

Determinants to Elimination of Mother to Child Transmission of HIV among Patients at Nakuru County Referral Hospital, Kenya

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ABSTRACT

Elimination of mother-to-child transmission of HIV (eMTCT) services are critical to achieve national and global targets of 90% antiretroviral therapy (ART) coverage in PMTCT, and mother-to-child transmission rates less than 5%.

Despite substantial progress in efforts to reduce MTCT of HIV in Kenya, HIV transmission from mother to child remains at 3.6 % .MTCT rate in some of the health facilities in Nakuru is still higher than the global initiative recommendation of <5% due to socio-cultural factors.

In this paper, important issues concerning sustained high MTCT rates are addressed and potential determinants contributing to high MTCT rates in some of the health facilities in Nakuru County are also highlighted.

A mixed study was conducted among patients in whose main objective was to investigate the determinants to eMTCT. Specific objectives were to determine the level of knowledge on eMTCT among patients at the facility, to investigate the social determinants affecting eMTCT, and to establish cultural beliefs and practices causing high rates.

The paper argues that various stakeholders, including the community, need to scale up of socio mobilization and awareness on Prevention of Mother to Child Transmission program, increase knowledge on PMTCT to reduce socio-cultural practices which will lower the eMTCT rates in the facilities.

Keywords: MTCT transmission rates, Global Plan towards the elimination of new HIV infections among children by 2015, Respondents, Ante Natal Clinic, Kenya Aids Indicator survey 2012, eMTCT, PMTCT, United Nations General Assembly, Nakuru County Referral Hospital.

1. INTRODUCTION

Elimination of mother to child transmission of HIV (eMTCT) services are critical to achieve national and global targets of 90% antiretroviral therapy (ART) coverage in PMTCT, and mother to child transmission rates less than 5%. Mother to child transmission (MTCT) of HIV is the main route of HIV infection that occurs to infants born by HIV positive mothers. An estimated 50,000 to 60,000 infants get the HIV infection annually in Kenya through their mothers.

The Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive (Global Plan) (1) was launched in July 2011 at the United Nations General Assembly High-Level Meeting on AIDS in New York. One of the targets of this plan is to reduce mother-to-child transmission rate to 5% or less among breastfeeding populations, and 2% or less among non-breastfeeding populations.

Kenya has a Mother to Child transmission rate of 3.6% (NASCOPEID Database 2018) and strives to maintain this at < 5% as per the Global Initiative adopted. The rate increases further in some of the county health facilities such as Nakuru County Referral Hospital that reported an MTCT rate of 5.2% as at the end of 2018. In Kenya, 32,000 child infections have been averted through PMTCT initiatives since 2004. According to KAIS 2012, nearly half (46.5%) of Kenyan adults and adolescents were unaware that

HIV can be transmitted from mother-to-child during pregnancy. Similarly, 46.7% of persons believed that a partner of an HIV infected person is always infected. Eight in ten (80.9%) men and seven in ten (68.8%) women believed themselves to be at small or no risk for acquiring HIV infection. Among those who perceived themselves to be at no or at small risk of HIV infection, HIV prevalence ranged from 2.1% to 3.5%.

2. OBJECTIVE OF THE RESEARCH

This paper highlights the results of a study that was conducted in Nakuru County Level 5 referral hospital where a high MTCT rate of 5.2% was reported. The main objective was to investigate the determinants to elimination of mother to child transmission of HIV among these patients. The specific objectives of the study were to determine level of knowledge on eMTCT among patients at the facility, to investigate the social determinants affecting eMTCT among pregnant women seen and to establish cultural beliefs and practices that influence MTCT rate among the patients attending this health facility.

The causes of the high rate were not known and there was no such study that had been conducted to establish the determinants.

The study was a mixed study where data was collected from three hundred and forty one Antenatal clients where a structured questionnaire, key informant interview schedule and focused group discussions were conducted

3. RESULTS OF THE STUDY

The results in the table above shows that majority of the pregnant women attending ANC clinic at Nakuru County Referral Hospital had no knowledge on all the eMTCT range of services provided at the health facility. The services included PMTCT enrolment (75.5%), Counselling and testing (67.7%), Medicine given for prevention (73.0%), Nutrition counselling (66.3%) and psycho social support (70.1%)

Table 1. Knowledge of respondents on eMTCT services at the health facility.

