

## HIV/AIDS stigma among primary health care workers in Ilorin, Nigeria

OO Sekoni and ET Owoaje

Department of Community Medicine, College of Medicine,  
University of Ibadan, Ibadan, Nigeria

### Abstract

**Background:** Stigma and discrimination pose major obstacles to accessing care and support by People Living With HIV/AIDS (PLWHA). Information on HIV stigma and discrimination towards PLWHA among Nigerian health workers has mainly been at higher levels of care. This paper examined HIV stigma and discrimination at the primary health care level with the objective of identifying its occurrence and determinants among health workers at this level.

**Methods:** A total sample of all health care workers (341) at the primary health care level in Ilorin, Kwara State were surveyed via questionnaire between July and August 2007 to obtain information on their socio-demographic characteristics and the four domains of stigma viz: fear of casual transmission of HIV, shame and blame, discrimination and disclosure.

**Results:** Majority of the respondents had fear of casual transmission of HIV (87.7%), exhibited shame and blame (89.4%), reported observing discrimination against PLWHA by other health workers in their facilities (97.7%) and believed that disclosure of patients HIV status to health workers was imperative. Nurses/midwives were more likely to have fear of casual transmission of HIV and believe that disclosure of HIV status of patients was imperative. Respondents who had received in service training were less likely to exhibit shame and blame ( $p < 0.05$ ).

**Conclusion:** Stigma occurred in all stigma domains among this group of health workers but previous training was found to play a role in the reduction of shame and blame. Training of health care workers within the context of the various stigma domains is advocated.

**Keywords:** Stigma, discrimination, health care workers, primary health care level, in-service training, stigma domains

Correspondence: O.O. Sekoni, Department of Community Medicine, College of Medicine, University of Ibadan, Ibadan, Nigeria. E-mail: t1toyin@yahoo.com

### Résumé

**Introduction :** La stigmatisation et la discrimination liée au VIH posent des obstacles importants au soin d'accès et au support aux personnes vivant avec le VIH/SIDA (PLWHA). L'information sur le stigmate et la discrimination des PLWHA parmi les professionnels de la santé nigérienne a principalement été à des niveaux plus élevés de soins. Cette étude a examiné la stigmatisation et la discrimination liées au VIH au niveau des soins de santé primaires dans le but d'identifier son apparition et déterminants chez les travailleurs de la santé à ce niveau.

**Méthodologie:** Un échantillon de l'ensemble du personnel en santé (341) au niveau des soins de santé primaires à Ilorin, Kwara, Nigeria ont été interrogés par questionnaire structuré entre Juillet - Août 2007 pour obtenir des informations sur leurs caractéristiques sociodémographiques et les quatre domaines de la stigmatisation à savoir : la peur de la transmission occasionnelle du VIH, la honte et le blâme, la discrimination et la communication.

**Résultats:** La majorité des sujets ont eu peur de la transmission occasionnel du VIH (87,7%), a présenté la honte et le blâme (89,4%), a rapporté l'observation de la discrimination contre les personnes vivant avec VIH par d'autre personnel de santé dans leurs installations (97,7%) et croit que la divulgation de la séropositivité des patients aux agents de santé était impératif. Les infirmières / sages-femmes étaient plus susceptibles d'avoir peur de la transmission du VIH et décontractées que la divulgation du statut sérologique des patients était impérative. Les sujets qui avaient reçu une formation continue étaient moins susceptibles d'exposer la honte et le blâme ( $p \hat{=} 0,05$ ).

**Conclusion:** La stigmatisation a eu lieu dans tous les domaines de la stigmatisation au sein de ce groupe du personnel de santé, mais la formation antérieure a prouvé de jouer un rôle dans la réduction de la honte et le blâme. La formation du personnel de santé dans le cadre des différents domaines de la stigmatisation est préconisée.

### Introduction

The Acquired Immuno Deficiency Syndrome (AIDS) has been identified as one of the major public health problems of mankind in the 21<sup>st</sup> century. Globally, a total of 34 million people were estimated to be living

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with HIV in 2011 [1]. In Nigeria, HIV sero prevalence rates initially rose over the years from 1.8% in 1991 through to 5.8% in the year 2001 and then declined to 4.4% in 2005 [2,3]. The current Nigerian HIV prevalence has been documented as 3.6%.[4] Despite this apparent decline, there is still cause for concern. Based on these figures, it is estimated that about 2.6 million persons are presently living with HIV/AIDS in Nigeria [1].

