

# Client satisfaction among HIV positive and HIV negative attendees in a military hospital in Southwest Nigeria

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## ABSTRACT

**Background:** In the management of human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS) and other diseases, client satisfaction is of utmost importance as it improves hospital visits, and thus, allows sustainable decline in the prevalence rates. The aim of this study was to compare client satisfaction among HIV-positive and HIV-negative clients in a military secondary health center. **Methods:** This was a comparative cross-sectional study conducted in a military hospital, among 200 HIV-positive and 200 HIV-negative patients, using structured interviewer-administered questionnaires. The data analysis was done with the SPSS version 20 software. The comparison of satisfaction with the quality of healthcare between HIV-positive and HIV-negative subjects was assessed using Chi-square tests. **Results:** A higher proportion of HIV-positive respondents (40.5%) than HIV-negative respondents (13.0%) answered in the affirmative that healthcare workers were unwilling to care for them ( $P < 0.001$ ). Ninety-seven percent of the HIV-positive respondents and 71.5% of the HIV-negative respondents felt satisfied with how warmly they were received at the clinics ( $P = <0.001$ ). Ninety-three percent of the HIV-positive respondents and 79.8% of the HIV-negative respondents were satisfied with the client confidentiality ( $P = <0.001$ ). Regarding the overall client satisfaction, 68.0% of the HIV-positive respondents were satisfied while 45.5% of the HIV-negative respondents were satisfied ( $P < 0.001$ ). **Conclusion:** Overall, the HIV-positive clients were more satisfied than the HIV-negative clients. Efforts should be made to ensure that client satisfaction does not decline among the HIV population but should be optimized.

**Keywords:** Client satisfaction, HIV, Nigeria, Stigma, stigmatization

## Introduction

Globally, Nigeria has the second largest HIV epidemic.<sup>[1]</sup> The prevalence of HIV in Nigeria is 1.5% among the adult population, giving a total estimate of 1.9 million Nigerians living with HIV.<sup>[1]</sup> There is no cure for HIV infection or AIDS nor is there a vaccine to prevent the HIV infection. However, medications slow down the progression of the infection, and

markedly suppress the virus, thereby, restoring the body's immune function and permitting many HIV-infected individuals to lead a normal, disease-free life.<sup>[2]</sup>

The deleterious effects of HIV/AIDS on a person if not properly managed include loss of life, chronic poor health, and a poor quality of life.<sup>[3]</sup> The effects of HIV/AIDS on economy include a lower labor force, lower labor productivity through absenteeism and illness, lower labor income as employees bear some of the sickness-related costs, and higher government expenditure on the health services.<sup>[3]</sup> Thus, a high disease state will have a major adverse impact on the Gross Domestic Product (GDP) of an economy.<sup>[3]</sup>

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Client satisfaction is an expression of the gap between what is expected and what is received from the service rendered.<sup>[4]</sup> The accurate progressive management of HIV/AIDS is made difficult by issues like superstitious beliefs and stigma either from the healthcare provider or the surrounding society as a whole.<sup>[5-7]</sup> This may not be the case for HIV-negative patients seeking care in hospitals. Client satisfaction is of utmost importance in HIV management as it improves hospital visits, drug adherence, return for follow-up, turn-over rates, decreased drop-out rate, and thus, a decline in the disease rates.<sup>[4]</sup> With the diminishing number of HIV clinicians, more primary care physicians treat and manage HIV patients and are the best solution to the HIV-provider shortage.<sup>[8]</sup> This study aimed to assess and compare client satisfaction by HIV-positive clients and HIV-negative clients attending a military hospital in Lagos, South West Nigeria. The findings from this study will guide HIV policy and programming.

## Materials and Methods

### Study setting and study design

The study is a comparative cross-sectional study which was conducted in a military hospital in Lagos. The military hospital has a high monthly client patronage of 8,800 people. The General Outpatient Department (GOPD) oversees all new arrivals and some clinically stable clients of the other departments. It consults daily with a client load of about 4,000 clients per month. The antiretroviral (ART) clinic manages HIV-positive patients and runs consultative services on Wednesdays and Thursdays, while registering new cases on Fridays. The ART clinic sees up to 390 cases per month. The hospital has over 100 bed spaces.

