

The Role Of Client Feedback, Non-referral, And Facility Supervision On Client Satisfaction With Antiretroviral Services In Abuja, 2015

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Abstract

Introduction

In many developing countries including Nigeria, the private sector has been identified as the main care provider for HIV infection. However technical weaknesses still exist, which have the potential to impact patient satisfaction negatively. Our aims were to describe the characteristics of private health facilities used by ART clients in FCT and determine which health system factors influenced client satisfaction.

Methods

Three hundred and thirteen clients on antiretroviral therapy were selected randomly from 6 health facilities via multistage random sampling. Proportions, frequencies and means were used to summarize data. We examined the relationship between health system characteristics and client satisfaction with odds ratios and estimated the model for satisfaction via binary logistic regression, with p set at ≤ 0.05 .

Results

A total of 259 (82.7%) respondents were satisfied with the services. A total of 299 (95.5%) respondents utilized secondary care private hospitals. Health system factors associated with client satisfaction were obtaining patient feedback [OR:5.5, 95%CI:1.3-23.3] and provision of ART services for at least 5 years [OR:3.3, 95%CI:1.8-6.1]. ART clinics with at least one adherence counsellor [OR:3.2, 95%CI:1.6-6.1] and liased with community-based ART health workers [OR:3.3, 95%CI:1.8-6.1] had higher odds of satisfying their clients. Referral of ART patients to other hospitals [OR:0.22, 95%CI:0.07-0.7] due to unavailability of some ART-specific services was associated with dissatisfaction.

Conclusion

Majority of the ART clients in private hospitals were satisfied. Collecting client feedback on ART services provided should be prioritized and the range of HIV treatment services provided in private hospitals be increased, to reduce patient referrals.

Introduction

Globally, an estimated 34.3 million adults were living with HIV infection in 2015; with sub-Saharan Africa accounting for nearly 70% of these cases ¹. Furthermore, with the implementation of the 2013 World Health Organization (WHO) HIV treatment guidelines, which has reduced the threshold for the commencement of Antiretroviral therapy (ART); the potential number of persons eligible for treatment has increased by an estimated 9.2 million, compared to 2010 guidelines ². Despite the substantial growth in HIV funding and the rapid scale-up of ART provision, only 40% of HIV-positive treatment-eligible persons received therapy in 2014, within the WHO African Region ³.

With a population estimated at over 180 million in 2016 (projected from the 2006 census), Nigeria has the second largest population of people living with HIV/AIDS (PLWHA) in the world [4, 5]. However, the World Bank estimated that the antiretroviral coverage for Nigeria was 20% in 2014 ⁶. Furthermore, the Joint United Nations Programme on HIV and AIDS determined that the gap between PLWHA in need of therapy and those receiving drugs in Nigeria is increasing ⁷. The United States Agency for International Development (USAID) reported that increased demand for ART is increasing pressure felt by an already overburdened public health sector personnel and infrastructure ⁸. Also, one of the major drivers identified for the HIV epidemic in Nigeria is the poor quality of healthcare services ⁹.

In many developing countries including Nigeria, the private sector facilities have been identified as one of the care providers for HIV infection ¹⁰. A study of five sub-Saharan countries (Kenya, Malawi, Rwanda, Tanzania, and Zambia) over a period of 6 years, found larger increases in consumption of resources (financial and otherwise) for HIV treatment and prevention in the private sector, compared to the public ¹¹. In Nigeria, the private sector provided up to 29% of the national target of patients with ART in 2009 ¹². In addition, private service providers are likely to become the major providers of ART in developing countries in the future ¹³. However, available evidence shows that serious technical weaknesses might exist in services provided in private healthcare facilities [10].

These lapses have the potential to impact patient satisfaction with care negatively. If patients are dissatisfied with care, they may fail to follow through on treatment plans, and this could consequently lead to the emergence of resistant strains of HIV¹⁵. Understanding the views of ART clients could lead to prompt detection and consequent interruption of treatment lapses.

