

Perceptions and activities of religious leaders on the prevention of HIV/AIDS and care of people living with the HIV infection in Ibadan, Nigeria

Ifeoluwapo O Asekun-Olarinmoye¹

Esther O Asekun-Olarinmoye²

A Fatiregun³

Olufunmilayo I Fawole³

¹Department of Public Health, School of Public and Allied Health, Babcock University, Ilishan-Remo, Ogun State, Nigeria; ²Department of Community Medicine, College of Health Sciences, Osun State University, Osogbo, Osun State, Nigeria; ³Department of Epidemiology, Medical Statistics, and Environmental Health, College of Medicine, University of Ibadan, Oyo State, Nigeria

Introduction: The epidemic of human immunodeficiency virus (HIV) continues in Nigeria despite efforts to control it. Meaningful efforts aimed at combating this disease must be multisectoral. However, despite the major influence religious leaders have in this society, their role has not been well studied. The aim of the study was to assess the perceptions and activities of religious leaders on prevention of HIV/acquired immunodeficiency syndrome (AIDS) and care of people living with the virus in Ibadan, Nigeria.

Materials and methods: In a cross-sectional study, 336 leaders from eight religious denominations in Ibadan were surveyed utilizing a self-administered, semi-structured questionnaire. Respondents were selected by cluster sampling technique. Data was analyzed using the Statistical Package for Social Sciences software version 15.

Results: The mean age of respondents was 37.9 ($\pm$ 13.5) years. The majority (97.6%) were aware of the HIV/AIDS scourge, and most had good knowledge of routes of transmission and modes of prevention (85.7%). Attitudes to people living with HIV/AIDS were positive in 84.2% respondents, and many practiced preventive measures (94.9%). One hundred and ninety (56.5%) respondents had ever preached about HIV/AIDS transmission and treatment to their congregations, while 257 (76.5%) used their position as a medium of educating their congregation about the dangers of HIV/AIDS and how to prevent it. Further analysis showed that respondents who were Christians ($P = 0.026$), had ever been married ($P = 0.004$), and were males ($P = 0.002$) were more likely to have ever preached about health issues to their congregations (individual role).

Conclusion: The study concluded that the religious leaders are well informed about HIV/AIDS and have adequate knowledge and positive attitudes towards people living with AIDS. However, they need encouragement and training to enable them to more effectively harness their position for HIV prevention and to control programs and activities among their congregation to thereby play a crucial role in the war against HIV/AIDS in Nigeria.

Keywords: faith-based organizations, HIV/AIDS care, perception, prevention, religious leaders

Introduction

Nigeria is the most populous country in Africa, and it has a relatively young population with adolescents (10–19 years) constituting over a fifth of its population, while young people (10–24 years) constitute almost a third, and an additional 15% of the population belong to the age group 25 to 34 years, a segment of the population also covered by the Nigerian Youth Policy.^{1,2} Youths constitute a high-risk group for human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) infection due to their high-risk sexual behaviors. Furthermore, a prevalence rate of 5.2% was reported for the age group 15–24 years, with adolescent girls being three times more vulnerable than boys.³ Although the national average for HIV prevalence rate

Correspondence: E O Asekun-Olarinmoye
Department of Community Medicine,
College of Health Sciences,
Osun State University, PMB 4494,
Osogbo, Osun State, Nigeria
Tel +234 80 3360 2184
Email esther.asekun-olarinmoye@uniosun.edu.ng

is 4.4%, Nigeria ranks third globally in terms of the actual number of people living with HIV/AIDS (PLWHA), currently estimated at 3.86 million adults.³ The epidemic remains extremely dynamic, growing and changing in character as the virus exploits new opportunities for transmission. It has advanced beyond high-risk groups such as commercial sex workers and long distance truck drivers to involve the general population.

The prevalence of HIV/AIDS is a burden on the nation's health care system, yet the figures probably underestimate the real magnitude of the epidemic because of underreporting, inadequate resources for HIV testing, and missed diagnoses.⁴ Although the majority of Nigerians are aware of HIV/AIDS, risky practices are widespread in young persons,^{5,6} female sex workers,⁷ and commercial drivers,^{8,9} amongst others, indicating the need for urgent intervention programs in these populations.

This study evaluates an important sector in the campaign against HIV/AIDS – the religious sector, which is represented by religious leaders and their faith-based organizations (FBOs). Religion is one of the world's largest institutions and probably the only institution that bridges the gap of race, class, and nationality. Faith and religion play a vital role in the lives and cultures of most people throughout the world. Indeed, about 70% of people identify themselves as members of a religious or spiritual community.¹⁰ According to a 2011 report about 50.8% of Nigeria's population are Christians, 47.8% are Muslims, and 1.4% adhere to other religions.¹¹ Religious values and practices are often deeply entwined in the fabric of daily lives, and the leaders of churches, mosques, temples, and other religious communities play powerful roles in shaping attitudes, opinions, and behaviors in many developing countries. These religious leaders and their FBOs not only provide spiritual guidance to their followers, but they are often the primary providers for a variety of local health and social services.¹² Situated within communities and building on relationships of trust, these organizations have the ability and capacity to influence the attitudes and behaviors of their fellow community members.¹⁰ Moreover, they are in close and regular contact with all age groups in society and their words are respected. In fact, in some traditional African communities, religious leaders are often more influential than local government officials or secular community leaders.^{13,14} In Nigeria also, religious institutions are dispersed throughout the country, and have the capacity to reach a large number of people. However, despite the major influence religious leaders have

in this society, their role has not been well studied with regard to HIV prevention.

