

Original Research Article

Patients' perception of quality of anti-retroviral therapy services in south west Nigeria: a cross sectional study

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ABSTRACT

Background: The World Health Organization reports that 60% of deaths from conditions requiring health care are due to poor quality of health care in low- and medium-income countries. The aim of this study is to assess quality of antiretroviral therapy (ART) services in Osun State, Nigeria.

Methods: This study utilized descriptive cross sectional study design. A semi-structured interviewer-administered questionnaire was developed to collect data from 150 patients receiving ART care from two health facilities providing ART services

Results: The mean score for perceived quality of ART care providers was 29.6 with 98.7% of respondents having high score and the mean score for perceived quality of ART Service Delivery was 56.3 with 97.3% of respondents having high score while the mean score for perceived quality of Health Facility structure was 22.1 with 79.3% of respondents having high score. Also, 96.7% of respondents strongly agreed that ART services are satisfactory; however only 22.7% of respondents strongly agreed that time spent with staff was adequate while 62.7% of respondents reported that Medical Records unit had the most delay. Age of respondents and the type of health facility were statistically significantly associated with perception of good quality of care

Conclusions: The time spent by patients with ART care providers needs to be optimized and the delay encountered in medical records unit should be reduced to improve quality of ART service delivery. Also, quality of ART care providers in University of Osun teaching hospital and ART facility structure at State Hospital Asubiaro should be improved.

Keywords: Anti-retroviral therapy, Quality of care, ART care provider, Service delivery, Perception of quality

INTRODUCTION

Human Immunodeficiency virus (HIV) attacks the body's immune system, specifically the white blood cells called CD4 cells, weakening immunity against opportunistic infections such as tuberculosis, fungal infections, bacterial infections and some cancers.¹ HIV is transmitted through sexual contact, from mother to child and from direct contact with infected blood or blood product.² HIV infection is treated with antiretroviral therapy (ART)

consisting of combination of drugs; however ART does not cure HIV infection but reduces viral replication in the blood, thereby reducing viral load to an undetectable level, enabling people living with HIV to lead healthy and productive lives. ART also works as an effective prevention, reducing the risk of onward transmission by 96%.¹ In the absence of treatment with ART, HIV infection progresses to Acquired Immunodeficiency Syndrome (AIDS), defined by the development of certain cancers, infections or other severe long-term clinical manifestation.² Globally, before the advent of

Coronavirus Disease 2019 (COVID-19) pandemic, HIV was the second leading cause of death from a single infectious agent, ranking after Tuberculosis and it was also the 19th leading overall cause of death.^{3,4} Globally, 37.7 million people were estimated to be living with HIV by the end of 2020 while 1.5 million new HIV infection and 680,000 AIDS-related deaths were recorded the same year. Nigeria has the fourth highest burden of HIV globally with 1.8 million people estimated to be living with HIV after Mozambique (2.1 million), India (2.3 million) and South Africa (7.8 million) while 86,000 new infection of HIV and 49,000 AIDS related deaths were recorded in 2020.^{5,6} Osun State has the 13th highest burden of HIV in Nigeria with an estimated 26,000 people living with HIV in 2020 while 2,000 new infection of HIV and 1,300 AIDS related deaths occurred in 2020.⁶ The world health organization reported that between 5.7 and 8.4 million deaths are attributed to poor quality of health care each year in low and middle-income countries (LMICs), which represents up to 15% of overall deaths in these countries. In addition, 60% of deaths in LMICs from conditions requiring healthcare, occur due to poor quality of health care, whereas the remaining deaths resulted from poor coverage of the health services.⁷ In this study, we assessed the quality of ART services in Osun State, Nigeria in order to improve ART services uptake, ART coverage and treatment outcomes. Informed consent was obtained from each respondent before administering the questionnaire. The findings are also expected to contribute to achievement of the Global AIDS strategy 2021-2026 and the Sustainable Development Goal target to end AIDS by 2030. Quality of health care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes.⁸ The quality of health care services can be measured through patients' perception of quality or through health workers' experience of quality. This study is underpinned by the model developed by the Institute of Medicine, for assessing quality of health care which consists of six elements of quality of care. These comprises of patient safety (whether the risks of injury are minimal for patients in the health system), effectiveness (whether the care provided is scientifically sound and neither underused nor overused), patient centeredness (whether patient care being provided is in a way that is respectful and responsive to a patient's preferences, needs, and values and are patient values guiding clinical decisions), timeliness (whether delays and waiting times are minimized), efficiency (whether waste of equipment, supplies, ideas, and energy are minimized) and equity (whether care is consistent across gender, ethnic, geographic and socioeconomic lines).⁹ Our study aimed to assess patient's perception of quality of ART services. The specific objectives were to determine patient's perception of the level of quality of services provided by ART staff, patient's perception of quality of ART service delivery, patients' perception of quality of ART facility structure and level of association between patient's perception of quality, sociodemographic variables and ART services characteristics.