The prevalence of HIV in the Federal Capital Territory (FCT) ranked 5th (of 37 states) in the 2013 national HIV sentinel survey, with an HIV prevalence of 7.5%⁹. Furthermore, FCT is one of the states with a consistently high HIV prevalence (above the national value), for over 15 years¹⁶. Exploring ART patients' satisfaction could result in the provision of higher quality services and invariably lead to retention in care. Our aims were to describe the characteristics of private health facilities used by ART clients in FCT and to determine which health system factors influence client satisfaction with care.

Methods

Participants and data collection

This cross-sectional study was carried out in the FCT. The FCT has 64 private health facilities providing ART refill, out of which 42 facilities had at least 10 ART clients retained in care. Our study population was HIV-positive persons, aged 18 years and above, who refill their ARVs from the outpatient departments of the private hospitals. The medical directors in charge of the selected health facilities were also interviewed. HIV-positive children, pregnant women and HIV-positive clients accessing inpatient and emergency care were excluded from this study.

Our minimum sample size was 313 based on the formula

$$n = \frac{z_{\alpha}^2 pq}{d^2},$$

where p is the prevalence of ART clients satisfied with the accessibility of care in a private hospital in North Central Nigeria (70%)¹⁷. We selected the respondents from six health facilities as shown in Figure 1. A probability proportionate to size (PPS) sampling was used to determine the number of patients selected per health facility (Table 1). Consecutive consenting clients were interviewed, on exit from the consulting room.

We used two instruments, a health facility checklist, and a client exit interview questionnaire for data collection. The health facility checklist collected data on the ART clinic services and equipment, external financial and technical support received on ART services and physical infrastructure of the ART clinic. The client exit interview questionnaires collected information on socio-demographics of HIV treatment-eligible persons on therapy and their general satisfaction. We adopted the satisfaction section from the Patient Satisfaction Questionnaire(PSQ)-18 instrument¹⁸. Questions on satisfaction were assessed on a 5-point Likert scale of "strongly agree = 5", "agree = 4", "don't know = 3", "disagree = 2" or "strongly disagree = 1". Two questions were used to assess general satisfaction and the score ranged from 2 to 10 points. The mean score for all respondents was computed, and individuals with scores above the mean were considered as being satisfied with ART services. We collected data using Open Data Kit (ODK) Collect application, on Android mobile phones.

Data analysis

Using Statistical Package for the Social Sciences (SPSS) 18 software, proportions, frequencies and means were used to summarize data. We examined the relationship between health system characteristics and client satisfaction with odds ratios and estimated the model for satisfaction via binary logistic regression.

The variables inputted in the logistic regression model included the level of healthcare services provided in the hospital (primary or secondary), receipt of financial and technical support, specific activities performed during supervisory visits and the number of hours spent. Also, the duration of ART refill services provision, the number of adherence counsellors in the clinic, if the facilities was liaising with ART community health workers, provision of ART resistance detection and cotrimoxazole prophylaxis provision were incorporated into the model. Also, the effect of consultation room privacy, specific modes of obtaining client feedback, the presence of separate medical record system and clinic day for ART clients and referral of patients if ART services are unavailable, were estimated via the regression model. Significant variables were included at ≤ 0.05 level of significance.

Results

ART client characteristics

One hundred and forty (44.7%) respondents were within the age group 25 to 34 years. There were more female respondents 197 (62.9%) and 176 (56.2%) were married. The majority 265 (84.7%) were employed. With respect to educational qualification, 7 (2.2%) had no form of education and 88 (28.2%) had up to tertiary education. Respondents that earned <18,000 naira were 61 (26.8%) and 133 (58.3%) earned > 30,000 naira monthly (Table 2). A total of 259 (82.7%) respondents were satisfied with the services. The mean satisfaction score was 3.92 (SD $\pm$ 0.49).

Private health facility characteristics

Of all the respondents, 62 (20%) were seen at private health facilities located inside Abuja Municipal Area Council and 299 (95.5%) utilized facilities that provided a secondary level of care (Figure 4). Furthermore, 250 (79.9%) and 305 (97.4%) were seen in private hospitals that had ever received financial support for PLWHA support group activities and ART services respectively. The majority 305 (97.4%) used health facilities that had received technical support; either currently or previously. A total of 303 (96.8%) respondents were seen at private hospitals that had received at least one supervisory visit (from the HIV/AIDS control division from Federal Capital Territory Development Agency (FCTDA) or other implementing partners) in the 3 months before the study. A total of 248 (79.2%) utilized health facilities where supervisors collected filled ART data forms, while 102 (32.6%) were seen at private hospitals where ART clinic sessions were observed.

