

The Influence of Prevention of Mother-To-Child HIV Transmission Campaigns on the Knowledge, Attitude and Practice among Nigerian Women

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Abstract

The transmission of HIV from an infected mother to her child during pregnancy, delivery or breastfeeding is called Mother-to-Child Transmission (MCT). This is one avenue that has fundamentally aided the infection of children with the dreaded HIV disease. This menace of mother-to-child transmission has been very devastating. Many children have been infected which has resulted to their early deaths. According to a progressive report in 2012 by UNAIDS, an estimate of 3.4 million children younger than 15 years were living with HIV globally in 2011, 91% of them in Sub-Saharan Africa (where Nigeria is situated), while an estimated 230 thousand children died from AIDS-related illness in the same year. It was also reported that mother-to-child transmission accounts for more than 90% pediatric AIDS. To effectively combat the MCT malaise, the Prevention of Mother-to-Child Transmission of HIV (PMTCT) was introduced. This introduction heralded countless number of PMTCT campaigns globally, including Nigeria. Therefore, the critical question that necessitated this study is, what is the influence of the PMTCT campaigns on the knowledge, attitudes and practice among Nigerian women? Using Survey Research Method and Multi-Stage Sampling Technique, women in 6 selected states from the 6 geo-political zones of Nigeria (1 state from each of the zones) were studied. In the end, findings revealed amongst others that though the knowledge level, attitudes and practice of PMTCT among Nigerian women is abysmally low. Based on the findings, it was recommended, amongst others, that organizations, agencies and other bodies involved in packaging PMTCT campaigns should design and disseminate adequate, specific clear and very convincing messages to the women. This will help improve their knowledge on the PMTCT programme which will consequently secure the right attitude in them and herald an improved level of practice. When this is achieved, mother-to-child transmission would have been drastically reduced.

Keywords: Prevention of Mother-To-Child Transmission of HIV •Campaign •Knowledge •Attitude •Practice

Introduction

The scourge of HIV/AIDS has, no doubt, continued to ravage virtually all parts of the world. According to statistics, 34 million people are estimated to be living with HIV worldwide; 16.7 million of these are women and 3.4 million are children younger than 15 years of age. In 2011, a total of 2.5 million people were newly infected with HIV globally; an estimation of 330 thousand of these new infections are children under 15 years of age. Also in 2011, the world recorded 1.7 million deaths orchestrated by AIDS of which 230 thousand children under 15 years of age were involved (UNAIDS, 2012).

According to the National Agency for the control of AIDS (NACA), Nigeria has an estimated 3.1 million people living with HIV/AIDS, with an annual HIV positive births of 56, 681, a cumulative AIDS deaths of 2.1 million and an annual AIDS death of 215, 130 people (NACA, 2011). Statistics from the agency further show that an estimated 281, 180 new HIV infections have been recorded; 126, 260 are adults while 154, 920 children were involved in the new infections. Women, however, constitute 57% of adults infected with HIV in the country (NACA, 2011, FMOH and MASI, 2006). The pandemic is, no doubt, having a serious effect on the reproductive health of women (Adeleke, Mukhtar and Gwarzo, 2009, p.21).

Globally, the number of women dying from AIDS related causes during pregnancy or within 42 days after pregnancy was estimated to be 37 million. Also, among the 21 high priority countries (including Nigeria), 33,000 pregnancy – related deaths among women were recorded (UNAIDS, 2012 and 2011). Statistics also indicate that maternal mortality was still very high in Nigeria (630/100,000 live births) (UNAIDS, 2011).

From the figures presented above, it is very correct to aver that in all the HIV infections and deaths, children have continued to be seriously victimized. One avenue that has fundamentally aided the infection of children with this deadly disease (HIV) is Mother-to-Child Transmission (MCT). This has, no doubt, served as a major pathway for the spread of the HIV virus. For instance, in Nigeria alone, UNAIDS reported that an estimated 84, 200 children were newly infected with HIV through mother-to-child transmission in 2009. To this

end, the World Health Organisation (WHO) in 2010 reported that the prevention of mother-to-child transmission of HIV (PMTCT) has been at the forefront of global HIV prevention activities since 1998.

