwe cited that postpartum abstinence by their wives was a reason for them having extra-marital relationships. While in the era of HIV/AIDS epidemic, this was seen to be dangerous to both women and men as it could attract HIV infection to the family. They then concluded that it is women who opted to reduce the duration of this abstinence, so as to decrease the risks of HIV infection from other women from the extramarital relations. In addition, a

study done suggested that Malawi's tradition demanded the couple to abstain from sex for eight to 36 months after birth of the child, (Zulu 2003). In addition, it was found that the prescribed period of abstinence varied across ethnic groups therefore leading to changes in this practice as evidenced by its reduction in the period of abstinence. As a result of the escalating killer AIDS, prolonged post-partum sexual abstinence was most likely to be undermined because abstinence increases the likelihood of husbands seeking extra-marital affairs (Zulu 2003).

In West Africa, a study among sexually active women aged 15 - 49 years in Nigeria found that due to fear of being HIV infected during postpartum period, there was a tendency that made individuals rely on condoms for protection (Kacanek D. et al. 2013). However, concurrently, other studies from different countries have shown that lack of communication with partners, perception of barriers of condom use, not feeling confident to use the condoms, drinking alcohol, low age at sexual intercourse, poor social support and multiple partners as some of the factors that reduced condom use (Karim et al. 2009). Erulkar et al (2007), further explained that some of the studies in Kenya have suggested some traditional practices as the main factors causing this low usage of condoms for example wife inheritance domestic violence and widow cleansing.

According to Tanser F. et. al (2011) reports indicate that Kenyan women continue to have unprotected sex with multiple partners. This is despite numerous national media

campaigns to sensitize the public about the dangers of sex without a condom and more than one partner. According to the preliminary findings of the 2008/2009 Kenya Demographic and Health Survey, only 32 percent of women who reported having multiple sexual partners agreed that they used a condom during their last sexual encounter. Another suggested reason for lack of condom use amongst people engaged in multiple partnering, as observed is the belief that they know those partners well and can therefore engage in unprotected sex with them (KDHS, 2014).

A recent study from Thailand and Uganda found that prevalence of concurrent partnerships is aligned with HIV prevalence (Hund L. et al., 2010). In addition, other studies found that in some regions, large numbers of partners and low concurrency were associated with high incidence of infection in women (Tanser et al., 2011).

In another study among low-income Chilean women revealed that women who are vulnerable to HIV didn't perceive themselves at risk. They therefore believed that HIV affects homosexuals or to sex workers and that it's not something that happens to women in a stable relationship (Humphrey et.al 2011).

Methods

This was a descriptive cross-sectional study which was conducted among breastfeeding mothers during their two-year postpartum period and who were attending MCH clinics within two months in Homabay County. The

study area was Homabay district hospital, in Homa Bay County, located in the former Nyanza Province in Kenya, along the south shore of Lake Victoria's Winam Gulf, in Homa Bay town County constituency. The target population was women, who were breastfeeding within 2years, who tested HIV negative at the last HIV test after delivery. The participants were selected through simple random sampling until the desired sample of 178 was achieved. A questionnaire developed from literature review used to collect maternal socio-demographic characteristics, socio-cultural factors and previous HIV testing and results. Following administration of the questionnaire, mothers received individual pre-test counseling by a trained counselor, and then offered HIV testing. Those who accepted re-testing signed a HIV test consent form. HIV test was performed using the KHB rapid test kit (new a logarithm), for participants, which was reported as the true results. For categorical variables, frequencies and percentages were computed. Data was further analyzed using Statistical Package for Social Sciences (SPSS) version 21.0. Chi-square was used to determine significance of relationships between two nominal variables at 95% confidence interval and a P-value of ≤ 0.05 was considered significant.

The study was conducted following approval by the Kenyatta University research and ethics committee Participants were required to give a signed, voluntary informed consent prior to participation in the study without coercion. The anonymity of participants was ensured by serializing the structured questionnaires.

Findings

A majority of the respondents were of the age 19-29 years (n=151, 64.5%) with most being married but monogamous arrangements (n=81, 34.8%). Most of the infants were in the age bracket of 6-8 months (n=50, 28.1%). This is shown by Table 1 below.

