



Barriers to Effective HIV Testing Services and Strategies for Its Promotion at the Primary Health Care Facilities in Ibadan, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. Authors CAO and FAO designed the study and wrote the protocol. Authors ALA and CAO supervised the data collection and performed the statistical analysis. Authors ERE and ALA wrote the first draft of the manuscript together with author CAO. All authors read and approved the final manuscript.

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ABSTRACT

Background: HIV testing services (HTS) act as a critical entry point to HIV care, treatment and prevention services, and offer the opportunity for specially-trained health care providers to encourage avoidance of high risk sexual behaviour among both HIV negative and HIV-positive individuals. However, there are some challenges that can hinder effective delivery of HIV Counseling and Testing services by health care providers. This study was therefore designed to investigate barriers to effective HIV testing services and strategies for its promotion at the primary health care facilities in Ibadan.

Methods: This descriptive cross-sectional study was carried out among health care providers in primary health care facilities in five local government areas in Ibadan metropolis, Nigeria. A 4-stage sampling techniques was used to select 19 respondents and interviewed using key informant

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interview guide. Interviews were transcribed verbatim. Spot check of transcripts were conducted to ensure completeness of the transcription. The data were sorted, categorized, and analyzed using a qualitative data analysis computer software package (NVivo).

Results: All the respondents interviewed reported that, there were pre and post-tests counseling including HIV testing services in their facilities. Some respondents added there were laboratory services and linkages to other care and support services for those tested positive to HIV. However, most of the respondents reported insufficient consumables, insufficient staff, no privacy, lack of infrastructures as barriers to effective HIV testing services. Many of the respondents recommended community sensitization, more provision for consumables, drugs and kits as strategies for promoting HIV testing services.

Conclusion: This study revealed that the primary health centres have pre-test and post-test HIV counseling services but insufficient consumables and staff were the major barriers to HIV testing services in this study. It is therefore necessary for government to make provision for consumables and more personnel to boost the activities of the health facilities.

Keywords: HIV/AIDS; primary health care centres; HIV testing services; health care providers.

ABBREVIATIONS

AIDS – Acquired Immunodeficiency Syndrome; APIN - AIDS Prevention Initiative in Nigeria; HIV - Human Immuno-Deficiency Virus; HTS - HIV Testing Services; KII - Key Information Interview SOPs - Standard Operating Procedures; UNAIDS – United Nations Programme on HIV/AIDS; WHO – World Health Organization.

1. INTRODUCTION

Human Immuno-deficiency Virus (HIV) has become a major health problem since the first global case was diagnosed and recognized as a new disease in 1982. Globally, it has infected a cumulative total of almost 71 million people, and about 34 million people have subsequently died. At the end of 2014, it was estimated that 36.9 million people were living with HIV [1]. Africa is being faced with a grave crisis of HIV/AIDS with nine (9) out of every ten (10) new cases from the continent and estimated 13 million AIDS orphans currently living in Africa. As at 2014, about 25.8 million people were living with HIV in sub-Saharan Africa, as the region accounts for 70 per cent of the global total of new HIV [2].

According to UNAIDS, of all the people living with HIV globally, 9% of them live in Nigeria. However, the key objectives from National Strategic Framework II was that; (a) at least 80% of adults accessing HIV Counseling and Testing (HCT) services in an equitable and sustainable way by 2015 and (b) at least 80% of most at-risk populations accessing HIV counseling and testing by 2015 in order to scale up the provision of HCT particularly among young people [3].

HIV Testing Services (HTS) act as a critical entry point to HIV care, treatment and prevention services, and offer the opportunity for specially-trained health care providers to encourage avoidance of high risk sexual behaviours among both HIV negative and HIV-positive individuals [4,5]. According to WHO (2019), HIV testing services include, pre-test information and post-test counseling, HIV prevention, treatment and care services, coordination with laboratory services and the delivery of accurate results. Furthermore, in providing HIV testing services there are five essential elements that must be observed by a health care provider, which include Consent, Confidentiality, Counseling, accurate test results, and Connection/linkage to prevention, care and treatment [6]. The aim of this initiative was to scale up HCT services at clinical settings, fight stigma and discrimination and thus reduce the fearful nature of the HIV epidemic [7].

Recent reports suggested that misdiagnosis of HIV status occurs in resource-limited settings [8]. Recent policy analysis also suggested that only 20% of national HIV testing strategies align with WHO recommendations [9]. Poor quality HIV testing is complex; it results from quite a number of factors which include poor product performance, improper storage of test kits and supplies, clerical or transcription errors, user errors in performing the test and/or interpreting the test result, lack of training, improper use of the testing strategy and/or algorithm, lack of supportive supervision and training, lack of Standard Operating Procedures (SOPs) and poor documentation and record-keeping practices [10].