METHODS

Current investigation was a descriptive cross sectional study design to assess patient's perception of quality of ART services. Males and females living with HIV equal to and above 16 years of age and receiving ART care services at Health Facilities providing ART Services in Osun State were eligible for the study while other categories of HIV infected individuals were excluded. The study location, Osun State covers a total landmass of about 12,820 square kilometers in Southwest Nigeria and lies within latitude 6.55° and 8.10° north and longitude 3.55° and 5.05° east. The State has a projected 2016 population of 4,705,600 and is divided into three federal senatorial districts, each comprising of 10 Local Government Areas.¹⁰ There are a total of 1,093 health facilities in Osun State, comprising of 1,031 primary health care facilities, 60 secondary health care facilities and two tertiary health care facilities. There are 678 public owned and 353 private owned primary health care facilities, 54 public owned and six are privately owned secondary health care facilities, while the two tertiary health facilities are public owned. The sample size was determined utilizing the Taro Yamane's formula;

$$n = N / (1 + Ne^2).$$

We used the number of people living with HIV on ART in first quarter 2021 of 12,638 as population size with a precision of 7.95%, resulting in a minimum sample size of 150. Two ART Care facilities in Osun State (State Hospital, Asubiaro and University of Osun Teaching Hospital) were selected from among 16 ART sites for the study. One hundred and seven participants (107) were conveniently selected from State Hospital, Asubiaro while 43 participants were conveniently selected from University of Osun teaching hospital. We developed a semi-structured interviewer-administered questionnaire and tested the validity through pre-testing before administering to respondents. Internal consistency of the questionnaire was also checked, resulting in Cronbach's Alpha of 0.83. The data collection instrument had four sections; first section comprised of questions on socio-demographic characteristics, second section dealt with availability of services, third section examined utilization of services while forth section looked at perception of quality of care. We retrieved the data between March and April 2022, entered and analysed it using Statistical Package for Social Sciences (SPSS) version 23 and Microsoft Excel 2019. Descriptive and inferential statistical analyses were carried out using measures of location and dispersion; frequency tables and Analysis of variance (ANOVA) test.

RESULTS

More respondents (33.3%) were in the age group of 35-44 years followed by 45-54 years (29.3%), 55-64 years (18.7%), 25-34 years (13.3%), 65-74 years (0.3%), 15-24 years (1.3%) and 75-84 years (0.7%). Majority (79.3%)

of respondents were females while males formed 20.7% of respondents. Slightly greater than half (52%) of respondents were Christians, 47.3% were Muslims while 0.7% practiced the Traditional Religion. The bulk of respondents (89.3%) were Yorubas, 4% were Igbos, 2.7% were Hausas while others tribes formed 4% of respondents. A high proportion of respondents (73.3%) are married, 10.7% are single, 4% are divorced, 10% are widows and 1.3% are widowers.

Table 1: Distribution of respondents by sociodemographic characteristics.