Answers of respondents who claimed to have knowledge on eMTCT services (n=341)			
Services	Knowledge	No knowledge	Age (yrs)
PMTCT enrolment	87 (25.5)	254 (75.5)	25-35
Testing and Counselling	110 (35.2)	231(67.7)	15-34
Medicine given for prevention	92 (27.0)	249 (73.00)	18-35
Nutrition counselling	115 (33.7)	226(66.3)	15-22
Pyscho-Social Support	102 (29.9)	239 (70.1)	15-42

The analysis of the data collected from the ANC clients revealed that nearly seventy percent of mothers had no knowledge of services provided to seropositive pregnant mothers to reduce the risk of transmission to unborn child. Further analysis revealed that low male involvement and participation, Stigma, and discrimination, peer pressure, social groups, religious sects, ceremonies (funerals), visiting sick people in the community were key social determinants that sustain high transmission rates in the county.

Table 2. Socio cultural believes and practices influencing eMTCT rates in the health facility

Influence of cultural believes	Frequency	Percent
Yes	106	31.10%
No	235	68.90%
Total	341	100.00%

Majority of the respondents did not have influence of any cultural believes that could hinder them from attending ANC as represented by 68.9% of the total responses. However, about 31.1% of the respondents believed on some cultural issues that hinder attendance to clinic.

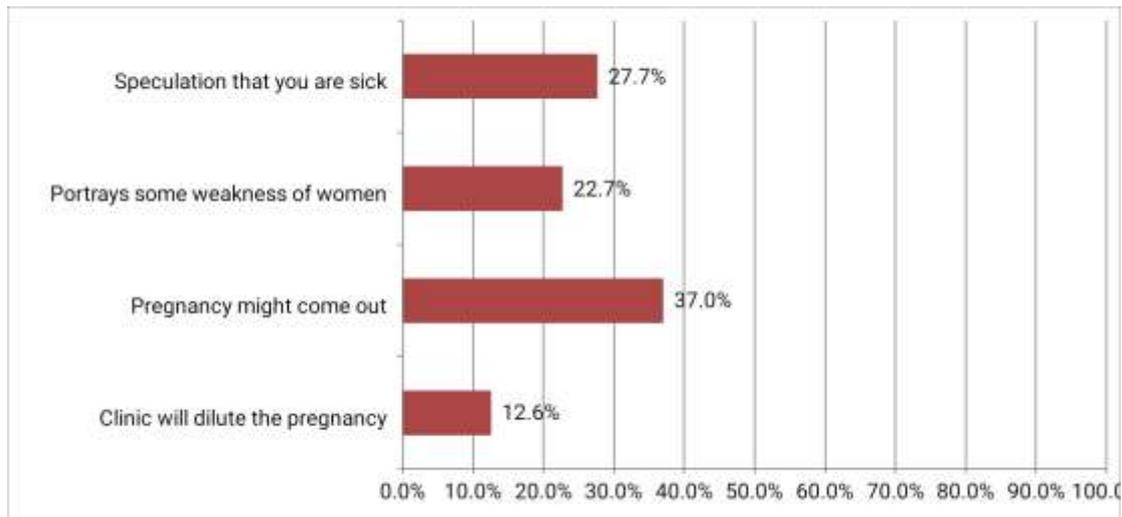


Figure1. Influence of social-cultural factors on eMTCT among pregnant women attending ANC clinic

