Attitude of Health-Care Workers to HIV/AIDS

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Abstract

The current 5% prevalence rate of HIV in Nigeria represents a significant population of people living with HIV/AIDS (PLWHA). Discrimination against PLWHA has profound impact on the care and support required for their optimal management particularly in resource-constrained settings.

The study sought to assess the knowledge of health-care providers about HIV/AIDS, determine the potential for discrimination in the provision of services based on patients' HIV sero-status and review the factors that may contribute to such attitude.

Self-administered semi-structured questionnaires were administered to respondents who were selected by multi-stage sampling technique. The questionnaires explored the respondents' knowledge about HIV and their attitude and practice regarding PLWHA.

Three hundred and forty-five questionnaires were completed. Only 77.1% correctly identified breastfeeding as a source of HIV transmission; 5.2%and 2.6% respectively thought transmission was possible through mosquito bite and handshake. About 10% and 15% respectively among trained nurses and auxiliary nurses were unaware that HIV could be transmitted to the child during delivery.

Some 13.9% and 12.7% of respondents respectively were unwilling to take vital signs and carry out physical examination on PLWHA. Compared to physicians, trained nurses and auxiliary nurses were more likely to deny services based on HIV sero-status. Negative attitude was more likely if the source of the HIV infection was from homosexual exposure or bisexual indiscretion.

The health-care workers studied manifested certain attitudes that are potentially discriminatory of PLWHA. Well-coordinated continuing education of HIV/AIDS for all categories of health-care workers is recommended as a vital strategy in the crusade against the epidemic. (*Afr J Reprod Health* 2006; 10[1]:39-46)

Résumé

Attitude du personnel médical envers le VIH/SIDA. L'actuel taux de 5% de fréquence du VIH/SIDA au Nigéria représente une population importante de gens vivant avec le VIH/SIDA (GVAVS). La discrimination contre ceux qui vivent avec le VIH/SIDA a un impact profond sur le soin et l'appui nécessaires pour leur bon traitement surtout dans les cadres qui n'ont pas assez de ressources.

L'étude avait pour objectif d'évaluer la connaissance des fournisseurs des soins médicaux par rapport au VIH/SIDA, de déterminer le potentiel pour la discrimination dans la dispensation des services basés sur le statu zéro du VIH/SIDA du patient et de passer en revue les facteurs capables de contribuer à une telle attitude.

Des questionnaires semi-structurés et auto-administrés ont été administrés aux répondants qui ont été selectionnés à l'aide d'une technique d'échantillon à étapes multiples. Les questionnaires ont exploré la connaissance des répondants au sujet du VIH/SIDA et leur attitude et pratique par rapport au GVAVS.

Trois cent quarante-cinq questionnaires ont été remplis. Seuls 77,1% avaient bien identifié l'allaitement comme étant une source de la transmission du VIH ; 5,2% et 2,6% respectivement ont pensé que la piqûre de la moustique et le serrement de main pouvaient transmettre le VIH. A peu-près 10% et 15% respectivement parmi les infirmières formées et les infirmières auxillaires n'étaient pas conscientes du fait que le VIH pouvaient être transmis à l'enfant au moment de l'accouchement.

Environ 13,9% et 12,7% des répondants respectivement ne voulaient pas prendre des signes importants et de subir des examens physiques sur les GVAVS? Comparées aux médicins, les infirmières formées et les infirmières auxillaires avaient plus de possibilité de ne pas rendre des services basés sur le zéro-statu du VIH. Une attitude négative était plus probable si le VIH avait comme source l'homo-sexualité ou l'indiscretion bisexuelle.