Variable	Category	N	%
Age group (years)	15-24	2	1.3
	25-34	20	13.3
	35-44	50	33.3
	45-54	44	29.3
	55-64	28	18.7
	65-74	5	3.3
	75-84	1	0.7
	Total	150	100.0
Sex	Male	31	20.7
	Female	119	79.3
	Total	150	100.0
Religion	Christianity	78	52
	Islam	71	47.3
	Traditional	1	0.7
	Total	150	100.0
Ethnicity	Yoruba	134	89.3
	Igbo	6	4
	Hausa	4	2.7
	Others	6	4
	Total	150	100.0
Marital Status	Single	16	10.7
	Married	110	73.3
	Divorced	7	4.7
	Widow	15	10
	Widower	2	1.3
	Total	150	100.0
Education	No Formal	17	11.3
	Primary	43	28.7
	Secondary	55	36.7
	Post-secondary	35	23.3
	Total	150	100.0
Occupation	Student	10	6.7
	Unskilled	87	58
	Skilled/professional	53	35.3
	Total	150	100.0
Income (N)	<50,000	115	76.7
	50,000-149,000	30	20
	150,000-249,000	4	2.7
	250,000-349,000	1	0.7
	Total	150	100.0

More respondents (36.7%) had secondary education, 28.7% had primary education, 23.3% had post-secondary education and 11.3% had no formal education. Unskilled

workers formed the bulk (58%) of respondents, 35.3% were skilled workers and 6.7% were students. Majority (76.7%) of respondents received income of less than N50,000, 20% received between N50,000-149,000, 0.2% received N150,000-249,000 and 0.7% received more than N250,000 (Table 1). Majority (95.3%) of respondents strongly agreed that ART staff were respectful & friendly to them, 96% strongly agreed that ART staff offered seats to them while 98% strongly agreed that ART Staff showed empathy. A high proportion (96%) of respondents strongly agreed that ART staff gave adequate information, 94.7% strongly agreed that ART staff gave clear appointments while 98.7% strongly agreed that ART staff gave information on drug use (Figure 1).

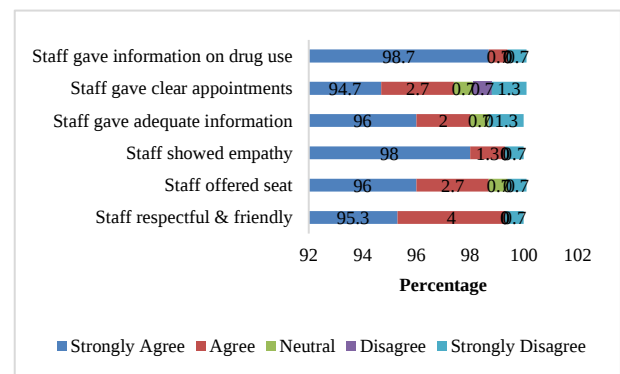


Figure 1: Perceived quality of ART care providers.

A bulk (70.7%) of respondents strongly agreed that Doctor were adequate in number, 72% strongly agreed that Nurses were adequate in number while 70% strongly agreed that other health workers were adequate in number. A high percentage (72.7%) of respondents strongly agreed that Medical equipments were adequate, 92.7% strongly agreed that ART Staff gave good clinical examination and 92.7% strongly agreed that ART Staff gave effective treatment. Only 22.7% of respondents strongly agreed that the time spent with ART staff was optimal while 78.7% strongly agreed that the waiting time was short. Majority (96.7%) of respondents strongly agreed that drugs (ARVs) were available, 90% strongly agreed that drugs (ARVs) were affordable, 96.7% strongly agreed that Laboratory Service was available while 98.7% strongly agreed that Laboratory Service was affordable (Table 2). A high proportion (96%) of respondents strongly agreed that ART Care Service is accessible, 66% strongly agreed that consulting rooms are adequate and 76.7% strongly agreed that consulting room has privacy. Also, three fifth of respondents strongly agreed that portable water is available while 63.3% strongly agreed that toilet facility is available (Figure 2). Most (96.7%) respondents strongly agree that ART Services are satisfactory. Majority (62.7%) of respondents perceived that Medical Records unit was the service delivery point with the most delay while only 5.3% of few respondents perceived that Laboratory services and only 2% perceived that Doctor's consultation were had most delay.

Table 2: Perceived quality of ART service delivery.