PLWHA and their family members have faced various problems including stigmatization since the epidemic began. The concept of stigma had been identified in literature as being a "mark" (attribute) that links a person to undesirable characteristics (stereotypes) [5]. Discrimination which often follows stigma is the unfair and unjust treatment of an individual based on his or her real or perceived HIV status. Discrimination has also been defined as enacted stigma i.e. the negative acts that result from stigma and serve to devalue and reduce the life chances of the stigmatized [6].

Discrimination can take many forms within the health care sector and could include refusal to admit patients, treatment delayed or withheld, other forms of care (food, hygiene) delayed or withheld, little or no attendance to patients in beds, testing without consent, breach of confidentiality, inappropriate comments or behaviour, selective use of universal precautions or even excessive precautions. Globally, stigma and discrimination against people living with HIV/AIDS have been one of the highest challenges to effectively controlling the HIV/AIDS pandemic [6]. Fear of stigma has been shown to limit the efficacy of HIV-testing programmes across Sub-Saharan Africa. While in some places the advent of free and accessible antiretroviral therapy has offered hope and encouraged people to determine their HIV status, stigma still remains a barrier to testing even when treatment is available [7, 8].

Society entrusts health care professionals and indeed all health care workers with the responsibility of preventing and controlling disease and caring for those who are infected or ill [9]. Despite this, health care workers are no different from the general population with respect to the feelings of fear they may have as well as the stigma and discrimination they may elicit related to HIV/AIDS [10]. Various studies among health care workers have shown that though knowledge about HIV/AIDS is high, there is still very high prevalence of stigma and discrimination toward people living with HIV/AIDS among them [11,12].

In the light of this, accessing health care can be a challenge for people who are HIV positive, because the health care system itself regrettably is often a source of stigma. Health care professionals, particularly those who infrequently encounter HIV-positive people, can be insensitive to their patients' concerns about stigma [13].

The national policy on HIV/AIDS has identified stigma and discrimination shown to people living with and affected by HIV/AIDS as one of the major barriers that could limit the impact of the country's response to the HIV/AIDS epidemic [14]. The thrust of the national response to the HIV/AIDS pandemic has now been geared toward accelerated treatment scale up by establishing a continuum of care for people living with HIV/AIDS via the integration of HIV/AIDS care into all the existing programs of primary health care. Issues relating to stigmatization and discrimination of people living with HIV/AIDS within the health care setting have not been fully explored in Nigeria probably due to the fact that the epidemic has been relatively less advanced in Nigeria when compared with East Africa and Southern African countries [15].

In addition, existent studies have focused mainly on stigma among health care workers at tertiary levels of health care [11, 16]. The objective of this study therefore was to assess the occurrence and patterns of stigma and discrimination as well as identify factors that influence the occurrence of stigma and discrimination among health care workers at the primary health care level.

As highlighted by the Nigerian HIV/AIDS policy, every health worker at all levels is expected to provide clinical care to PLWHA [14]. The primary health care facilities will be expected to serve as part of the community network of community based care for PLWHA and as such need to be positioned to address the various social issues that influence the uptake of HIV treatment and prevention programs. A determination of the pattern of HIV related stigma and discrimination elicited toward people living with HIV/AIDS among primary health care workers would facilitate an understanding of how stigma and discrimination could affect access to HIV prevention, testing, disclosure, care and support efforts at this critical entry point into the health system. This would also ultimately strengthen the HIV/AIDS response with regard to care and support of PLWHA as well as enhance program implementation of anti stigma interventions.

## Materials and methods

This cross sectional survey of primary health care workers was conducted in all primary health care centers in Ilorin metropolis the capital of Kwara State, Nigeria. Ilorin is made up of three local government areas viz: Ilorin East, Ilorin West and Ilorin South with their headquarters at Oke-Oyi, Oja-Oba and Fufu respectively. Within the metropolis, there are many primary and secondary health institutions but only one tertiary health institution namely the University of Ilorin Teaching Hospital. There are many private health facilities scattered all over the city.

A minimum sample size of 261 was estimated using the formula by Kish [17] for a cross sectional study. The formula utilized the proportion of health workers that had stigmatizing attitudes in health facilities in Nigeria [16]. A total sample of 354 primary health care workers representing all staff in all the primary health care centers within Ilorin metropolis were included in the study. Ethical approval for the study was obtained from the Kwara State Ministry of Health Ethical Review Committee. The purpose of the study was explained to the health workers and their consent obtained after which the questionnaire was administered. Out of the total number, 11 health care workers were on leave while 2 of them were not willing to participate in the study. Altogether, 341 health workers responded to the pretested, structured, self administered questionnaire.