A total of 142 (77.3%) patients were seen at private hospitals that had been providing ART refill services for at least 5 years. For 248 (79.2%) respondents, primary HIV care providers spent at least 10 hours in the ART clinic. A total of 256 (81.8%) respondents used private health facility that referred HIV-positive clients because the hospital could not provide all the ART services. Out of all the respondents, 53 (16.9%) were seen in consultation rooms with both visual and auditory privacy and 305 (97.4%) used hospitals that displayed ART posters. Regarding specific ART services provided, 102 (32.6%) of the ART clients had access to ART resistance detection, 214 (82.6%) cotrimoxazole provision, 311 (99.4%) CD4 monitoring and all received Highly Active Antiretroviral Therapy (HAART). Altogether, 112 (35.8%) respondents utilized private hospitals that obtained client feedback on services provided in the clinic; for majority 120 (32.6%), feedback was collected via informal discussion. Of all the respondents, 256 (81.8%) and 311 (99.4%) refilled their ARVs in private hospitals with at least one adherence counsellor and medical doctor respectively.

Factors influencing client satisfaction

We performed cross-tabulations and logistic regression to obtain crude and adjusted odds ratios (OR) as depicted in Figure 5. On bivariate analysis, being in a private health facility where at least 10 hours was spent on ART clinic per week or where supervisors collected data during the visit, was associated with satisfaction [odds ratio (OR) 2.8, 95% confidence interval (CI): 1.5,5.4]. Furthermore, clients in private hospitals that obtained feedback from patients on ART or where supervisors trained staff on HIV treatment during the visit were also satisfied with care [OR 5.5, 95% CI: 1.3,23.3].

However, clients in health facilities that referred patients to other clinics [OR 0.23, 95% CI: 0.07, 0.77] because ART services were unavailable or where cotrimoxazole prophylaxis was provided [OR 0.18, 95% CI: 0.04, 0.78], were dissatisfied with care. The association between dissatisfaction and referral of ART clients remained statistically significant following binary logistic regression [adjusted odds ratio (AOR) 0.14, 95%CI: 0.04,0.48].

Discussion

The majority of the respondents were satisfied with care in private health facilities offering HIV treatment and care in FCT. Factors found to be associated with client satisfaction were obtaining patient feedback on care, facility supervision, and length of ART service provision. Having at least one adherence counsellor in the ART clinic, and the number of hours spent consulting and working with a community-based ART health worker were also linked with client satisfaction. Referral of patients on therapy to other hospitals due to unavailability of some ART-specific services and provision of cotrimoxazole prophylaxis, were associated with dissatisfaction.

We found higher odds of satisfaction among clients visiting private health facilities that had at least one adherence counselor, which is similar to the findings in Enugu ¹⁵. In contrast, ART clients in Sokoto reported dissatisfaction with treatment support ¹⁹. Our findings

may reflect the actual contribution of activities conducted by adherence counselors to patient satisfaction. Drug adherence counselors would likely have better skills in preparing the patient for treatment initiation and promptly detecting barriers to ART use that may inadvertently affect their satisfaction levels.

Clients in clinics with longer duration of ART prescription services and where longer hours were spent consulting ART patients were satisfied with care. Sullivan et al. documented a similar finding, in the United States²⁰. Satisfaction with care may be attributable to the belief that such hospitals may be interacting with a higher volume of clients regularly and are, therefore, should be better experienced in providing HIV treatment and care. Furthermore, several studies have posited that seeing a high volume of patients, may lead to better care outcomes^{21–23}.

However, a study by Rodriguez et al. suggested that managing a high volume of patients can negatively affect the facility-patient relationship²⁴. Also, health facilities and or providers who have been in practice for more years might possess less factual knowledge and are less likely to adhere to appropriate standards of care²⁵. Invariably, poor adherence to proper patient management might lead to poorer patient outcomes, including satisfaction levels²⁵.

