South American Journal of Medicine
Volume 4, Issue 1, 2016

Level of awareness versus level of participation in the HIV/AIDS response among Non-formal health care providers in Nigeria; a comparative study

[1]Amara F. Chizoba, [2]Edward I. Madu, [3]Edith C. Ezeobi, [4]Mmaduabuchi D. Akujuo, [5]Johnbull Egharevba

[1]Clinical Research, Centre for Clinical care and Clinical Research Nigeria (CCCRN), Abakaliki, Ebonyi State Nigeria

[2]Care and support, Catholic Caritas Foundation of Nigeria (CCFN), Makurdi, Benue State Nigeria;

[3]Clinical Research, Centre for Clinical care and Clinical Research Nigeria (CCCRN), Abakaliki, Ebonyi State Nigeria;

[4]Clinical Research, Centre for Clinical care and Clinical Research Nigeria (CCCRN), Abakaliki, Ebonyi State Nigeria;

[5]Clinical Research, Centre for Clinical care and Clinical Research Nigeria (CCCRN), Abakaliki, Ebonyi State Nigeria.

E-mail:fchizoba.scs@gmail.com

Abstract

Background: *Large portion of Nigeria's population use the services of non-formal health care providers like patent medicine vendors (PMV) and traditional birth attendants (TBA), seeing that 65% of deliveries in Nigeria occur in such non-formal health setting. Though studies demonstrate increase in HIV/AID awareness among PMV/TBAs there is yet an unclear evidence of their level of participation in the HIV/AIDS response, even as health financing and engagement of these private sector becomes important implementation research question in Nigeria. This study aims to compare level of awareness versus level of participation of the non-formal health care providers in the HIV/AIDS response in Nigeria.*

Method: *By cross-sectional design, questionnaire was used to get responses from 210 PMVs and 135 TBAs across 6 Local Government Areas in Ebonyi State, Nigeria. Responses were analyzed using percentages and frequency distribution.*

Results: *Mean age is 34 years. Highest education level was secondary school at 59%. HIV/AIDS awareness level was >80% but participation was at 48%.*

Conclusion: *HIV Awareness has increased among TBA/PMV but their participation level in HIV/AIDS response is still low. Integration of this group into public health sector could increase participation.*

Keywords: *HIV, AIDS, PMV, TBA*

1. Introduction

According to United States agency for international development (USAID), a large portion of Nigeria's population use the private non-formal health sector and an apparently large number of the population do not perceive them as low-quality practitioners of Western medicine, but instead view them as quality providers of African medicine[1].

The private health non-formal health care providers include Traditional birth attendants (TBAs), Patent medicine Vendors (PMVs), and other traditional healers[2]. World health organization (WHO) also classifies this group of health care providers as traditional and complementary medicine (T&CM) providers[3]. Patent Medicine Vendors –also referred to

as chemists in Nigeria- are people who sell over the counter medications while providing basic health services to clients before referral of complicated cases. On the other hand, Traditional Birth Attendants are persons-either men or women- who assists the mother during childbirth and initially acquired her skills by delivering babies herself or through apprenticeship from other TBAs.

The perception of the PMVS and TBAs as quality providers of African medicine has become a socio-cultural factor influencing the high patronage of the PMVs/TBAs as compared to public health sectors in Nigeria. For instance, 65% and 45% of deliveries in Nigeria and Malawi respectively, occur in the non-formal settings like the TBA/PMVs [2, 4, 5]. Therefore and only 35% of deliveries in Nigeria occur in formal hospital settings; 20% in public sector and 15% in private health institutions [2, 4]. Also, because public health sector in many developing countries suffers from a lack of financial and human resources [6], the PMVs/TBAs are thus available to bridge the gap. This high patronage of the Nigeria population for private health sector commands the need for policy makers to extend and support HIV service delivery to and through the private non-formal health sectors using a workable and quality strategy. This is highly essential as the nature of the HIV/AIDS response evolves from emergency relief to long-term sustainability and thus, understanding current and potential contributions from the private sector is critical [7].

Services delivered by the private non-formal health sector (including PMVs and TBAs) in the HIV/AIDS response cover a wide range including awareness raising and communication for behavior change, HIV counselling and testing(HCT), some clinical services, drugs distribution and supply chain management, as well as care for the PLWHAs and their families [8].