a) Cultural beliefs that can hinder pregnant women from attending the clinic

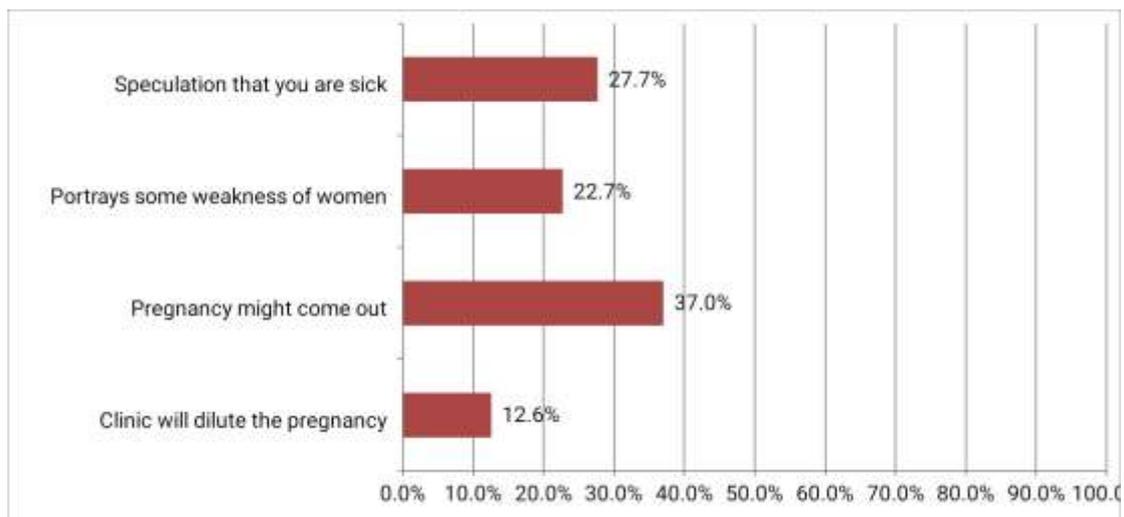


Figure 2. Cultural beliefs as a hindrance to clinic attendance

The results above show that 37.0% of the pregnant women who had influence on cultural believes cited that pregnancy might terminate with the attendance of ANC. Others believed that attendance is a speculation of sickness (27.7%), portrays some weaknesses in women (22.7%) and that it weakens the pregnancy (12.6%).

Cultural taboos have an influence on high MTCT rates. Modelling was done using Binary logistic regression which indicated pregnant women with influence of taboos that relate to pregnancy, child birth and new motherhood are less likely to contribute to eMTCT than those who had no influence of taboos that relate to pregnancy, child birth and new motherhood.

Cultural beliefs and practices among ANC patients have an influence of sustaining high MTCT rates. Modelling by Logistic regression indicated that pregnant women with influence of negative cultural and traditional practices resulting to non-adherence to clinic attendance were less likely to contribute to eMTCT than those who had no influence of traditional and negative cultural practices

b. Influence of taboos that relate to pregnancy, child birth and new motherhood

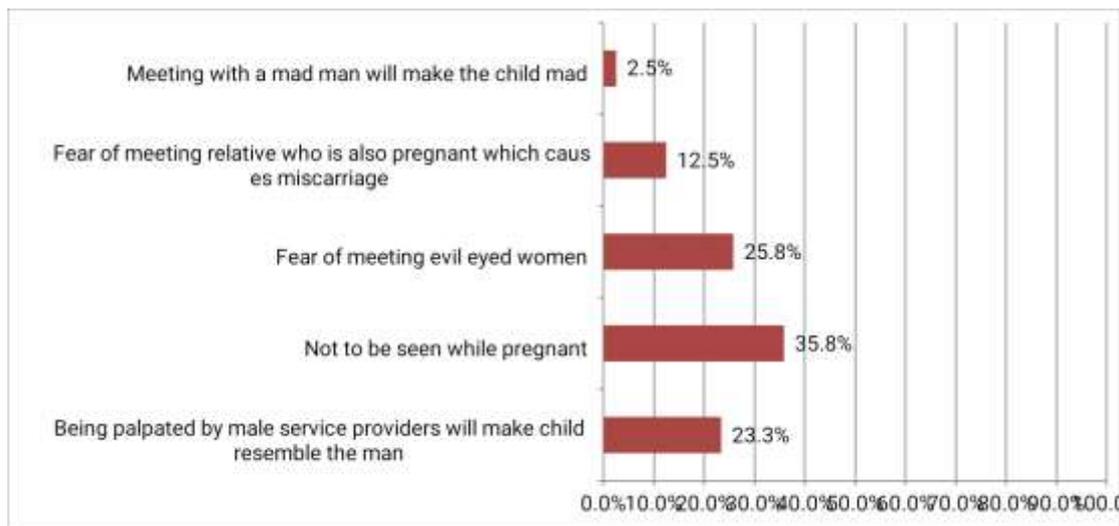


Figure 3. A total of 107 (31.4%) reported to have been influenced by taboos that relate to pregnancy, child birth and new motherhood

