

**BJMHR**British Journal of Medical and Health Research
Journal home page: www.bjmhr.com

Male Partner Involvement In Prevention Of Mother-To-Child Transmission Of HIV Among Women Attending State Specialist Hospital, Osogbo, Nigeria

Adebayo Victor¹, Olowookere Samuel A², Taofik O.Afolabi^{3*}, Owolabi Eunice Modupe¹, Babatola Samuel Olusegun¹

1.Department of Community Medicine, UNIOSUN Teaching Hospital, Osogbo, Nigeria.

2.Department of Community Medicine, Obafemi Awolowo University, Ile-Ife, Nigeria.

3.Physiotherapy Department, Faculty of Medical Rehabilitation, University of Medical Sciences, Ondo, Nigeria.

ABSTRACT

The study assessed the level of knowledge of HIV-positive women on mother-to-child transmission of HIV (MTCT) among women of reproductive age group receiving Hospital based care. The study was a descriptive cross sectional survey that employed both quantitative and qualitative data collection methods. The study population for the quantitative survey was HIV positive pregnant and non-pregnant women receiving care at the ART centre while those for the qualitative survey were male partners of HIV positive women receiving care at the centre. For the quantitative survey, 270 HIV positive pregnant and non-pregnant women were recruited using Systematic sampling technique. Participants in the qualitative survey were purposely selected based on their involvement in PMTCT and PMTCT services and qualitative data was collected through a focus guide applied on male partners of the HIV positive women and key informant guide applied on the selected health workers. Data collected from the qualitative survey was analysed using content analysis and reported verbatim based on subthemes. The study showed that 85.9% of the respondents have heard of PMTCT of HIV, 68.5% had poor knowledge of PMTCT while 31.5% had good knowledge. For the qualitative survey, most of the respondents had heard about PMTCT and PMTCT services, knew that men had significant roles to play when their wives were pregnant; This study concluded that majority of the respondents had a poor knowledge of PMTCT of HIV; and the level of male involvement in PMTCT was low.

Keywords: Human Immunodeficiency Syndrome, Prevention of mother to child transmission.

*Corresponding Author Email: tafolabi@unimed.edu.ng

Received 02 March 2023, Accepted 21 March 2023

Please cite this article as: Afolabi T *et al.*, Male Partner Involvement In Prevention Of Mother-To-Child Transmission Of HIV Among Women Attending State Specialist Hospital, Osogbo, Nigeria. British Journal of Medical and Health Research 2023.

INTRODUCTION

Human immunodeficiency virus (HIV)/Acquired immune deficiency syndrome (AIDS) has developed into a massive global pandemic. Human immunodeficiency virus (HIV)/Acquired immune deficiency syndrome (AIDS) is a major public health problem in Nigeria ¹. HIV infection has spread over the last 30 years and has a great impact on health, welfare, employment and criminal justice sectors; affecting all social and ethnic groups throughout the world. Recent epidemiological data indicate that HIV remains a public health issue that persistently drains our economic sector having claimed more than 25 million lives over the last three decades ². The estimated overall number of people living with HIV/AIDS (PLWHA) by the end of 2014 was approximately 36.9 (34.3-41.4) million and Sub Saharan Africa was the most affected region having 25.8 (24.0-28.7) million PLWHA and 66% of all people living with HIV infection living in the region ³.

The mother-to-child transmission (MTCT) of HIV refers to the transmission of HIV from an HIV-positive woman to her child during pregnancy, labour, childbirth or breastfeeding. MTCT is by far the most common way that children become infected with HIV (90%) ⁴. Without treatment, the likelihood of HIV passing from mother-to-child is 15 to 45%. However, antiretroviral treatment (ART) and other effective interventions for the prevention of mother-to-child transmission (PMTCT) can reduce this risk to below 5 % ². Mother-to-child transmission (MTCT) of HIV represents an especially tragic dimension of the burden of HIV/AIDS, particularly in resource-constrained settings, where fragile and poorly funded health care systems hamper care and prevention efforts. MTCT has become a critical children's health problem in Africa, contributing to severe morbidity and significant mortality and undermining the impact of programs that had significantly reduced child mortality in previous decades.

PMTCT-plus refers to the provision of antiretroviral treatment, ART and support to HIV infected mothers, their babies and family members to ensure proper nurturing, care and protection of the child. The MTCT-Plus Initiative was conceived in 2001 as a response to the five-point Call to Action on HIV/AIDS issued by Kofi Annan, United Nations Secretary-General. The primary objective of the MTCT-Plus Initiative is to provide lifelong care and treatment for HIV/AIDS to families in resource-limited settings. In addition to reducing mortality and morbidity, the Initiative hopes to further reduce the mother-to-child-transmission of HIV; to promote voluntary counselling and testing and other preventive strategies; to strengthen local health care capacity; to decrease stigma among PLWHA and enhance support for and empower people living with HIV/AIDS; and to develop a model for HIV care in resource-limited settings that can be generalized ⁵.