Community-based ART health providers are crucial to providing care to HIV-positive clients, especially the chronically ill patients who still require follow-up after discharge. Our study found an association between patient satisfaction and being in a health facility that worked with community-based ART health workers, similar to findings in Ethiopia and Malawi [22, 23]. We also found that ART clients in health facilities where supervisors trained staff or collected data during visits, were satisfied with care. Similar findings were documented in Malawi, where supervision was linked to a boost in the confidence of ART clients in the care provided by their health providers. Available evidence also shows that supervision might be the key to ensuring that the quality of HIV treatment is maintained in resource-poor countries [24, 25].

The association between provision of cotrimoxazole prophylaxis and ART client dissatisfaction with care might be attributable to a reduced pill burden among this subset of patients. Several studies have found significant increases in patient satisfaction with care with pill burden reduction [26–29]. Our study also found that clients in private health facilities that did not refer patients were satisfied, and this may have several explanations. Referral might result in additional costs such as re-registration at the new site, repetition of laboratory tests that had been previously conducted and increased transportation costs if the new facility is farther. The new service delivery site might also be unfamiliar to these patients, or they may have been referred from a secondary to a primary health facility³².

Our study is not without limitations. Firstly, the study design used could not conclusively establish causality. Secondly, the views of our respondents may be different from those that visited other types of hospitals. Finally, our study did not highlight other patient factors that may influence satisfaction such as the presence of other co-morbidities or chronic ailments. However, our findings have provided insight into health system factors that influence satisfaction with HIV treatment services and can help guide the activities at ART clinic in private health facilities.

Given the evidence that non-referral, client feedback, ART service supervision, and length of HIV treatment provision affect patient satisfaction positively, we recommend that private hospitals continue to put in place measures that collect client feedback on ART services. Beyond that, private health facilities should prioritize the recruitment of adherence counsellors and work with institutions that provide community-based ART services. Furthermore, ART clients who are on cotrimoxazole prophylaxis should be educated on the need for the higher pill burden, and continuous supportive supervision should be provided by the government to private ART clinics, especially in high volume sites. Finally, the range of HIV treatment services provided in private hospitals should be increased, to reduce patient referrals.

Declarations

Conflicts of interest

None.

Ethics approval and consent to participate

Ethical clearance was sought from FCT Health Research Ethics Committee (Protocol approval number: Federal Capital Territory Health Research Committee - FHREC/2015/01/04/04-02-15). Patient confidentiality was observed strictly, and participation was voluntary.

Consent for publication

Not applicable.

Availability of data and materials

The datasets during and/or analysed during the current study available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

All authors reviewed, analysed and interpreted information related to AMR and contributed to the writing of the manuscript. All authors read and approved the final manuscript.

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Tables

Table 1
Number of HIV-positive clients on ART selected in private health facility providing ART services, FCT, Nigeria, 2015

Health facility	Number of clients retained on ART	Number of clients interviewed (<i>x</i>)
Site A	2514	228
Site B	553	50
Site C	200	18
Site D	106	10
Site E	35	4
Site F	30	3
TOTAL	3438 (y)	313 (z)
<i>The number of clients interviewed per health facility is given by $(x * y)/z$.</i> <i>where x was the number of clients retained on ART in each health facility</i> <i>y was the total number of clients retained in these 6 health facilities (3438)</i> <i>z was the sample size (313)</i>		

Table 2
Socio-demographic characteristics of ART clients in private health facilities, FCT, Nigeria, 2015 (n = 313)

Socio-demographic characteristics	n(%)
Age group (years)	
18–24	13(4.2)
25–34	140(44.7)
35–44	129(41.2)
45 or more	31(9.9)
Sex	
Female	197(62.9)
Male	116(37.1)
Marital status	
Married	176(56.2)
Single	137(43.8)
Employment status	
Employed	265(84.7)
Unemployed	48(15.3)
Education	
No education	7(2.2)
Quranic education	10(3.2)
Primary	38(12.1)
Secondary	170(54.3)
Tertiary	88(28.2)
Income per month* (naira)	
< 18000	61(26.8)
18000–30000	34(14.9)
> 30000	133(58.3)
<i>*n = 228 due to missing values (refused to say)</i>	