Also, some of the challenges that can hinder effective delivery of HCT services by health care providers include; lack of confidentiality and privacy due to limited space, difficulties in upholding consent in provider-initiated testing, high workload, inadequate training and supervision as key elements impacting on quality of counseling and testing [11,12]. Therefore, this study is aimed at investigating the barriers to effective HIV testing services and strategies for its promotion at the primary health care facilities in Ibadan, Nigeria.

2. METHODOLOGY

2.1 Study Design

A cross-sectional descriptive design was used to investigate barriers to effective HIV testing services and strategies for its promotion at the primary health care facilities in Ibadan, Nigeria.

2.2 Study Area

This study was carried out in five local government areas (LGAs) in Ibadan, Nigeria. The population of Ibadan as at 2007 was estimated to be 3,847,472. Politically and administratively, Ibadan municipality is divided into 11 Local Government Areas (LGAs). There are six rural LGAs (Oluyole, Ona-Ara, Egbeda, Ido, Akinyele, and Lagelu) and five urban LGAs (Ibadan North, Ibadan North East, Ibadan North West, Ibadan South West and Ibadan South East). Ibadan is divided into three socio-economic and cultural zones, which cut across the LGAs: a traditional inner core, a transitional, and a suburban periphery. The inner core areas form the old part of the city, inhabited, for the most part, by people with a low level of education. These areas are highly congested and overcrowded, have few and poor roads, limited amenities, and many public health problems. The transitional area is an interface between the inner core and elite areas. The suburban periphery is described as the elite area, containing modern low-density residential estates, occupied by professionals and other high-income groups [13].

2.3 Study Population

The study population for this study are health care providers in primary health care facilities in five local government areas in Ibadan, Nigeria.

2.4 Sample size

A total of 4 Key Information Interview (KIIs) were to be conducted in each of the local government areas making twenty (20) KIIs in Ibadan Metropolis. The selection of KII respondents were done using a non-probability sampling technique involving purposive sampling. This implies that the KII respondents were selected because they are in charge of HIV testing services in their facility. At the end of the study, only 19 KIIs were conducted due to the absence of key informant in one of the local government areas.

2.5 Sampling Procedure

A four-stage sampling technique was used to select respondents for this study.

Stage 1: Eleven LGAs in Ibadan were stratified into rural and urban LGAs

Stage 2: Urban LGAs was selected using simple random sampling of balloting

Stage 3: Purposive sampling technique was used to select primary health centres in all the five LGAs in Ibadan metropolis.

Stage 4: Purposive sampling was used to select head of HIV testing services in the facility.

2.6 Instrument for Data Collection

A KII guide was developed by the researchers and used to collect information from health care providers. The guide was used to collect information on the socio demographic data of the respondents, available HIV testing services, challenges to effective HIV testing services and strategies for promoting HIV testing services at the primary health care facilities in Ibadan. A tape recorder was used to gather all the information that was captured during the interviews for the accuracy of data analysis process. Furthermore, informed consent was obtained from all respondents for the use of a tape recorder.

2.7 Procedure for Data Collection

The study was carried out with the assistance of four trained Research Assistants (RAs). The RAs were recruited and trained to ensure adequate understanding of the content of the study instruments as well as the data collection process and management. The trained RAs were involved in the pretest and this was done to provide them with practical experiences.

Advocacy visits were made to the Medical Officer of health and the Local Action Committee on AIDS (LACA) manager of each local government area by the researchers, to obtain permission and access to the Primary Health Care centers in each Local Government Areas prior to the data collection. Respondents were identified and key Informant Interviews were conducted.

2.8 Data Management, Analysis and Presentation

Interviews were transcribed verbatim. Spot check of transcripts were conducted to ensure completeness of the transcription. The data were sorted, categorized, and analyzed using a qualitative data analysis computer software package (NVivo). These included multiple overall surface readings of transcripts to capture context and meaning, followed by coding and categorization of recurring concepts/ideas. A master list of all categories was assembled and examined for common themes. Categories of codes were organized into overarching themes.