The World Health Organization (WHO) promotes a comprehensive approach to PMTCT programmes which includes: preventing new HIV infections among women of childbearing age, preventing unintended pregnancies among women living with HIV, preventing HIV transmission from a woman living with HIV to her baby, providing appropriate treatment, care and support to mothers living with HIV and their children, and families ⁶. Effective PMTCT programmes require women and their infants to receive a cascade of interventions including uptake of antenatal services and HIV testing during pregnancy, use of antiretroviral treatment (ART) by pregnant women living with HIV, safe childbirth practices and appropriate infant feeding, uptake of infant HIV testing and other post-natal healthcare services ⁷.

Historically, many PMTCT programmes have organized their services as if potential clients were free to act independently. Thus, most awareness and implementation efforts related to family planning and HIV prevention and care have been directed primarily at women, disregarding the cultural and gender norms that may impact women's decision making regarding these issues ⁸. Support from a male partner makes a woman adhere to PMTCT ⁹. Male partner involvement in PMTCT may reduce the risk of mother to child transmission of HIV (MTCT) by more than 40 % ¹⁰.

In Nigeria, the estimated number of children under age 14 living with HIV is 360,000, and the estimated number of pregnant women living with HIV is 210,000 ¹¹. About 58 percent of pregnant women receive Antenatal Care (ANC) and the usage of Prevention of Mother-to-Child Transmission (PMTCT) services has only reached 12 percent ¹². In resource-limited settings, male partner involvement in antenatal HIV Counseling and Testing, HCT has been shown to increase uptake of interventions to reduce the risk of HIV transmission ¹³.

Involvement of male partners may increase adherence to PMTCT and its program outcomes. So, male partner participation was associated with positive outcomes such as: greater use of antiretroviral therapy, higher acceptance of post-test counseling among pregnant women, increased spousal communication about HIV and safe sex. In addition, detection of maternal infection in early pregnancy through Provider initiated HIV testing and counseling (PITC) is not enough to mitigate mother to child transmission of HIV but only few husbands accompany their wives to ANC/PMTCT clinic. Consequently, involving male partners in ANC/PMTCT is very crucial to fighting against transmission of the virus to children ^{14,15}.

Involving male partners in ANC/PMTCT can often be utilized as an entry point for provision of additional PMTCT services notably partner testing, condom use and infant feeding recommendations for both male and female participants. There is an ever growing discordant rate among couples, another reason that rationalizes male partner involvement in ANC/PMTCT. In Ethiopia, HIV prevalence among cohabiting individuals is notably high in

urban areas (10.9%); of whom about 72% (i.e. 7.8% of the total) of the cohabiting couples are discordant. In urban areas, 5.6% of HIV negative married men are living with infected wives and 2.2% of married HIV negative women are living with infected husbands ¹⁶. This shows that screening the mother only to prevent mother to child transmission of HIV doesn't safeguard the child from acquiring HIV. For this reason, for effective PMTCT interventions, male partners should be involved in their wives' ANC/PMTCT care ¹⁷. The lack of male involvement in PMTCT consequently undermines the potential benefits of antenatal HIV preventive efforts ¹⁸, thus representing a missed opportunity to effectively prevent vertical HIV transmission. Also, Involvement of male partners may increase adherence to PMTCT and its program outcomes. A study in Kilimanjaro, Tanzania shows that 74.6 percent of In another study on community gatekeepers' awareness and perception of PMTCT services in Ibadan, Nigeria, it was reported that opinion leaders made up of religious leaders, heads of households, and leaders of community-based organizations had low knowledge of MTCT and PMTCT services, and community sensitization on the issue was inadequate ¹⁹. Another study of male involvement in PMTCT services in Tanzania's Mbeya region revealed that although all the respondents generally accepted PMTCT interventions, barriers to involvement included lack of knowledge/information, no time, neglected importance, the services representing a "female responsibility," or fear of HIV testing result ²⁰.

However, in Nigeria, there is dearth of data on awareness and barriers to men's participation in PMTCT and the existing studies are rather similar in focus and limited in scope. Therefore, This study aims to assess the role of male partners in the Prevention of Mother to Child transmission (PMTCT) of HIV and identify factors affecting male partner involvement in PMTCT of HIV. Also, data on awareness and barriers to men's participation in PMTCT are generally scanty in Nigeria context and the existing studies are rather similar in focus and limited in scope. This study aims to assess the role of male partners in the Prevention of Mother to Child transmission (PMTCT) of HIV and identify factors affecting male partner involvement in PMTCT of HIV.

MATERIALS AND METHOD

The study was a descriptive cross sectional survey which employed both quantitative and qualitative data collection methods. The study population for the quantitative survey was HIV positive pregnant and non-pregnant women receiving care at the ART centre while those for the qualitative survey were male partners of HIV positive women receiving care at the centre and selected health workers. For the quantitative survey, 270 HIV positive pregnant and non-pregnant women were recruited using Systematic sampling technique. Data was collected using pre-tested interviewer administered semi- structured questionnaire and analysed in

stages using SPSS version 20.0. Participants in the qualitative survey were purposely selected based on their involvement in PMTCT and PMTCT services and qualitative data was collected through a focus guide applied on male partners of the HIV positive women and key informant guide applied on the selected health workers.

