

UTILISATION OF MOTHER-TO-CHILD TRANSMISSION OF HIV SERVICES IN LOKOJA METROPOLIS, NIGERIA

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ABSTRACT

This study assessed the utilisation of prevention of mother-to-child transmission (PMTCT) of HIV services in Lokoja, Nigeria. The study was hinged some specific objectives which include ascertaining if HIV-Positive women are aware of the existence of PMTCT of HIV services in Lokoja, Finding out the factors that affects utilisation of PMTCT services by HIV-Positive women in hospitals in Lokoja, and determining if economic status affects access to PMTCT of HIV services in hospitals in Lokoja. The study relied on the health belief model of Rosenstock et al to explain the social phenomena studied; and adopted the cross sectional survey design with purposive sampling techniques via purposive sampling procedure to reach and elicit responses from 520 selected sample. Questionnaire and In-Depth Interview (IDI) were used as primary instrument of data collection. Data were analyzed using the Statistical Package for Social Sciences (SPSS) software, while the qualitative data was content analyzed descriptively to support the quantitative aspects of the findings. the findings indicated that mother-to-child transmission of HIV was responsible for more than 90% of infection among children under the age of 15, 75.0% of the respondents were under 35 years old, and 79.0% were married, 44.1% had a complete knowledge of the transmission routes of HIV. The study therefore recommended, among others, that Government should join efforts with policy makers to make and implement policies that will focus on educating HIV-Positive women on the need to utilise prevention of MTCT of HIV services and the danger of not accessing the services, increase awareness about HIV/AIDS and the PMTCT programme using different channels and through churches as well as multiple channels of communication at grass roots levels is encouraged to provide wider access to information concerning PMTCT of HIV services.

Keywords: Child, HIV, Lokoja, Services, Utilisation, Women

Introduction

The emergence of Human Immunodeficiency Virus (HIV) since the 1980s has increased the existing heavy burden of disease and death among women and children in low- and middle-income countries (WHO, 2007). Sadly,

HIV and Acquired Immune Deficiency Syndrome (AIDS) epidemic is now adversely affecting the modest gains made in the previous decades in maternal and child survival (WHO, 2007). UNAIDS/WHO (2009)

estimated that 2.3 million children were living with HIV/AIDS, and that 2 million of these children were in sub-Saharan Africa. In 2007, the number of children under 15 years of age who were living with HIV increased to 2.5 million. Of this total, an estimated 370,000 were new infections and majority of these infections occurred through Mother-To-Child Transmission (MTCT) (Coovadia, 2008; WHO, 2008; Lu, & Bragonier, 2006). About 90% of MTCT infections occurred in Africa. In contrast, reports from Europe and the United States of America (USA) indicate that, the availability of effective antiretroviral (ARV) treatments and avoidance of breast feeding, reduced MTCT of HIV to less than 1% (Coovadia, 2008).

Mother- to- child transmission of HIV (MTCT) also known as vertical transmission occurs when a HIV- positive woman passes the virus to her baby (Maduakor, 2012). This can occur during pregnancy, labour and delivery or breastfeeding (Nkwo, 2012). Research has shown that without intervention (ARV prophylaxis or treatment), up to 40% infants born to mothers infected with HIV can become HIV- infected (Maduakor, 2012). A great deal is known about specific factors that may put a woman at higher risk of transmitting HIV to her baby. These risk factors could be present during pregnancy, labour and delivery, and breastfeeding. The most important risk factor for MTCT is the amount of HIV virus in the mother's blood known as viral load. The risk of transmission to the baby is greatest when the maternal viral load is high. Mixed feeding is also an important risk factor. Artificial feeding increases the risk of intestinal illness and a weakened intestine associated with (contaminated) breast milk increases the chances of HIV crossing the intestinal barrier (FMOH, 2007; Maduakor, 2012).

The HIV prevalence of Kogi state has ranged from 6.0% in 1999, to 6.5% in 2001 and 4.2% in 2005 (National Action Committee on AIDS (NACA), 2007; FMOH, 2006.). The current Global AIDS Response Progress Report [NACA] (2012) produced the HIV prevalence rate of 8.7% in Kogi State making it the fourth state with high rate of HIV infection in Nigeria (Federal Republic of Nigeria, 2012). In Kogi State, especially in Lokoja Metropolis, not much have been done in area of PMTCT except for the work of Nnamdi- Okagbue (2009) who conducted a study at Onitsha on factors affecting the utilization of mother- to-child transmission services by HIV positive women. This study intends to fill the gap in knowledge on the awareness, and utilization of PMTCT of HIV services in Lokoja, Kogi State. This study therefore hopes to examine the awareness and utilization of prevention of mother- to- child transmission in Lokoja, Nigeria.