Table 3
Demography, external support received and ART services provided by private health facilities utilized by ART clients in FCT, Nigeria, 2015

Demography, support received and ART services	n(%)
Demography	
Area Council	
Abuja Municipal	62(19.8)
Bwari	48(15.3)
Gwagwalada	195(62.3)
Kuje	8(2.6)
Level of care	
Primary	14(4.5)
Secondary	299(95.5)
External support received	
Receipt of financial support for ART services	
Ever received	305(97.4)
Never received	8(2.6)
Receipt of financial support for PLWHA support group	
Ever received	250(79.9)
Never received	63(20.1)
Receipt of technical support for ART services	
Ever received	305(97.4)
Never received	8(2.6)
Supervisory visit in the past 3 months	
Yes	303(96.8)
Activities during supervisory visits [†]	
Delivered ART	53(16.9)
Train staff on HIV treatment	47(15.0)
Observe ART clinic session	102(32.6)
Collect filled ART data forms	248(79.2)
ART clinic services and equipment	
Duration of ART refill services (years)	
Less than 5	71(22.7)
5 or more	242(77.3)
Has a specific clinic day	
Yes	250(79.9)
Number of hours spent in the clinic	
[†] indicates multiple response	

Demography, support received and ART services	n(%)
Less than 10	65(20.8)
10 or more	248(79.2)
Specific services provided [†]	
ART resistance detection	102(32.6)
Cotrimoxazole prophylaxis	266(85.0)
ART defaulter tracing	297(94.9)
CD4 monitoring	311(99.4)
ART toxicity detection	313(100.0)
Refers clients (because some services are unavailable)	
Yes	256(81.8)
Available staff in clinic [†]	
Had at least one adherence counsellor	256(81.8)
Had at least one medical doctor	311(99.4)
ART clinic infrastructure	n(%)
Consultation room privacy	
No visual or auditory	8(2.6)
Visual only	252(80.5)
Both visual and auditory	53(16.9)
Separate ART clients medical record system	
Yes	211(67.4)
Request ART clients' feedback on services	
Yes	112(35.8)
Modes for obtaining ART clients' feedback [†]	
Telephone	8(2.6)
Suggestion box	47(15.0)
Client survey	47(15.0)
Informal discussion	102(32.6)
Displays ART services-specific poster	
Yes	305(97.4)
[†] indicates multiple response	

Table 4
Determinants of patient satisfaction with ART refill services in FCT, Nigeria, 2015

Factor	Satisfied (n = 259)	Not satisfied (n = 54)	OR(95% CI)	AOR*(95%CI)
Provides primary level of care	10 (3.9)	4(7.4)	0.5(0.15–1.7)	
External support received				
Ever received financial support for PLWHA support group	202(78)	48(88.9)	0.44(0.18–1.1)	
Ever received financial support for ART services	254(98.1)	51(94.4)	3.0(0.69–12.9)	
Ever received technical support for ART services	254(98.1)	51(94.4)	3.0(0.69–12.9)	
Activities performed during supervisory visits				
Deliver ART	48(18.5)	5(9.3)	2.2(0.84–5.9)	
Collect filled ART data forms	214(82.6)	34(63)	2.8(1.48–5.3) [‡]	
Train staff on HIV treatment	45(17.4)	2(3.7)	5.5(1.28–23.3) [‡]	
Observe ART clinic session	81(31.3)	21(38.9)	0.72(0.39–1.3)	
ART clinic services and equipment				
Staff spends at least 10 hours in the ART clinic	45(17.4)	20(37)	2.8(1.48–5.3) [‡]	
Provision of ART refill services for 5 years or more	211(81.5)	31(57.4)	3.3(1.8–6.1) [‡]	
Has a specific clinic day for ART services	202(78)	48(88.9)	0.44(0.18–1.1)	
Referral of clients	205(79.2)	51(94.4)	0.23(0.07–0.77) [‡]	0.14 (0.04–0.48) [‡]
Specific services provided				
Provides ART resistance detection	81(31.3)	21(38.9)	1.4(0.76–2.6)	
Provides cotrimoxazole prophylaxis	214(82.6)	52(96.3)	0.18(0.04–0.78) [‡]	
Available staff in clinic†				
Had at least one adherence counsellor	221(85.3)	35(64.8)	3.2(1.6–6.1) [‡]	
Works with community health workers	211(81.5)	31(57.4)	3.3(1.8–6.1) [‡]	
ART clinic infrastructure				
Consultation room privacy				
No visual or auditory	7(2.7)	1(1.9)	1.0	
Visual only	204(78.8)	48(88.9)	0.6(0.07–5.1)	
Both visual and auditory	48(18.5)	5(9.3)	1.2(0.14–13.5)	
Has a separate ART clients medical record system	178(68.7)	33(61.1)	1.4(0.76–2.6)	
Modes of obtaining ART clients' feedback				
Informal discussion	81(31.3)	21(38.9)	0.72(0.39–1.3)	
Telephone	7(2.7)	1(1.9)	1.5(0.18–12.2)	