Knowledge of PMTCT:

The knowledge and attitude of the respondents about PMTCT was measured through questions that asked whether they knew if a HIV positive woman could transmit the virus to her child during pregnancy, breastfeeding or delivery, whether antiretroviral drugs given to the mother and child could reduce the chances of transmission of the virus to her child and if they had heard about the program called PMTCT. The respondents who answered ‘Yes’ to the questions on knowledge of PMTCT were further asked if PMTCT services were offered in the hospital and if they had received any of these services. The respondents were further asked whether their partner was ever tested for HIV, if anyone was aware of their HIV status and if the reaction of those people had changed since they knew. The respondents answered ‘Yes’ in the affirmative and ‘No’ to the questions that were not so to them.

Role of Male Partner in PMTCT:

The role of the male partner in PMTCT of the respondents was assessed through questions that asked the women if their partner was counseled for HIV the last time they were pregnant, if they will discuss with their partner about HIV counseling and testing in their next pregnancy and if their partner had ever gone with them to a PMTCT clinic. The respondents who had a positive response answered ‘Yes’ to the questions while the others answered ‘No’.

Factors influencing male partner involvement in PMTCT:

For the socio-cultural factors influencing male partner involvement in PMTCT, the respondents were asked questions on if a pregnant woman could be tested without the permission of her husband, whether men should accompany their wives to ANC/PMTCT clinics and if a pregnant woman who was found to be HIV positive should be divorced. For factors relating to PMTCT services, respondents were asked if men should have ‘male only’ clinics and be attended to male health workers only and if PMTCT clinics are conducted very far from their homes with consequently expensive transport fare. Each of these items was scored based on the percentage of respondents that indicated the individual item as a factor influencing male partner involvement in PMTCT.

Focus Group Discussion and Key informant interview:

The outcome measure for the qualitative analysis was based on the responses of the respondents. All the discussions and interviews were recorded verbatim into written text and were presented thematically. Data collected from the qualitative survey was analysed using content analysis and reported verbatim based on subthemes.

Knowledge of PMTCT:

The knowledge and attitude of the respondents about PMTCT was measured through questions that asked whether they knew if a HIV positive woman could transmit the virus to her child during pregnancy, breastfeeding or delivery, whether antiretroviral drugs given to the mother and child could reduce the chances of transmission of the virus to her child and if they had heard about the program called PMTCT. The respondents who answered 'Yes' to the questions on knowledge of PMTCT were further asked if PMTCT services were offered in the hospital and if they had received any of these services. The respondents were further asked whether their partner was ever tested for HIV, if anyone was aware of their HIV status and if the reaction of those people had changed since they knew. The respondents answered 'Yes' in the affirmative and 'No' to the questions that were not so to them.

Role of Male Partner in PMTCT:

The role of the male partner in PMTCT of the respondents was assessed through questions that asked the women if their partner was counseled for HIV the last time they were pregnant, if they will discuss with their partner about HIV counseling and testing in their next pregnancy and if their partner had ever gone with them to a PMTCT clinic. The respondents who had a positive response answered 'Yes' to the questions while the others answered 'No'.

Factors influencing male partner involvement in PMTCT:

For the socio-cultural factors influencing male partner involvement in PMTCT, the respondents were asked questions on if a pregnant woman could be tested without the permission of her husband, whether men should accompany their wives to ANC/PMTCT clinics and if a pregnant woman who was found to be HIV positive should be divorced. For factors relating to PMTCT services, respondents were asked if men should have 'male only' clinics and be attended to male health workers only and if PMTCT clinics are conducted very far from their homes with consequently expensive transport fare. Each of these items was scored based on the percentage of respondents that indicated the individual item as a factor influencing male partner involvement in PMTCT.

RESULTS AND DISCUSSION**General characteristics of the participants**

Seventy percent of the respondents were aged 30 years and above. The minimum and maximum ages were 20 and 49 years respectively while the mean age was 33.35 ± 6.16 years. Majority (78.6%) of the respondents had between 1 and 4 children. Majority (82.5%) of the women were married, with 52.5% being in a polygamous setting, 52.9% were Muslims and 85% were Yoruba. Thirty eight percent of the respondents had no formal education or

just completed primary school education and 66.4% were employed, 44.3 % of the respondents had an average monthly income of more than ₦18000.