The transmission of HIV from a HIV positive mother to her child during pregnancy, delivery or breastfeeding is called mother-to-child transmission (WHO, 2010). Children, no doubt, are mainly infected with HIV through mother-to-child transmission at the time of pregnancy, labour and delivery or through breastfeeding. This has created enormous social and economic problems. Aside the dominant hetero-sexual transmission of HIV, vertical transmission from mother to child accounts for more than 90% of pediatric AIDS. Particularly in developing countries, mother to child transmission has become a critical child health problem (Goncho, 2009, p.6).

The menace of mother to child transmission has been very devastating. Many children have been infected which has resulted in their early deaths. According to a progress report by UNAIDS 2012, an estimate of 3.4 million children younger than 15 years were living with HIV globally in 2011, 919 of them in sub-Saharan Africa (where Nigeria is situated). An estimated 230 thousand children died from AIDS-related illness in the same year.

In the absence of interventions, the range of 20-45% of infants would be infected with the deadly HIV through mother to child transmission during pregnancy. 10-20% of infants would be infected during labour and delivery, while 5-20% will be infected through breast feeding. With appropriate interventions, the overall risk can be reduced to less than 2% (WHO, UNAIDS, UNICEF, 2008) cited in (Goncho, 2009, p.7).

To nip this deadly scourge in the bud, renewed efforts were made to scale-up the prevention of mother-to-child transmission (PMTCT) programmes globally. The Millennium Development Goals (MDGs) adopted by the UN General Assembly in 2001 committed the international community to reducing child mortality, improving maternal health, and combating HIV/AIDS, Malaria and other diseases by 2015. At the UN General Assembly Special Session (UNGASS) in 2001, governments, further committed to reduce by 50% the proportion of infants infected by HIV by 2010 by ensuring 80% of pregnant women accessing antenatal care receive PMTCT services (WHO, 2010, p.11). Also, in 2005, representatives of governments, multilateral agencies, development partners, research institutions, civil societies and people living with HIV assembled at the PMTCT High level global partners forum in Abuja, Nigeria, which resulted in a “call for Action” for the elimination of HIV infection in infants and children and a HIV-and AIDS free generation (WHO, 2007, p.4).

To effectively combat mother-to-child transmission, the United Nations came up with a four-pronged strategy for PMTCT which addresses a broad range of HIV related prevention, care, treatment and support needs of pregnant women, mother, their children and families. This comprehensive approach includes four elements which are the primary prevention of HIV infection among women, especially young women, the prevention of unintended pregnancies among HIV-infected women, provision of specific interventions to reduce HIV transmission from HIV-infected women to their infants, and provision of treatment, care and support for HIV-infected mothers, their infants and families (FMOH, 2010, p.4-5).

The potential for PMTCT to reduce the risk of HIV transmission to less than 2% of births to HIV-positive mothers underscores the importance of a communication strategy that reaches all relevant stakeholders (CADRE, 2009). This calls for the provision of adequate information to the general population and relevant service providers on the programme through well coordinated campaigns to create awareness and positively influence attitudes, norms, values, and behaviours of the public regarding PMTCT, and to improve the capacity and skills of healthcare providers for standard PMTCT services.

Statement of the Research Problem

Countless number of HIV prevention campaigns have been going on globally, Nigeria not exempted. The campaigns sponsored by various organizations and bodies such as the World Health Organization (WHO), Society for Family Health (SFH), United Nations Programme on HIV/AIDS (UNAIDS), United Nations Children Fund (UNICEF), United States Agency for International Development (USAID) and many others, including Nigeria’s Federal Ministries of Health and Information, have all been targeted towards the prevention of HIV. Recognising the high prevalent rate of mother to child transmission, the campaigns have as well given priority attention in sensitizing mothers to embrace the prevention of mother to child transmission programme. For instance, the global campaign, “Unite for Children, Unite against AIDS”, which was launched in October 2005, is a concerted effort by the international community to ensure that children and adolescents are effectively included in HIV and AIDS prevention, protection, and treatment strategies. The campaign provides a child-focused framework for nationally owned programmes around four main areas known as the “four Ps” which prevention of mother to child transmission of HIV is the first ‘P’. Some years after these campaigns started, have the campaigns succeeded in influencing Nigeria women to change their attitudes and in turn participate in the PMTCT programme? These and other questions formed the fulcrum on which this study revolved.