This study assessed the knowledge of religious leaders on HIV/AIDS transmission and prevention and their attitudes towards PLWHA. It also assessed the role played by leaders and their organizations in the prevention of HIV infection and in the care of PLWHA in their congregation and community.

Materials and methods

Study area

The study was carried out in the city of Ibadan, Southwestern Nigeria. Ibadan is an indigenous West African city and the capital of Oyo State of Nigeria. It has a projected population of over 4 million.¹⁵ It is the largest city in Africa, south of the Sahara. The residents are predominantly Yorubas. The city of Ibadan can be divided into three zones: a traditional inner core, a transitional zone, and suburban periphery. The zones into which the city is divided represent three types of socioeconomic and cultural areas of Ibadan.¹⁶ The religious leaders in the city include pastors, imams, Quaranic teachers, Alfas, elders, deacons, and church heads of departments.

Study design

A descriptive cross-sectional study design was employed for the study.

Sample size calculation

The sample size calculation was based on the assumption that 71.0% of the target population has good knowledge of HIV/AIDS transmission and prevention,¹⁷ and a confidence interval (CI) of 95%. A sample size of 316 was obtained using the Leslie Fishers formula for calculation of sample size for single proportion for population >10,000.¹⁸

An anticipated 5.0% nonresponse rate was added to the sample size to obtain a total sample size of 336.

Sampling technique

The cluster sampling technique was used. The churches and mosques were grouped into clusters based on their denominations. The churches and mosques selected from each denomination (cluster) were based on simple balloting. The proportional sampling method was used to determine number of churches or mosques to be selected from each cluster. Religious leaders of these churches

and mosques were approached, and their permission obtained.

Inclusion criteria

All adults holding leadership positions and who preach in the churches and mosques in the selected FBO (churches and mosques) were included.

Data collection

The data was collected with a semi-structured, self-administered questionnaire. The questionnaire was pretested on 45 religious leaders of three religious institutions in Ogun State, Southwest, Nigeria, after obtaining their verbal informed consent. These institutions were Seventh Day Adventist Church, Babcock University, Ilishan-Remo, Ogun State; Methodist Theological Institute, Sagamu, Ogun State; and the Missionary Society of St Paul Formation House, Iperu-Remo, Ogun State.

Data was collected by the researchers and three trained research assistants. The questionnaire sought information on the sociodemographic data of the religious leaders, their knowledge of the HIV infection, its mode of transmission and prevention, and their attitudes to and perceptions on HIV/AIDS and PLWHA, the preventive measures used by the religious leaders to protect themselves from contracting HIV/AIDS, their activities in informing and educating their congregation and community about preventive measures against HIV, and support systems in place in their FBO to care for PLWHA.

Data analysis

Data was checked for errors daily, and entered into a computer system using the Statistical Package for Social Sciences software, version 15 (SPSS; IBM Corporation, Armonk, NY, USA). Univariate analysis was carried out to determine the frequencies of variables of interest. In bivariate analysis, Chi-square test statistics and *P*-values were calculated to test associations between dependent (practices of preventive measures with a role in HIV prevention and care of PLWHA) and independent variables (age, religion, sex, marital status, and educational level). Statistical significance was determined at a level of $P < 0.05$. Multivariate analysis (multiple logistic regression) was carried out to control for confounders in the statistical examination of the association between the dependent and independent variables and an adjusted odds ratio (OR) was obtained with a CI set at 95%.

Outcome measures

Knowledge scores

Knowledge scores were computed by awarding one mark for each correct answer and no mark for incorrect answers. For each item, three responses were possible: “yes,” “no,” and “don’t know.” These were recoded as follows: a correct answer equaled one mark, an incorrect answer equaled zero, and “don’t know” equaled zero marks. Twenty three questions assessed the religious leaders’ level of knowledge of transmission and prevention of HIV. The maximum score obtainable was 23, while the minimum was zero. A composite knowledge score was compiled by adding together the individual knowledge scores. The mean and the standard deviation were obtained as the summary measures. The scores were classified into two categories by taking the mean of the composite scores. A value of 16.5 was obtained. This was used to classify the respondent into two categories, good knowledge and poor knowledge levels. Scores greater than 16.5 were considered good knowledge, while those less than 16.5 were deemed poor.