Variables	Option	N	%
Doctor are adequate in number	Strongly agree	106	70.7
	Agree	23	15.3
	Neutral	13	8.7
	Disagree	6	4
	Strongly disagree	2	1.3
	Total	150	100
Nurses are adequate in number	Strongly agree	108	72
	Agree	22	14.7
	Neutral	10	6.7
	Disagree	7	4.7
	Strongly disagree	3	2
	Total	150	100
Other health workers are adequate in number	Strongly agree	105	70
	Disagree	27	18
	Neutral	9	6
	Disagree	8	5.3
	Strongly disagree	1	0.7
	Total	150	100
Medical equipment are adequate	Strongly agree	109	72.7
	Agree	22	14.7
	Neutral	9	6
	Disagree	8	5.3
	Strongly disagree	2	1.3
	Total	150	100
Staff gave good clinical examination	Strongly agree	139	92.7
	Agree	8	5.3
	Neutral	1	0.7
	Strongly disagree	2	1.3
	Total	150	100
Staff gave effective treatment	Strongly agree	139	92.7
	Agree	9	6
	Disagree	1	0.7
	Strongly disagree	1	0.7
	Total	150	100
Time spent with staff is optimal	Strongly agree	34	22.7
	Agree	4	2.7
	Disagree	55	36.7
	Strongly disagree	57	38
	Total	150	100
Waiting Time is short	Strongly agree	118	78.7
	Agree	24	16
	Disagree	6	4
	Strongly disagree	2	1.3
	Total	150	100
Drugs are available	Strongly agree	145	96.7
	Agree	5	3.3
	Total	150	100
Drugs are affordable	Strongly agree	135	90
	Agree	5	3.3
	Neutral	2	1.3
	Disagree	4	2.7
	Strongly disagree	4	2.7
	Total	150	100

Continued.

Variables	Option	N	%
Laboratory service is available	Strongly agree	145	96.7
	Agree	3	2
	Disagree	2	1.3
	Total	150	100
Laboratory service is affordable	Strongly agree	148	98.7
	Disagree	1	0.7
	Strongly disagree	1	0.7
	Total	150	100

Table 3: Descriptive statistics of perceived qualities of ART care provider, ART service delivery and ART facility scores.

Variable	N	Minimum Score	Maximum Score	Mean Score	SD
Perceived quality of ART care provider	150	6	30	29.6	+2.17
Perceived quality of ART service delivery	150	34	60	56.3	+4.45
Perceived quality of ART facility	150	13	25	22.1	+3.38

Table 4: Perceived qualities of ART care provider, ART service delivery & ART facility scores.

Variable	Score	N	%
Perceived quality of ART care provider	Low (6-13)	1	0.7
	Moderate (14-21)	1	0.7
	High (22-30)	148	98.7
	Total	150	100.0
Perceived quality of ART service delivery	Low (12-27)	0	0
	Moderate (28-43)	4	2.7
	High (44-60)	146	97.3
	Total	150	100.0
Perceived quality of ART facility	Low (5-11)	0	0
	Moderate (12-18)	31	20.7
	High (19-25)	119	79.3
	Total	150	100.0

The remaining 30% of respondents perceived that all other service delivery points contributed altogether to most delay (Figure 3). The mean score for perceived quality of ART Care Providers was 29.6 with standard deviation ± 2.17 , minimum score of 6 and maximum score of 30. The mean score for perceived quality of ART Service Delivery was 56.3 with standard deviation ± 4.45 , minimum score of 34 and maximum score of 60 and the mean score for perceived quality of ART Facility structure was 22.1 with standard deviation ± 3.38 , minimum score of 13 and maximum score of 25 (Table 3). Majority (98.7%) of respondents had high score for perceived quality of ART Care Providers, 79.3% had high score for perceived quality of ART Service Delivery while 97.3% had high score for perceived quality of ART Facility structure (Table 4). There were no statistically significant differences in mean score for males and females for perceived quality of ART Care Provider (p value=0.61), perceived quality of ART Service Delivery (p value=0.92) and perceived quality of ART Facility (p value=0.77). The mean score for perceived quality of ART Facility was statistically significantly higher for Age group 55-64 years compared to other Age groups (p value=0.05) while there were no statistically significant

differences in mean scores for different age groups for perceived quality of ART Care Provider (p value=0.56) and perceived quality of ART Service Delivery (p value=0.56). There were no statistically significant differences in mean scores for different Educational Status for perceived quality of ART Care Provider (p value=0.12), perceived quality of ART Facility (p value=0.35) and perceived quality of ART Service Delivery (p value=0.58). There was no statistically significant difference in mean scores for different Occupation for perceived quality of ART care Provider (p value=0.98), perceived quality of ART Facility (p value=0.20) and perceived quality of ART Service Delivery (p value=0.99). The mean score for perceived quality of ART Care Provider is statistically significantly higher for State Hospital Asubiaro than University of Osun Teaching Hospital (p value=0.03) and mean score for perceived quality of ART Facility is statistically significantly higher for University of Osun Teaching Hospital than State Hospital Asubiaro (p value=0.00), however there was no statistically significant difference in mean scores for perceived quality of ART service delivery for State Hospital Asubiaro compared to University of Osun Teaching Hospital (p value=0.28) (Table 5).