Stigma and discrimination were defined based on a review of existing literature with stigma being defined as negative attitudes directed toward people living with HIV/AIDS as a result of their HIV status while discrimination was defined as the negative acts that result from stigma or as is otherwise known, 'enacted stigma'. The major causes of stigma were also identified from literature as being categorized into four domains viz: fear of casual transmission and refusal of casual contact with people living with HIV/AIDS, values of shame, blame and judgment, enacted stigma (discrimination) and disclosure. A structured questionnaire was used to obtain information on sociodemographic characteristics and the four domains of stigma

Scores were assigned to each question in each of the stigma domains with a score of 2 marks being assigned for a non stigmatizing response, 1 mark if the respondent was undecided and 0 marks if the respondent gave a stigmatizing response. With each of the stigma domains, the higher the score obtained, the less stigma the respondent was adjudged to exhibit. The maximum obtainable score for each of the domains was as follows: fear of casual transmission

of HIV- 18, values of shame and blame- 16, enacted stigma- 6 and disclosure- 10 SPSS software programme version 11 was utilized to analyze the data. Associations between categorical variables and selected factors were determined using the Chi square test. A P-value of less than 0.05 was considered as being statistically significant (1.4).

## Results

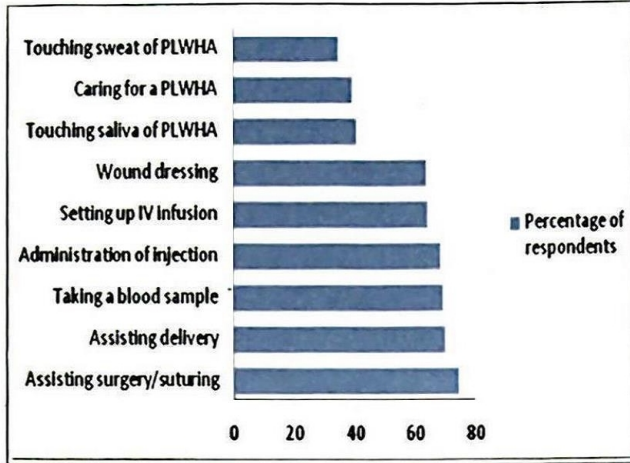
The socio demographic characteristics of the respondents are shown in Table 1. The mean age of respondents was  $36.5 \pm 7.9$  years (range 20 – 58 years). Majority of the respondents were female (81.8%) and married (80.9%). In terms of cadre, senior community health extension workers constituted the highest proportion (37.2%) while nurses constituted 32.8%.

**Table 1:** Sociodemographic characteristics of respondents

Variables	N = 341(%)
<i>Age (in years)</i>	
20-29	74 (21.7)
30-39	131 (38.4)
40-49	115 (33.7)
50+	21 (6.2)
<i>Marital status</i>	
Single	60 (17.6)
Married	276 (80.9)
Divorced	1 (0.3)
Widowed	4 (1.2)
<i>Designation</i>	
Nurse /midwife	112 (32.8)
Community Health Officer	35 (10.3)
Senior Community Health Extension Worker	127 (37.2)
Junior Community Health Extension Worker	67 (19.7)
<i>In service training for HIV/AIDS</i>	
Yes	121 (35.5)
No	220 (64.5)