2.9 Ethical Consideration

The study proposal was reviewed and approved by the Joint Ethical Review Committee of the Oyo State Ministry of Health, Ibadan, before the commencement of the study. Participation in the study was voluntary and there were no criticism of respondents who refuse to participate or wish to withdraw from the study. Regarding confidentiality, the researcher, with a written informed consent from the respondents, provided clear explanations to each respondent that shared information will be treated with utmost discretion and confidentiality; only the research supervisors had access to it. Regarding anonymity, the researcher used identification numbers to identify each respondent. The identification numbers were used for all respondents' forms. The research assistants were trained on how to treat respondents as an autonomous body, capable of making decision and should be respected.

2.10 Limitation to study

The study respondents were reluctant to give out detailed information because they are government staff and do not want to be penalised for given out some information about their services. However, effort was made to assure them that the research was strictly confidential and that data results of the findings will not be linked to them.

3. RESULTS AND DISCUSSION

3.1 Available HIV Testing Services

All the respondents interviewed reported that there were pre and post-tests counseling including HIV testing services. A respondent who is a Senior Medical Laboratory Scientist specifically said;

"We have the pre-test and post-test counseling. The pre-test counseling is when the patient come in and we tell them all we need to know about HIV and stuffs like that, so they will prepare their mind, so we tell them it is either it come out positive or negative. If it comes out positive, it is not the end of the world and if it comes out negative, it doesn't mean you will be negative forever. So, we give the person more counseling about how to prevent the disease. For the post-test counseling, when the result comes out, if it's positive, we make the person feel comfortable, assure them that it is not the end of life, at least the grandmother that died, it wasn't HIV. We are linked with other prevention and care services and we also have laboratory services" (Female, 36 years, Tertiary education).

Another respondent who is an assistant matron reported that;

"Anybody that comes in even from two years up ward, we do HIV test for them, anybody that gets here for anything, be it symptoms of malaria, we do HIV test for them. We do Pre-counseling before the testing, we cannot just take them for the test without counseling, we tell them what we want to check for and once they agree, we will do the test for them in the laboratory. If the person is positive, we do another counseling, because our matron is the LACA manager, so we counsel them and ask if they know before or not. If it's a married woman, we ask if their husband knows, some will say they don't want their husband to know but if they agree to tell their husband, we invite their husband and we tell them the necessary process they will take to get treatment. We have linkages to other HIV prevention and care services. We have laboratory services too" (Female, 42 years, Tertiary education).

Another respondent who is health assistant reported that;

"We first seek their consent in taking their test, then ask them if they can bring their spouses and (or) children for the test too, we then register their name inside the client intake form. After that we conduct the test and give them their results. If positive we counsel them in a private room and refer them to Eleta or Adeoyo for treatment. If pregnant, we give them drugs here" (Female, 38 years, Tertiary education).

Most of the respondents also added that there are laboratory services and linkage to other care and support services for those tested positive to HIV. A respondent who is a PMTCT focal person reported that;

"We have linkages with Adeoyo, Oluyoro, Eleta and St. Annes Molete Hospitals where they test and confirm if it is positive, that is for non-pregnant. If it's a pregnant positive woman, we have the services here, as from the day we pick them, we take care of them till delivery, till their baby is 18 months, even during the management, we keep running test for the mothers, we keep doing viral load to know the degree and after they deliver, at 6 week we do PCR for the babies to know whether is positive or not, although immediately they give birth we give Nephrapin plus Sedophodin drug to high risk babies at 6 weeks. If they are negative, we continue our management but anytime we detect that the baby is positive even if they are not up to 18 months, we refer any positive tested baby" (Female, 50 years, Tertiary education).

Another respondent who is a Medical Laboratory Officer said;

"We only have AIDS Prevention Initiative in Nigeria (APIN), they supply us kit and we give them data and when we have positive pregnant women, we refer them to APIN for the testing of the children, for the viral load, CD4 count" (Female, 47 years, Tertiary education).

3.2 Barriers to Effective HIV Testing Services

Most of the respondents reported insufficient consumables, insufficient staff, no privacy, lack of infrastructures as barriers to effective HIV testing services.

A respondent who is a Senior Medical Laboratory Scientist specifically said;

"We don't have enough consumables, gloves, cotton wool, we have the kits though but consumables like gloves, dustbin nylon, hand wash for washing our hands, just the consumables, we don't really have problem with the kits. We don't have enough staff but we are managing with the one I have".

The respondent further added that;

"We don't have enough infrastructures, we don't have a special place for counselling as everywhere is jam-packed as you can see" (Female, 34 years, Tertiary education).

