

Traditional Birth Attendants' understanding and perceived roles in the prevention of Mother to Child transmission of HIV in Ogun State, Nigeria

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Abstract

Background: About 3.2 million people and 400,000 children live with HIV in Nigeria. Over 60% of deliveries take place outside health facilities and are often supervised by Traditional Birth Attendants (TBA). It is expedient that TBAs have good knowledge and perception of prevention of mother to child transmission (PMTCT) of HIV.

Methods: This is a cross-sectional study of TBAs in two randomly selected LGAs in Ogun State. All consenting TBAs registered with the TBA association in the selected LGAs were included in the study.

Result: There were 142 respondents in all. Most TBAs (97.2%) were aware of HIV and the mode of transmission. They acquired the knowledge from Government hospitals (35.2%) and the media (32.4%). The respondents were aware mothers could transmit HIV to their children during pregnancy (67.6%), labour/delivery (74.6%) and breastfeeding (62%). The perceived roles of the TBAs in PMTCT included counseling of pregnant women (95.8%), ensuring screening for HIV (95.8%), accompanying HIV positive pregnant women to centers where they can obtain care (97.2%), referral of HIV positive women (97.2%), use of universal precaution during delivery (94.4%), use of sterile instruments for delivery (98.6%) and not taking delivery of HIV positive pregnant women by themselves (78.9%).

Conclusion: The TBAs in this study had a good perception of their role in PMTCT. Persistent training and supervision will ensure compliance with the principles of PMTCT and thus reduce the burden of mother-to-child transmission of HIV.

Key words: HIV, Prevention of mother to child transmission, Safe Motherhood, Traditional Birth Attendants

Introduction

The prevalence of HIV/AIDS in Nigeria is about 4.6% with a vertical transmission rate of 15%. ^[1] This is not surprising since about 60% of the deliveries in Nigeria are conducted by the traditional birth attendants (TBA) most of whom are not aware of HIV and the modes of transmission. ^[2] In 2013, it was estimated that Nigeria had 3.2 million people

living with HIV, 400,000 being children. ^[3, 4] More than 90% of these children were infected through mother to child transmission of HIV. ^[5,6]

The HIV prevalence in Nigeria has been on the decline since 2001. ^[7] However, there has not been a significant reduction in the burden of HIV in children as 15% of pregnancies in Nigeria and 4% in Sub-Saharan Africa are complicated with mother to child transmission of HIV. ^[8] Worldwide, about 70,000 babies test positive to the HIV annually due to inadequate utilization of available initiatives to prevent the transmission of HIV through the mother to child route. Unfortunately, Nigeria is responsible for 30 percent of the global burden of newborns that are HIV-positive. ^[8 - 10] Nigeria is the second most burdened country in the world with people living with HIV as revealed in the 2010 sentinel survey. ^[11-13]

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Recent report showed that Ogun State has the second highest prevalence of HIV/AIDS in southwest Nigeria. There are 135,000 people living with HIV/AIDS in Ogun State. The prevalence rate of HIV/AIDS in the state rose from 1.5% in 2003, to 3.1% in 2010. The prevalence is highest in Ijebu-Ode (5%) and lowest in Ayetoro (1.3%).^[14] It has been noted by Itina,^[15] that 70-75% of all deliveries in some sections of Nigeria were attended by the traditional birth attendants (TBAs) - individuals who assist the mother at child birth having acquired their skills through delivering babies by themselves or by working with other TBAs.^[16] When trained, TBAs have been instrumental to the reduction in negative perinatal outcome in pregnancy. Pregnant women in rural and urban areas in Nigeria continue to patronize TBAs despite booking in orthodox clinics because of traditional beliefs and closeness to the community.^[17, 18] The goal set to reduce mother to child transmission of HIV and increase access to quality voluntary, counseling and confidential testing of HIV by 50% by the year 2010 failed. This will remain a mirage until the TBAs are integrated adequately into the primary health care or are replaced by skilled health personnel at the grassroots who can address factors that influence MTCT such as high maternal viral load, mode of delivery that promotes mother to child transmission of HIV, prolonged rupture of membranes, prematurity and breast feeding.^[19,23] It is necessary for the health care providers conducting majority of the deliveries to be aware and be capable of actively participating in PMTCT. This study assessed the understanding and perceived role of TBAs in PMTCT of HIV in Ogun State.

Methods

Study Design

This was a cross sectional study. A questionnaire was used to collect information about biodata, socio-economic status, occupational history, knowledge of HIV and PMTCT, practice of PMTCT and the use of universal precaution.