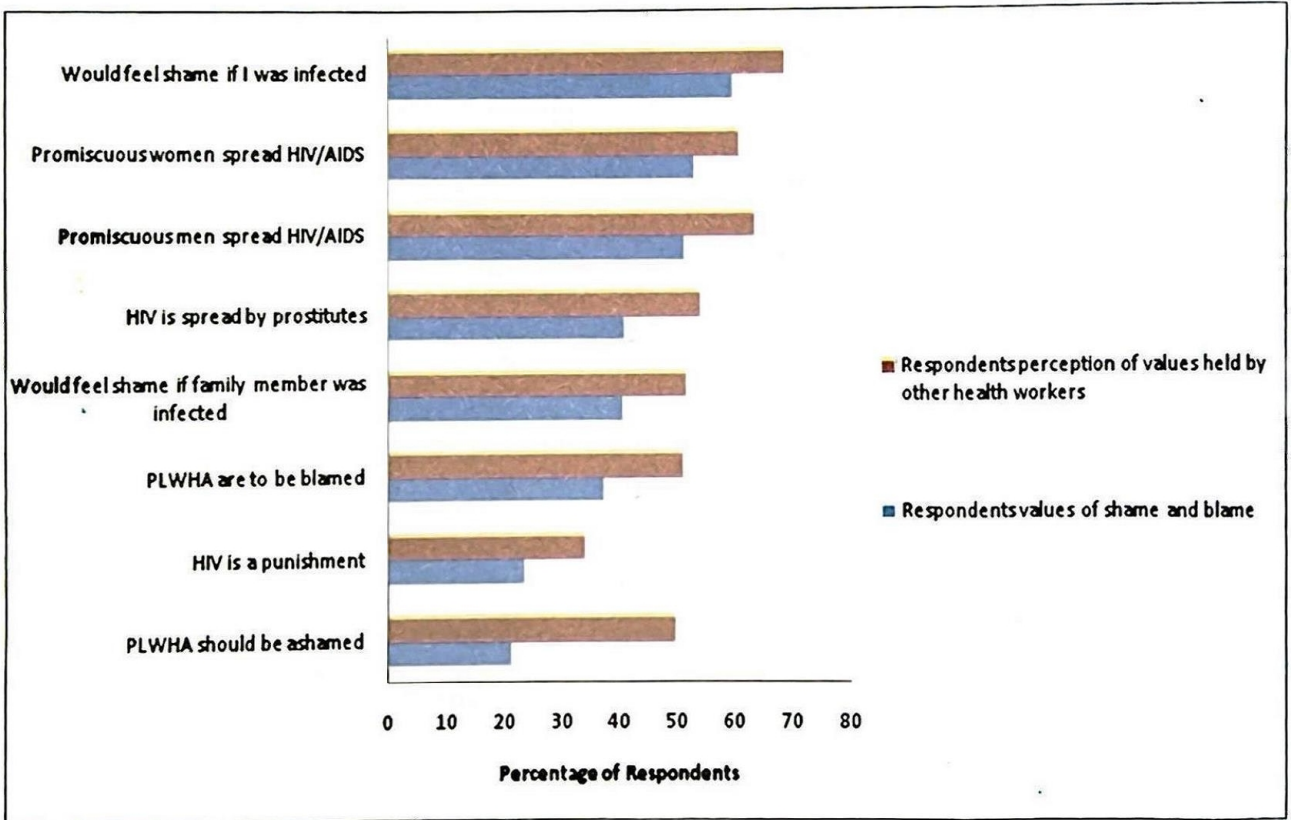
Regarding fear of casual transmission, respondents had fear in all the categories with the highest being with regard to conducting or participating in surgery or suturing a PLWHA (74.8%) and the lowest being with regard to touching the sweat of a PLWHA (34.9%) as shown in Fig. 1.

More than a third of the respondents felt that HIV is spread mainly by prostitutes in the community (41.1%) and that they would feel ashamed if someone in their family had HIV/AIDS (40.8%) (Figure 2). Furthermore they agreed that people with HIV were to be blamed for bringing the disease to the community (37.5%). About half of the respondents



**Fig. 1:** Respondents that had fear of casual transmission of HIV

that they would feel ashamed if someone in their family had HIV/AIDS (51.9%). Majority of the respondents reported that health care workers were of the opinion that promiscuous men (63.9%) and promiscuous women (61.0%) were those mainly responsible for spreading HIV in the community while 69.2% of respondents felt that health care workers would feel ashamed if they were infected with HIV. Most of the respondents (57.5%) had observed enacted stigma taking place in their facilities with clients being tested for HIV based on the suspicion of having HIV/AIDS and up to 88.0% of them reported that extra precautions were taken to sterilize instruments used on HIV positive patients. With regard to discriminatory practices, about half (49.3%) of the respondents had used latex gloves to perform simple procedures such as taking vital signs on clients suspected of being infected with HIV.



**Fig. 2:** Values of shame and blame

felt that promiscuous men and women are the main people that spread HIV in the community (51.6%, 53.4%) and majority of them were of the opinion that they would feel ashamed if they were infected with HIV (60.1%). Their views of the perception of other health workers were also explored. More than half of the respondents reported that other health care workers would be of the opinion that HIV is spread mainly by prostitutes in the community (54.5%) and

Despite this finding, majority of them still reported that they did not give less care/attention to those suspected of being infected with HIV than other patients (80.6%) (Table 2). With regard to attitude toward disclosure of HIV status, almost all the respondents (93.5%) agreed that staff and health care professionals should be told when a patient has HIV/AIDS so they can protect themselves. Majority of the respondents (60.1%) agreed that there are