1.2. Statement of the problem

Non-use of Mother- to- child transmission (MTCT) of HIV accounts for over 90% new cases and complications of HIV infection among young children (Chema, Gashau & Oguche, 2007; FMOH, 2007; Nigatu & Woldegebriel, 2011). Non-use Mother-to-child transmission (MTCT) of HIV represents 90% of new sources of paediatric HIV infections. It is estimated that 370,000 children were infected with HIV globally, 90% of whom live in developing countries (UNAIDS, 2010). Nigeria is the country with the highest burden of MTCT in the world (UNAIDS, 2009); 210,000 HIV-positive women are pregnant every year, contributing to that high MTCT burden in Nigeria are high population size of women and newborns with HIV/AIDS in Lokoja, HIV prevalence in general population and among pregnant women in Lokoja, Nigeria. More than 3.6 million adults and children were estimated

to be living with HIV in 2005 and the 2010 national sentinel survey report estimated the HIV prevalence among pregnant women attending antenatal care services (ANC) in Nigeria at 4.1%. There is relatively low antenatal attendance in Nigeria as well as Lokoja in particular – only 58% of pregnant women attend at least one antenatal clinic visit and only 35% deliver in health facilities (UNICEF, 2010; NPC 2008). This problem associated with utilization of prevention of mother- to- child transmission of HIV services is not only a health problem but also a social problem and requires social intervention. Thus, sociologists and social health workers can assist in utilization of PMTCT services through providing post test crisis counseling and other counseling services to ensure that HIV- positive pregnant women return for their antenatal follow-up appointment to enable the health professional save the infant from becoming infected with HIV. This study therefore, assesses the utilization of prevention of mother- to- child transmission services (PMTCT) among HIV positive women of child bearing age (15-49years) in Lokoja, Nigeria.

Objectives of the study

The study sought to:

1. Ascertain if pregnant HIV- positive women are aware of the existence of PMTCT of HIV services in Lokoja.
2. Determine if educational background of HIV positive women has any effect on their level of utilization of PMTCT services in Lokoja.
3. Find out the factors that affect utilization of PMTCT services by HIV- positive women in hospitals in Lokoja.

Review of empirical literature

Awareness of HIV transmission

According to Federal Ministry of Health (2006), awareness about HIV/AIDS is generally high in Nigeria (94%), with a 98% level in

urban areas compared to 91% in rural areas. Awareness is higher in males (96%) than in females (90%). The National Demographic Health Survey (NDHS) also revealed awareness of AIDS being higher in men (97%) than women (86%) (National Population Commission, 2003). According to the National HIV/AIDS and Reproductive Health Survey (FMOH, 2006), knowledge on the routes of transmission was: sexual intercourse (91%), unscreened blood transfusion (81%), and mother- to- child transmission (69%). Iliyasu, Abubakar, Kabir & Aliyu (2006) in their study on Knowledge of HIV/AIDS and attitude towards voluntary counseling and testing in Zubairu also found knowledge about mother- to- child transmission relatively low (67.1%). Okonkwo, Reich, Alabi, Umeike & Nachman (2007) in their study on attitudes and beliefs of pregnant Nigerian women towards voluntary counseling and testing also found that 42.9% of their respondents believed that HIV could be transmitted by a pregnant woman to her unborn child, while 32.9% were unsure. Nnamdi-Okagbue (2009) also found knowledge of HIV transmission from mother- to- child during pregnancy 70%, delivery 39% and 67% during breastfeeding. Her study also revealed that 71.6% of her respondents were aware of interventions that can prevent mother- to- child transmission of HIV, 17.6% indicated that there were not and 9.8% did not know. In Tanzania, Kominami, Kawata, Ali, Meena & Ushijima (2007) found that awareness of HIV was 98.2% for those who had been tested for HIV and 98.4% of those who had not been tested whereas awareness of mother- to- child transmission of HIV was relatively low: 66.3% of those who had been tested and 43.3% of those who had not been tested.

Sources of information on prevention of mother- to- child transmission of HIV accessible to HIV- positive pregnant women

HIV- positive women obtain information regarding mother- to- child transmission of HIV from different sources, including the antenatal clinic, television and radio (Nnamdi-Okagbue, 2009). The antenatal care can be more effective in preventing adverse pregnancy outcomes when it is sought early in the pregnancy and continues through to delivery. The information will help to increase their awareness about the topic and help them to make informed decisions concerning interventions that will help reduce the rate of transmission to their babies. Other sources of health information include:

Health Facility

According to Moth et al (2005), more than half (52.4%) of the respondents in their study obtained information from the health facility while Kominami et al (2007) found that 68.4% of the women received information about mother- to- child transmission of HIV from the antenatal clinic. Chivonivoni (2006) found that 32% of the pregnant women received information about prevention of parent- to- child transmission of HIV from the health centre. Besides the health talks and counseling given by the health care workers, posters on PMTCT are also strategically placed in the antenatal clinics to inform and educate pregnant women (Nnamdi-Okagbue, 2009).