Attitude scores

Using factor analysis, certain variables were chosen from the attitude section of the questionnaire, and scores were computed by awarding one mark for each correct answer, to 15 statements which assessed the religious leaders’ attitude/perception to HIV/AIDS prevention and care of PLWHA. For each item, three responses were possible: “agree,” “disagree,” and “not sure.” The responses were recoded where “agree” equaled one, while “disagree” and “not sure” equaled zero. The maximum obtainable score was 15. The scores obtained ranged from 3 to 14. A composite attitude score was compiled by adding together the individual attitude scores, and the mean was calculated. Scores less than 8.5 were deemed to be a negative/poor attitude, while scores equal to or greater than 8.5 were considered to be a good/positive attitude.

Practice scores

Practice scores were determined using six questions, each having two responses (yes and no). Poor practice was coded as zero, while good practice was coded as one. Composite practice score was compiled and the mean was calculated. Scores less than three were considered bad practice of preventive measures, while scores equal to or greater than three were considered good practice of preventive measures. Practices measured included personal use of preventive measures by

the respondents, hospital volunteers and, evangelists as a part of respondents' ministries, and so on.

Ethical considerations

The informed consent of the participants was sought and obtained in an atmosphere free of coercion. Respondents were assured that, if they participate, it would not result in discriminatory or derogatory reports about their organizations. Strict confidentiality was maintained, and no identifying information was collected to allow for completely anonymous responses. Ethical clearance was obtained from the Research Ethics Committee of the Ladoke Akintola University of Technology Teaching Hospital.

Results

A total of 336 religious leaders were surveyed, and a 100% response rate was obtained. The mean age of respondents was 37.9 (± 13.5) years, with a male/female ratio of 2.3:1. The majority were in the 25–34-year and >45-year age groups (30.1% and 30.7%, respectively), while the modal age was 30 years. Two hundred and thirty-five respondents were male (69.9%), 207 were currently married (61.6%), 270 were Yorubas (80.4%), 284 had at least a postsecondary education (84.6%), and 244 were Christians (72.6%), as shown in Table 1.

Table 1 Sociodemographic characteristics of respondents

Variables	Frequency n (%)
Mean age in years	37.9 $\pm$ 13.5
Age groups in years	
<25	58 (17.2%)
25–34	101 (30.1%)
35–44	74 (22.0%)
≥ 45	103 (30.7%)
Sex	
Male	235 (69.9%)
Female	101 (30.1%)
Religion	
Christianity	244 (72.6%)
Islam	92 (27.4%)
Marital status	
Never married (single)	119 (35.4%)
Ever married	217 (64.6%)
Educational level	
Primary	15 (4.5%)
Secondary	37 (11.0%)
Tertiary	284 (84.5%)
Ethnicity	
Yoruba	270 (80.4%)
Igbo	39 (11.6%)
Hausa	3 (0.9%)
Others (Benin, Igala, Efik, and so on)	21 (7.1%)

Notes: n = 336. The age range of respondents is 16–76 years.

Abbreviation: n, number.

Many of the respondents (61.0%) were youth leaders, elders, deacons/deaconesses, ushers, and bible study coordinators, while 19.7%, 14.5%, and 4.8% were pastors/priests, koranic teachers (alfa), and imams, respectively.

The distribution of respondents according to their knowledge of the routes of transmission and modes of prevention of HIV infection is shown in Table 2. The most commonly known routes of transmission of HIV infection were by sexual intercourse (99.1%), followed by blood transfusion (97.3%), sharing sharp objects (93.8%), mother to child (81.0%), and through breastfeeding (58.3%). A few respondents had misconceptions about hugging, handshake, mosquito bites, and toilets as modes of transmission of HIV infection.

Furthermore, a majority of the respondents knew that avoidance of sharp objects (93.8%), abstinence from sex (80.4%), use of condoms (81.3%), faithfulness to one's sexual partner (91.4%), and health education (71.1%) were preventive measures against HIV/AIDS. However, misconceptions about preventive measures were also observed, such as personal hygiene, use of insecticide,

Table 2 Respondents' knowledge of routes of transmission and modes of prevention of HIV infection

	Knowledgeable n (%)	Not knowledgeable n (%)
Routes of transmission of HIV infection		
Sexual intercourse	333 (99.1%)	3 (0.9%)
Blood transfusion	327 (97.3%)	9 (2.7%)
Sharing sharp objects	315 (93.8%)	21 (6.2%)
Vertical transmission (pregnant mother to child)	272 (81.0%)	64 (19.0%)
Breastfeeding	196 (58.3%)	140 (41.7%)
Hugging	313 (93.2%)	23 (6.8%)
Handshake	299 (89.0%)	37 (11.0%)
Using the same toilet	272 (81.0%)	64 (19.0%)
Mosquito bite	241 (71.7%)	95 (28.3%)
Kissing	260 (77.4%)	76 (22.6%)
Modes of prevention of HIV infection		
Abstinence from sex	270 (80.4%)	66 (19.6%)
Faithfulness to one's sexual partner	307 (91.4%)	29 (8.6%)
Avoidance of sharing sharp objects	315 (93.8%)	21 (6.2%)
Use of condoms	273 (81.3%)	63 (18.7%)
Health education	239 (71.1%)	97 (28.9%)
Use of insecticides	265 (78.9%)	71 (21.0%)
Personal hygiene	104 (31.0%)	232 (69.0%)
Use of herbs	241 (71.7%)	95 (28.3%)
Avoidance of hugging, kissing, handshake with infected persons	280 (83.3%)	56 (16.7%)
Use of medication (drugs)	125 (37.2%)	211 (62.8%)
Avoidance of mosquito bite	249 (74.1%)	87 (25.9%)