*Adjusted odds ratio

[‡]significantly associated

Factor	Satisfied (n = 259)	Not satisfied (n = 54)	OR(95% CI)	AOR*(95%CI)
Suggestion box	45(17.4)	2(3.7)	5.5(1.28–23.3) [‡]	
Client survey	45(17.4)	2(3.7)	5.5(1.28–23.3) [‡]	
<i>*Adjusted odds ratio</i>				
<i>[‡]significantly associated</i>				

Figures

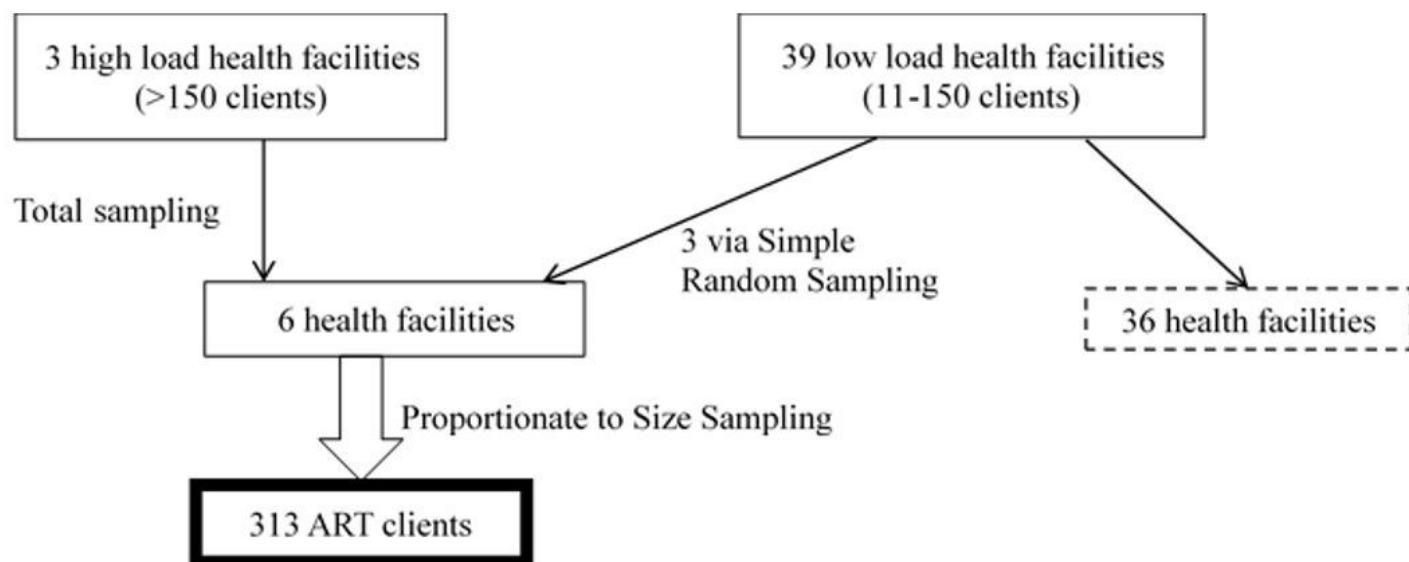


Figure 1

Selection of ART clients visiting private health facilities in FCT, Nigeria