Radio

The radio was found to be another important source of information on mother- to- child transmission of HIV (Kominami et al 2007; Moth et al 2005). Listening to foreign and local radio broadcasts is a popular past time with the inhabitants of northern Nigeria and such media can therefore be used to effectively

convey HIV/AIDS prevention messages (Iliyasu et al 2006).

Magazines/newspapers

Magazines and newspapers are also vital sources of information on mother- to- child transmission of HIV (Kominami et al 2007; Moth et al 2005). Information is also obtained from schools, churches, neighbours, friends and family/relatives (Kominami et al 2007). The different source shows that pregnant women obtain information regarding mother- to- child transmission of HIV from various sources.

Factors affecting awareness, accessibility and utilization of PMTCT of HIV services

A number of factors have been found to impede the awareness, accessibility and utilization of PMTCT of HIV services. In Nigeria, awareness of HIV and AIDS was generally very high (93.8%). However, correct knowledge of all the routes of HIV transmission remained low (54%) (FMOH, 2010). Education can empower women to understand issues related to HIV/AIDS and enable them to make informed decisions regarding knowing their HIV status as well as utilizing services that will help to prevent mother- to- child transmission of HIV (Nnamdi- Okagbue, 2009). Karim- Sesay & Kimani (2006) found that women in Kenya were more vulnerable to HIV/AIDS when they were younger, had a low level of education, were from different ethnicities and from certain regions, and were unmarried and unemployed.

Theoretical Framework

The study adopts Health Belief Model as a frame work for this study because it focused on the relationship of health behaviours, practices and utilization of health services. According to HBM, people's beliefs about whether or not they are susceptible to disease and their perceptions of the benefits of trying

to avoid it influence their readiness to act (National Cancer Institute, 2005). Perceived susceptibility refers to one's subjective estimation of personal judgment of the seriousness of that condition (i.e. risk of HIV infection). A pregnant woman who is HIV-positive has risk of passing the virus to her baby in the womb or during child birth, or postnatally through breastfeeding (FMOH, 2007). It is therefore essential that a pregnant woman is assisted to understand her risk and the possibility of transmitting the virus to her baby if the necessary interventions are not utilized. This will help the women to make informed choices (e.g. undergoing HIV counseling and testing and receiving antiretroviral drugs) that will help to protect their babies from becoming infected.

Perceived severity according to Rosenstock (1994) is an individual's opinion about how serious a condition is and its consequence. Even when individuals recognize personal susceptibility, action will not take place unless they perceive the severity as high enough to have serious implications. Pregnant women should therefore be made to understand the seriousness of HIV/AIDS and its consequences such as transmission from mother- to- child if one is HIV- positive. Perceived benefit is an individual's perception of the usefulness of an action. For pregnant women to perceive the benefits of interventions, they need information about what actions are required to prevent mother-to- child transmission of HIV, how to take the action, and when to take the advised action.

The HBM addresses individuals' perceptions as barriers that will prevent them from adopting the new action advised. Of course, individuals are ready to act if they believe the costs of taking action (perceived barriers) are outweighed by the benefits (National Cancer Institute, 2005). It is now pertinent that in promoting prevention of

mother- to- child transmission of HIV, health workers such as social workers need to identify such barriers and work with the pregnant women to reduce them. Some of the perceived barriers to participating in PMTCT services by pregnant women include, fear of knowing one's own HIV status, stigma associated with HIV/AIDS, lack of male partners support etc. social workers should help pregnant women to identify these barriers and help them to reduce it through counseling. Since all pregnant women would want to have a healthy baby devoid of HIV infection, they are likely to take action to avoid the risk of transmitting HIV to their baby if the benefits are adequately explained to them. Cues to action are strategies that activate "readiness" (Glanz, Rimer & Lewis, 2002). Pregnant women should be provided with information or reminder cues that will compel them to take action to prevent mother- to- child transmission of HIV. Such reminders could be knowledge of HIV-positive woman who has an HIV-negative baby, mass media campaigns, and posters at antenatal clinics, handbills on mother- to- child transmission distributed at clinics. All these can encourage a pregnant woman to take action.

Methodology

This study was conducted in Lokoja Metropolis between January to March, 2019. This study used the cross sectional descriptive survey design with both quantitative and qualitative techniques. The study population comprises of HIV-positive pregnant women that were on antenatal services and HIV-positive women of child bearing age that were assessing antiretroviral (ARV) services in these hospitals. Using purposive sampling techniques, three hospitals were selected in Lokoja, namely: General Hospital, Lokoja, Specialist Hospital, Lokoja and the Federal Medical Centre, Lokoja on the grounds that they were the only hospitals in Lokoja that offer antiretroviral drugs and prevention of mother-to-child

transmission of HIV services to women living with HIV/AIDS. 520 HIV-positive pregnant and HIV-positive women of child bearing age assessing such services were selected through purposive sampling procedure. Data were collected by means of structured questionnaire and through In-depth interviews (IDI). The questionnaire contained both open and closed-ended questions. It was divided into two sections. Section A consists of questions on socio-demographic characteristics of the respondents regarding their gender, age (in years), marital status, educational level, and religious affiliation. Section B focuses on other substantive issues bothering on the study. The data collected

through questionnaire were analyzed using Statistical Package for Social Sciences (SPSS) version 22 and statistically analyzed using descriptive techniques such as frequencies, percentage and weighted mean, while the field notes from the interview generated in the course of the field work were summarized, and then content analyzed manually.