Le personnel médical qui ont fait l'objet de cette étude, ont fait preuve des attitudes potentiellement discriminatoire à l'égard des GVAVS. Nous préconisons une formation permanente bien coordonnée du VIH/SIDA pour toutes les catégories du personnel médical comme une stratégie importante dans la croissade contre l'épidémie. (*Rev Afr Santé Reprod* 2006; 10[1]:39-46)

KEY WORDS: *HIV/AIDS, health care workers, knowledge, attitude, discrimination, stigmatization*

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Introduction

The human immunodeficiency virus (HIV) infection/acquired immune deficiency syndrome(AIDS) has become the most devastating disease mankind has ever faced.[1] The HIV/AIDS has set off a pandemic with the worst hit region being sub-Saharan Africa.[2] As at the end of 2001, of the estimated 40 million adults and children living with HIV/AIDS 28.1 million were in sub-Saharan Africa with an adult prevalence rate of 8.4%.[1] In Nigeria, the most populous country in sub-Saharan Africa, the current 5% prevalence rate represents a significant population of people living with HIV/AIDS.[3]

The disease is not only a threat to economies, but to the very fabric of the society.[4] In badly affected countries, the socioeconomic effect of this most destructive disease is measured in declining per capita incomes, shrinking profits in labour intensive businesses, loss of productivity from cultivated land and deteriorating public services such as health and education as key staff fall ill and die.[4]

The HIV was first discovered in 1983 even though the first recognised cases of AIDS occurred in 1981.[5] The HIV is transmitted by various routes which include sexual, through blood, blood products and body fluids, mother to child and through sharing of sharp objects contaminated by blood or body fluids. Infection with HIV causes a spectrum of clinical problems beginning at the time of seroconversion through an asymptomatic phase and terminating with AIDS and death.[5]

Diagnosis of HIV in resource poor settings are often based on clinical evidence Serological tests and identification of the HIV RNA are the mainstay of diagnosis in the developed world.

From the moment scientists identified HIV/AIDS, social responses of fear, stigma and discrimination have accompanied the epidemic.[6] Despite the passing of resolution 49/1000 of the UN commission on human rights prohibiting discrimination on the basis of HIV serostatus, these negative responses persist.[6] The field of health has been identified as one of the major areas in social life where persons with HIV/AIDS may suffer discrimination.[7] Ignorance and lack of knowledge about HIV transmission, fear, moralistic assumptions of guilt and perceived incurability of HIV/AIDS have been reported as being contributory to such responses.[7]

It is pivotal to any AIDS prevention programme that those involved in the care of HIV/AIDS patients have a positive attitude. Also since hospitals are the usual places where the diagnosis is made, health-care workers are in a good position to give appropriate counsel. This study was carried out to ascertain the knowledge of Nigerian health-care workers about HIV/AIDS, to find out if any, the potential for discrimination in the provision of services based on HIV serostatus, and to determine the factors that may contribute to such attitudes

Materials and Methods

The study was conducted in September 2003 in Abeokuta North and South local governments of Ogun State, Nigeria. The respondents were selected through a multistage sampling technique. In each local government, public and private health institutions were selected from the primary, secondary and tertiary levels of care. Health facilities included medical laboratories.

The list of such registered institutions was obtained from the Ogun State Ministry of Health. In each local government at least one quarter of the registered institutions in each category of the sampling clusters was selected randomly with each institution having equal probability of being selected. In any category with few institutions (less than four), all available institutions were selected.

Within every selected health facility, a list of the names of all health-care workers in the different cadres was obtained from the administrative authority. The appropriate cadres were all personnel who had direct contact with patients including medical personnel, nursing personnel,

laboratory personnel and domestic staff. From this list of the different cadres, a random selection of at least one quarter of the personnel in that cadre was done, with each person having an equal probability of being selected. Where a selected individual was not available or declined to participate in the study, the next person on the list was chosen.

The instrument was a self-administered semi-structured questionnaire, which sought to assess the attitude and practice of health-care workers regarding patients with HIV/AIDS. The bio-data and the professional status of the respondents were also documented. The questionnaire required about 15 minutes to complete. The questionnaire was pre-tested at all levels of the sampling clusters.

Three trained research assistants distributed the questionnaires. During questionnaire administration respondents were enjoined to address the questions privately and confidentiality of responses was also assured.