Objectives of the Study

The following objectives guided the study;

1. To find out whether Nigerian women are aware of PMTCT campaigns
2. To ascertain the major source of exposure of Nigerian women to PMTCT campaigns.
3. To find out the knowledge level of Nigerian women about the PMTCT programme
4. To ascertain the attitude of Nigerian women on PMTCT programme
5. To determine whether the PMTCT campaigns have influenced Nigerian women to participate in the PMTCT programme.

Research Questions

In line with the set objectives of the study, the researchers asked the following research questions

1. Are Nigerian women aware of PMTCT campaigns?
2. What is the major source of Nigerian women's exposure to PMTCT campaigns?
3. What is the knowledge level of Nigerian women on the PMTCT programme?
4. What is the attitude of Nigerian women on the PMTCT programme?
5. Have the PMTCT campaigns influenced Nigerian women to participate in the programme?

Literature Review

All over the world, there have been several studies conducted to ascertain the knowledge level, attitudes and practice of PMTCT particularly by women. Omondi, Ongo're, Ngugi and Nduati (2012) conducted a study entitled "*The Quality of PMTCT Services and Uptake of ARV prophylaxis amongst HIV positive Pregnant Women in Kakamega District of Kenya*". The study was a cross-sectional study. 30 health facilities and healthcare workers were sampled using multi-stage sampling technique. From the 30 health facilities, 119 HIV-positive pregnant women were surveyed by convenience sampling. The PMTCT counselors and HIV-positive pregnant women were interviewed using structured questionnaire. It was found amongst others that 95% of the HIV pregnant women knew about mother-to-child transmission and that ARVs can be used for PMTCT. The maternal ARV prophylaxis uptake was highest in Kakamega-South District (100%) followed by Kakamega North (85%) and Kakamega – Central (74%). The worst performing district was kakamega – East district which has an uptake of 56%.

The above findings therefore imply that PMTCT campaigns in kakamega of Kenya have serious positive influence on the mothers. It helped to create awareness and as well enhance the knowledge level of HIV-positive pregnant women on the PMTCT programme which consequently engendered positive behaviour that can be seen in the high rate of ARV prophylaxis uptake among the women.

Also, Olugbenga-Bello, Oladele, Adeomi and Ajala (2012) carried out a study entitled "*Perception about HIV Testing among Women attending Antenatal Clinics at Primary Health Centres in Osogbo, Southwest, Nigeria*". It was a survey study conducted in Olorunda Local Government Area, one of the 30 LGAs in Osun State with administrative headquarters in Igbona, Osogbo, Nigeria. The study covered all pregnant women that attended antenatal clinic (first ANC visit in current pregnancy) in three randomly selected primary health care centres in the local government area under study, between May and August 2009, and a total of 270 respondents were sampled. The findings revealed amongst others that many of the respondents felt mother-to-child transmission of HIV takes place before delivery (73.0%) during labour (66.7%) or during breastfeeding (75.9%). 88 of the women had no idea about PMTCT. 53.3% felt mother-to-child transmission could be prevented by giving ART to infected mothers, 44.8% indicated that MTCT can be prevented through delivery by caesarean section which 62.6% said MTCT can be prevented by not breastfeeding. Health workers (45.1%) and radio (39.4%) were identified as their main sources of PMTCT information.