Results and Discussion

The analysis carried out in this paper are in two sections. Section A focuses on the analysis of the respondents socio-demographic characteristics, while section B centre on the analysis of the objectives of the study.

Table 1: Distribution of Respondents Socio-demographic Characteristics (N=515)

Variable	Category	Frequency	Percentage (%)
Marital Status	Single	76	14.8
	Married	407	79.0
	Divorced	7	1.4
	Widowed	25	4.9
Age	18-23 years	34	6.6
	24-29 years	176	34.2
	30-35 years	176	34.2
	36-41 years	104	29.2
	42 years & above	25	4.9
Level of Education	No formal	12	2.3
	Primary	125	24.3
	Secondary	266	51.7
	Tertiary	112	21.7
Occupation	Trader	191	37.1
	Civil/public service	75	14.6
	House wife	96	18.6
	Artisan	135	26.2
	Student/unemployed	18	3.5
Monthly income	Less than 10,000	268	52.0
	10,000-49,000	210	40.8
	50,000-89,000	32	6.2
	90,000-120,000	5	1.0
Number of Children	0	93	18.1
	1	121	23.5
	2	102	19.8
	3	73	14.2
	4	72	14.0
	5 children & above	54	10.5
Total		515	100.0

Source: Field Survey, 2019

The Table 1 shows the marital status of the respondents. The result indicated that 14.8% were single, 79.0% were married, 1.4% were either divorced or separated; while 4.9% were widowed. This showed that the majority of the respondents were married and exposed to the risk of HIV infection if their spouses/partners were infected and were having unprotected sex or if the spouses/partners had not disclosed their HIV status. Also, it shows the marital status of the respondents. The result indicated that 14.8% were single, 79.0% were married, 1.4% were either divorced or separated; while 4.9% were widowed. This showed that the majority of the respondents were married and exposed to the risk of HIV infection if their spouses/partners were infected and were having unprotected sex or if the spouses/partners had not disclosed their HIV status.

Equally, the table above shows the respondents' level of education revealed that respondents with no formal education were 2.3%. Those that had primary education were 24.3%. Respondents who completed their secondary education were 51.7%; while those that obtained a higher degree/tertiary education were 21.7%. This implies that the majority of the respondents had obtained secondary education. It is expected as often argued that level of educational attainment

could impact on the knowledge of persons on health issues. In addition, the occupational distribution of the respondents. The result indicated that 37.1% were traders, 14.6% were civil/public servants, 18.6% were housewives, and 26.2% were artisans; while 3.5% were students/unemployed. This revealed that out of 515 respondents used for the study, traders, civil/public servants, housewives and artisans constituted majority of the population while those that are students or unemployed were in the minority. shows the respondents' monthly income. The data on the table revealed that out of 515 respondents, 52.0% earn the lowest wages. This is followed by 40.8% that earn 10,000-49,000, 6.2% earn 50,000- 89,000, while only 1.0% earn the highest wages (90,000-129,000). The above result showed that the greater number of respondents earn below 50,000 per month, as well as shows the respondents' number of living children. The result as shown in the above table indicated that out of 515 respondents used for the study, 23.5% had 1 child, 19.8% had 2 children, 14.2% had 3children, 14.0% had 4 children, while 10.5% had 5 children and above. The result also showed that 18.1% of the respondents had no previous pregnancies or were pregnant for the first time.

Table 2: Distribution of respondents knowledge on HIV transmission & MTCT

Knowledge on ways HIV can be transmitted	Responses		Total
	Yes	No	
Unprotected sexual intercourse with an infected partner?	472 (91.7%)	43(8.3%)	515(100.0%)
Blood transfusion?	393(76.3%)	122(23.7%)	515(100.0%)
Use of infected sharp skin Piercing instruments?	411(79.8%)	104(20.2%)	515(100.0%)
Infected mother-to-child?	295(57.3%)	220(42.7%)	515(100.0%)
Heard of MTCT?	Yes	No	Don't Know
	468(90.9%)	31(6.0%)	16(3.1%)
			515(100.0%)

Source: Field Survey, 2019

The respondents were asked about the different ways that HIV can be transmitted. Table 2 shows that 91.7% mentioned unprotected sexual intercourse with an infected partner, while 8.3% did not mention it; 76.3% mentioned blood transfusion, while 23.7% did not mention it; 79.8% mentioned the use of infected sharp skin-piercing instruments, while 20.2% did not mention it and 57.3% mentioned from infected mother to child, while 42.7% did not mention it. This findings indicated the high percentage of respondents (42.7%) were not knowledgeable about mother to child transmission of HIV.