Note: n = 336.

Abbreviations: HIV, human immunodeficiency virus; n, number.

Table 3 Respondents' perception of and attitude towards HIV/AIDS

Variables	Agree n (%)	Disagree n (%)
1. People with HIV/AIDS should be isolated from the general congregation of worshippers	58 (17.3%)	278 (82.7%)
2. I run the risk of contracting HIV/AIDS	95 (28.3%)	241 (71.7%)
3. Unprotected sexual intercourse puts one at risk of contracting HIV/AIDS	310 (92.3%)	26 (7.7%)
4. HIV/AIDS is curable	180 (53.6%)	156 (46.4%)
5. Believed means of curing HIV/AIDS (n = 180)		
a. Drugs	66 (36.7%)	114 (63.3%)
b. Surgery	138 (76.7%)	42 (23.3%)
c. Herbs	26 (14.4%)	154 (85.6%)
d. Prayers	150 (83.3%)	30 (16.7%)
e. Faith	139 (77.2%)	41 (22.8%)
f. Miracles	139 (72.2%)	41 (22.8%)
6. Religion has influence on the war against HIV/AIDS	215 (64.0%)	121 (36.0%)
7. I have sufficient knowledge and skill to protect myself if I have to care for an HIV-positive congregation member	161 (47.9%)	175 (52.1%)
8. I know my HIV status	161 (47.9%)	175 (52.1%)
9. I do not want to know my HIV status (n = 175)	59 (33.7%)	116 (66.3%)

Note: n = 336.

Abbreviations: HIV, human immunodeficiency virus; AIDS, acquired immunodeficiency syndrome; n, number.

and herbs in 54.8%, 8.6%, and 48.5% of the respondents, respectively.

Common sources of information about HIV/AIDS for the respondents were the media (90.5%), seminars/workshops (48.5%), preachers (31.0%), friends/peers (31.0%), and parents (19.6%). Table 3 shows the respondents' perception of and attitude towards HIV/AIDS and PLWHAs. Fifty-eight respondents (17.3%) thought PLWHA should be isolated from the congregation of worshippers. Only 95 (28.3%) respondents had correct self-perception of their vulnerability to HIV infection, while 241 (71.7%) thought that they are not at risk of contracting HIV/AIDS, and 53.6% of respondents believed that HIV/AIDS is curable. Fifty-nine (33.7%) of the 175 respondents that did not know their HIV status did not wish to know their HIV status, and they were not willing to undergo the retroviral screening test. Reasons given by respondents for not wanting to know their HIV status include: the fear of being HIV-positive (22.0%), or that it was unnecessary (50.8%), while others (27.2%) gave no reasons.

Some of the stigmatizing behaviors observed in the respondents were that they cannot eat from the same plate (22.9%), sleep on the same bed (22.3%), or be close friends (16.7%) or live in same house (11.0%) with PLWHA.

Table 4 Activities of religious leaders on prevention of HIV/AIDS and care of PLWHA

Variables	Yes n (%)	No n (%)
1. Ever preached about health issues relating to HIV/AIDS (prevention and care) from pulpit to congregation (n = 336)	190 (56.5%)	146 (43.5%)
2. Use position as a medium to educate and inform the congregation about the dangers of HIV/AIDS and how to prevent it (n = 336)	257 (76.5%)	79 (23.5%)
3. *Advocates the following among members of the congregation on HIV/AIDS (n = 257)		
a. Abstinence for the unmarried	200 (77.8%)	57 (22.2%)
b. Use of condoms (safe sex)	118 (45.9%)	139 (54.1%)
c. Single partners (for the unmarried)	144 (56.0%)	113 (44.0%)
d. Monogamy (for the married)	158 (61.5%)	99 (38.5%)
e. Marital faithfulness	246 (95.7%)	11 (4.3%)
4. Organization has programs currently being run aimed at educating members on preventive measures against HIV/AIDS (n = 336)	196 (58.3%)	140 (41.7%)
5. *Types of programs (n = 196)		
a. Health education talks/seminars	179 (91.3%)	17 (8.7%)
b. Youth forums	173 (88.3%)	23 (11.7%)
c. Volunteer counseling units	141 (71.9%)	55 (28.1%)
d. Voluntary HIV testing (free screening test)	76 (38.8%)	120 (61.2%)
e. Medical checkups for intending couples	111 (56.6%)	85 (43.4%)

Note: *Multiple responses.