### Sample size estimation

An estimated minimum sample size of 197 was arrived at using a formula for comparative studies at 95% confidence interval with prevalence estimates of 70.3 and 83.1%, which were prevalence of satisfaction with the healthcare services among HIV-positive clients attending a hospital in Nigeria,<sup>[9]</sup> and the prevalence of satisfaction with the healthcare services among the OPD of a tertiary hospital in Nigeria, respectively.<sup>[10]</sup> The study was carried out among 200 adult patients of GOPD and 200 adult patients of the highly active antiretroviral therapy (HAART) clinics.

### Sampling methodology of HIV-positive clients

A systematic sampling methodology was used. An estimate of 400 HIV-positive clients present per month in the ART clinic and a sample size of 200 for the HIV clinic. A sampling interval of 2 was used to recruit clients in the clinic. Every other HIV-positive client who visited the clinic was recruited for the study. The questionnaire was given to alternate clients on the attendance. By picking the clients alternately, about 25 clients were picked per day with a total of 200 clients selected over a span of 1 month. This was done on the two ART clinic days which were Wednesdays and Thursdays.

### Sampling methodology of HIV-negative clients

A systematic sampling method was used. An estimate of 4,000 patients present per month in the GOPD clinic. With a sample size of 200 for the GOPD patients, a sampling interval of 20 was used to recruit clients in the clinic. The questionnaire was given to the patients whose names were on the attendance record, using the sampling interval to select respondents. About 10 patients were picked per day with a total of 200 patients selected over a span of 1 month. This was done every day of the week in the hospital.

### Data collection and data analysis

Data were collected using a structured self-administered questionnaire adapted from the service quality questionnaire tool designed to capture consumer expectations and perceptions of a service. It was pre-tested and contained a total of 40 questions. It had three sections which were on socio-demographics, role of stigma in patient care, and client satisfaction with the quality of care. The questionnaire was pre-tested among 20 HIV-positive patients from the ART clinic and 20 HIV-negative patients from the GOPD clinic of a general hospital in Lagos.

The responses were numerically coded and entered in an Excel spread sheet. This was subsequently exported into the SPSS version 20 for analysis. Comparisons between the categorical variables were done using Chi-square. The level of statistical significance was set at  $\leq 0.05$ . Client satisfaction was scored accordingly: very satisfied (5), satisfied (4), fair (3), unsatisfied (2), and very unsatisfied (1). For questions with a yes/no response, a positive response was scored 5 while a negative response was scored 0. The highest possible score was 60. The respondents whose scores were  $\geq$  to the mean score were classified as satisfied while those whose scores were  $<$  the mean score were classified as dissatisfied.

### Ethical considerations

Ethical clearances were obtained from the Lagos University Teaching Hospital Health Research Ethics Committee (approval number: ADM/DCST/HREC/APP/1884), the Ministry of Defense Health Research Ethics Committee (approval number: MODHREC/SC/1/9), the Naval Western Command (approval number: NNRH0106/17/14/VOL. 1/29) and a verbal approval was obtained from the Commanding Officer of the hospital. The study involved minimal risks and privacy was ensured. Confidentiality of data was kept by using identification numbers rather than names and limiting access to the data. Written informed consent was obtained from all the respondents.

## Results

The mean age among the HIV-positive clients was  $36.6 \pm 10.5$  years while the mean age among the HIV-negative clients was  $33.6 \pm 11.7$  years and there was a statistically significant difference ( $P = 0.008$ ). Half (50.0%) of the HIV-negative respondents were females, and about half (51.5%)

were females among the HIV-positive respondents, hence, there was no statistically significant difference ( $P = 0.764$ ). There was a higher proportion of married respondents among the HIV-negative respondents (65.5%) in comparison to the HIV-positive respondents (51.5%) and there was a statistically significant difference ( $P = <0.001$ ). A majority of the respondents had attained tertiary education; however, a higher proportion of the HIV-negative respondents (74.5%) had tertiary education in comparison to the HIV-positive respondents (55.0%). The difference was statistically significant ( $P = <0.001$ ) [Table 1].