This revealed a knowledge gap among the respondents in terms of awareness of all the modes of transmission of HIV. The respondents were asked specifically if they had heard about mother- to- child transmission of HIV. A critical look at the Table 8 shows that 90.9% of the respondents said that they had heard about it before even though only 57.3% mentioned this when they were asked about ways that HIV can be transmitted. Only 6.0% indicated that they have not heard about it, while 3.1% indicated that they do not know.

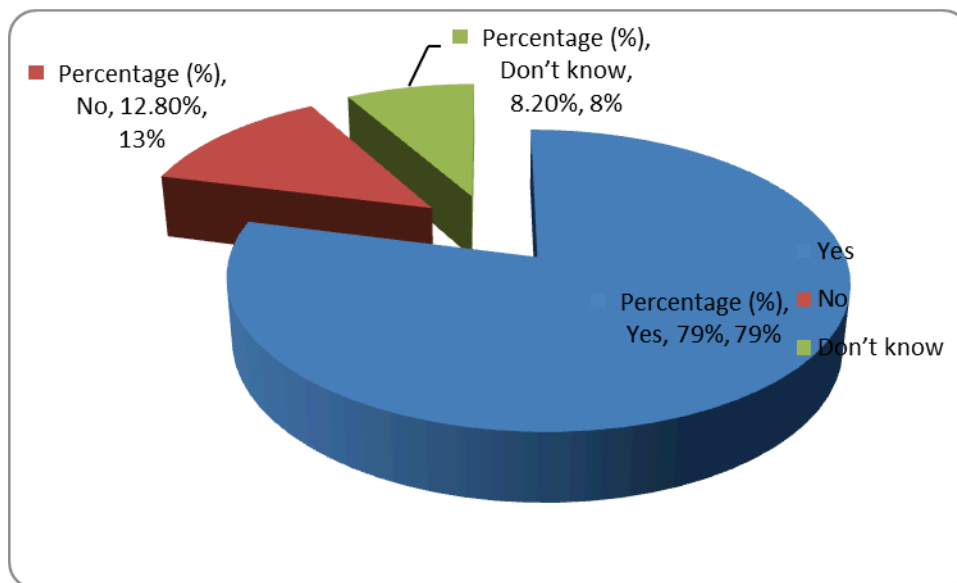


Fig. 1: Distribution of respondents views on whether a pregnant woman can be HIV positive and look healthy

Source: Field Survey,2019

The respondents were asked if a pregnant woman can be HIV positive and look healthy. From the pie chart in Figure 1, it is clear that out of a total of 515 respondents, 79.0% indicated that an HIV positive pregnant woman can look healthy, 12.8% answered

“No”, revealing that they were not aware of this fact, and 8.2% do not know. The findings suggested that there is a gap in knowledge as someone could be HIV positive and look healthy.

Table 3: Distribution of respondents on the first place they heard about MTCT of HIV (N=515)

Sources from where respondents first heard about mother to child transmission of HIV	Frequency	Percentage (%)
News paper and magazine	36	7.0
Television	79	15.3
Radio	62	12.0
Health worker	260	50.5
Family and friends	31	6.0
Not applicable	47	9.1
Total	515	100.0

Source: Field Survey, 2019

The respondents were asked the source from where they first heard about mother to child transmission of HIV. A look at Table 9 shows that 50.5% of the respondents indicated from health workers; 15.3% indicated from television; 12.0% indicated from radio; 7.0% indicated from newspaper and magazines; 6.0% indicated from family and friends, while 9.1% do not respond to the question because they have not heard about it. The respondents' most common source of information about mother to child transmission (MTCT) of HIV, then, was from health workers. This finding was supported by the data from in- depth interview with the Matron in-charge of PMTCT services when she said:

"During antenatal, pregnant women undergo training which comprises everything about pregnancy, including HIV, its' transmission and prevention from mother to child. We also educate them on the act of breastfeeding where we encourage them to do exclusive breastfeeding for six months, after six months the woman continues to breastfeed plus other complementary feeding"

This shows that health workers play an important role in disseminating information about HIV and MTCT.