Table 1: Respondents’ demographic characteristics

Variable	Frequency (N=234)	%
Age (Years)		
(19-29)	151	62.7
(30-39)	83	37.3
Marital status		
Currently married (monogamous)	81	34.8
Divorced/Separated	36	15.0
Currently married (polygamous)	71	30.5
Widowed	27	11.6
Come we stay	11	4.7
Never married	9	3.4
Age bracket of child		
(3-5)months	31	17.4
(6-8)months	50	28.1
(9-11)months	24	13.5
(12-14)months	10	5.6
(15-17)months	17	9.6
(18-20)months	14	7.9
(21-25)months	32	18.0

A number of the respondents had resumed sexual intercourse after delivery mostly after 3-4 weeks (n=113, 48.3%). A majority of the respondents were utilizing birth control (n=163, 69.7%) with injectable contraception being mostly common (n=75, 45.7%). The respondents talked about condom use (n=221, 95.3%) however such conversations were mostly had in a duration of 1-3 years (n=141, 84.4%) with family friends (n=167, 74.2%). A majority of respondents have used condoms to avoid diseases (n=137, 58.5%) but they were unable to ask their partners to ask their partners to use condoms (n=135, 57.7%). Additionally, most of the respondents could

not refuse their partners if they did not put on condoms (n=150, 64.1%). A majority of the respondents had 3-4 partners in their lifetime (n=127, 55%) and majority of their partners did not have HIV (n=148, 63.8%) and in their last test most of them attested that their partners were negative (n=37, 62.7%). Consequently, a majority of the respondents claimed that they had other partners (n=124, 53%). This is shown by table 2 below

Table 2: Respondents behavioral characteristics

Variable	Frequency	%
Resumed sexual intercourse since delivery		
Yes	234	100.0
Estimate week postpartum sex resumed		
(2 weeks and below)	70	29.9
(3-4 weeks)	113	48.3
(5-6 weeks)	41	17.5
(7 weeks and above)	10	4.3
Currently using birth control method		
Yes	163	69.7
No	71	30.3
If yes which one		
Condoms	24	14.6
Injectable contraception	75	45.7
Oral contraception	58	35.4
IUD	4	2.4
Implants	3	1.8
Talked to about condom use		
Yes	221	95.3
No	11	4.7
Duration of last discussion		
(3 months and below)	1	.6
(7-9)months	1	.6
(10-12)months	2	1.2
(1-3)years	141	84.4
(4-6)years	19	11.4
above 6 years	3	1.8
Settings of discussion		
Healthcare setting	10	4.4
Antenatal	26	11.6
Postpartum	17	7.6
Non-health care setting	5	2.2
Family member or friend	167	74.2
Ever used condoms to avoid disease		
Yes	137	58.5
No	97	41.5
Able to ask a partner to use condoms		
Yes	99	42.3
No	135	57.7
Able to refuse sex if partner didn't use condom		
Yes	84	35.9
No	150	64.1
Number of sexual partners in a lifetime		
None	1	.4
(1-2)	102	44.2
(3-4)	127	55.0

(5 and above)	1	.4
Current partner tested for HIV		
Yes	57	24.6
No	148	63.8
Don't know	27	11.6
Duration		
(1-3)years	58	98.3
Don't know	1	1.7
Partners status in last HIV status		
Negative	37	62.7
Positive	22	37.3
Currently have any other sexual partners		
Yes	124	53.0
No	110	47.0

The current HIV status (p=0.000), having other sexual partners (p=0.000), refusal to use condom (p=0.001), and forceful sex (p=0.004) correlated with mother's post HIV test as shown by Table 3 below.

Table 3: Respondents HIV status compared to reported behavioral factors.

Factor	Mothers post HIV test	Chi square	Factor	
Variables	Positive	Negative		
Current partner tested for HIV	Yes	7 (13.5%)	50 (27.8%)	P=0.000
	No	31 (59.6%)	117(65%)	
Currently have any other sexual partners	Yes	46(88.5%)	6(11.5%)	P=0.000
	No	78(42.9%)	104(57.1%)	
Refused to use condom	Yes	52(100%)	37(20.3%)	P=0.001
	No	-	145(79.7%)	
Forced to have sex	Yes	51(98.1%)	30(16.6%)	P=0.004
	No	1(1.9%)	151(83.4%)	

Discussion

According to the study findings refusal to use condom and forceful sex correlated with mother's post HIV test. These were major contributors to spread of the HIV infection.