Table 5: Perceived qualities scores by age, gender, education and occupation.

Variable	ART care provider quality score		ART facility quality score		ART service delivery quality score	
Category	Mean Score	P value	Mean Score	P value	Mean score	P value
Male	29.77	0.61	21.97	0.77	56.32	0.92
Female	29.55		22.17		56.24	
15-24 years	30.00	0.56	22.00	0.05	56.00	0.56
25-34 years	29.90		21.65		56.55	
35-44 years	29.04		22.76		55.68	
45-54 years	29.80		20.86		55.73	
55-64 years	29.93		23.39		57.71	
65-74 years	30.00		21.80		57.40	
75-84 years	30.00		22.00		56.00	
No formal education	29.76	0.12	22.24	0.35	56.59	0.58
Primary education	29.91		21.40		56.65	
Secondary education	29.78		22.27		56.42	
Post secondary education	28.83		22.74		55.34	
Student	29.70	0.98	20.30	0.20	56.10	0.99
Unskilled workers	29.56	0.03	22.20	0.00	56.25	0.28
Skilled/ professional Worker	29.62		22.36		56.28	
State hospital Asubiaro	29.72		21.29		55.92	
University of Osun teaching hospital	29.28		24.21		57.09	

DISCUSSION

The mean score for perceived quality of care provided by Health Care Providers was 29.6 out of a total score of 30 with 98.7% of respondents having high score (22-30). This deduces good quality of ART services provided by health workers. A high proportion (94.6%-98%) of respondents perceived that staffs were respectful & friendly, staffs offered seats, staffs showed empathy, staffs gave adequate information, staffs gave clear appointment and staffs gave information on drug use.¹¹

These findings are similar to results from a study in Addis Ababa, Ethiopia which reported that 93.1% of clients were satisfied with respect shown by health care providers, 83.3% of clients were satisfied with a chance given to ask and talk about what they feel and 93.8% of clients were satisfied with the information provided by health care providers. The findings are also comparable to findings observed in a study in Northwest Tigray, Ethiopia in which 52.4% of respondents reported that health care workers provided information and guidance, 78.8% reported that health care workers provided care with courtesy/respect, 52.9% reported that health care

workers provided care with privacy and 92.1% reported there was interpersonal communication.^{12,13}

Also a study in Ghana observed interpersonal relations with mean score of 3.25 and standard deviation ± 0.41 and communication with mean score of 3.08 and standard deviation ± 0.41 . A study in Sokoto, Nigeria reported 99.2% of respondents reporting satisfaction with courtesy of care providers and 100% reporting satisfaction with explanation given by care providers.¹⁴

However another study in Ethiopia reported only 25.2% of respondents rating the recognition of their opinions by ART staffs as good, 37.4% rating information provided by health care professionals on tests treatments and expectation as good while 68.9% rated attention of health care professionals to individual needs as good.¹⁵

The study also reported that 98.6% were given explanation about the need for regular follow up while 100% were given explanation about the drugs. The mean score for perceived quality of ART Service Delivery was 56.3 out of a total score of 60 with 97.3% of respondents

having perceived high score (44-60). This signifies good quality ART service delivery.

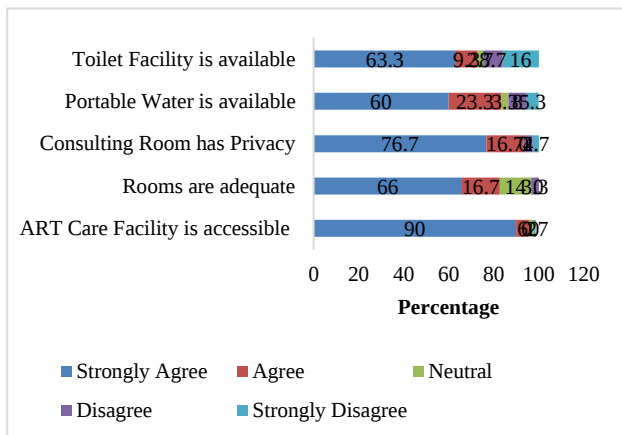


Figure 2: Perceived quality of ART facility.