The Ethical Review Committee of the Federal Medical Centre, Abeokuta gave consent for this study after review of the protocol. At each selected study site, permission was also obtained from the administrative authorities. The research assistants obtained verbal consent from each participant after thorough explanation of the study objectives

The completed questionnaires were edited daily. Data entry was done using a microcomputer, and data analysis was performed with EPI-INFO 6.1 software. Comparisons and associations were evaluated using the Chi-squared test.

Results

There were 345 respondents, 55(15.9%) males and 290(84.1%) females with an age range of 18 to 58 years. *Table 1* shows the professional distribution of the health-care workers. Of the 345 respondents, 154(44.6%) worked in private hospitals while 191(51.6%) worked in government owned health facilities. This is also shown in *Table 1*.

Table 1: **Professional distribution and description of practice of health-care workers surveyed**

Profession	**n**	**%**
Medical Doctors	35	10.1
Trained Nurses	236	68.4
Auxiliary Nurses	62	17.9
Laboratory Scientists	5	1.5
Others *	7	2.1
Total	**345**	**100.0**
Practice	**n**	**%**
Private hospital	154	44.6
General hospital	75	21.7
Tertiary hospital	71	20.6
Government owned maternity	20	5.8
Primary health centre	12	3.5
No response	13	3.8
Total	**345**	**100.0**

*Physiotherapists 3, Dental therapist 1, Records officer 1, no response 2

Health-care workers knowledge of the various routes of transmission of HIV is as shown in *Table 2*. Unprotected sex, use of contaminated sharp instruments and transfusion of infected blood were correctly identified as routes of transmission by 98.6%, 97.1% and 95.7% of health-care workers respectively. However, only 77.1% of health care workers knew that breastfeeding could transmit HIV while 5.2% and 2.6% respectively thought that HIV could be transmitted by mosquitoes and through handshakes. Remarkably, 8.9% of trained nurses and 14.5% of Auxiliary Nurses did not know that HIV could be transmitted to the child during delivery. Compared with medical doctors, this difference was statistically significant ($X^2 = 105.9$; $p > 0.0001$). Also when compared with medical doctors and trained Nurses, Auxiliary Nurses were more likely not to know that HIV could be transmitted through breastfeeding ($X^2 = 37.3$; $p < 0.05$).

Of the 345 respondents, 297 (86.1%) and 301 (87.3%) respectively were willing to take vital signs and carry out physical examination on HIV/AIDS patients. In contrast fewer health-care workers 180(56%) and 217 (67.3%) respectively would operate/assist to perform a surgical operation and conduct/ assist in taking the delivery of the baby of an HIV/AIDS patient. Nurses, Auxiliary Nurses and other health-care workers surveyed were more likely than Doctors to deny services based on HIV serostatus (*Table 3*). These differences reached statistically significant levels with respect to giving an injection ($X^2 = 39.3$; $p < 0.001$); setting up an infusion ($X^2 = 28.0$; $p < 0.05$); operating/assisting to perform a surgical operation ($X^2 = 30.1$; $p < 0.01$); conducting/assisting in taking a delivery ($X^2 = 27.0$; $p < 0.05$).

Table 2: **Distribution of health-care workers by their knowledge of routes of transmission of HIV**

Route of transmission*	Doctors n (%)	Nurses n (%)	Auxiliary nurses n (%)	Laboratory Scientists n (%)	Others n (%)	Total n (%)
Unprotected sex	35(100)	232(98.3)	61(98.4)	5(100)	5(100)	338(97.8)
Use of contaminated instruments	35(100)	230(97.5)	58(93.4)	5(100)	5(100	333(96.5)
Transfusion of infected blood	35(100)	223(94.5)	61(98.4)	4(80)	5(100)	328(95.1)
Mother to foetus in utero)	32(91.4)	213(90.3)	58(93.4)	5(100)	5(100)	313(90.7)
During delivery	35(100)	209(88.6)	53(85.5)	5(100)	3(60)	305(88.4)
Breast feeding	28(80)	189(80.1)	40(64.1)	4(80)	5(100)	266(77.1)
Mosquito bite	43(97.1)	222(94.1)	57(91.9)	5(100)	5(100)	323(93.6)
Handshake	33(94.3)	222(94.1)	62(100)	5(100)	4(80)	326(94.5)

*Figures show correct identification of routes of transmission except for mosquito bites and handshakes where the figures represent correct identification as non-transmission routes.