Studies have demonstrated increase in awareness of HIV among PMV and TBAs due to increased awareness creation and education intervention among this sec [9]. But even as Health financing and engagement of the private sector becomes an important priority implementation research question in Nigeria [10], there is yet an unclear answer to the level of PMVs and TBAs participation in HIV/AIDS response and generally in health care programs in Nigeria. Comparing the level of awareness and level of participation of the PMVs and TBAs in the HIV/AIDS response (using current participation in HCT as a criteria) could prompt and facilitate actions towards the engagement of private non-formal health sector (like PMVs/TBAs) in the HIV/AIDS response in Nigeria and beyond.

1.1. Factors influencing patronage of PMVs/TBAs

Large number of the population that patronizes the PMVs and TBAs do not perceive them as low-quality practitioners of Western medicine, but instead view them as quality providers of African medicine[1]. This has become a socio-cultural factor influencing the high patronage of these cadre of health care delivery.

In addition, TBAs (and PMVs), is a critical group within the health sector because of their bond with people in the communities and thus have an important role to play in health care delivery [11].

Another influencing factor is the fact that the public health sector in many developing countries suffers from a lack of financial and human resources [6]. WHO estimates on the density of providers per 100,000 people in Nigeria in 2003 to include; 28 physician; 170 nurses; 5 pharmacists and 91 community health workers. This thus demands compensation of the low health resources from the non-formal health service providers like PMVs and TBAs[1].

This high patronage of the Nigeria population for private non-formal health sector commands the need for policy makers to extend HIV services to and through the private

sectors using a workable and quality strategy. Execution of such strategies have been ongoing with awareness creation of HIV being a focus and on the increase.

1.2. Level of Awareness of HIV among PMV/TBAs in Nigeria

Some studies in Nigeria have shown increase in knowledge of HIV among TBAs/PMVs [9, 12]. For instance, study by Oluwole A at al [9] demonstrated that 81% of the TBAs had HIV knowledge through training but added that this knowledge has not translated in commensurate effort to engage and monitor them in participation in the HIV service provision [9].

Their participation is eagerly envisioned as the nature of the HIV/AIDS response evolves from emergency relief to long-term sustainability, thus understanding current and potential contributions from the private sector is critical [7].

1.3. Participation of the PMVs and TBAs in the HIV/AIDS response in Nigeria

The private health sector in many developing countries like Nigeria contributes >50% of personal health care services [13], and >60% of the health care in Africa is financed privately [14].

A multi-country analysis conducted by the Private Sector Partnership–One project, a project funded by the US Agency for International Development, found that between 3% and 45% of women and between 6% and 42% of men reported the private for-profit sector as the source of their most recent HIV test[6, 15]. The private non-formal health care setting has thus been demonstrated to provide HIV counselling and testing (HCT) for up to 45% of the population. Showing a steady increase in their participation in the HIV/AIDS response through HCT.

In addition, according to WHO, Traditional and complementary medicine(T&CM)- where PMVs and TBAs are also classified- is an important and often underestimated part of health care and the demand for their services is increasing [3], while Olumide et al [9] opined that TBAs are an essential part of the Nigerian healthcare system. If of proven quality, safety, and efficacy, these service providers contributes to the goal of ensuring that all people have access to care [3]. Many countries now recognize the need to develop a cohesive and integrative approach to health care that allows governments, health care practitioners and, most importantly, those who use health care services, to access T&CM (PMVs/TBAs) in a safe, respectful, cost-efficient and effective manner. A global strategy to foster its appropriate integration, regulation and supervision will be useful to countries wishing to develop a proactive policy towards this important - and often vibrant and expanding - part of health care[3].

Services delivered by the private/non-formal health sector (such as PMVs and TBAs) in the HIV/AIDS response cover a wide range including awareness raising and communication for behavior change, testing, laboratory analyses, clinical services, drugs distribution and supply chain management, as well as care for the PLWHAs and their families [8].

The wide range of services have HCT as one of the basics in the HIV/AIDS response. Efforts to increase PMVs/TBAs participation through HCT is thus crucial. Currently it is in the plan of elimination of mother and child health transmission of HIV (EMTCT) in Nigeria to provide multiple HIV testing points as a strategy to increase participation of all health care providers-including private health sectors- in HIV management in Nigeria [2]. Also, integration of the non-formal and the formal health care providers has also been in the plan for the HIV/ADIS response in Nigeria [2].