Abbreviations: HIV, human immunodeficiency virus; AIDS, acquired immunodeficiency syndrome; PLWHA, people living with HIV/AIDS; n, number.

Counseling, visitation, and involvement of PLWHA in church activities was exercised by 57.2%, 6.3%, and 7.2% of respondents, respectively, to avoid stigmatizing PLWHA in their congregation, while 35.4% of respondents had no program to deal with such issues.

The distribution of respondents based on the role played in the prevention or care of HIV/AIDS is shown in Table 4. One hundred and ninety (56.5%) respondents had ever preached about HIV/AIDS transmission and treatment/care to their congregation, while 257 (76.5%) educated their congregation on the dangers of HIV/AIDS and how to prevent or treat it. The primary preventive means advocated were faithfulness in marriage (95.7%), abstinence for the unmarried (77.8%), and monogamy (61.5%). On average, approximately 66.5% of the study respondents indicated performing at least one role in educating and informing their members about HIV prevention. Moreover, 58.3% of respondents' organizations had ongoing programs aimed at educating their members on preventive measures. The most commonly used measures were talks or seminars, youth

forums, and volunteer counseling units by 91.3%, 88.3%, and 71.9% of respondents' organizations, respectively.

The scope and reach of HIV prevention efforts by the respondents was limited to their congregation in 43.2% of respondents, extended to the local community in 20.8% of respondents, and extended interstate in 7.7%, while 28.0% of respondents and their organizations had no programs in place. Only 12.5% of the respondents' organizations had partnerships with other organizations such as the State Action Committee on AIDS, National Action Committee on AIDS, Adventist Development and Relief Agency, United Nations Children's Fund, United Nations Joint Program on HIV/AIDS, and the World Health Organization in their efforts to eradicate the HIV/AIDS scourge. Furthermore, only 30.4% of respondents were currently running programs to take care of PLWHA in their congregation. These programs included financial support (individual member or organizational charity), social support (care of affected family members and orphans), and physical/emotional support (food and shelter).

Most respondents had good knowledge scores (85.7%) on the routes of transmission and modes of prevention, good attitudinal scores (84.2%), and practice of preventive measures score (94.9%).

Table 5 shows the relationship between individual role (ever preached)/organizational role (had program), and the categories of variable items. Respondents with good attitudinal scores were twice as likely to ever preach about HIV-related issues, and their organizations were more likely to have programs aimed at educating and informing the congregation than those with poor attitudes ($\chi^2 = 13.063$, $P < 0.001$; $\chi^2 = 4.409$, $P = 0.036$, respectively).

Multivariate analysis using multiple logistic regression showed that respondents with good attitudinal scores were three times more likely to have ever preached about health/HIV-related issues ($P = 0.000$, OR = 3.013, CI = 1.626–5.582) and were about twice more likely to have programs for

educating their congregation by their organization ($P = 0.038$, OR = 1.872, CI = 1.037–3.382). Furthermore, sex ($P = 0.001$, OR = 2.260, CI = 1.386–3.684) and marital status were found to be significant predictors of individual roles, while religion ($P = 0.004$, OR = 2.086, CI = 1.260–3.454) and sex ($P = 0.007$, OR = 1.951, CI = 1.200–3.171) were significant predictors of organization role; the organizational role was twice more likely to occur among the Christian denominations than among the Moslems, and in males than in females, respectively.

Discussion

Religious-based initiatives are pivotal to the success of prevention and care efforts across the globe, as well as in Nigeria. FBOs are found in nearly all communities in the region and wield a significant level of cultural, political, social, educational, and economic influence. The FBO can be viewed as the largest, most stable, and most extensively dispersed nongovernmental organization in any country. Noting that 40%–70% of health care delivery in Nigeria is provided by the private sector, which is made up mostly of FBO health facilities, Nigeria has no policy or legislation in place that recognizes, rewards, and supports agencies that provide such a magnitude of health care delivery to Nigerians, particularly in the hard-to-reach communities.¹⁹ FBOs can undertake their actions in a very cost-effective manner, due to their ability to leverage volunteer and other resources with minimal effort; however, these strengths (efficacy, commitment, knowledge, networks, and influence) and their experience are often overlooked by development planners.^{13,14} There is rich research literature in this area that must be sought out and reevaluated.