Another respondent who is an Assistant matron said;

"This place is too small, we need expansion, you can see the structure of the building, the OPD, the ward, the reception, and everything is just here. At least we should have demarcation for different places, our injection room serves as family planning room, as well as labour room, we are short of staff, and we have just 9 staff. We need expansion in this clinic because a room serve multiple purposes here so we lack privacy. Also, we need more personnel because we are short of staff" (Female, 42 years, tertiary education).

Another respondent who is a PMTCT focal person reported that;

"We don't have enough consumables like gloves, spirits, we do provide it ourselves and also we don't have staff oh, ah, in this unit now, am the only one, do the work of the health assistant, health attendant, sweeper, cleaner, before I will still provide. Our infrastructures are still fair. We need more staffs and mostly most of the patient are scared and afraid of the test and even after counselling and testing, they refused to go for treatment after tested positive" (Female, 50 years, Tertiary education).

Another respondent who is a Chief Nursing Officer also reported that;

"We are short of staffs, many staffs are referred but no replacement, we need equipment like eye goggle, quality apron, there was a day we delivered two positive mothers, and the blood just splashed on one

of my colleagues, it was only God that saved her, so we really lack personal protective equipment, so the staffs lack extra care or extra compensation, we need enough material, cash and all, because we staffs are at risk. For infrastructures, we have limited space here, we only have one labour room here, and everywhere is congested” (Female, 55 years, Tertiary education).

On the contrary, a respondent who is a senior community health extension worker reported that there is adequate availability of resources in their facility. However, reported that getting the consent of people for testing was a problem. The respondent specifically said;

“The challenge is that most people don’t want to hear of HIV testing, especially when we counsel them, to seek their consent at times maybe difficult, saying they cannot have it at all so why the test, some are even ready to run away. For availability, the consumables are readily available and there is constant supply, and for HIV testing, it does not take long time, so there is many hands-on ground to do it, alongside standard infrastructures” (Female, 40 years, Tertiary education).

Few respondents also reported inadequate supply of testing kit as a major barrier to effective testing. A respondent who is the Head of Facility reported that;

“Formerly, the test was for everybody, for patient that comes in, so I think due to the non-availability of kits, they want to cut it down to pregnant women, so it’s only pregnant women we do the test for, for like two or three months ago now, we have been given that instruction, the issue isn’t the consumable, it’s the kit most especially” (Female, 56 years, Tertiary education).

Another respondent who is Medical Laboratory Officer said;

“Before, we do HIV testing for everybody that comes to the clinic irrespective of the symptoms but now we do for just pregnant women and lactating mothers because APIN said the kits they give us is just for pregnant women and we have to account for it and there are able bodied men and women that are positive but won’t know, so we are trying

to manage kits” (Female, 47 years, Tertiary education).

Majority of the respondent interviewed said nothing. Few respondents reported lack of water as the only complain. A respondent who is a Senior Medical Laboratory Scientist reported that;

“We don’t have water. So, if our patients want to ease themselves or anything, we can’t provide that for them” (Female, 34 years, Tertiary education).

3.3 Strategies for Promoting HIV Testing Services

Many of the KII respondents recommended community sensitization, more provision for consumables, drugs and kits as strategies for promoting HIV testing services.

A respondent who is a Senior Medical Laboratory Scientist suggested that;

“We should let people know more; we should let people know how HIV can be spread. There was a patient I had that after I told her about her status, she started running away from me, anytime she comes she will run away from me, it’s for her own benefit, she won’t come to take her drugs and there’s a probability her child will have the virus as she is breast feeding but she is running away from me, she is probably still sleeping with her husband, maybe her husband doesn’t know, there is a likelihood of her transferring it to her husband and her older children, since she decided not to stay on drugs, so I think if people are more enlightened about this disease, it will reduce the spread” (Female, 34 years, Tertiary education).

Another respondent who is the head of facility also suggested that;

“They should give us more testing kits, so that the testing will be for everybody, maybe the government should support, by giving the kits instead of APIN alone taking the responsibility, so if the government will assist, by giving us the kit” (Female, 56 years, Tertiary education).

Another respondent who is assistant matron suggested;

"We have to sensitize more, we have to do more of routine test, anyone that comes in, and we encourage them to do it. Basically, just sensitization, counselling, health talk on HIV, it could even be those that brought one patient that will hear the health talk and will want to do it and we let people know the benefit of testing for HIV" (Female, 42 years, Tertiary education).

Some of the respondents also suggested employment of more personnel by the government and regular training of personnel. A respondent who is PMTCT focal person said;

"We need more personnel, those that are assisting us here are not professionals, they are ad hoc staffs because before you do the test, you have to do your pre-test counselling and if pre-test is done well, it will be easy for you to tell them the result, so we need personnel's especially professionals" (Female, 50 years, Tertiary education).