**Table 2:** Respondents observation and involvement of enacted stigma (discrimination)

Variable	N=341 (%)
Requiring such clients only to be tested for IV before scheduling surgery	
Yes	196(57.5)
No	116 (34.0)
Not sure/cannot remember	29 (8.5)
Extra precautions being taken in the sterilization of instruments used on HIV positive patients	
Yes	300 (88.0)
No	24 (7.0)
Not sure/cannot remember	17 (5.0)
Because a patient is HIV positive, a senior health provider pushes the patient to a junior provider	
Yes	39 (11.4)
No	271 (79.5)
Not sure/cannot remember	31 (9.1)
Have you ever used latex gloves for performing simple procedures e.g. taking vital signs on clients suspected of being infected with HIV	
Yes	168 (49.3)
No	155 (45.5)
Not sure/cannot remember	18 (5.3)
Have you ever given information about a clients HIV status to other healthWorkers that are not involved in the management of such a patient	
Yes	137 (40.2)
No	191 (56.0)
Not sure/cannot remember	13 (3.8)
Have you ever given less care/attention to those suspected of being infected with HIV than other patients	
Yes	42 (12.3)
No	275 (80.6)
Not sure/cannot remember	24 (7.0)

circumstances where it is appropriate to test a patient for HIV without the patient's knowledge/permission. Mandatory HIV testing for all prospective health care workers was agreed to by more than three quarters of the respondents (79.5%). Over half (55.4%) of the respondents disagreed that relatives/sexual partners of patients with HIV/AIDS should be notified of the patient's status even without his/her consent. Most of the respondents disagreed that the charts/beds of patients with HIV/AIDS should be marked so hospital workers would know the patient's status (51.9%) Majority of the respondents agreed to the statement that a health professional with HIV/AIDS should not be working in any area of health care that requires patient contact (66.0%)

Table 3 shows the relationship between some sociodemographic characteristics and fear of casual transmission. A greater proportion of nurses/midwives (94.6%) had fear of casual transmission compared to other cadres (84.3%). This was found to be statistically significant. ( $p < 0.05$ ) With regard to in service training, similar proportions of those who had training (86.0%) and those who did not (88.6%) had fear of casual transmission

Table 4 shows the relationship between some sociodemographic characteristics and attitudes of shame and blame. Majority of the respondents in each of the age groups exhibited attitudes of shame and blame: 91.9% in the 20-29 year age group, 89.3% in the 30-39 year age group, 90.4% in the 40-49 year age group and 95.2% in the age group of 50 and above. Both designation and in service training were found to be significantly associated with exhibiting attitudes of shame and blame. A higher proportion of other health care workers (97.4%) which comprised of community health officers, senior community health extension workers and junior health extension

**Table 3:** Relationship between some sociodemographic characteristics and fear of casual transmission

Variable	Fear of casual transmission		P value
	Have fear n(%)	Do not have fear n(%)	
<i>Age group</i>			
20-29	64 (86.5)	10 (13.5)	0.728
30-39	117 (89.3)	14 (10.7)	
40-49	101 (87.8)	14 (12.2)	
50+	17 (81.0)	4 (19.0)	
<i>Designation</i>			
Nurse/midwife	106 (94.6)	6 (5.4)	0.004*
Others	193 (84.3)	36 (15.7)	
<i>In service training</i>			
Yes	104 (86.0)	17 (14.0)	0.288
No	195 (88.6)	25 (11.4)	

\*Statistically significant at  $p < 0.05$

workers exhibited attitudes of shame and blame than nurses/midwives (89.3%) ( $p < 0.05$ ). A greater proportion of those who did not have in-service training (93.6%) compared to those who had training (81.8%) exhibited attitudes of shame and blame.

were significantly more likely to have observed enacted stigma than nurses/midwives (89.3%)

**Table 4:** Respondents sociodemographic characteristics and stigmatizing attitudes and behavior

Variable	Exhibit shame and blame		P value
	Yes n(%)	No n(%)	
<i>Age group</i>			
20-29	68 (91.9)	10 (13.5)	0.670
30-39	117 (89.3)	14 (10.7)	
40-49	104 (90.4)	11 (9.6)	
50+	20 (95.2)	1 (4.8)	
<i>Designation</i>			
Nurse/midwife	100 (89.3)	12 (10.7)	0.000*
Others	223 (97.4)	6 (2.6)	
<i>In service training</i>			
Yes	99 (81.8)	22 (18.2)	0.001*
No	206 (93.6)	14 (6.4)	

\*Statistically significant at  $p < 0.05$

Similar proportions of respondents that had in service training (99.2%) and those that did not (98.6%) believed that patients should disclose their HIV status. Nurses/midwives (99.1%) were significantly more likely than other cadres (98.7%) to believe that disclosure of patients HIV status was imperative ( $p < 0.05$ ) (Table 5)

#### Discussion

HIV- related stigma and discrimination has been defined as a process of devaluation of people either living with or associated with HIV and AIDS. Discrimination follows stigma and is the unfair and unjust treatment of an individual based on his or her real or perceived HIV status [6]. As identified in