In this study, respondents' awareness and knowledge of transmission and modes of prevention of HIV/AIDS was very high. This is similar to results obtained by other researchers, who also found high awareness and knowledge of transmission and modes of prevention of HIV/AIDS in FBOs.²⁰ However,

Table 5 Association between activities of religious leaders/religious organization and knowledge, attitude, and practice scores categories

Variable score	Yes n (%)	No n (%)	χ^2 values	df	P-value	Remarks
Individual role (ever preach)						
Knowledge score	159 (55.2)	129 (44.4)	1.472	1	0.225	NS
Attitude score	172 (60.8)	111 (39.2)	13.063	1	<0.001	S
Practice score	182 (57.1)	137 (42.9)	0.656	1	0.418	NS
Organizational role (have program)						
Knowledge score	167 (58.0)	121 (42.0)	0.100	1	0.752	NS
Attitude score	172 (60.8)	111 (39.2)	4.409	1	0.036	S
Practice score	186 (58.3)	133 (41.7)	0.002	1	0.966	NS

Abbreviations: df, degrees of freedom; NS, not significant; S, significant.

the study showed some misconceptions on the routes of transmission and mode of prevention. Misconceptions influence behavior and may weaken efforts to curtail the spread of the HIV infection. These misconceptions and gaps in knowledge could be addressed by organized seminars and workshops for the religious leaders to ensure correct and comprehensive knowledge. The religious leaders must have correct and comprehensive knowledge on all aspects of HIV. Thus they will be placed at a vantage point where they can be agents of change and offer a means of disseminating accurate information about HIV/AIDS, which will lead to behavioral change in their congregation and communities.

The study revealed that the majority of respondents (90.5%) reported the media as their source of information about HIV/AIDS. This buttresses the fact that the increased ongoing media campaigns against the disease by the government are yielding positive results. In addition, two-fifths and one-third of respondents reported seminars and preachers, respectively, as their sources of information about HIV/AIDS. In light of this fact, it is safe to assume that preachers or religious leaders, by virtue of their position, can be effectively used as medium to increase the knowledge base of both their congregations and the local communities in which they reside.

The majority of respondents had a positive attitude towards PLWHA. Data analysis by multiple logistic regression showed that attitude was a predictor of whether an individual ever preached about health/HIV-related issues, and of having organizational programs for educating their congregations. Good knowledge and attitudes are prerequisites for good behavior. This is a point that is in favor of religious leaders in their role as agents of change in their congregations. Similar levels of attitudes were reported in the general adult population,²¹ while negative attitudes were predominant in the study by Lau and Tsui.²² However, there are still a few areas that need to be examined and corrected if religious leaders are to serve well in their role of educating others on HIV/AIDS prevention and care of PLWHA.

The influence behind FBOs is not difficult to discern. Their strengths lie in the fact that they have a spiritual mandate, experience and capacity, a broad reach through numerous channels for social mobilization, credibility, creativity in delivering messages, leadership and influence, and affiliations with large numbers of people. The limitation, however, is that if they are not properly trained, they can actually perpetuate misinformation about HIV infection as well as perpetuate stigma and discrimination against people living with HIV.

As many as a third of the respondents think that they do not have sufficient knowledge and skills to protect themselves if they are involved in the care of members in their congregations with HIV/AIDS. Many did not know their HIV status; of these, a third did not want to know, even if the test were free. The reasons given were fear of testing positive, and respondents feeling it was not necessary to go for HIV testing. Also, as many as two-thirds of the respondents did not have a correct perception of their own vulnerability to HIV infection. This corroborates the findings of Kengeya-Kayondo et al,²³ Teague,²⁴ and Brown and van Hook²⁵ in other target groups. This fact has great implications, especially for people who are to be agents of change and role models in this effort against the spread of HIV infection. These are issues to be corrected so that religious leaders can fill their proper role, which is to disseminate correct information on all aspects of their congregations' lives including, most especially, health-related information.

This study found a low prevalence of stigmatizing behaviors towards PLWHA. This was an encouraging finding because stigmatizing behaviors and discrimination are difficult challenges in the prevention and control of HIV/AIDS. Stigma facilitates the spread of HIV/AIDS, and creates barriers to HIV testing, treatment, care, and support networks for people living with and affected by HIV/AIDS.^{26,27} The danger of this is that it could serve as a deterrent to HIV preventive programs, like voluntary counseling and testing, and adherence to antiretroviral therapy. It is important for HIV/AIDS program planners to help religious leaders put this fact in proper perspective.

The religious leaders had only moderate involvement in prevention and care of HIV/AIDS in their congregation and community. About two-thirds of the respondents used their position to educate their congregation about HIV, while some organizations had programs on preventive measures. On the other hand, only a third of respondents' organizations have programs to take care of the PLWHA in their congregations, with just a little over one-tenth being in partnership with either a governmental or nongovernmental agency. FBOs are uniquely positioned to disseminate HIV/AIDS education and prevention messages through their extensive networks, which reach even the most remote villages. This is an avenue to be explored and harnessed in the prevention strategies for greater reach to the populace. Churches and mosques create a whole series of invaluable faith-based networks with extraordinary reach, most often enjoying profound trust among communities. These networks can offer unmatched opportunities to disseminate key messages, reduce stigma,