Adeleke, Mukhtar and Gwarzo (2009) conducted a study entitled "*Awareness and Knowledge of Mother-to-Child Transmission of HIV Clinic in Kano, Nigeria*". The study was carried out at the pediatric HIV clinic of Aminu-Kano Teaching Hospital from 1st July – December 30th, 2006. Mothers included in the study were mother in first contact with HIV facilities before any form of counseling. Survey research method was used and questionnaire served as the instrument for data collection. 91% of the respondents were aware that HIV infection could coexist with pregnancy, while a significant lower proportion (61%) of the respondents were aware of mother-to-child transmission of HIV. Specific knowledge of routes of transmission was low. More than half of the woman did not know of any method of preventing mother to child HIV transmission. This, no doubt, call for an improved awareness campaigns which will consequently stimulate the desired behavior (response).

Knowledge, attitude and practices survey which was conducted in Zimbabwe to see the change in pregnant woman utilization of PMTCT services before and after extensive community awareness mobilization for two years on PMTCT benefits, indicates that the awareness of PMTCT among woman increased. This changed PMTCT services and utilization practice and behavior for pregnant women significantly (Gliemann

etal.,2006) Cited in (Goncho, 2009, p.18). This is in line with a study conducted in 2004 by Malawi Demographic and Health Survey (MDHS) to amongst other things assess the knowledge level of women on PMTCT. The study found that 75% of women had knowledge that HIV can be transmitted by breastfeeding. However, it was found that only 39% of the respondents indicated that the risk of MTCT can be reduced by mother receiving appropriate treatment during labour.

Geoffery (2011) did a study entitled “Study of the knowledge, Attitudes and Intended Practices of Pregnant women regarding prevention of Mother-to-Child Transmission (PMTCT) in Mzimba District of Malawi. It was a survey study with a sample size of 384 pregnant women selected by systematic sampling in six out of the ten health facilities offering antenatal care and VCT. The results showed that PMTCT uptake among pregnant women was at 60.4% (232/384). Regarding knowledge, 86% (199/232) of those who accepted PMTCT and 85.5% of those who did not accept PMTCT knew that mother-to-child transmission of HIV does occur. MTCT methods mentioned were during labour 46.6% (179/384), during breastfeeding (46.6% (179/384), and during pregnancy 10.4% (40/384). Interventions for MTCT mentioned include taking ARVs 41.4% (159/384), avoidance of breastfeeding 12.8% (48/384), and by operation 0.8% (3/384). Majority of the women had positive attitude towards PMTCT.

Goncho (2009) conducted a study on the factors influencing the utilization of PMTCT services in Addis Ababa, Ethiopia. The study carried out literature review from internet and Kit library, WHO, UNAIDS and USAID. It discovered that knowledge in the community as well as among the pregnant women on transmission of HIV from mother-to-child during breastfeeding and PMTCT services was high but utilization of the services was low.

It is expedient to assert here that having knowledge about PMTCT does not necessarily guarantee attitudinal change to subsequent use of PMTCT services. Wrong perceptions of PMTCT services by clients, low level of literacy, lack of adequate information and awareness on the benefits of PMTCT services are affecting its utilization.

Attitude-Change Theory

The Attitude Change Theory was developed from propaganda theories in the 1930s during World War II (Baran & Davis 2012, p.175). The theory explains that there are pre-existing attitudes, whether biological or psychological which have to be changed if selected messages must have any effect on the target audience. Again, it explains that these pre-existing attitudes are core and, therefore, stand as barriers to effective penetration of messages for desired change. Thus an intellectual and emotional strategy of communication will influence change if properly channeled to do so. Change in evaluations and perceptions of an individual’s predispositions will take place if the required modification favours his expectations, if it is tied to someone he admires, or if it is bound to be beneficial to him (Wood, 2000, p.539).

The theory also identifies that existing attitudes or mental predispositions need to be changed or channeled to a particular cause through an intellectually and emotionally binding strategy. (Baran & Davis, 2012, p.175).

In the PMTCT campaign, possible barriers to knowledge acquisition, positive attitude and practice of campaign messages may include psychological, emotional and physical. Psychological when women see issues with opening up to modern medicine when they detect or observe body changes that may be harmful to their bodies and conceal their observations due to shyness, stigmatisation or cultural beliefs. Physical, when screening facilities/PMTCT sites are not reachable or available, or medical specialists/healthcare workers are inadequate. Emotional, when the fear of being diagnosed of HIV overrides the need for early detection and care, to avert mother-to-child transmission.