(Table 1)

Table 1: General characteristics of the participants

Variable	Frequency (n=280)	Percentage (%)
Age of respondents		
20-24	11	3.9
25-29	72	25.7
30 and above	197	70.4
Marital status		
Single	15	5.4
Married	231	82.5
Separated/Divorced/Widowed	34	12.1
Type of Marriage		
Monogamy	133	47.5
Polygamy	147	52.5
Number of Children		
None	36	12.9
1-4 Children	220	78.6
5 and above	24	8.6
Religion of Respondents		
Christianity	127	45.4
Islam	148	52.9
Traditional	5	1.8
Ethnicity		
Yoruba	238	85.0
Igbo	37	13.2
Hausa	5	1.8
Educational level		
None/Primary	109	38.9
Secondary	98	35.0
Tertiary	73	26.1
Employment status		
Employed	186	66.4
Unemployed	94	33.6
Average monthly income		
None	101	36.1
<₦18000	55	19.6
≥₦18000	124	44.3

Table 2: Knowledge of HIV positive women on Prevention of Mother to Child Transmission

Variable	Frequency (n=280)	Percentage (%)
Ever heard of Prevention of Mother to child Transmission		
Yes	242	86.4
No	38	13.6
Have received PMTCT services		
Yes	237	84.6

No	43	15.4
ARV drugs given to mother and child can reduce HIV transmission		
Yes	220	78.6
No	60	21.4
Had their partner tested for HIV		
Yes	169	60.4
No	111	39.6
Have told someone about their HIV status		
Yes	220	78.6
No	60	21.4

Eighty six percent of the respondents have heard of Prevention of Mother to Child Transmission of HIV, 86.4% have received PMTCT services and 78.6% know that ARV drugs given to the mother and child can reduce the transmission of HIV. Sixty percent of the women had their partners tested for HIV and 78.6% had told someone about their HIV status.

Table 3: Role of Male partners of HIV positive women in PMTCT of HIV

Variable	Frequency (n=239)	Percentage (%)
Male partner counseled and tested for HIV during last pregnancy		
Yes	109	45.6
No	130	54.4
Partner discussed about HIV counseling and testing during last pregnancy		
Yes	90	37.7
No	149	62.3
Partner ever gone with spouse to a PMTCT clinic		
Yes	131	54.8
No	108	45.2
Partner accept her to take ARV drugs if found HIV positive		
Yes	193	80.8
No	46	19.2
Partner accept to buy formula milk for baby if she is found HIV positive		
Yes	235	98.3
No	4	1.7

Two hundred and thirty nine of the women had male partners, out of which 231 (96.7%) were married. 54.4% of male partners were not counseled and tested for HIV the last time their spouse were pregnant while 45.2% of the male partners had never visited the PMTCT clinic. However, majority (80.8%) of their partners will accept that they take ARV drugs when found HIV positive during pregnancy

Table 4: Association between Socio-demographic characteristics, knowledge of PMTCT and male partner involvement in PMTCT of HIV

Variables	Men role		Total N=239	Test Statistics χ^2	p-value
	Inadequate (n=149)	Adequate (n=90)			
Education					
None/Primary	45 (50.6)	44 (49.4)	89 (100)	8.384	0.004*
Secondary/Tertiary	104 (69.3)	46 (30.7)	150 (100)		
Marital status					
Not married***	8(100.0)	0 (0.0)	8 (100)	9.883	0.026**
Married	141 (61.0)	90 (39.0)	224 (100)		
Knowledge of PMTCT					
Poor knowledge	112 (69.1)	50 (30.9)	162 (100)	9.883	0.002*
Good knowledge	37 (48.1)	40 (51.9)	77 (100)		

*Pearson chi-Square

**Fisher's Exact test

*** Not married includes Single, Widowed, Separated, Divorced.

The proportion of HIV positive women who had higher education (69.3%) with inadequate partner involvement in PMTCT of HIV is significantly higher than the proportion of those with lower education (50.6%) and inadequate partner involvement ($\chi^2=8.384$, $p=0.004$). Also, the proportion of HIV positive women who had poor knowledge (69.1%) with inadequate partner involvement is significantly higher than those with good knowledge (48.1%) ($\chi^2=9.883$, $p=0.002$). It was also observed that 61% of the married HIV positive women had inadequate partner involvement in PMTCT of HIV compared to 39% who had adequate male partner involvement in PMTCT of HIV.

RESULT OF THE QUALITATIVE SURVEY

(A) FOCUS GROUP DISCUSSION SESSION

The FGD sessions held for male partners and women who did not participate in the collection of quantitative data were aimed at getting information on awareness and knowledge of PMTCT and services, roles that male partners should play when their wives are pregnant and promoting and hindering factors influencing involvement of male partners in PMTCT. Responses are presented in subthemes based on the objective of the study.