**Table 5:** Relationship between some sociodemographic characteristics and attitudes toward disclosure

Variable	Disclosure of patients' status imperative		P value
	Yesn(%)	No n(%)	
<i>Age group</i>			
20-39	202 (98.5)	3 (1.5)	0.477
40+	135 (99.3)	1 (0.7)	
<i>Designation</i>			
Nurse/midwife	111 (99.1)	1 (0.8)	0.003*
Others	226 (98.7)	3 (1.3)	
<i>In service training</i>			
Yes	120 (99.2)	1 (0.8)	0.554
No	217 (98.6)	3 (1.4)	

\*Statistically significant at  $p < 0.05$

Almost all respondents irrespective of age group had reportedly observed enacted stigma. A higher proportion of other health care workers (community health officers - 91.4%, senior community health extension workers - 98.4% and junior community health extension workers -98.5%)

literature, stigma can be classified into four main domains viz: fear of casual transmission and refusal of casual contact with people living with HIV/AIDS, values of shame, blame and judgment, discrimination (also known as enacted stigma) and disclosure [18]. This study examined the occurrence of stigma in each of these domains.

The reluctance of health care workers to have any direct contact with PLWHA is many times traced to fear of casual transmission of HIV. Fear of HIV transmission through casual (and, in reality, not contagious) contact and refusal to interact with people living with HIV constitutes one of the domains of stigma. To identify this domain of stigma, respondents were asked whether they were afraid of particular types of contact. A range of about 20% to 60% of respondents reported not being afraid of these types of contact but a considerable proportion reported fear of some specific forms of contact. The main type of contact which elicited fear among the respondents was with regard to conducting or participating in surgery or suturing a PLWHA and the lowest being with regard to touching the sweat of a PLWHA. These findings are in contrast to a similar study conducted in Ukraine where those that had fear of such contact were in the minority, with only 40% of them reporting fear with regard to conducting surgery or suturing a PLWHA and only 23% of them having fear with regard to touching the sweat of a PLWHA [19]. The findings in this study are also in contrast to what was found among health care providers in Singapore with only a quarter of them reporting fear of caring for a PLWHA [20] unlike the almost 40% that reported so in this study.

It has been shown that lack of in – depth knowledge feeds fears of casual transmission [21], hence the contrast seen here may be as a result of greater knowledge about HIV and AIDS that is available in developed countries compared to a country like Nigeria. Studies in Nigeria, Ethiopia and Tanzania have found high levels of fear of casual transmission among health workers which is related to lack of understanding of how HIV is and is not transmitted and how to protect oneself in the workplace through universal precautions [13,16,21].

Fear of contracting HIV as a result of occupational exposure has been found to increase the likelihood that health care workers will stigmatize PLWHA especially in settings where the wherewithal to ensure universal precautions is not in place. Over estimation of personal risk of contracting HIV would also increase the tendency of health care workers to exhibit discriminatory attitudes and practices toward PLWHA. However, the risk of health care workers being exposed to HIV on the job is very low, (less than one percent) especially if they carefully follow universal precautions. [22] Over estimation of the risk of acquiring HIV infection has been documented among health care workers with 72.8% of health care workers in Egypt over estimating their risk of acquiring HIV infection through occupational

exposure [23]. In this study, almost half of the respondents over estimated their risk of acquiring HIV infection following needle stick injury through setting up of an intravenous infusion or taking of a blood sample. This was similar to what obtained in a study in Benin, Nigeria [11] although lower than what was documented in Rwanda where up to 75% of health care workers overestimated their risk of becoming infected with HIV [24].

While proper sterilization and disinfection are necessary in the care of PLWHA, these should be provided routinely for all patients and not limited to care of PLWHA. Standard sterilization procedures were thought to be adequate for sterilizing instruments used on HIV positive patients by the majority of respondents in this study. This was in contrast to what was found in Rwanda where 83.6% of health care workers were of the opinion that more rigorous measures would be required to sterilize equipment used for HIV positive patients [24]. It was also in contrast to what was found in India where 67% of respondents agreed that clothes and linen should be destroyed after PLWHA had used them [10]. The differences observed amongst health care workers in these various places may be as a result of differences in the level of knowledge of HIV/AIDS and effective measures for minimizing the risk of transmission, such as taking universal precautions in the handling of blood and other body fluids.

The values of judgment, shame and blame health care providers feel toward PLWHA is one of the main causes of stigma and discrimination. In issues of judgment, slightly over one fifth of respondents agreed to the statement that HIV is punishment for bad behavior. This is similar to what was reported in Singapore where approximately 30% of health care workers agreed to such a judgmental statement [20]. It was in contrast however to what was observed in Tanzania where only 9% of respondents were in such agreement [25].