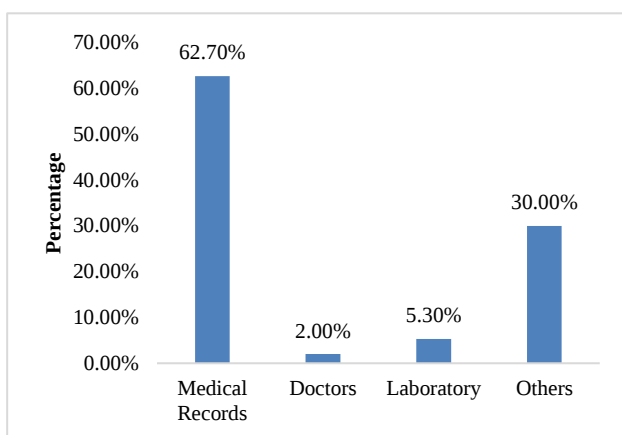


Figure 3: Service delivery point with most delay.

A major proportion (70.7%-98.7%) of respondents perceived that Doctor, Nurses and other health workers were adequate in number; that medical equipments were adequate, that staff gave good clinical examination and effective treatment; that waiting time was short, that drugs were available and affordable and that Laboratory Services were available and affordable. However only 22.7% of respondents reported that the time spent with ART care providers was optimal. These results are similar to findings in the study which reported that 87.6% of clients were satisfied with the ARV drugs availability, 56.2% of clients were satisfied with the laboratory services availability and 95.5% of clients were satisfied with the time spent with health care providers during the consultation, except for only 66.9% of clients reported to be satisfied with the appropriate waiting time to get service.¹³

This is also comparable to the study¹⁴ which observed 88.3% of respondents reporting availability of drugs but in contrast to 93.6% reporting that waiting time before examination was between 30 minutes to 1 hour. The study in Ghana reported similar findings with a mean

score for General services quality of 2.90, a mean score for Technical quality of 3.00 and a mean score of time spent with Clinical Team of 2.98.¹⁵ Another study by Amanyire et al observed that clients reported long waiting times while Oche et al showed that 99.6% reported satisfaction with consultation time, 98.8% reported satisfaction with availability of drugs and 99.2% reported satisfaction with waiting time in the laboratory.¹³⁻¹⁶ The study by Getenet et al observed that 51.7% of respondents reported that they waited for less than 15 minutes to be seen by the ART staffs, 68.5% clients rated the service of the card room as excellent and 65% stated that the laboratory service was poor while Kinkel et al in South Africa reported that time spent at the clinic to complete the services was found to be very long.^{15,17}

The mean score for perceived quality of ART Facility structure was 22.1 out of a total score of 25 with 97.3% of respondents having high score (19-25). This denotes good quality ART Facility structure. A moderate to high proportion (60%-96%) of respondents reported that the ART Care centre was accessible, that rooms were adequate; consulting room had privacy, portable water was available, and toilet facility was available. This is similar to findings in the study which reported that 92.6% of clients were satisfied with the privacy of exam/treatment/counselling room and 87.1% of clients were satisfied with the easy accessibility of ART clinic.¹³ In contrast, Atsebeha et al observed that 73.8% strongly disagree/ disagree they had access of toilets while Alhassan et al reported that accessibility and convenience had a mean score of 3.08 and standard deviation +0.30.^{12,13} The study in Sokoto, Nigeria reported 99.6% having satisfaction with condition of consulting room whereas Kinkel et al reported that ART clinics were easily accessible.^{14,17} Our study also shows that majority (96.7%) of respondents strongly agree that ART Services are satisfactory, confirming good quality ART services. This finding is similar to results observe by Tiruneh et al which reported that 86.4% had client satisfaction with the quality of ART clinical services and another study which reported 99.6% of respondents having satisfaction with overall services of the clinic.^{11,14} A bulk (62.7%) of respondents in our study perceived that medical records unit was the service delivery point with the most delay. This finding is in contrast with result observed by Getenet et al that 68.5% clients rated the service of the card room as excellent.¹⁵ In addition, we observed only a few respondents (2%) perceiving that Doctor's consultation was one of the service delivery points with the most delay; this aligns with the finding in our study that a high proportion reported short waiting time (Table 7). There is no statistically significant difference in mean score for males and females for perceived quality of ART Care Provider (p value=0.61), perceived quality of ART Facility (p value=0.77) and perceived quality of ART Service Delivery (p value=0.92). This implies that there is no association between perceived good quality of ART Care Provider, quality of ART Service Delivery, quality of ART Facility and gender. The mean score for