A higher proportion of the HIV-positive respondents (40.5%) answered in the affirmative regarding the unwillingness of the healthcare workers to care for them in comparison to 13.0% of the HIV-negative respondents and there was a statistically significant difference ( $P = <0.001$ ). Only 8% of the HIV-positive respondents answered in the affirmative that the healthcare workers avoided physical contact with them and this is comparable to 5.5% of the HIV-negative respondents. Hence, there is no statistically significant difference ( $P = 0.319$ ). A few of the HIV-positive respondents (1.0%) and HIV-negative

respondents (4.5%) expressed that the healthcare workers spoke badly to them, and the difference was statistically significant ( $P = 0.032$ ) [Table 2].

A majority of the HIV-positive respondents (97.5%) and HIV-negative respondents (71.5%) felt satisfied with the how warmly received they were at the clinics, and but there was a statistically significant difference ( $P = <0.001$ ). Similarly, 87.0% of the HIV-positive and 64.5% of the HIV-negative respondents were satisfied with how promptly they were attended to and there was a statistically significant difference ( $P = <0.001$ ). Most of the HIV-positive respondents (93.0%) and 79.8% of the HIV-negative respondents (79.8%) were satisfied with the client confidentiality and there was a statistically significant difference ( $P = <0.001$ ) [Table 2].

Regarding overall client satisfaction, 68.0% of the HIV-positive respondents were satisfied while 45.5% of the HIV-negative respondents were satisfied. The difference was statistically significant ( $P < 0.001$ ) [Table 3].

## Discussion

Among the HIV-positive respondents, 68.0% were satisfied with client care while 45.5% of the HIV-negative respondents were satisfied and this difference was statistically significant. Client satisfaction among the HIV-positive respondents in this study was higher than that found in a study done in a Teaching Hospital in Addis Ababa, Ethiopia, where 55.0% of the clients were satisfied with client care.<sup>[11]</sup> In a study carried out among 1,212 people living with HIV (PLWHIV) attending 96 health facilities across 12 states in Nigeria, however, about 90% of the respondents were satisfied with the overall quality of care.<sup>[12]</sup> This level of satisfaction is higher than that reported in our study. This goes to show that there is room for improvement in services as client satisfaction in our study is much lower, even though both studies were carried out in Nigeria. Client satisfaction in the GOPD clinic (45.5%) was much lower than that of the ART clinic which may be because of the higher workload in the GOPD clinic as 4,000 patients are seen in the GOPD clinic in a month, compared with 400 patients in the ART clinic. To further buttress this, 94.5% of the ART clinic patients agreed that they are well heard to by their doctor, which was higher than that reported in the GOPD clinic. As the point of first contact, it is important that primary care physicians are offered additional training, decreased workloads, and increased compensation to better treat and manage undifferentiated patients.<sup>[8]</sup>

Only a few of the HIV-positive respondents felt that the HCWs avoided physical contact with them and this is like that of the GOPD clinic. This finding was like another study in Lagos where only 11.0% of the health workers avoid contact with HIV-positive clients.<sup>[13]</sup> This may be because most health workers in the HIV clinics have undergone trainings which discourage stigmatization. In addition, many of the health workers at the ART clinic have been working there for several years and are