Awareness of PMTCT and services

Although the respondents were aware of Prevention of Mother to Child Transmission of HIV/AIDS, they were not familiar with the acronym 'PMTCT' which could result from discouraging use of acronym while consulting in the clinic. One of the respondents said:

" I once heard someone referring to this portion of the hospital as a place where 'PMTCT' services are offered but I did not understand what it meant until I was referred there by my doctor for HIV counseling and testing "(20 year Female FGD participant)

Another respondent stated that:

“Prevention of mother to transmission of HIV is a program with activities put in place to ensure that HIV positive mothers do not transmit the virus to their children” (37 year old Male FGD participant) Majority of the respondents who were receiving care at the ART center seemed to have been educated by the health workers about both the sexual and non-sexual routes of transmission of HIV (including mother-to-child transmission). Most of them had knowledge about the different ways the virus is transmitted or contacted from an individual.

A respondent had this to say:

“HIV can be contacted by sharing the same hair clipper or toothbrush with an infected individual” (42year old female FGD participant)

Another respondent said that:

“HIV can be contacted through sexual intercourse with an infected individual” (45year old Male FGD participant)

Given the wide coverage and number of years since onset of operation of the ART center, Majority knew that mothers and their children can get free drugs from the health facility. The respondents showed appreciable knowledge about the PMTCT services offered in the center. Most of the respondents agreed that PMTCT is beneficial to the mother and child as the child born to the HIV positive mother can be HIV negative if the mother participates in PMTCT.

“I was very worried when I was found to be HIV positive about 5 years ago. My fears were relieved when I got to know that I could get free drugs for myself and my family in this hospital. I have not missed my appointment ever since and I have been healthy” (40 year old Male FGD participant)

Another participant said:

“I have delivered two children after I started receiving drugs and they found to be HIV negative when tested. Indeed, this program is good and I encourage all HIV positive mothers to get involved in it. ” (38 year old Female FGD participant)

Role of male partners when their wives are pregnant

It is an established fact that men have a vital role to play in the reproductive health of their partners especially when they are pregnant. Majority of the respondents including the men and the women supported this assertion. They agreed that the men should support their wives financially, emotionally, morally and otherwise.

One of the respondents said:

“My wife is not working, so I need to give her money for her upkeep when she is pregnant” (33year old Male FGD participant)

Another respondent had this reply:

“I strongly believe that men should adequately support their spouses when they pregnant after all, they are the ones that put them in the family way. Moreso, there is this feeling of wellbeing and security that a woman has when her husband is supportive” (38 year old Female FGD participant)

As part of this important support necessary for a woman who is pregnant, most of the respondents opined that it if possible, it is very good and encouraging for the husband to accompany his partner to her antenatal clinic although majority of the respondents were also quick to add that this might not always be feasible considering the job schedule and some cultural norms of the society in which they find themselves. One of the respondents replied thus:

“As much as possible, I can come along with my wife to ANC clinic if I am less busy at work or at home as the case may be” (41year old male FGD participant)

The following was the response of one the respondents:

“I used to go with my wife to her antenatal clinic at first but I stopped accompanying her when I was being made jest of by my colleagues referring to me as being used by my wife and calling me names like ‘woman-wrapper’ ” (32 year old Male FGD participant)

Some of the factors influencing male partner involvement were highlighted by the respondents. All of them said stigmatization by their friends, colleagues and other people in the society was a major factor while most of them said constraint of finances; tight job schedule and their cultural beliefs were major factors that influenced poor participation of male partners in PMTCT. One of the respondents said:

“I do not want people to know that I or my wife is HIV positive because they will use that knowledge to relate with us” (32year old Male FGD participant)

Another respondent replied thus:

“My husband’s job schedule is very tight and he cannot keep asking for permission from his boss to follow me to the clinic” (44year old Female FGD participant)

A respondent said the following:

“I come from a very far place and the transport fare is high. Sometimes, I am unable to meet up with my appointment date because I do not have enough money for transportation” (37 year old Female FGD participant)

B) RESULT OF THE INDEPTH INTERVIEW

The in-depth interview held for selected health workers was to get information on awareness and knowledge of PMTCT and services, roles that male partners should play when their wives are pregnant and factors that influence involvement of male partners in PMTCT. Responses are presented in subthemes based on the objective of the study.

Awareness on PMTCT of HIV

The selected health workers had good knowledge about prevention of mother-to-child transmission of HIV and services rendered in the program. This is not unexpected as they are required to be versed in the field they operate in.

“PMTCT is a program designed to prevent HIV positive mothers from transmitting the virus to their children during pregnancy, labour and breastfeeding.” (Medical records officer at ART centre)

“PMTCT is a way of protecting a child in the mother’s womb. It involves giving the mother ARV drugs to suppress the virus from entering the child’s blood during pregnancy and labour and also teaching the mother the best way to breastfeed to also prevent the baby from contacting the virus through breastfeeding” (Nursing staff at ART centre)

Roles of men in PMTCT

The health workers all agreed that the men had a very significant role to play in PMTCT however they supplied information that even though the men knew their roles including financial support, accompanying them to the clinic, moral support, majority of the men were not able to because of some daunting challenges.