perceived quality of ART Facility is statistically significantly different for Age-groups with Age-group 55-64 years having higher mean score compared to other Age-groups (p value=0.05) while there is no statistically significant difference in mean score for different Age-groups for perceived quality of ART Care Provider (p value=0.56 and perceived quality ART Service Delivery (p value=0.56). This indicates there is statistically significant association between perception of good quality of ART Facility structure and Age. This finding is similar to observation reported by Tiruneh et al that client satisfaction on the quality of ART clinical services was associated with Age group 34–44 years (AOR 5.1), Age Group 45–55 years (AOR 8.1), Age Group 56–76 years (AOR 5) and the result by Oche et al which reported that overall satisfaction of with services provided was associated with Age (AOR 0.96).^{11,14}

There is no statistically significant difference in mean score for different Educational Status for perceived quality of ART Care Provider (p value=0.12), perceived quality of ART Facility (p value=0.35) and perceived quality of ART Service Delivery (p value=0.58). This connotes that there is no association between perceived good qualities ART Care Provider, ART Service Delivery, quality ART Facility and Educational Status. This finding contrasts with result by Oche et al which reported that overall satisfaction of with services provided were associated with educational attainment (AOR 0.62).¹⁴ There is no statistically significant difference in mean score for different Occupation for perceived quality ART Care Providers (p value=0.98), perceived good quality ART Facility (p value=0.20) and perceived good quality ART Service Delivery (p value=0.99). This denotes that there is no association between perceived good qualities of ART Care Provider, ART Service Delivery, ART Facility and Occupation. The mean score for perceived quality of ART Care Provider is statistically significantly higher for State Hospital Asubiaro compared to University of Osun Teaching Hospital (p value=0.03). This suggests that there is association between perceived good quality ART Care Provider and the type of ART Facility (p value= 0.03). The mean score for perceived quality of ART Facility structure is statistically significantly higher for University of Osun Teaching Hospital compared to State Hospital Asubiaro (p value=0.00), implying association between perceived good quality ART Facility structure and the type of ART Facility. There is no statistically significant difference in mean score for perceived good quality ART Service delivery for State Hospital Asubiaro and University of Osun Teaching Hospital (p value=0.28), inferring there is no association between perceived good quality ART Service delivery and type of ART facility.

Limitations

One of the limitations of this study is the utilization of only two ART care centres out of a total of 16 ART care centres in the State, which may not provide adequate

representativeness of ART centres. However, these facilities are high volume ART centre and can therefore provide good representation of people living with HIV. The second limitation is the use of convenient sampling method; this would therefore require that that generalization of findings should be done carefully.

CONCLUSION

This study revealed good quality of ART care providers, ART service delivery and ART Facility structure confirming overall good quality HIV treatment services in Osun State, Nigeria. The study also established high level of satisfaction with ART services, however time spent by patients with ART care provider was perceived to be sub-optimal and appreciable delay was encountered in medical records. Age was a determinant of perceived good quality of ART facility structure but not a determinant of perceived good quality of ART care providers and ART service delivery. Gender, educational status and occupation were not determinants of perceived good quality of ART care provider, ART service delivery and ART facility structure. The time spent by patients with ART Care Providers needs to be optimized to enhance patient centredness while the delay in the medical records unit should be reduced to improve quality of services. Furthermore, provision of ART care by health providers in University of Osun teaching hospital and the ART Facility structure at State Hospital Asubiaro should be enhanced to improve HIV treatment outcomes.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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