Table 3 Logistic regression statistical model on cultural beliefs and taboos .

eMTCT	OR (Odds Ratio)	Std. Err.	z	P> z	[95% Conf. Interval]	
Lack of financial or other support	1.078	0.162	0.5	0.62	0.8	1.45
Influence of cultural beliefs	0.641	0.282	-2.9	0	1.17	2.3
Influence of taboos	0.596	0.091	-3.4	0	0.44	0.81
Influence of traditions	0.368	0.62	-3.3	0	1.42	3.96
_cons	0.426	0.153	2.38	0.02	0.21	0.86

n=384; LR chi2(4) = 20.37; Prob > chi2 = 0.000; Log likelihood = -254.3; Pseudo R2 = 0.38

The results in the table above reveal that the log likelihood for the fitted model of -254.3 and the log likelihood chi-squared value of = 20.37 (Prob> $\chi^2 = 0.000$) indicate that the social-cultural factors and eMTCT among pregnant women attending ANC clinic parameters are jointly significant at 5%. Pseudo R² of 0.38 also meet the statistical threshold of 20% confirming that the eMTCT in the study area was well attributed to the independent variables considered in the model (social-cultural factors pregnant women attending ANC clinic).

Cultural beliefs, practices and taboos had a significant contribution to the high MTCT rates that were reported in the county. Literature review revealed that low education and poor understanding of the PMTCT services were key determinants to high transmission rates of HIV among pregnant women attending ANC clinic at health facilities

Binary Logistic Regression modeling revealed that pregnant women with influence of social cultural believes are less likely to contribute to eMTCT than those who never had no influence of cultural beliefs and practices.

4. CONCLUSION

Socio cultural practices and beliefs, taboos and traditional practices contribute to the sustained high MTCT rate reported in health facilities in the country.

The paper also draws conclusion that low level of knowledge among pregnant women attending antenatal clinics is a determinant to high transmission rates experienced in various health facilities. Low knowledge on interventions for prevention of mother to

child transmission of HIV for the positive pregnant women was reported as a major determinant in raising the transmission rate at Nakuru Level 5 health facility.

The study revealed that some of the pregnant women who visit Antenatal clinic observe some socio cultural beliefs and practices that deter them from accessing health services provided at the health facility hence contributing to the rise in the transmission rates in the county as reported.

5. RECOMMENDATIONS

In view of the above, there is need for scaling up of socio mobilization and awareness on Prevention of Mother to Child Transmission program to empower women with knowledge on PMTCT where there was a high percentage of women indicating no knowledge of eMTCT services

The Community and political leaders need to be enlightened on good health practices so as to encourage pregnant women from their negative cultural beliefs and practices in order to promote health seeking behavior among these women

Community-residing adults must also support community interventions that encourage pregnant women to access health services provided at the health facilities which include PMTCT interventions so that those women who are found positive will be initiated early on prophylaxis that helps in preventing the infection from being transmitted to the unborn child.

The Ministry of Health should intensify Health education and health talks to pregnant women to focus more on the cultural taboos that influence eMTCT among pregnant women attending ANC clinic in all health facilities.

Finally, further research is needed to look into Male participation and involvement in MTCT services towards elimination of mother to child transmission of HIV among pregnant women attending Antenatal clinic in all the health facilities in the country and also investigate the Health system factors as major determinants to elimination of mother to child transmission of HIV among pregnant women attending ANC

Declaration of conflicting interest

The authors declare that there is no conflict of interest.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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