Over half of the respondents agreed that both promiscuous men and women were mainly responsible for the spread of HIV in the community. This perception was similar to what was observed amongst health workers in Ukraine where 79% of them blamed promiscuous men for the spread of HIV [19]. Almost 70% of health care workers in India also agreed that HIV is associated with sexually indiscriminate behavior [10].

These views were in contrast to what was observed in Tanzania where only about a third of respondents felt so [25]. A potential explanation for this disparity in levels of judgment may be due to the fact that with the high HIV prevalence in East Africa,

health care workers in that area are likely to have had contact with and cared for many more PLWHA than health care workers in other countries and as such now realize that truly anyone could be infected.

Moral values influence the manifestation of stigma via accusations, blaming and shame. In this study, many more respondents agreed to blaming and shame than in other studies. The feeling of shame individuals experience is not only due to one's HIV positive status but also because of the reaction of others to the infection. The findings of this study support the evidence of respondents feelings with regard to the shame associated with HIV. It was interesting to note that though the vast majority of health care workers did not believe that PLWHA should be ashamed of themselves, almost two thirds of them would be ashamed if they themselves were HIV positive. About 40% of respondents agreed that they would feel ashamed if someone in their family had HIV/AIDS compared to the 60% of them who agreed that they would feel ashamed if they were infected with HIV. Whereas in Ukraine Only about one fifth of health care workers agreed that they would feel ashamed if someone in their family had HIV compared to 40% of them that agreed that they would feel ashamed if they were infected with HIV [19]. In Tanzania, only 9% of health care workers agreed that they would be ashamed if someone in the family had HIV/AIDS and 18 % of them agreed that they would feel ashamed if they were infected with HIV [25].

The higher levels of judgment, blame and shame observed in this study may be due to the fact that health care workers at the primary health care level in Nigeria are not likely to have cared for many PLWHA since provision of antiretroviral treatment is generally at the secondary and tertiary levels of care. Such limited contact would suggest the likelihood of negative feelings toward PLWHA since they are not accustomed to their care and treatment.

In an attempt to address the issue of social desirability bias, questions relating to judgment, shame and blame were asked again with reference to how the respondents felt other health care providers would respond. It was observed that many more respondents reported judgment, shame and blame when asked how they believed other health care providers would answer questions than when the questions were directed at them specifically. There was almost a 10% increase in those who said they believed other health care providers would be ashamed if they were infected with HIV compared to when the question was directed specifically at them. Many more of the respondents felt other health

care providers would respond in the affirmative that promiscuous men and women were the ones responsible for spreading HIV in the community. Similar scenarios were observed for whether PLWHA should be ashamed of themselves and whether HIV is spread by prostitutes in the community. It could be implied by this that respondents are likely to say they do not hold values of judgment, shame and blame (even if they do) because they know it is socially unacceptable or undesirable to do so.

Health care workers who have not had any training with regard to HIV and AIDS have been found to be more likely to report negative attitudes towards patients with HIV/AIDS. [16] Training and education programs have been identified to have an impact on the reduction of stigma among health care workers [26]. In this study, only a third of the respondents had received any in service training on HIV and AIDS. This is much lower than the 68% reported in China and 90.5% reported in a study among health care workers in south west Nigeria [27,28]. Opportunities for continuing medical education and training of staff at the local government level are usually few and far between compared with other levels of health care in Nigeria which may be due to financial resource allocation differentials for each tier of government. This may be responsible for the disparity observed.

To identify the existence of discriminatory behaviour, respondents were asked whether they had observed acts of discrimination committed by others when it was known that the patient is or might be HIV positive. Majority of the respondents had observed enacted stigma in their facilities with almost nine out of ten of them reporting that extra precautions were taken in the sterilization of instruments used on PLWHA. This was a contrast to what was observed in Ukraine where only 38% of health care providers reported this [19] and Tanzania where 43% of health care providers reported this [25]. More than half of the respondents had observed that patients suspected of being infected with HIV were tested before scheduling surgical procedures. This was similar to what obtained in Ukraine with 65% reporting similar occurrence [19] but different from the situation in Tanzania with only 30% of respondents observing such [25].

Questions were asked to determine the degree to which the respondents were directly involved in discriminatory acts toward PLWHA. More than half of the respondents reported using latex gloves for performing simple procedures (e.g. taking vital signs on patients suspected of being infected with HIV) but despite this finding only slightly over



10% had reported giving less care /attention to those suspected of being infected with HIV than other patients. This scenario may suggest that respondents are reluctant to admit the fact that they discriminate against PLWHA, despite the obvious discrimination that is evident by the use of latex gloves for contact that carries no risk of HIV transmission.