“Most husbands of our clients know that they are to be supportive of their wives when they are pregnant. Somebody once told me that even if he could not come with his wife to the clinic, he reminds her of her appointment, ensures that he gives her enough money and also reminds her to take her drugs as at when due” (Nursing staff at ART centre)

Factors influencing male participation in PMTCT

A number of factors were mentioned by the health workers but majority said fear of stigmatization was a major factor why men were not getting involved in PMTCT. This is in line with findings from the FGD conducted. Some of the health workers however said that there is some improvement in male participation now as they have increased their efforts on health education and counseling of the men and also in follow up.

“From my experience and interaction with the clients in the clinic most of the male partners of the women do not accompany their wives to the clinic because they do not want people to stigmatize them. They also feel that they need to go and work very hard to cater for the needs of the family so they are left with little free time to follow their wives to ANC/PMTCT clinic”. (Medical Officer at ART centre)

“I noticed that recently more men follow their wives to the clinic compared to the past. This might be because we increased the number of times we call the clients on phone to remind them of their appointment and also we usually attend to women that come with their wives earlier than others” (Medical records Officer at ART centre)

DISCUSSION

This study assessed male partner involvement in Prevention of Mother to Child transmission of HIV among women attending a tertiary health institution in Osogbo, Osun State, Southwest Nigeria. The involvement of the male partner in PMTCT has been noted to significantly improve a woman's participation in PMTCT and the overall outcome of the programme. The study participants included HIV positive women, their male partners and some health workers in the ART centre. Findings from the study might help policy making as regards further involvement of men in PMTCT and overall reduction in vertical transmission of HIV.

In this study, majority of the respondents are aged between 30 and 49 years. This is in line with the observation that Women within the age group 15-49 years make up the majority of HIV infected people in Sub-Saharan Africa²⁰, which the study population is a part of. It is worthy of note that 90% of HIV infection in children is by mother to child transmission.²¹. This further stresses the need for this age group to be more focused on in designing programs for prevention of HIV transmission.

According to this study, about two thirds of the respondents had a poor knowledge about Prevention of Mother to child Transmission (PMTCT) of HIV. This is in contrast to a study conducted in Hawassa referral hospital, South Ethiopia which tried to assess the knowledge of pregnant women attending ANC on their knowledge of prevention of mother to child transmission of HIV. It was observed that about 4 out of every 5 respondent knew about PMTCT. Also in a similar study by Abajobir and Zeleke²², majority of the respondents knew that Anti-retroviral drugs given to the pregnant HIV positive mother could reduce the risk of HIV transmission to her child²³. The finding in this study could be due to the observation that over one third of the respondents had no formal education or just primary education and might not fully understand information being supplied about Prevention of Mother to Child transmission of HIV by various sources including the media, health workers and instituted health intervention programmes. The qualitative survey also supports this finding where the respondents were not familiar with the acronym 'PMTCT'.

According to this study, more than half of the male partners of the respondents were not counseled and tested for HIV in their last pregnancy. Also, more than sixty percent of the male partners did not discuss with their spouses about HIV counseling and testing in their last pregnancy. This finding can be compared to a similar report from a study in Hawassa referral hospital, South Ethiopia which observed that only about half of the husbands of pregnant women on ANC follow up were tested for HIV²². However, a contrasting finding was noted in a similar study in Rwanda were about 81% of pregnant women who tested for HIV in 2010

had their male partners tested in the last twelve months many of whom received testing with their partners during the antenatal care process ²⁴Increasing male involvement in ANC follow up would however decrease vertical transmission of HIV, which will in turn reduce fetal mortality.

It was observed that most of the respondents' partners will accept that their wives take ARV drugs and also buy formula milk for the baby if she is found to be HIV positive however about forty five percent of the respondents' partners had never gone with them to a PMTCT clinic. Although this is higher, it is comparable to a study conducted in Addis Ababa, Ethiopia which found out a low involvement of males in PMTCT services (30.9%) ²⁵. It is also supported by similar studies in Gondar and Mekelle which reported that 20.9% and 20.1% of male partners come to ANC/PMTCT clinic with their female partners, respectively. ^{26;27}. This low level of male partners accompanying their spouses to the clinic might be due to the fear of stigmatization by friends, colleagues and members of the community which was mentioned by respondents in the qualitative survey. Also, it could be due to the preoccupation by the male partners to work hard and possibly round the clock in order to make ends meet for the family and provide basic needs and supplies for the family coupled with their tight job schedules as observed from the Focus group discussion in the qualitative survey.