mobilize grassroots, shape social values, and promote responsible behavior. They also support enlightened attitudes, opinions, policies, and laws, and redirect charitable resources for spiritual and social care. As well, they raise new funds for prevention, disseminate accurate information, influence opinion, and engender community preparedness, orphan care, and palliative care.¹⁴ Furthermore, religious institutions such as churches, mosques, temples, and synagogues are found in nearly all communities and have significant cultural, political, social, educational, and economic influence. Also, in many countries, faith-based institutions are the largest, most stable, and most extensively disbursed nongovernmental organizations. Most have resources, structures, and systems on which to build on. They also possess the human, physical, technical, and financial resources needed to support and implement small and large-scale initiatives. Therefore, working with them can be very cost-effective because they can leverage volunteer and other resources with minimal effort. For all of these reasons, it can be extremely helpful to involve faith-based groups in public health initiatives, such as HIV prevention and care. It has been found that faith-based initiatives can be pivotal to the success of public health programs, especially those concerning reproductive health and HIV/AIDS prevention and care.²⁸

The majority of respondents (94.9%) had good practice scores on preventive measures against HIV/AIDS. This also places these religious leaders at a vantage point in their role as agents of effecting desired behavioral changes in their congregations. About two-thirds (66.5%) of the study respondents were performing at least one individual role. This shows that various FBOs are already taking up the fight against HIV/AIDS. However, results showed that most FBOs exerted their efforts only within their various local congregations and organizations, while only 12.5% of the respondents signified that their organizations had help from outside organizations, such as governmental and nongovernmental organizations. This is not good enough, as these FBOs are often limited funds-wise. It would greatly help the fight against HIV/AIDS to have governmental and nongovernmental organizations and agencies partner with various FBOs. More often than not, the capacity of FBOs has not been maximized because they have not received adequate levels of training or resources to address the impact of the disease.

Conclusion

This study showed that the religious leaders had a high level of knowledge surrounding the routes of transmission and mode of prevention of HIV, which was accompanied by

positive attitudes towards PLWHA. They also performed roles in educating, informing, and raising the awareness of their congregations on HIV prevention measures. A few of the organizations were involved in the care of PLWHA in their congregation; this points to the fact that if properly harnessed, religious leaders can be vital instruments in the war against HIV/AIDS in Nigeria.

Tackling the HIV/AIDS crisis in Africa is a long-term task that requires sustained effort and planning – both within African countries themselves and amongst the international community. One of the most important elements of the fight against AIDS is the prevention of new HIV infections. The other main challenge is providing treatment and care to those living with HIV in Africa. This study has shown that religious leaders and FBOs can be efficient and effective instruments in this two-pronged approach at combating HIV/AIDs in Nigeria and indeed in Africa as a whole. Findings from this study may help HIV prevention program planners capitalize on the perceived strengths of FBOs, as well as elucidate their perceived weaknesses so that these areas of concern can be further explored and addressed.

We recommend that seminars and workshops be organized for this target group to address areas of gaps in knowledge and misconceptions, and to address the lack of skill in handling issues relating to HIV/AIDS among the members of their congregations, if and when affected. Partnerships should be encouraged between FBOs, governmental, and nongovernmental agencies to increase capacity, build sustainability, and increase funding to enable FBOs to play an even greater and more active role in the fight against HIV/AIDS. Efforts should be made by the government policymakers to involve more FBOs in ongoing HIV prevention programs. We also recommend that FBOs develop policy statements surrounding HIV/AIDS and that they work increasingly in collaboration with other advocates to bring greater urgency to the fight against HIV/AIDS.

Disclosure

The authors report no conflicts of interest in this work.

References

1. United Nations Population Fund. Young People [webpage on the Internet]. New York, NY: UNFPA. Available from: <http://nigeria.unfpa.org/young-people.html#>. Accessed February 23, 2013.
2. Federal Republic of Niogeria. National Youth Policy and Strategic Plan of Action. Available from <http://www.k4health.org/sites/default/files/Nigeria%20National%20Youth%20Policy%20%26%20Plan%20of%20Action.pdf>