Though level of awareness of HIV among PMVs/TBA have been demonstrated to be high, there is still yet an unclear answer to the level of PMVs and TBAs participation in HIV/AIDS response and other key health care service provision generally in Nigeria, even as Health

financing and engagement of the private and non-formal health sector becomes an important priority implementation research question in Nigeria [10].

It is therefore important to assess the level of participation of PMVs/TBAs in the National HIV/AIDS response so as to insight policy makers in the ongoing plan of 'the all health providers' inclusion in the national HIV/AIDS response and other health care activities in general.

2. Method

This is a cross sectional study that used questionnaire to elicit level of awareness versus level of participation in HIV response among non-formal health care providers (TBAs and PMVs). 345 private non-formal service providers who met inclusion criteria of being a Patent medicine vendor (PMV) or Traditional birth attendant (TBA) were included in this study. Using simple random sampling, 6 out of 13 Local Government Areas (LGAs) in Ebonyi state- the area of study- were selected. Questions on HIV knowledge/awareness and on participation in HIV counselling and testing (HCT) were translated into local dialect to aid understanding for the level of participants under study. 210 PMVs and 135 TBAs responded to the questions. Self-administered questionnaires were used to get responses from literate respondents after detailed explanations while interviewer guided questionnaires were used to get responses from the illiterate respondents in local dialect. Data was extracted from questionnaire and analyzed using frequency distribution and percentages. Ethical clearance was gotten from Centre for Clinical care and Clinical Research Nigeria. Written consent was gotten from the TBA and PMV committees in the local governments of study. Informed verbal consent was gotten from the participants after detailed explanation of objective and significance of study and right to withdraw from study.

3. Results

3.1. Demographic characteristics

The TBA/PMV under study were in mean age of 34 years which falls within the active population able to participate actively in the HIV/AIDS response. **Table 1** shows that 10% of study population are illiterates with no formal education whatsoever and among the literates, majority of the respondent constituting 59% have had secondary education while 19% had post-secondary education and 11% had gone to primary school only. With majority having at least secondary education, there is possibility that if trained in documentation, TBA/PMV can read and write (and document) as required. For years of practice, 34% reported to have practiced for 1-4 years, 24% had practiced for 5-9 years, 17% for 10-14 years, 10% for 15-19 years while 15% had practiced for over 20 years. Only <1% had practiced for less than 1 year. This demonstrates the early onset and long years of health service delivery among PMV/TBAs. Among the TBA, 55% of respondents reported number of deliveries to range from 1-4 deliveries per month, 31% reported 5-9 deliveries, while 9% and 4 % reported to have average of 10-15 deliveries and above 15 deliveries per month respectively.

3.2. Level of awareness of HIV among PMV and TBA

Ninety four percent (94% (317/345)) of the respondents have heard of HIV before while 6% (22) have not. Thus majority of the respondent are primarily aware of the term HIV. Also, It can be deduced that 174(51%) of the respondents have had training/seminar or workshop in HIV and are invariably aware of HIV while 170(49%) have not had any form of training, seminar nor workshop. This further demonstrates the training need among this population of health care providers. Moreover, out of the options of HIV transmission routes, sexual contact, sharing of sharp objects, and blood transfusion had response frequency of 297, 186 and 233(305). This shows that majority of the respondents are aware of routes of HIV

transmission including (though low) mother to child transmission. However, the few who are unaware of HIV transmission routes identified sharing of food, sharing of toilets, sharing of hand washing water and urinating in same place and other means of HIV transmission. Though a significant number of respondents (10%) answered that a fat person cannot have HIV, majority (90%) does not agree that a fat person cannot have HIV. In addition, 88% of the responses agree that HIV infection is determined by testing but a significant 10% of the responses believes that the weight/stature of a person (thin) can show a HIV positive status whereas just 2% of the responses included prayers as a way of detecting positive result. Majority of the respondents (81%) are aware of mother to child transmission of HIV (MTCT) and 85% aware of use of ARV for PMTCT. This result is displayed in **table 2**.

3.3. Level of participation in HIV/AIDS response among PMV and TBA

With just 48% of study population participating in HIV counselling and testing HCT **(table 3)**, slightly above half (52%) do not participate in HCT which is the basic practical participation in the HIV/AIDS response. The comparison of level of awareness versus level of participation in HIV/AIDS response among the participants-which that though awareness of HIV is consistently above 80%, participation in HCT remains at relatively low at 48%- is displayed in **figure 1**

4. Discussion

Participants have mean age of 34 years old, falling mainly into 20-40 years, which are in the main workforce of the country. However, at that age, 41% reported to have practiced for up to 5-14 years. This demonstrates the early onset and long years of service delivery among PMV/TBAs. As identified by WHO (WHO traditional medicine strategy 2014-2023) [3], the reason for the long years of experience at relatively young age could be due to generational transfer of skill from the elderly to the younger person, leading to early onset of practice and accumulation of experience at a younger age.