Methodology

A study of public perception calls for a method(s) that will give the researchers the opportunity to elicit responses from the respondents. To this end, Survey Research Method was employed to effectively prosecute this study. Questionnaire served as the measuring instrument. The population of the study was women in Nigeria. The 2006 census figures as obtained from the National Population Commission (NPC) shows that the total population of women in Nigeria is 69,086,302 from where a sample size of 384 was drawn using Philip Meyer’s sample size determination method. Multi-stage sampling technique was adopted to select the study areas. Below is a tabular presentation of the selected study areas.

Table 1: Zones, Selected States, Selected Local Governments, Population and Proportional Representation

Zone	Selected States	Selected LGAs	Population	Proportional Rep
South-South	Rivers	Port-Harcourt	257,855	93
South-East	Enugu	Enugu-North	123,245	44
South-West	Lagos	Ikeja	145,832	52
North-Central	Benue	Makurdi	146,239	53
North-East	Kaduna	Bauchi	241,310	87
North-West	Kano	Kano-Municipal	151,607	55
Total			1,066,088	384

From the table above, 93 copies of the questionnaire were administered to 93 women in Port-Harcourt, 44 copies were administered to respondents in Enugu-North LGA, 52 copies were given to respondents in Ikeja LGA, 53 copies were as well shared to respondents in Markurdi LGA, respondents in Bauchi LGA got 87 copies of the questionnaire while 55 copies were administered in Kano-Municipal LGA making a total of 384 respondents. After the questionnaire administration, 4 were lost in transit while 2 were not properly filled. The researchers therefore used the remaining 378 for the study.

Analysis and Results

Research Question One: Are Nigerian women exposed to PMTCT campaigns?

Table 2: Whether Nigerian Women are aware of PMTCT campaigns?

Awareness	No. of Respondents	Percentage
Yes	378	100%
No	0	0%
Total	378	100%

The data as presented in table 2 above explain that 378 or (100%) respondents are aware of PMTCT campaigns; no respondents said they are not aware of the PMTCT campaigns. This means that all the respondents have in one form or the other heard of the PMTCT programme through the various campaigns. The indication here is that, awareness level about PMTCT amongst Nigerian women is very high.

Research Question Two: What is the major source of Nigerian women's exposure to PMTCT campaigns?

Table 3: On the major source of Nigerian women's exposure to PMTCT campaigns?

Sources	No. of Respondents	Percentage
Television	92	24.3%
Radio	217	57.4%
Newspapers	4	1.1%
Magazines	-	-%
Public Campaigns/Rallies	31	8.2%
Health Workers	17	4.5%
Religious Organisations/Leaders	12	3.2%
Friends/Relatives/Neighbours	5	1.3%
Total	378	100%

The data presented in table 3 above indicate that 92 or 24.3% of the total respondents get PMTCT campaigns majorly via television, 217 or 57.4% of the respondents have radio as their major source of PMTCT campaigns, 4 or 1.1% respondents said newspaper is their major source of PMTCT information while none of the respondents utilize magazine as a source of PMTCT campaigns. 31 or 8.2% of the respondents get PMTCT information majorly through public campaigns/rallies, 17 or 4.5% of the respondents are often tutored on PMTCT by health workers, 12 or 3.2% of the respondents majorly access PMTCT information through religious organization/leaders while 5 or 1.3% of the respondents get exposed to PMTCT campaigns via friends/relatives/neighbours. This analysis obviously point to the fact that majority of the respondents get exposed to PMTCT campaigns via radio.

Research Question Three: What is the knowledge level of Nigerian women on the PMTCT programme?

Table 4: The knowledge level of Nigerian women on the PMTCT programme?