This study noted that two thirds of the male partners of the respondents did not discuss with them about HIV counseling and testing in their last pregnancy. One study of 15 countries in sub-Saharan Africa identified male partners as either supportive or non-supportive. Supportive male partners were willing to get an HIV test and communicate with their partner about sexual and reproductive health issues increasing the commitment of pregnant women to PMTCT programmes ²⁸. Studies that have examined male partner involvement in PMTCT in Africa have reported low levels of male participation. Only 5% of pregnant women attending a Nairobi Council Clinic in Uganda received HIV counseling with their male partners ²⁹ In the Eastern Province of South Africa and in Uganda, only 5% and 14.9% of male partners were reported to have accompanied their female partners to the antenatal care clinic visits ³⁰). Similarly, despite instituting a programme targeted at encouraging male partner participation in PMTCT and antenatal programmes, the observed percentage of men participating in such activities in a facility in Cameroon was only 18% ³¹. Falnes *et al* ²⁷ also noted that very few men joined their partners for PMTCT or antenatal activities at five health clinics in northern Tanzania. In Congo and Malawi, studies have shown that low male partner involvement is one of the challenges to the success of the PMTCT programme in the country, as only less than 10 per cent of male partners were reported to have accompanied their partners to ANC ³². The issue of male partner involvement in PMTCT cannot be overemphasized as it goes a

long way to encourage female participation in PMTCT and also reduction in the transmission of HIV.

Finally, as observed in the study, more of the HIV positive women who had poor knowledge of PMTCT reported inadequate male partner involvement and those with good knowledge of PMTCT were three times more likely to have their male partners involved in PMTCT. This stands to reason as knowledge of PMTCT will go a long way to influence male partner involvement in PMTCT.

CONCLUSION

This study concluded that majority of the respondents had a poor knowledge of PMTCT of HIV; and the level of male involvement in PMTCT was low. Poor knowledge of PMTCT, fear of stigmatization, tight job schedule, financial constraints and cultural beliefs were noted as factors that significantly influenced the level of participation of male partners in PMTCT of HIV.

REFERENCES

1. Joint United Nations Programme on HIV and AIDS. Factsheet,: World AIDS Day, 2015. Available at [http://refhub.elsevier.com/S1319-562X\(16\)30011-0/h9005](http://refhub.elsevier.com/S1319-562X(16)30011-0/h9005).
2. National Agency for the Control of AIDS. End of Term Desk Review Report of the 2010-2015 National HIV/AIDS Strategic Plan Available at http://naca.gov.ng/wordpress/wp-content/uploads/2016/11/NSP-2010-2015-end-term-desk-review-report_0.pdf
3. National Agency for the Control of AIDS. Nigeria Global AIDS Response Progress Report 2015. Available at http://www.unaids.org/sites/default/files/country/documents/NGA_narrative_report_2015.pdf
4. WHO. Fact Sheet: Global update on the Health sector response to HIV, Geneva, 2014. [http://refhub.elsevier.com/S1319-562X\(16\)30011-0/h9000](http://refhub.elsevier.com/S1319-562X(16)30011-0/h9000).
5. WHO. PMTCT strategic vision 2010-2015: Preventing mother-to-child transmission of HIV to reach the UNGASS and Millennium Development Goals' 2010.
6. Padian, N.S. HIV prevention transformed: The new prevention research agenda. *Lancet* 2010. 378(9787):269-278.
7. IRIN Africa. The downside of Male Involvement in PMTCT, Kenya. 2011 .
8. Quail Rogers-Bloch. Community Perceptions of Prevention of Mother-to-Child Transmission Services and Safe Male Circumcision in Six Focal States in Nigeria, 2012. USAID's AIDS Support and Technical Assistance Resources, *AIDSTAR-One, Task Order 1, Arlington, Va, USA.*

9. HAPCO/GAMET: HIV/AIDS in Ethiopia, an epidemiological synthesis; the Global HIV/AIDS program. Addis Ababa, Ethiopia; 2008. Available at <http://siteresourcesworldbank.org/INTHIVAIDS/Resources/375798-11037153392/EthiopiaSynthesisFinal.pdf>. Accessed in January, 2011.
10. National Agency for the Control of AIDS. Country Progress Report 2014 http://www.unaids.org/sites/default/files/country/documents/NGA_narrative_report.pdf
11. Theuring, Mbezi P, Luvanda H, Jordan-Harder B, Kunz A, Harms G. Male involvement in PMTCT services in Mbeya Region, Tanzania. *AIDS and Behavior*, vol.13, supplement 2009,1, pp. S92-S102.
12. UNAIDS. HIV and AIDS estimates.2015.Accessed on 10/11/2016 at <http://www.unaids.org/en/regionscountries/countries/nigeria>
13. HAPCO/GAMET: HIV/AIDS in Ethiopia, an epidemiological synthesis; the Global HIV/AIDS program. Addis Ababa, Ethiopia; 2008.
14. Degefa TB , Abera BM, Bayu B. Male Partners Involvement in Prevention of Mother-to-Child Transmission of HIV Services in Southern Central Ethiopia: In Case of Lemo District, Hadiya Zone. *AIDS Research and Treatment Volume 2017*, Article ID 8617540, 8 pages <https://doi.org/10.1155/2017/8617540>
15. Amano A., Musa A. *Male involvement in PMTCT and associated factors among men whom their wives had ANC visit 12 months prior to the study in Gondar town, North west Ethiopia, December, 2014. Pan African Medical Journal.* 2016; 24:239 doi:10.11604/pamj.2016.24.239.8460.
16. Ojogbede A K. “Determinants of uptake of PMTCT services by HIV Positive mothers care in Akure, Ondo State, Nigeria.2016
17. Ministry of Health Tanzania. Guidelines for prevention of mother- to- child transmission (PMTCT) in Tanzania. www.who.int/hiv/pub/guidelines/tanzania_art.pdf. 2003Assessed 26 April, 2011.
18. Townsend CL, Cortina-Borja M, Peckham CS, Tookey PA. Antiretroviral therapy and premature delivery in diagnosed HIV-infected women in the United Kingdom and Ireland. *AIDS.* 2007 May 11;21(8):1019-26.
19. Arulogun, O. S., I. F. Adewole, L. Olayinka-Alli, and A. O. Adesina .Community gate keepers’ awareness and perception of prevention of mother-to-child transmission of HIV services in Ibadan, Nigeria. 2007. *African Journal of Reproductive Health*, vol. 11, no. 1, pp. 67–75.
20. Dabis F, Leroy V, Castetbon K, (2000) Preventing mother-to-child transmission of HIV-1 in Africa in the year 2000. *AIDS*; 14:1017–1026.