Table 3: **Willingness of health-care workers to carry out procedures on HIV/AIDS patients**

Procedure	Doctors		Trained Nurses		Auxiliary Nurses		Others	
	Yes	No	Yes	No	Yes	No	Yes	No
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Take vital signs	33(94.3)	2(5.7)	196(83.1)	35(14.8)	53(85.5)	9(16.5)	9(90.0)	1(10.0)
Carry out physical examination	33(94.3)	2(5.7)	198(83.9)	33(13.0)	55(88.7)	7(11.3)	9(90.0)	1(10.0)
Give an injection	34(97.1)	1(2.9)	170(72.0)	60(25.4)	42(67.7)	20(52.3)	3(40.0)	6(60.0)
Set up an infusion	30(85.7)	2(5.7)	168(71.2)	60(25.4)	44(71.0)	17(27.4)	3(30.0)	6(60.0)
Operate/assist at operation	26(74.3)	5(14.3)	121(51.3)	108(45.7)	29(46.8)	32(51.6)	3(30.0)	6(60.0)

Table 4: **Effect of use of gloves on willingness of health-care workers to offer services to HIV/AIDS patients**

Procedure	Without gloves			With gloves			
	Yes (%)	No (%)	No response (%)	Yes (%)	No (%)	No response (%)	P value
Take vital signs	292(84.6)	48(14.9)	5(1.5)	207(86.1)	41(11.9)	7(2.0)	p>0.05
Carry out physical examination	296(85.8)	44(12.7)	5(1.5)	304(88.1)	34(9.9)	7(2.0)	p>0.05
Give an injection	250(72.5)	88(25.5)	7(2.0)	299(86.7)	40(11.6)	6(1.7)	p<0.001
Set up an infusion	246(71.3)	86(24.9)	13(3.8)	300(86.9)	36(10.4)	9(2.6)	P<0.001

Table 5: **Attitude of health-care workers to HIV/AIDS patients based on the source of infection**

Source of infection	Positive n (%)	Negative n (%)	Indifference n (%)
Bisexual indiscretion	150(43.5)	118(34.2)	62(13.0)
Innocent Partner	245(71.0)	48(13.9)	34(9.8)
Blood transfusion	257(74.5)	36(10.4)	35(10.4)
Baby from mother	251(72.8)	35(10.4)	41(11.9)
Homosexual exposure	122(35.4)	119(34.9)	87(25.2)

In *Table 4*, the effect of the use of gloves on the willingness of health-care workers to carry out medical procedures on HIV/AIDS patients is shown. There was no significant difference in willingness to carry out non-invasive procedures with or without gloves; however, significantly more health workers were willing to give an injection ($X^2 = 30.0$; $p < 0.01$) or set up an infusion ($X^2 = 42.6$; $p < 0.01$) if gloves were worn.

Health-care workers would have a positive attitude towards HIV/AIDS patient if the source of the infection was by blood transfusion (74.5%), from an infected mother to her baby (72.8%), and from an infected partner to an innocent partner (71.0%). Negative attitude was about three times more likely if the source of infection was from homosexual exposure or from bisexual indiscretion compared to if the source was from blood transfusion or an innocent partner of a promiscuous person or if vertically transmitted to a baby (*Table 5*).

There was no clearly discernible association between the place and level of practice and the health-care worker's attitude towards people living with HIV/AIDS (PLWHA).