Majority of the respondents (90%) have had different levels of formal education ranging from primary, secondary and post-secondary education and thus are literates who can read and write though sometimes with assistance. More than half (59%) of them stopped at secondary school education. This concurs with the findings of Olumide A et al [9]which stated that more than half (52.2%) of the TBAs studied had completed secondary school. Thus if more than half of the population can read and write, it makes it easier for program implementers to include this cadre of health care providers in the training agenda in HIV service provision and health program generally.

In addition, among the TBA, 55% of respondents reported number of deliveries to range from 1-4 deliveries while 45% reported >5 deliveries per month. Thus, majority (86%) have 1-9 deliveries per month and significant 13% have>10 deliveries per months. Since majority (86%) have 1-9 deliveries per month and significant 13% having >10 deliveries per months agrees with the National health demographic survey [4] that state that 65% of deliveries in Nigeria occur outside the formal hospital setting. If so, efforts to reach these patients at the private non-formal settings with HIV services needs to be intensified.

To assess level of awareness of HIV among the study population, questions were asked on knowledge of HIV/AIDS. Such questions assessed percentage that have heard of HIV which showed 94%. 51% agreed to have received a sort of training while 49% said not to have been trained in HIV care whatsoever. This disagrees with Oluwole A at al [9] finding that shows that 81% of the TBAs have had PMTCT (and HIV) training. This is probably because their study was done among TBAs who are duly registered and thus able to organize or gain such trainings.

Also, awareness of HIV transmission routes was sort and out of the options of HIV transmission routes; sexual contact, sharing of sharp objects, and blood transfusion, there was frequency rate of 297(39%), 186(24%) and 233(30%) respectively. Also, other routes of transmission were agreed to include mother to child transmission. This shows that majority of the respondents are aware of routes of transmission of the HIV. This finding agrees with similar studies in Nigeria that demonstrated increase in knowledge/awareness of HIV among PMVs/TBAs [9, 12]. However, few who are unaware of HIV transmission routes identified sharing of food, sharing of toilets, sharing of hand washing water and urinating in same place as other means of HIV transmissions. This group could be among the 6% respondent that reported not to have heard of HIV. This knowledge gap still points out need to intensify awareness creation of HIV among these population who still provide health services to Nigerians. Just like the studies that have demonstrated increase in knowledge of HIV among TBAs and PMVs [9, 12], this study also agrees that the awareness of HIV among PMVs and TBAs are high and suspended at above 80% positive responses to questions asked for HIV knowledge/awareness assessment. This could be as a result of increases in HIV awareness creations and community sensitization/mobilization on HIV in communities in Nigeria.

On the other hand, though Nigerian studies have showed increase in level of training and awareness of HIV among TBA or PMVs, almost no study done in the Nigeria setting could be accessed that demonstrated level of their participation in HIV service provision. Our study showed that despite increase in level of awareness of HIV among PMV/TBAs, their level of participation in HIV/AIDS response through HIV counselling and testing (HCT)- a basic practical activity in the HIV/AIDS response- remains less than 50%.

5. Conclusion

Giant strides have been made to increase the awareness of HIV among the non-formal health care providers like TBA/PMV. However, these non-negligible part of the health care system in resource limited settings like Nigeria is yet to be reached substantially with the HIV intervention program such as support for HIV counselling and testing (HCT). Since Nigerian researchers have identified support of this health sector as a priority implementation research question, their integration in HIV/AIDS response could help speed up coverage of HIV service provision to bulk of clients who choose to patronize their services.

6. Recommendation

Integration of the non-formal health care providers (TBAs and PMVs) into the public health centers is recommended to help support and monitor HIV service provision in such settings. Further studies on willingness of the TBAs and PMVs to participate in the HIV/AIDS response is recommended. Implementation research on quality assessment/improvement among PMV/TBAs is also recommended.