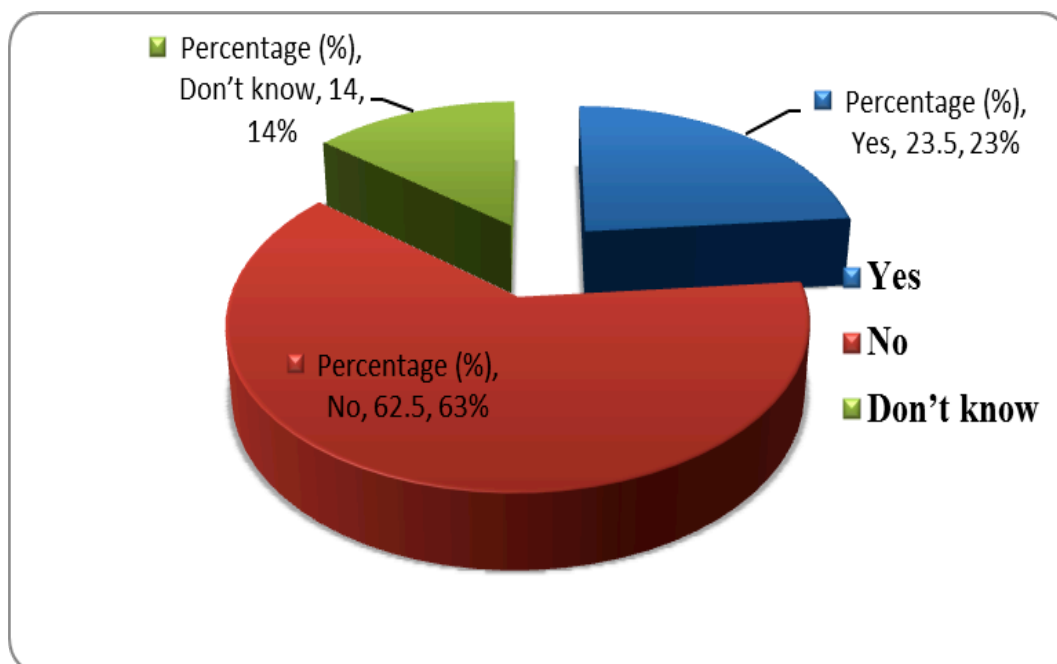


Fig.2: Percentage (%) distribution of respondents' views on whether babies born to HIV positive women will be infected with HIV

Source: Field Survey, 2019

Data on Figure 2 shows that 23.5% indicated that all babies born to HIV- positive women always become infected with HIV, 62.5% disagree with that and indicated that not all babies born to HIV-positive women will become HIV infected; while 14.0% do not know. This finding showed that majority of the respondents were of the view that not all babies born to HIV-positive women will become HIV infected.

Table 4: Distribution of respondents on the awareness of intervention strategy that can prevent MTCT of HIV as well as from mother-to-child (N=515)

Awareness of intervention that HIV?	Frequency	Percentage(%)	can prevent
Yes	425	82.5	
No	47	9.1	
Don't Know	43	8.3	
Intervention that can prevent MTCT of HIV?	Frequency	Percentage(%)	
Use of drugs	292	56.7	
No breastfeeding	68	13.2	
Registering for antenatal on time	42	8.2	
No blood contact	23	4.5	
Not applicable	90	17.5	
Total	515	100.0	

Source: Field Survey, 2019

Data on Table 4 shows that 82.5% indicated that there were interventions that can prevent MTCT of HIV, 9.1% indicated that there were not aware, and 8.3% do not know if there were any interventions that can prevent MTCT of HIV. The findings revealed a knowledge gap which could be why some pregnant women were not utilizing PMTCT of HIV services. Respondents were asked to state the nature of intervention they know that could prevent

MTCT of HIV. Table 11 shows that 56.7% mentioned “use of drugs” as an intervention that can prevent MTCT of HIV, 13.2% mentioned “No breastfeeding”, 8.2% mentioned “registering for antenatal on time”, 4.5% mentioned “no blood contact”, while 17.3% do not respond to the question because they were not aware that there were intervention that could prevent MTCT of HIV.

Table 5: Distribution of respondents’ knowledge of anti HIV drugs to prevent MTCT of HIV (N=515)

Knowledge of anti-retroviral drugs to PMTCT of HIV	Frequency	Percentage (%)
Yes	457	88.7
No	31	6.0
Don’t know	27	5.2
Total	515	100.0

Source: Field Survey, 2019

The respondents were asked specifically if the use of anti-HIV drugs could prevent MTCT of HIV. A look at Table 12 shows that 88.7% of the respondents indicated that the use of drugs could prevent MTCT of HIV even though only 56.7% stated this when they were asked to state the nature of intervention they know that can prevent MTCT of HIV, 6.0% answered “no” drugs could be used to prevent MTCT, and 5.2% did not know if the use of drugs could prevent MTCT. Nnamdi- Okagbue (2009) found that 78% of the respondents knew that ART could be used. This was supported by the data from in-depth interview with a pharmacist under PMTCT unit who said:

“Most of these pregnant women that are enrolled for this services here, you see their babies coming out negative. Immediately they born, we offer their babies what we called starting dose of nevirapine for six weeks for preventing them from getting the virus. Now they are trying to extend the dose, but most

of the times you find out that these babies turn out negative.”

The Nigerian government supports the availability and provision of anti-retroviral drugs to HIV-positive mothers for PMTCT of HIV. This was supported by the data from in-depth interviews. According to Network Coordination Officer:

“The sponsors that are sponsoring this programme are trying. They make everything available to them, even mosquito nets, their delivery kits which contain everything, both their pads, cotton wool, buckets for their water and so many of them. Even their drugs are always available.”