Personal attitudes and behavior surrounding disclosure of HIV positive sero-status can provide an insight into personal perceptions of HIV stigma. Respondents were asked questions about circumstances surrounding HIV testing and disclosure of HIV status of patients to health care providers and family as well as mandatory testing of health care providers.

Over 90% of respondents agreed that staff and health care professionals should be informed when a patient has HIV/AIDS so they can protect themselves. Other studies have had similar results with majority of the health care providers in agreement on this [10,16,29]. More than half of the respondents also agreed that there were circumstances in which it is appropriate to test a patient for HIV without the patient's knowledge/permission. This was also the case in 67.1% of health care workers in a study carried out in Ibadan. [30] Another study amongst health care providers in south west Nigeria documented this opinion in as many as 78% of respondents [16]. This was in contrast to what was observed in Tanzania where only 19 % of healthcare workers agreed to that statement [25].

Lack of confidentiality and disclosure issues have been identified as a particular problem in health care settings. More than half of the respondents disagreed that relatives/sexual partners of patients with HIV/AIDS should be notified of the patient's status without his/her consent. This was in contrast to the 57% of respondents in the study by Reis and colleagues who agreed to such breach of confidentiality [16]. A study in China also revealed that most health care workers would actually often consider disclosing a patient's condition to his/her family member(s) as their first option for test result notification rather than the patient. This practice was attributed to the culture in China in which notifying family members first is the norm especially when the condition is of serious health consequence such as HIV/AIDS [26]. Despite the clear benefits of getting the family involved such as the daily care of PLWHA, sharing medical costs and psychological support, there are also significant negative consequences. Negative consequences could include stigma, discrimination and rejection from family

members, loss of intimacy with partners and threats to personal well being and safety [31].

About two fifths of respondents agreed that the charts/beds of patients with HIV/AIDS should be marked so clinic/hospital workers know the patient's status. This was similar to Reis and colleagues report of 46% of health care providers agreeing to the statement [16]. Majority of health care workers in a study in India were also of this same opinion [10]. This implies that it is still very common place for health care workers to discriminate against PLWHA irrespective of any claims to the contrary.

Majority of the respondents in this study agreed that prospective health care workers should submit to mandatory HIV testing. This is in contrast to the findings of the study in South Africa where a substantial majority of health care workers were against mandatory HIV testing. [32] Most of the respondents agreed that health professionals with HIV/AIDS should not be working in any area of health care that requires patient contact. This finding was similar to previous study where 40% of health care workers agreed to that statement [16]. Another study carried out in Ibadan revealed that 53% of the respondents felt that health care providers who are HIV positive should be barred from performing invasive procedures [30].

In this study there was a statistically significant association between all of the four domains of stigma and cadre of health care staff. Nurses/midwives were more likely to have fear of casual transmission of HIV as well as have negative personal attitudes surrounding disclosure than other cadres. Other health care workers (comprising of community health officers, senior community health extension workers and junior health extension workers) were more likely than nurses/midwives to exhibit the moral dimension of stigma (judgment, shame and blame) as well as observe enacted stigma (discrimination). Those of them who had benefited from in service training were significantly less likely to exhibit the moral dimension of stigma. This is similar to what obtained in a study in south west Nigeria where health care workers with less adequate training in HIV treatment and ethics were more likely to report negative attitudes toward patients with HIV/AIDS [16]. Similar findings were also obtained by Andrewin and colleagues among health workers in Belize where formal HIV/AIDS training was significantly associated with less stigmatizing attitudes [33].

An acknowledged limitation of this study is that there could have been social desirability bias when respondents were asked questions on judgment, shame and blame. We attempted to overcome this by repeating the same questions but projecting them on a third party.

### Conclusion

Overall, stigma in this study was reported by majority of the respondents across all the domains (proportion reporting at least one item of stigma in each of the domains) and this was highest in the domain of disclosure. Cadres of staff and in service training were the two factors significantly associated with occurrence of stigma in the four domains of stigma. The main type of contacts that elicited fear of causal transmission was from conducting or participating in surgical procedures and suturing. Nurses exhibit more fear of casual transmission than other cadres, majority of health workers would feel ashamed if infected with the virus, and blamed the spread of HIV on promiscuous men and women. Some suggested knowing the status of patients as part of precautions that could be taken as well as mandatory testing of health workers to determine who comes in contact with patients. There is a need to focus on in service training for all cadres of health care workers with emphasis on issues that address the various stigma domains.

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