Table 1. Demographic characteristics of participants

CHARACTERISTICS	**N**	**%**
*No of participants:*345		
TBAs	135	39
PMVs	210	61
Age: Mean: 34 years		
<20	5	1.6
20-29	137	44
30-39	94	31
40-49	31	10
50-59	25	8
60-69	11	4

>70	5	1.6
Education level		
None	34	10
Primary education	37	11
Secondary education	197	59
Post-secondary education [CHEW (11), HND (1), OND (1), RN/RM(1), BSC(2), MSc(1)]	64	19
TOTAL	332	100
Years of practice		
<1	2	<1
1-4	77	34
5-9	55	24
10-14	38	17
15-19	23	10
>20	34	15
TOTAL	229	100
Average monthly delivery(TBAs only)		
1-4	68	55
5-9	39	31
10-15	11	9
>15	6	5
TOTAL	124	100

CHEW (Community health extension workers), HND (Higher diploma certificate), RN/RM (Registered Nurse/Registered midwife), BSc (Bachelor of Science), MSc (Master's Degree)

Table 2. Demonstration of responses of participants to questions assessing level of awareness in HIV and HCT

Questions	**N**	**%**
Have you ever heard of HIV		
Yes	317	94
No	22	6
Total	339	100
Have you ever had training/seminar or workshop on HIV		
Yes	174	51
No	170	49
Total	344	100
HIV is gotten from(tick as many as are true)		
Having sex	297	39
Sharing sharp objects	186	24
Sharing food	24	3
Sharing toilet	24	3

Through blood transfusion	233	30
Others		
Washing hand in same water	24	3
Urinating in same place	24	3
Mother giving it to child	186	24
Total	764	
Is it true that a fat person cannot have HIV		
Yes	34	10
No	308	90
Total	343	100
How will you know if somebody has HIV		
If the person is thin	35	10
By prayers	7	2
By testing	314	88
Others	0	0
Total	356	100

HCT (HIV counselling and testing)

Table 3. Participants' participation in HIV counselling and testing (HCT)

Questions	**N**	**%**
Do you currently test your patients for HIV?		
Yes	167	48
No	178	52
Total	345	100

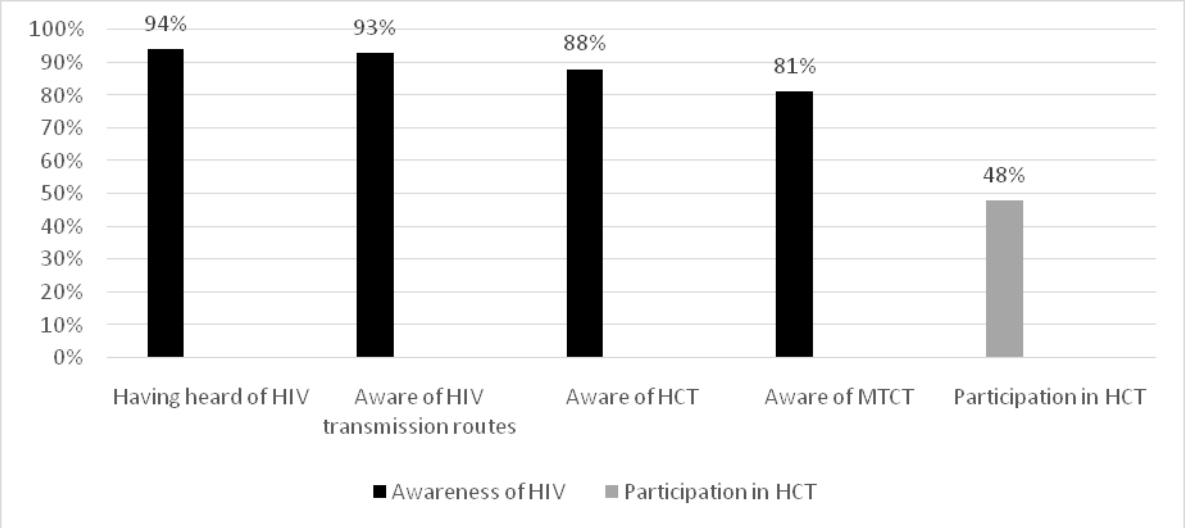

Figure 1. Comparative assessment of level of awareness of HIV versus level of participation in HIV/AIDS response among PMV and TBA
MTCT (Mother to child transmission of HIV)

7. Conflict of interest

Authors declare no conflict of interest

8. Acknowledgements

Author would like to acknowledge Centre for Clinical care and Clinical Research Nigeria (CCCRN) and Ebonyi State PMV and TBA coordinators for their contributions to this study

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