Discussion

The health-care workers studied showed very good knowledge of the routes of transmission of HIV similar to those studied in Lagos in whom 96.3% were adjudged to have moderate to good knowledge[8]. It is however, significant to note that about twenty percent of the respondents did not know that breastfeeding is a route of transmission. Also, a significant proportion of trained Nurses (8.9%) and Auxiliary Nurses (14.5%) did not know that HIV could be transmitted to the child during delivery. These findings become important against the background of prevention of mother to child transmission of HIV where these cadres of health-care workers have very important roles to play. Also worthy of note was the finding that only Doctors and trained Nurses constituted the 2.61% of respondents who believed that HIV could be transmitted through handshake.

Despite the fact that over 97% of respondents knew that casual contact (handshake) would not transmit HIV, about 13% would neither take vital signs nor carry out a physical examination on an HIV seropositive or AIDS patient. This tendency to deny patients health-care services based on HIV serostatus is worse as the procedure becomes more invasive. These findings are at variance with that of Adebajo, *et. al.*[8] in which they found that 93% of respondents felt duty bound to attend to all patients irrespective of their serostatus. Findings in Uganda also showed that medical staff had adequate commitment to providing equal care to all patients regardless of their serostatus[9].

Discriminatory attitude based on serostatus was found to be significantly associated with the profession of respondents. Doctors were less likely to refuse to offer service to HIV/AIDS patients compared to other health-care workers. It is not exactly clear as to why this is so.

Moralistic and judgmental attitudes have also been identified as reasons for stigmatisation and discrimination against HIV/AIDS patients.[6] This is supported by findings in this study in which more respondents would have a negative attitude towards patients whose source of HIV was either from homosexual exposure or bisexual indiscretion

This study has identified significant potential for discrimination against patients based on their HIV serostatus. Although knowledge appears satisfactory, the gaps identified in some vital areas may contribute to some of the negative attitudes.[10] Judgmental behaviour also seems to be a key factor. These findings underscore the value of in-service training on HIV/AIDS for health workers. Uncorrected, such attitude and knowledge deficiencies have the potential to impact negatively on the quality of care and patient/practitioner safety.[11] Training on HIV/AIDS has been shown to be associated with

significant positive changes on perception of population risk assessment, attitudes and beliefs about people with HIV disease.[12]

Also fear of being infected would seem to be of considerable concern. Though this was not directly evaluated, it was observed that more health-care workers were willing to offer services if they were wearing gloves. This latter finding was also noted in Uganda as affecting practice and attitudes[9]. Inadequate supply of basic items may promote a climate of fear of infection amongst health-care workers as reported in a survey conducted amongst health workers in Ghana.[13] This perceived risk of infection is real. Ansa et al[14] noted that the occupational risk of infection by immunodeficiency and hepatitis B viruses among health workers in south-Eastern Nigeria was high; the basic materials and equipments needed for protective and hygienic practices were inadequate in all hospitals.

Recommendations

Use of gloves is just one of the many facets of universal precautions. The adoption of universal precautions would create a safer work environment for health-care workers and their patients. A safe work environment would then empower the health-care worker to adequately care for patients without discrimination borne out of fear. Negative attitudes, beliefs and values or misinformation limit a caregiver's ability to provide effective, respectful and dignified care for PLWHA and their families.

Training programmes on HIV/AIDS in developing countries should address critical areas including voluntary counselling and testing, infection prevention measures with emphasis on cost-effective implementation of universal precautions among other issues. Such training should aim to bridge the gap between knowledge and practice by promoting the acceptance of a culture of the application of universal precautions by all cadres of health-care workers. This goal may only be achieved through the incorporation of dedicated monitoring and evaluation measures with prompt correction of identified gaps.

The active participation and collaboration of all stakeholders in the health sector including politicians, policy makers, health managers, professional groups and community involvement are essential ingredients in achieving success.

Continuing education on the advances in the field of HIV, and dissemination of information on the success stories in combating HIV/AIDS in other resource poor settings would also improve the attitudes of health-care workers. All cadres of health-care workers especially those who come in direct contact with patients should be equipped with correct and accurate information. This is very important in the area of prevention of mother to child transmission of HIV. The continued advocacy and insistence on compassionate, dignified and competent care as the norm for all patients would also help to reduce and eventually eliminate stigmatization and discrimination from health care settings.

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