3. United Nations Fund for Population Activities (UNFPA), Nigeria. UNFPA Nigeria HIV and AIDS: Situation analysis. Available from <http://nigeria.unfpa.org/hivaids.html>
4. Alubo O. Breaking the wall of silence: AIDS policy and politics in Nigeria. *Int J Health Serv.* 2002;32(3):551–566.
5. Ajuwon AJ, McFarland W, Hudes ES, Adedapo S, Okikiolu T, Lurie P. HIV risk-related behavior, sexual coercion, and implications for prevention strategies among female apprentice tailors, Ibadan, Nigeria. *AIDS Behav.* 2002;6(3):229–235.
6. Iwuagwu SC, Ajuwon AJ, Olaseha IO. Sexual behaviour and negotiation of male condom by female students of the University of Ibadan, Nigeria. *J Obstet Gynaecol.* 2000;20(5):507–513.
7. Eromonsele SA. *Perceived Susceptibility to HIV/AIDS and Pattern of Condom Use Among Female Sex Workers in Two Cities in Osun State, Nigeria* [dissertation]. Ibadan: University of Ibadan; 2002.
8. Akintola O. *Knowledge About AIDS and Risky Sexual Behavior of Commercial Drivers in Ibadan* [dissertation]. Ibadan: University of Ibadan; 2000.
9. Olugbenga-Bello AI, Oboro VO, Parakoyi DB, Akande TM. Sexual risk behaviours of intercity commercial drivers in Ilorin, Kwara State, Nigeria. *Research Journal of Medical Sciences.* 2007;1(5):284–288.
10. Coruh B, Ayele H, Pugh M, Muligan T. Does religious activity improve health outcomes? A critical review of the recent literature. *Explore (NY). Journal of Science and Healing.* 2005;1(3):186–191.
11. The Pew Forum on Religion and Public Life. A report on the size and distribution of the Worlds Christian Population. December 2011.
12. Tiendrebeogo G, Buyx M. Christian Perspectives to HIV/AIDS prevention and impact mitigation in Africa. In: *Faith Base-Organization and HIV/AIDS Prevention and Mitigation in Africa*. The Royal Tropical Institute (KIT) Publishers; Amsterdam, 2004.
13. Ali M, Ushijima H. Perceptions of men on role of religious leaders in reproductive health issues in rural Pakistan. *J Biosoc Sci.* 2005;37:115–122.
14. United Nations Population Fund. Building bridges among faith-based organization and secular development practitioners. New York, NY: UNFPA; 2007. Available from <http://www.unfpa.org/culture/fbo/html> Accessed June 10, 2011.
15. National Population Commission (NPC) 2006. Nigeria demographic and health survey. Calverton Maryland. NPC and ORC Macro, page 45–47.
16. Brieger WR, Adeniyi JD. Urban community health education in Africa. *Int Q Community Health Educ.* 1981;2(2):109–121.
17. Nwokoji UA, Ajuwon AJ. Knowledge of AIDS and HIV risk-related sexual behavior among Nigerian naval personnel. *BMC Public Health.* 2004;4:24–29.
18. Araoye MO. Sample size determination. In: *Research Methodology with Statistic for Health and Social Sciences*. Nathadex Publishers, 2003:115–121.
19. Ogundipe S. *Hotline HRH, 2012 July*. Ibadan: Christian Health Association of Nigeria Advocates for Stronger Partnership; 2012. Available from: http://www.hrhresourcecenter.org/hosted_docs/hotline_0712.pdf. Accessed December 20, 2012.
20. Agadjanian V, Sen S. Promises and challenges of faith-based AIDS care and support in Mozambique. *Am J Public Health.* 2007;97(2):362–366.
21. Quach L, Mayer K, McGarvey ST, Lurie MN, Do P. Knowledge, attitudes, and practices among physicians on HIV/AIDS in Quang Ninh, Vietnam. *AIDS Patient Care STDS.* 2005;19(5):335–346.
22. Lau JT, Tsui HY. Discriminatory attitudes towards people living with HIV/AIDS and associated factors: a population based study in the Chinese general population. *Sex Transm Infect.* 2005;81(2): 113–119.
23. Kengeya-Kayondo JF, Carpenter LM, Kintu PM, Nabaitu J, Pool R, Whitworth JA. Risk perception and HIV-1 prevalence in 15,000 adults in rural South-west Uganda. *AIDS.* 1999;13(16):2295–2302.
24. Teague SM. Perceptions of vulnerability to HIV/AIDS: a comparison of two college cohorts, 1990 and 2005. *AIDS Educ Prev.* 2009;21(6):526–537.
25. Brown EJ, Van Hook M. Risk behavior, perceptions of HIV risk, and risk-reduction behavior among a small group of rural African American women who use drugs. *J Assoc Nurses AIDS Care.* 2006;17(5): 42–50.
26. Ransome D. Prevention and care: Trinidad's twin messages. *AIDS Watch.* 1990;9:5–7.
27. Genberg BL, Kawichai S, Chingono A, Sendah M, Chariyalertsak S, Konda KA, Celentano DD. Assessing HIV/AIDS stigma and discrimination in developing countries. *AIDS Behav.* 2008; 12(5):772–778.
28. Nasir JA, Hinde A. Factors associated with contraceptive approval among religious leaders in Pakistan. *J Biosoc Sci.* 2011;43(5): 587–596.

HIV/AIDS - Research and Palliative Care

Publish your work in this journal

HIV/AIDS - Research and Palliative Care is an international, peer-reviewed open-access journal focusing on advances in research in HIV, its clinical progression and management options including antiviral treatment, palliative care and public healthcare policies to control viral spread. The journal welcomes original research, basic science,

Submit your manuscript here: <http://www.dovepress.com/hivaids---research-and-palliative-care-journal>

clinical & epidemiological studies, reviews & evaluations, expert opinion & commentary, case reports & extended reports. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Dovepress