Study Area

The study area in Ogun State was determined by multi-stage sampling involving all Local Government Areas (LGAs) of Ogun State. The Local Governments were grouped into the various zones in the state namely Egba, Yewa, Ijebu and

Remo zones. Two of these four zones were randomly selected; these included Ijebu and Remo zones. The Local Government Areas in each of these four zones were grouped and two Local Government Areas were randomly selected from these zones which were Ijebu-Ode and Ikenne Local Government Areas.

Ijebu-Ode Local Government Area has a population of 222, 653 on a land area of 192km² in 2007.^[14] Ikenne Local Government Area has an area of 144km² and a population of 118, 735 people as of 2006 census.^[14]

Target population: The population studied was the TBAs in Ijebu-Ode and Ikenne LGAs of Ogun state.

Sample size: The estimated proportion of TBAs with the right knowledge of HIV transmission from mother-to-child in Lagos State was put at 8.6%. Using this prevalence of right knowledge of PMTCT, the sample size was calculated to be 121, using the formula: $n = z^2[p(1-p)/d^2]$ where $z = 1.96$, $p = 8.6$, $d = 0.05$. Ikenne LGA had 80 registered TBAs while Ijebu-Ode LGA had 62 TBAs and all the 142 TBAs were studied.

Data Collection: Data were collected using self-administered questionnaire. However, TBAs who needed assistance had the questionnaire explained to them in the language they best understood (Yoruba or pidgin English) by research assistants, who were Public Health graduates who had been involved in organizing and coordinating health awareness and training for TBAs in Ogun State.

Training: The training of TBAs in the State had been done by the LGAs Public Health unit and various NGOs that were involved in HIV interventions. The training involved education on HIV/AIDS, its mode of transmission, methods of HIV prevention and available treatments, HIV counseling and testing as well as PMTCT. There were two of such trainings each year by the LGA health authorities and other organizations involved in HIV care. Each session lasts about six hours.

Community Entry: The TBAs were reached through their Association in the State with the cooperation of the officers of the Association in the selected LGAs. All TBAs registered with the Association who gave their consent were included in this study whether they had been involved with the training in the past or not while those who did not give their consent were excluded from this study.

Ethical Consideration: Ethical approval was obtained from the ethical committee of Babcock University Human Research Ethical Committee.

Data Analysis: Information obtained from this study was analyzed using SPSS version 18.0. The demographic data were presented in frequency tables. The knowledge and practice data were presented in cross-tabulations.

Results

One hundred and forty two TBAs were involved in this study. About 56.3% (80 respondents) were recruited from Ikenne LGAs while 43.7% (62 respondents) were recruited from Ijebu-Ode LGA.

Table I shows the age distribution of the respondents. The age range was 19 to 75 years with the mean age 48.7 ± 13.6 years. Fifty eight (40.8%) of

Table I: Socio-demographic characteristics and training of TBAs

Profile		Frequency	Percentage
Age	<20	2	1.4
	21-30	18	12.8
	31- 40	20	14.1
	41 - 50	40	28.1
	51 - 60	34	23.9
	≥ 61	28	19.7
Educational qualification	None	18	12.7
	Primary	38	26.8
	Secondary	74	52.1
	Tertiary	12	8.5
Religion	Christianity	50	35.2
	Islam	68	47.9
	Traditional Religion	22	15.5
Tribe	Yoruba	134	94.4
	Igbo	6	4.2
	Hausa	2	1.4
Years of Practice	1-10	74	52.1
	11-20	38	26.8
	21-30	24	16.9
	>30	6	4.2
Trainer	Father	60	42.3
	Mother	14	9.9
	Other TBAs	46	32.4
Duration of Training	Relatives	8	5.6
	1-10 years	122	93.0
	>10 years	20	7.0

Table II: Respondents' Awareness of HIV and sources of HIV information

		Frequency	Percentage
Awareness	Yes	138	97.2
	No	4	2.8
Sources of HIV information	Media	46	32.4
	Church/Mosque	6	4.2
	Government Hospital	50	35.2
	Private Hospital	18	12.7
	Seminar/Workshop	22	15.5

the respondents were males while eighty four (59.2%) were females. Most (60.6%) of the respondents had secondary education and above while only 12.7% had no formal education. The majority of the respondents was either Christians (35.2%) or Muslims (47.9%) and was mostly Yoruba (94.4%). The majority (52.1%) of the TBAs had practiced between 1-10 years while only six (4.2%) had practiced for over thirty years. Most of the TBAs involved in this study were trained by their fathers (42.3%) and other TBAs (32.4%). The training of most of the TBAs (93%) was between one and ten years.