This means that service materials for PMTCT of HIV services are available for HIV-positive individuals.

Discussion of Findings

Mother- to- child transmission of HIV is responsible for more than 90% of infection among children under the age of 15 (Chema, Gashau & Oguche, 2007; FMOH, 2007; Nnamdi-Okagbue, 2009; Nigatu & Woldegebriel, 2011). According to Davies (2014), infant HIV infection rate has not changed much since 2009. Despite available interventions that can help to reduce the rate of transmission, not all HIV- positive women use the services. This study provides quantitative and qualitative insights into utilization of prevention of mother- to- child transmission of HIV services among HIV positive women of child bearing age in Lokoja, Kogi State. The findings in this study revealed that demographic variable such as level of education has an influence on the perceived individual threat of an illness such as HIV/AIDS. The majority of the respondents (75.0%) were under 35 years old, and 79.0% were married. Amongst all the respondents, 73.4% had achieved secondary and tertiary education. Education can empower pregnant women to understand issues related to HIV/AIDS and assist them to make informed decisions regarding knowing their status as well as utilizing services that will help to prevent mother to child transmission.

Karim-Sesay and Kimani (2006) found that women in Kenya were more vulnerable to HIV/AIDS when they had low level education. Most of the respondents were of child bearing age and at risk of becoming infected. Being married also exposes women to the risk of acquiring HIV infection. The findings in this study indicated that majority of the respondents were married and thus exposed to the risk of HIV infection if their partners/spouses were infected and they were having unprotected sex or if the partners/spouses had not disclosed their HIV status. In support of this, Smith (2007) and

Nnamdi-Okagbue (2009) pointed out that HIV infection is transmissible within marriage thus putting the women in danger of acquiring infection. Olanrewaju et al (2007) found marital status significantly associated with HIV status. Wives are not allowed to refuse sex from their husband, or to use a condom, even if their husband is infected with HIV (Buve et al 2002). Nnamdi-Okagbue (2009) emphasized that even when a woman wants to protect herself, she is confronted by an entrenched culture of male dominance that renders her powerless. According to her, women are not recognized and treated as men's equals; they cannot make decisions even concerning their health. Knowledge has an influence on risk of perception as it enables an individual to recognize the risk of an illness and thus take steps to adopt healthy behaviour to prevent illness or infection. The results from the study showed that majority of the respondents were knowledgeable about HIV transmission. However, only 44.1% had a complete knowledge of the transmission routes of HIV. This finding indicated that gaps still exist in the respondents' knowledge regarding MTCT of HIV as only 57.3% of the respondents mentioned MTCT of HIV as a means of transmission; but when asked specifically whether they had heard about it, 90.9% indicated they had. This could obviously indicate that more emphasis is laid on sexual intercourse as a mode of transmission compared to this particular mode of transmission which has serious implications for mother- to- child transmission of HIV among pregnant women. Ekanem and Gbadegesin (2004) found that although the majority of women (89.9%) had good knowledge of the modes of transmission, knowledge of this specific aspect of mother to child (MTCT) was nevertheless poor.

Davies (2014) stressed that Nigeria is a country with slow mother to child

transmission decline; it is still responsible for one third of the new HIV infections among children. Moreover, the finding in Fig. 1 indicated that 79.0% of the respondents knew that a pregnant woman can be HIV positive and look healthy. Okonkwo et al (2007) found that 90.8% of women knew that someone could be HIV positive and look healthy. The FMOH (2006) found that 70% of the respondents stated that a healthy-looking person could be HIV positive. This revealed a knowledge gap that could lead to exposure to HIV infection. A person can feel and look healthy for many years but still be infected, and as such can transmit the virus to other people Nnamdi-Okagbue (2009). This gap in knowledge informs the need for health workers to enlighten and emphasizes this to pregnant women during antenatal talks. Access to information equips individuals with knowledge to take measures to prevent an illness. Amongst the respondents, 50.5% stated that they first heard about MTCT from health workers. Other sources of information included television, radio and family/friends. This concurred with Bastien, Leshabari and Klepp's (2009) finding in Tanzanian that the majority indicated medical personnel, the radio and parents as sources of information, followed by the mass media. In the Nyanza Provincial Hospital, Kenya, Moth et al (2005) found that 52.4% of clients received PMTCT information at the health facility without prior knowledge about the intervention. According to Kominami et al (2007), 68.4% of their respondents obtained information about MTCT from the antenatal clinic. Similarly, Nnamdi-Okagbue (2009) found that 64.7% of respondents' most common source of information about MTCT of HIV were health workers.