What are the methods of preventing mother-to-child transmission?	No. of Respondents	Percentage
Taking antiretroviral therapy during pregnancy	13	3.4%
Taking antiretroviral therapy during labour	9	2.4%
Delivery by cesarean section	18	4.8%
Avoiding breastfeeding	16	4.2%
Administering antiretroviral therapy to newborn	11	2.9%
All of the above	17	4.5%
None of the above	0	0%
Don't Know	294	77.8%
Total	378	100%

The data as presented in table 4 above helped to ascertain the knowledge level of Nigerian women on the PMTCT programme. From the table, 13 or (3.4%) respondents indicated that taking antiretroviral therapy during pregnancy can help prevent mother-to-child transmission. 9 or (2.4%) respondents said taking antiretroviral therapy during labour is the best method of PMTCT. 18 respondents representing 4.8% indicated that delivery by cesarean section is the method they know on the prevention of mother-to-child transmission. 16 or (4.2%) of the respondents said avoiding breastfeeding is the method they are aware of in the prevention of MCT, administering antiretroviral therapy to newborn was chosen by 11 or (2.9%) respondents. 17 or (4.5%) respondents indicated taking antiretroviral therapy during pregnancy, taking antiretroviral therapy during labour, delivery by cesarean section, avoiding breastfeeding and administering antiretroviral therapy to newborn as methods of preventing mother-to-child transmission of HIV while 294 or (77.8%) of the total respondents said they do not know how to prevent mother-to-child transmission of HIV.

Research Question Four: What is the attitude of Nigerian women on the PMTCT programme?

Table 5: The attitude of Nigerian women on PMTCT?

Do you think the PMTCT programme is good?	No. of Respondents	Percentage
Yes	33	14%
No	49	13%
Not Sure	276	73%
Total	378	100%

The data as presented in table 5 above explain that 33 or (14%) respondents are feel that the PMTCT programme is good, 49 or (13%) respondents do not really have positive attitude towards the PMTCT programme while 276 or (73%) respondents do not have clear cut attitude towards the PMTCT programme. This implies that just a minor number of the respondents feel good about the PMTCT programme.

Research Question Five: Have the PMTCT campaigns influenced Nigerian women to participate in the programme?

Table 6: On whether the PMTCT campaigns have influenced Nigerian women to participate in the programme?

When was the last time you did HIV test?	No. of Respondents	Percentage
6 months	6	1.6%
1 year ago	13	3.4%
2 years ago	58	15.3%
3 years ago	301	79.6%
Total	378	100%

The data presented in table 6 above explain that 6 or (1.6%) respondents went for HIV test 6 months ago, 13 or (3.4%) respondents said they went for HIV test 1 year ago, those that went for the test two years ago are 58 representing 15.3% while those that did their last HIV test 3 years and above are 301 or (79.6%). This is

an indication that the level of practice is low.

Summary of Findings

Nigerian women are aware of the PMTCT programme through the various campaigns; radio is the major source of Nigerian women's exposure to PMTCT campaigns. The knowledge level of Nigerian women on the PMTCT programme is low; the attitude of Nigerian women on the PMTCT programme is discouragingly negative and the level of PMTCT practice amongst Nigerian women is low.

Conclusion

As revealed by this study, the knowledge level of the Nigerian women on the PMTCT programme is low. Consequent upon this, the researchers conclude that until adequate and very clear messages on PMTCT are properly disseminated (mainly through the radio channel in combination with other channels), the knowledge level of Nigerian women, including their attitudes and participation in the PMTCT programme will continue to be on the low side and the end result will be massive transmission of HIV from infected mothers to their babies.

Recommendations

While deploying the various communication channels to disseminate PMTCT messages to Nigerian women, greater attention should be given to the radio channel as it was shown that radio constitutes their major source of exposure to PMTCT messages. Again, organisations, agencies and other bodies involved in packaging PMTCT campaigns should design and disseminate adequate, specific, clear and very convincing messages to the women. This will help to improve their knowledge on the PMTCT programme which will consequently secure the right attitude in them and herald an improved level of practice. When this is achieved, mother-to-child transmission would have been drastically reduced.

Experts with proven track records in Behavioural Change Communication (BCC) and other media professionals should be fully engaged to help in the process of designing and disseminating messages on PMTCT.

Further studies in this area should go beyond the scope covered in this study by including more states that were not captured in this study for an all encompassing result. Also, Focus Group Discussion should be employed to conduct the study.

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