Table II showed the respondents' awareness of HIV. One hundred and thirty eight respondents (97.2%) affirmed awareness of HIV. They affirmed they got their information from government hospitals (35.2%) and the media (32.4%).

Table III describes the respondents' perception of HIV transmission. Most of the respondents (74.6%) believed that MTCT takes place mostly during labour/delivery while only 8.5% believed transmission of HIV can occur through demonic attack and herbal concoctions.

Table IV shows the respondents' understanding of the ways to achieve PMTCT. There is a high level of understanding of PMTCT among the TBAs.

Table V shows the respondents' perceived role of the TBA in PMTCT. A significant (21.1%) proportion of the TBAs would like to deliver the HIV positive women by themselves.

Table III: Respondents' Perception of HIV transmission

		Yes (%)	No (%)
Mode of Transmission	Contaminated blood and body fluid	139 (91.5)	6 (4.2)
	Unprotected sexual intercourse	142 (100.0)	0 (0.0)
	Contaminated instruments	134 (94.4)	8 (5.6)
	Spell	12 (8.5)	130 (91.5)
	Kissing	16 (11.3)	126 (88.7)
	From infected mother	116 (81.7)	26 (18.3)
	Demonic attacks	6 (4.2)	136 (95.8)
	Sharing Utensils	30 (21.1)	112 (78.9)
Knowledge about when/ how mothers infect babies	Pregnancy	96 (67.6)	46 (32.4)
	Labour/delivery	106 (74.6)	36 (25.3)
	Breastfeeding	88 (62)	54 (38)
	Infant formulae feeding	108 (76.1)	4 (23.9)
	Herbal concoction	12 (8.5)	130 (91.5)
	Demonic attack	12 (8.5)	130 (91.5)

Discussion

This study assessed the understanding and perceived role of the TBAs in PMTCT against the background of their knowledge and practice in the prevention of mother to child transmission of HIV in Ogun State. Over half of the TBAs (59%) were females while the remaining 40.8% were males. This is comparable to the finding of Balogun *et al* in their study in Lagos State in which 59.3% of the respondents were females but Kaingu's study in Machakos District of Kenya involved considerably more females (84%).^[18, 24] Like the study in Lagos and Ebonyi, 86% of the TBAs were above age 30 while most of the TBAs in the study in Kenya were 40 years and above.^[18, 24, 25] With the mean age of 48.69 ± 13.6 years, the mean age of the participants was similar to the figures reported in an Indian study (52 years).^[26] Thus an average TBA is a matured adult and able to take responsibility.

Majority of the respondents practiced Islam. However, Traditional religion accounted for 2.8% of the respondents in the Lagos State study compared to 15.5% in the present study and 89.9% in the study from Ebonyi State.^[18, 25] Little wonder the respondents showed very less belief in spell, demonic attack and supernatural care of the women.

Most of the respondents had at least primary

Table IV: The understanding of the respondents about the measures for preventing Mother to Child Transmission of HIV

PMTCT Measures	Yes (%)	No (%)
Counseling and testing of all pregnant women	140 (98.6)	2 (1.4)
Refer to centers with services for treatment and care for HIV	140 (98.6)	2 (1.4)
Accompanying HIV positive women to the hospital	138 (97.2)	66 (46.4)
Encourage breastfeeding in all HIV positive mothers on HIV drugs	110 (77.5)	32 (22.5)
Discourage breastfeeding in all HIV positive mothers	76 (53.5)	66 (46.4)
Encourage compliance to prescribed drugs	130 (91.5)	12 (8.4)
Support care with herbal concoction	10 (7.0)	132 (93.0)
Sacrifice to appease gods	6 (4.2)	136 (95.8)
Scarification marks	8 (5.6)	134 (94.4)
Mothers on anti-HIV drugs may not transmit virus to their children	92 (64.8)	50 (35.2)
Use only sterile instruments at delivery	140 (98.6)	2 (1.4)
Use new razor blade to cut umbilical cord	134 (94.4)	8 (5.6)
Give herbal concoction to babies to prevent HIV transmission	134 (94.4)	8 (5.6)

Table V: The Role of the TBA in the Prevention of Mother-to-Child Transmission of HIV