**Table 1: Sociodemographic characteristics of the respondents**

Variable	HIV-positive n=200 (%)	HIV-negative n=200 (%)	$\chi^2$	P
Age (years)				
15-24	22 (11.0)	53 (26.5)	21.405	<0.001
25-34	73 (36.5)	73 (36.5)		
35-44	58 (29.0)	42 (21.0)		
45-54	34 (17.0)	17 (8.5)		
≥55	13 (6.5)	15 (7.5)		
Mean±SD	36.6±10.5	33.6±11.7		
Gender			0.090	0.764
Males	97 (48.5)	100 (50.0)		
Females	103 (51.5)	100 (50.0)		
Marital status			24.166*	<0.001
Single	76 (38.0)	68 (34.0)		
Married	103 (51.5)	131 (65.5)		
Separated/Divorced	21 (10.5)	1 (0.5)		
Religion			1.721	0.190
Christianity	149 (74.5)	160 (80.0)		
Islam	51 (25.5%)	40 (20.0)		
Level of Education			20.034	<0.001
Tertiary	110 (55.0)	149 (74.5)		
Secondary	72 (36.0)	47 (23.5)		
Primary	18 (9.0)	4 (2.0)		
None	2 (1.0)	0 (0.0)		
Occupation			6.955	0.325
Professional	16 (8.0)	21 (10.5)		
Technicians	23 (11.5)	15 (7.5)		
Service sales workers	61 (30.5)	65 (32.5)		
Armed forces occupation	24 (12.0)	33 (16.5)		
Homemaker/applicants	17 (8.5)	21 (10.5)		
Students	39 (19.5)	26 (13.0)		
Others	20 (10.0)	19 (9.5)		

\*Fisher's exact test; t-independent t-test

**Table 2: Client satisfaction in the care of HIV-positive and HIV-negative clients**

Variable	Response	Freq (%)			$\chi^2$	P
		HIV-positive n=200	HIV-negative n=200	Total n=400		
Healthcare workers' unwillingness to care for the clients	Yes	81 (40.5)	26 (13.0)	107 (26.8)	38.595	<0.001 <sup>#</sup>
	No	119 (59.5)	174 (87.0)	293 (73.2)		
Healthcare workers avoiding physical contact with you	Yes	16 (8.0)	11 (5.5)	27 (6.8)	0.993	0.319
	No	184 (92.0)	189 (94.5)	373 (93.2)		
Healthcare workers wearing double gloves to attend to you	Yes	32 (16.0)	27 (13.5)	59 (14.8)	0.497	0.481
	No	168 (84.0)	173 (86.5)	341 (85.2)		
Healthcare workers talking badly to/about you	Yes	2 (1.0)	9 (4.5)	11 (2.8)	4.581	0.032 <sup>#</sup>
	No	198 (99.0)	191 (95.5)	389 (97.2)		
I feel warmly received	Satisfied	195 (97.5)	143 (71.5)	338 (84.5)	51.923	<0.001 <sup>#</sup>
	Fair	5 (2.5)	47 (23.5)	52 (13.0)		
	Unsatisfied	0 (0.0)	10 (5.0)	10 (2.5)		
I am promptly attended to	Satisfied	174 (87.0)	129 (64.5)	303 (75.8)	30.077	<0.001 <sup>#</sup>
	Fair	12 (6.0)	47 (23.5)	59 (14.8)		
	Unsatisfied	14 (7.0)	24 (12.0)	38 (9.5)		
Attitude of doctors	Satisfied	193 (96.5)	171 (85.5)	364 (91.0)	15.420*	<0.001 <sup>#</sup>
	Fair	7 (3.5)	25 (12.5)	32 (8.0)		
	Unsatisfied	0 (0.0)	4 (2.0)	4 (1.0)		
Attitude of nurses	Satisfied	195 (97.5)	160 (80.0)	355 (88.8)	30.951	<0.001 <sup>#</sup>
	Fair	5 (2.5)	35 (17.5)	40 (10.0)		
	Unsatisfied	0 (0.0)	5 (2.5)	5 (1.2)		
Attitude of lab scientists	Satisfied	189 (94.5)	163 (81.5)	352 (88.0)	16.349*	<0.001 <sup>#</sup>
	Fair	10 (5.0)	34 (17.0)	44 (11.0)		
	Unsatisfied	1 (0.5)	3 (1.5)	4 (1.0)		
I am well heard to by the doctor	Satisfied	189 (94.5)	160 (80.0)	349 (87.2)	19.552*	<0.001 <sup>#</sup>
	Fair	11 (5.5)	37 (18.5)	48 (12.0)		
	Unsatisfied	0 (0.0)	3 (1.5)	3 (0.8)		
The doctor tells me what is wrong with me	Satisfied	184 (92.0)	156 (78.0)	340 (85.0)	45.084*	<0.001 <sup>#</sup>
	Fair	12 (6.0)	42 (21.0)	54 (13.5)		
	Unsatisfied	4 (2.0)	2 (1.0)	6 (1.5)		
Client confidentiality	Satisfied	186 (93.0)	159 (79.5)	345 (86.2)	16.793	<0.001 <sup>#</sup>
	Fair	14 (7.0)	36 (18.0)	50 (12.5)		
	Unsatisfied	0 (0.0)	5 (2.5)	5 (1.2)		