This agrees with findings from UNAIDS (2012), that revealed that women's inability to negotiate safe sex and refuse unwanted sex was linked to the high prevalence of HIV/AIDS. Forced sex and even rape therefore results in a higher risk of abrasion and bleeding and easier transmission of the virus. Erulkar et al (2007), further supports this fact by explained that some of the studies in Kenya which have identified some traditional practices to be the main factor behind this low usage of condoms for example wife inheritance domestic violence and widow cleansing.

The results further revealed that having multiple sexual partners contributed majorly to the spread of HIV infection. These findings, according to the preliminary findings of the 2008/2009 Kenya Demographic and Health Survey, only 32 percent of women who reported having multiple sexual partners admitted that they used a condom during their last sexual encounter. Tanser F. et. al (2011) agrees to this study finding by reporting, that Kenyan women continue to have unprotected sex with multiple partners - despite numerous national media campaigns aimed at sensitizing the public to the dangers of sex without a condom and multiple partners.

The results also further revealed that a majority of mothers resumed sex after 3 – 4 weeks. Gregson et. al. (2010) explained in their research findings that, in Zimbabwe, men cited that postpartum abstinence by their wives was a reason for them having extra-marital relationships. While in the era of HIV/AIDS epidemic, this has posed to be

dangerous to both women and men as it attracts HIV infection to the family.

Conclusion

Women opted to reduce the duration of abstinence so as to decrease the risks of HIV infection from other women from the extramarital relations.

References

African Medical Research Foundation Website on October 29 2013

Ali Mehryar Karim, Leslie Patykewich, Jessica Posner, Gideon Rutaremwa (2013). Impact of Youth Alliance program on the sexual behavior of young people in Uganda.

Erulkar, Annabel .S., and Tekle A. (2007). "Reaching disadvantaged Rural girls, Creating Social support and Discouraging Child Marriage in Amhara, Ethiopia." *Promoting Healthy, Safe and Productive Transitions to Adulthood* Brief.

Gregson S., Hallett T. (2010); HIV decline in Zimbabwe due to reductions in Risky sex. Evidence from a comprehensive epidemiological Review. *Epidemiol.*39:1311-23.

Guidelines for Global AIDS response progress report (2014). Construction of core indicators for monitoring United Nations Political Declaration on HIV/ AIDS.

Gunga, S. et. al. (2009). "The politics of widowhood and Remarriage among the Luo of Kenya." *Thought and practice: A Journal of the Philosophical Association of Kenya*, Premier Issue, New Series, Vol.1pp.165-178.

Humphrey J. et. al. (2010). Mother to Child transmission of HIV among Zimbabwean women who

seroconverted postnatally: prospective cohort study.

Kacanek D.et. al (2013). Intimate partner violence and condom and diaphragm non-adherence among women in a HIV prevention trial in Southern Africa.

Mosby's Dictionary of Medicine (2014), Nursing and Health Professionals-Pageburst E-book on VitalSource, 8th Edition. Elsevier.

National AIDS Control Council. Kenya National AIDS Strategic plan III: 2009/10-2012/13; Lifeline Foundation TRUST.

Rosen S. (2011), Retention in HIV care between testing and treatment in Sub-Saharan Africa: a systematic review. *PLoS Med.* 2011.

Tanser F. Hund L. (2011). Effect of concurrent sexual partnerships on rate of new HIV infections in a High Prevalence, rural south African population: a cohort study.

UNAIDS (2008), Joint United Nations Programme on HIV/AIDS. AIDS epidemic update.

UNAIDS (2012). UNAIDS Report on the Global AIDS Epidemic in Global Report.

UNAIDS Global AIDS response progress report (2012). Guidelines: construction of core indicators for Monitoring the 2011 political declaration on HIV/ AIDS.

WHO (2013), Global Update on HIV treatment: Results Impact and opportunities-World Bank. *Global Economic Prospects and the Developing Countries*. Washington D.C.

Zulu E. et. al. (2003). Urbanization, poverty and sex: roots of risky sexual behaviour in slum settlements in Nairobi, Kenya. Blackwell publishing; Malden.