Role of TBAs	Yes (%)	No (%)
Counseling about HIV transmission	136 (95.8)	6 (4.2)
Screening pregnant women for HIV	138 (97.2)	4 (2.8)
Encouraging and ensuring all pregnant women are screened for HIV	136 (95.8)	6 (4.2)
Ensuring the use of HIV drugs till baby has been weaned	136 (95.8)	6 (4.2)
Use of universal precaution in all procedures	134 (94.4)	8 (5.6)
Referral of HIV positive women to hospitals where they can be treated	138 (97.2)	4 (2.8)
Deliver HIV positive women by yourself	30 (21.1)	112 (78.9)

education. This might be a reflection of the compulsory free education policy in this area in the past years. This is higher than the 52.8% that had secondary education in the Lagos State study and markedly different from the Ebonyi and Indian studies in which only 10.9% and 21.1% had primary Education while the others had no formal education.^[18, 25, 26] In Calabar, Cross River State, 44.3% of TBAs had no formal education while 31.4% had primary school education, and 13.6% had secondary school education.^[22] The level of

education might have had impact in the acquisition of knowledge by the TBAs.

Majority of the respondents (52.1%) in this study had practiced for between 1 and 10 years. This is higher than the 41.7% in the Lagos State study and the 28.5% of the Ebonyi study. The Lagos State study however had significantly higher number of respondents with over 30 years' experience in the trade (4.2% versus 15.7%).^[18, 25] Over half of the TBAs in the present study got their skill through the family lineage similar to the Lagos study but less than 68.5% reported in a Kenyan study.^[18,24]

The awareness of the respondents about HIV was high in this study. The persistent nature of the sources of HIV information (media and healthcare providers) might have enhanced awareness and understanding among the TBAs unlike in Ebonyi and Calabar where awareness of HIV among the TBAs was 65.1% and 35% respectively and the information about HIV was mainly obtained from the peers.^[25, 22] Therefore, in enhancing education and sustained PMTCT, the media should be utilized to reinforce knowledge while the workers in the government hospital should train and supervise the activities of the TBAs.^[27] The differences in levels of awareness among the TBAs across the country may be partly due to the differences in the time of study, the availability of media and health professionals promoting PMTCT.

All the respondents in this study agreed that HIV can be transmitted through unprotected sexual intercourse with an HIV-infected partner. The high correct knowledge of the mode of transmission might be due to the higher level of education of the respondents as well as the efficiency and the persistence of the source of their information.

The majority of the TBAs understood that a mother can transmit HIV to her baby during pregnancy, labour/delivery and through breastfeeding. To prevent this, they opined that counseling and testing of all pregnant women should be done and HIV-positive women should be referred to centers with adequate facilities to care for the women to ensure PMTCT. In this study, 64% of the respondents believed that mothers can infect their babies through breastfeeding while in a study in Uganda and Tanzania, 50% of the TBAs believed lack of breastfeeding will prevent mother to child transmission of HIV.^[28]

The use of sterilized equipment during delivery was adopted by 98.6% of the respondents. Majority (94.4%) used new razor blade for cutting the umbilical cord of the babies at delivery. In contrast with the Lagos study which reported that 69.4% of their respondents did not use sterilized equipment in their service and 14.8% did not use new razor blade for every new born baby, only 1.4% and 5.6% did not use sterile equipment in the delivery of babies and used new razor blade in the present study respectively. Ninety seven percent of respondents actually referred their HIV positive pregnant women to centers with adequate care for HIV positive mothers, 94.4% practiced universal precautions while 95.8% encouraged the use of antiretroviral medications. Despite the high level of knowledge about HIV and the prevention of mother to child transmission of HIV, it is worrisome that 21.1% would like to deliver all HIV positive women by themselves. The augmentation of HIV care with herbal concoction, scarifications and use of supernatural methods such as offering sacrifices is minimal in the practice of the respondents in the present study. The use of herbal concoction was reportedly less in the Lagos study (3.7%).

The TBAs had a high perception of their role in PMTCT. Sustenance of regular education and introduction of sustained supervision may help reduce mother to child transmission of HIV on a consistent basis. This might be the best available option as many women deliver without skilled attendants.^[29]

Conclusion

The TBAs are deeply entrenched in the African culture and co-opting them in PMTCT is expedient in the face of low skilled health care providers and infrastructure. With this high level of the TBAs' perceived role, empowerment of this group of health care providers will greatly enhance PMTCT.

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