\*Fisher's exact, <sup>#</sup>statistically significant associations are significant if p <= 0.05

**Table 3: Overall client satisfaction among HIV-positive and HIV-negative clients**

	Freq (%)			$\chi^2$	P
	HIV positive n=200	HIV negative n=200	Total n=400		
Satisfied	136 (68.0)	91 (45.5)	227 (56.8)	20.626	<0.001
Unsatisfied	64 (32.0)	109 (54.5)	173 (43.2)		

accustomed to attending to HIV patients. Very few (1%) of the PLWHA said the HCWs spoke badly to them, and in the GOPD clinic, 4.5% of the HIV patients agreed to this. Frequent trainings and experience of the HCWs could explain this.

A majority of the PLWHAs (97.5%) expressed satisfaction on how warmly they were received at the clinic which was significantly higher than that of the GOPD clinic (71.5%). Similar to our study, 99.2% of the PLWHA were satisfied with the courtesy of care providers in a tertiary hospital in Sokoto.<sup>[14]</sup> Regarding prompt attention to clients, a higher percentage of the PLWHAs (87.0%) were satisfied with that component in

comparison to their GOPD counterparts (64.5%). This may be because typically higher numbers of clients are seen in the GOPD clinics.

A high proportion of respondents both in the ART clinic and GOPD clinic was satisfied with the attitude of the doctors. However, the proportion was much higher among the HIV-positive clients (96.5%). This was similar to that of the Muhimbili and Amana ART clinics (93.2 and 97.3%), respectively.<sup>[15]</sup> A high rate of satisfaction with the attitude of the nurses was found in the ART clinic (97.5%) in our study and this was similar to that of the other studies (95.3 and 100%) done in the Muhimbili and Amana ART clinics.<sup>[15]</sup> The finding in our study and Muhimbili and Amana ART clinics is commendable as the attitude of the staff can go a long way to affect patient retention in care.

Regarding client confidentiality, a majority of the ART clinic clients (93.0%) were satisfied and this was similar to the findings in a study by Anosike *et al.* carried out in 12 states in Nigeria (95.0%)<sup>[11]</sup> and also by Gezahegn *et al.* carried out in

Ethiopia (93.2%).<sup>[16]</sup> Privacy and confidentiality are critical issues for people with HIV and can affect their decision to seek care.

## Conclusion

This study assessed and compared client satisfaction by HIV-positive clients and HIV-negative clients attending a military hospital in Lagos, South West Nigeria. The HIV-positive respondents visiting the ART clinic were more satisfied with client care than the HIV-negative respondents visiting the GOPD clinic. This may be because of the higher workload in the GOPD clinic compared with the ART clinic. Also, the training of health worker in the HIV clinics discourage stigmatization and this could have accounted for our findings. Though client satisfaction among the PLWHA was fairly high at 68.0%, it was much lower than a large-scale study carried out in several health facilities across several states in Nigeria. This goes to show that there is still room for improvement in client services as client satisfaction goes a long way to improve the retention of HIV patients in care. Also, primary care physicians managing undifferentiated patients should be offered additional training, decreased workloads, and increased compensation to improve satisfaction among their clients.

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## Conflicts of interest

There are no conflicts of interest.

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