21. Ministry of Health Tanzania. Guidelines for prevention of mother- to- child transmission (PMTCT) in Tanzania. 2007 www.who.int/hiv/pub/guidelines/tanzania_art.pdf. Assessed 26 April, 2011.
22. Aarnio, P. Olsson, A. Chimbiri, and T. Kulmala. Male involvement in antenatal HIV counseling and testing: Exploring men's perceptions in rural Malawi, 2003. *AIDS Care*, vol. 21, no. 12, pp. 1537–1546.
23. Auvinen J, Kylma J and Suominen T. Male involvement and prevention of mother-to-child transmission of HIV in Sub-Saharan Africa: An integrative review. *Current HIV research* vol 11, issue 2:169–77.2013 <https://doi.org/10.2174/1570162X11311020009v>.
24. Olowookere SA, Abioye-Kuteyi EA, Bamiwuye SO. Fertility intentions of people living with HIV/AIDS at Osogbo, Southwest Nigeria. *The European Journal of Contraception and Reproductive Health Care*.18: 61–67. 2013. <https://doi.org/10.3109/13625187.2012.751588>
25. Falnes, E. F., Moland, K. M., Tylleska'r, T., De Paoli, M. M., Msuya, S. E., Engebretsen, I. M. S. "It Is Her Responsibility": Partner Involvement in Prevention of Mother to Child Transmission of HIV Programmes, Northern Tanzania. 2011. *Journal of the International AIDS Society*, 14(21). doi:10.1186/1758- 2652-14-21
26. Aluisio A, Richardson BA, Bosire R, John-Stewart G, Mbori-Ngacha D, Farquhar C. Male antenatal attendance and HIV testing are associated with decreased infant HIV infection and increased HIV-free survival. 2011. *Journal of Acquired Immune Deficiency Syndromes* 56(1):76–82. doi: 10.1097/QA1.0b013e3e3181fdb4c4.
27. Byamugisha R., Tumwine J. K., Semiyaga N., Tylleskar T. Determinants of male involvement in the prevention of mother-to- child transmission of HIV programme in Eastern Uganda: A cross-sectional survey.2010. *Reproductive Health*, 2010b, 7:12. Available at <http://www.reproductive-health-journal.com/content/7/1/12>.
28. Townsend CL, Cortina-Borja M, Peckham CS, Tookey PA. Antiretroviral therapy and premature delivery in diagnosed HIV-infected women in the United Kingdom and Ireland. 2007. *AIDS*. 2007 May 11;21(8):1019-26.
29. Nkuoh G. N., Meyer, D.J., Tih, P.M., Nkfusai. J. Barriers to Men's Participation in Antenatal and Prevention of Mother-to-Child HIV Transmission Care in Cameroon. 2010. *African Journal of Midwifery and Women's Health*. 55: 363-369.
30. Van Den Berg, Brittain K, Mercer G, Peacock D. Improving men's participation in preventing mother-to-child transmission of HIV as a maternal, neonatal, and child health priority in South Africa. 2015 *PLoS Medicine*, vol. 12, no. 4, pp. 1–8.

31. Tweheyo R, Konde-Lule J, Tumwesigye NM, Sekandi JN . Male partner attendance of skilled antenatal care in peri-urban Gulu district, northern Uganda. 2010.*Pregnancy and Child Birth*, vol. 10, article 53.
32. Ditekemen J, Koole O, Matendo R, Tshefu A, Ryder R, Colebunder R.. Determinants of male involvement in maternal and child health services in sub Saharan Africa: 2014. A review. *BMC Reprod Health* 9 (32).doi: 10.1186/1742-4755-9-32.

BJMHR is

- **Peer reviewed**
- **Monthly**
- **Rapid publication**
- **Submit your next manuscript at**

editor@bjmhr.com