Another respondent who is an Assistant PMCTC officer said;

"I'll advice there should be regular training for the staff because of the new staff that are entering, there should be regular training for them" (Male, 37 years, Tertiary education).

Few respondents recommended provision of infrastructures especially rooms for privacy. A respondent who is a Chief Nursing Officer said;

"The only thing is that they should provide us with a private room, a spare room for HIV alone" (Female, 54 years, Tertiary education).

4. DISCUSSION

All the respondents reported that pre-test counseling and post-test counseling were available at their facilities and most reported that there were linkages to appropriate HIV prevention, treatment and care services in their facilities. It gives the counselor the opportunity to determine if the client knows the purpose of HIV test, the risk behaviors practiced by the client, how much the client knows about HIV and its prevention and also helps the counselor prepare the mind of the client for whatever result the test will be. Clients who attend health care facilities without linkages to health care facilities will be at a disadvantage to extra care and support especially if they are HIV positive clients.

Linkages to appropriate HIV prevention, treatment and care services increases access to ART which will reduce the risk of HIV transmission, reduction of chronic and organ effect and increases in the life expectancy [14,15]. Globally, many people diagnosed with HIV infection are not linked to treatment and care [16]. In resource-limited settings, primarily sub-Saharan Africa, it was estimated that as much as 40% of people who were diagnosed through HIV testing services are not linked to care [17,18,19]. Barriers that hinder or delay linkage to HIV treatment and care persists, including transportation costs and distance to the facility, stigma, fear of disclosure, staff shortages and long waiting time [18], as well as policy and legal barriers that may hinder access particularly for adolescents and key populations. Ultimately, many people with HIV were diagnosed late and start ART late, with CD4 counts below 200 cells/ μ L [20]. When primary health care centers which are providers of the basic health care services are not linked with HIV prevention and care services, it reduces the accessibility of the client to ART needed to reduce HIV transmission and increase life span. Some primary health centers that do not have linkages to health facilities could be because they aren't linked by the government to other health care facilities and probably because they rarely have HIV positive patients after testing.

The study respondents reported insufficient consumables, insufficient staff, no privacy, lack of infrastructures as barriers to effective HIV testing services. This was in line with a study by Gyarmathy et al. [21] done in Hungary, where key informants interviewed reported lack of resources, lack of training of staff, lack of guidelines as barriers influencing HIV testing services. Consumables such as gloves and cotton wool were majorly reported as insufficient by the respondents. The safety of the health workers lies in the hands of the availability of gloves. When it's not available, health care providers would want to save themselves first and end up not attending to clients so as not to risk contracting HIV. Majority of the barriers stated by the health care providers interviewed were there because of limited funds allocated to the primary level of care. Primary health care centers are to be funded by the government but it was revealed that certain infrastructures and consumables available in some of the PHC's are there because of NGO's, most especially APIN, little or none from the government.

Also, according to a study by Ngangue et al. [22] among workers revealed concerns about confidentiality and privacy issues during counseling sessions due to inadequate space, high workload in the district hospitals' laboratory, which leads to long waiting times for HIV test results, thus contributing to failure to return for results. Barriers to effective HIV testing services seem to be the same globally.

Many of the KII respondents recommended community sensitization, more provision for consumables, drugs and kits as strategies for promoting HIV testing services. If these strategies stated by the health care providers in Primary Health Care centres in Ibadan can be implemented, it would go a long way in promoting HIV testing services in Ibadan. Whatever the health providers can do in their little way will also help the matter as effectiveness is best seen when there is collaborative effort.

5. CONCLUSION

This study revealed that the primary health centres have pre-test and post-test HIV counseling services but insufficient consumables and staff were the major barriers to HIV testing services in this study. It is therefore necessary for government to make provision for consumables and more personnel to boost the activities of the health facilities. Community leaders also need to be encouraged to support their facilities by donating consumables and also volunteer community members to work as ad-hoc staff in the facilities especially community members who are retired health workers.

CONSENT

Participation in the study was voluntary and there was no criticism of respondents who refuse to participate or wish to withdraw from the study. The researchers obtained written informed consent from the respondents, after providing clear explanations to each respondent that shared information will be treated with utmost discretion and confidentiality.

ETHICAL APPROVAL

The study proposal was reviewed and approved by the Joint Ethical Review Committee of the Oyo State Ministry of Health, Ibadan, before the commencement of the study.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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