A significant number of the respondents were aware of interventions available to reduce MTCT. 88.7% of the respondents used

in the study indicated that the use of anti-retroviral drugs can prevent MTCT. It was also found in the study that 62.5% of the respondents maintained that not all babies born to HIV-positive women will become HIV infected. Even though 62.5% of the respondents knew that not all babies born to HIV- positive women will become infected with HIV, the knowledge gap emphasizes that health workers should educate antenatal mothers on this. Mother - to- child transmission of HIV accounts for more than 90% of infections in children under the age of 15 years globally (Chema, 2007; FMOH, 2007; Nnamdi- Okagbue, 2009; Nkwo, 2012).

Amongst the respondents who agreed that the use of anti-retroviral drugs can prevent MTCT, 82.7% confirmed that the drugs were effective and 42.5% indicated that they knew someone the drugs worked for. These corroborated findings from other studies showed that the use of anti-retroviral drugs can prevent MTCT of HIV (Newell, 2004; Barlett & Gallant, 2004; Dabis, 2005; Nightingale & Dabis, 2006; UNGASS, 2006; Okonkwo et al, 2007; Nnamdi- Okagbue, 2009; FMOH, 2011; Nigatu & Woldegebriel, 2011; NACA, 2012; Nkwo, 2012). In addition, Chema, Gashau and Oguche (2007); WHO (2011); and Nkwo (2012) attested that antiretroviral prophylaxis during pregnancy if instituted in time, monitored and used with or without breastfeeding can result in a significant reduction of mother- to- child transmission of HIV. However, Bauni, Garimoi, Maharaj, Mushingeh, Neema, Ngirwamungu and Riwa (2010) pointed out that many myths and false beliefs regarding the transmission and treatment of AIDS remain. For example, the AIDS can be cured by sleeping with a child under 10 years. Moreover, rural men believed that traditional healers could cure the disease. Bauni et al also found that participants were generally well informed about the causes and

prevention of HIV, although some sexually active men suggested that HIV could be caused by medication.

The results further revealed that 49.3% of the respondents were of the opinion that HIV-positive women should breastfeed their babies, 43.9% stressed that HIV-positive women should not breastfeed. This finding is in agreement with the data from in-depth interview with PMTCT doctor who demonstrated that a judicious adherence to the proper use of drugs will go a long way to prevent HIV transmission to infants even while breastfed. However, 43.9% that stressed that HIV-positive women should not breastfeed is a concern. Nnamdi-Okagbue (2009) also found that 62% of respondents said that they will not breastfeed their babies. Hence, the need for sensitization on the proper use of drugs to change views of those that believe that positive women should not breastfeed.

Conclusion

The study assesses utilization of prevention of mother- to- child transmission among HIV positive women of child bearing age in Lokoja, Kogi State. From the study, it can be seen that educational attainment of HIV-positive women is associated with their utilization of PMTCT of HIV services. This finding concur with that of Karim-Sesay and Kimani (2006) who found that women in Kenya were more vulnerable to HIV/AIDS when they had a low level of education. A look at the finding of Nnamdi-Okagbue (2009) also showed that educational qualifications of HIV-positive women influence their utilization of PMTCT of HIV services.

In conclusion, the findings revealed that the respondents were knowledgeable about the transmission routes of HIV, but the knowledge of this particular aspect of mother-to- child transmission was poor. To this end, the government, health institutions, organizations, social workers and the general

public should assumed their responsibilities in providing proper information about mother to child transmission and prevention of MTCT for HIV-positive women focusing on the disadvantage and problems of not utilizing the PMTCT of HIV services.

Recommendations

Based on the findings of this study, the following recommendations were made.

- i. Government should join efforts with policy makers to make and implement policies that will focus on educating HIV-positive women on the need to utilize prevention of MTCT of HIV services and the danger of not accessing the services.
- ii. The researcher recommends that on-going health talks should be provided to pregnant women attending antenatal clinics beyond what they are told the day they come for booking in the health facility. All aspects of transmission from mother- to- child should be emphasized during the health talks to promote a better understanding of PMTCT.
- iii. Since the health workers were listed in the study as a major source of information regarding PMTCT, every health care provider involved in caring for pregnant women should be very familiar with the PMTCT interventions. They should be exposed to regular training programmes to update their own knowledge and skills in HIV/AIDS counseling, infant feeding counseling and PMTCT to enable them to effectively educate the pregnant women.
- iv. Increase awareness about HIV/AIDS and the PMTCT programme using different channels and through churches as well as multiple channels of communication at grass roots level is encourage to provide wider access to information concerning PMTCT of HIV services

- v. Policies that could introduce short-term programmes/workshops/seminars on prevention of mother- to- child transmission of HIV education in all parastatals and organizations should be promulgated to provide wider opportunities to learn about PMTCT services
- vi. Since stigma associated with HIV/AIDS was suggested in the study to be the

major reason why some pregnant women were not willing to utilize PMTCT of HIV services. Educational campaigns must continue at all levels to create more knowledge and awareness of HIV/AIDS, promote understanding about the disease in order to reduce stigma and discrimination as well as support for those who are infected.

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