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Level and elements of satisfaction among patients on Anti-retroviral therapy enrolled in differentiated care in south- south Nigeria.

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ABSTRACT

Background: The World Health Organization (WHO) recommendation to "test and treat all" HIV-positive Individuals resulted in a 38% fall in new HIV infections and related deaths by 2017. However, the burden of high patient influx in hospitals is reduced by the differentiated model of care to dispense Antiretroviral therapy (ART) from community pharmacies. This study aims to ascertain the level of satisfaction of PLHIV on differentiated care and to evaluate the elements that affect their overall satisfaction.
Methods: A cross-sectional descriptive study of One hundred and thirty (130) stable PLHIV ≥18 years who presented at the Rivers State University Teaching Hospital (RSUTH), Port Harcourt, for six- monthly follow up. Ethical approval was obtained from the ethical board of RSUTH (RSUTH/REC/2021052). Structured interviewer-administered questionnaires were used, and associations analysed with statistical significance set at p value of ≤0.05.
Results: The Overall satisfaction with services provided by the community pharmacies was 93.85%. Regarding the various elements of satisfaction assessed, 118(90.8%) persons were satisfied with time spent with the community pharmacists, 119 (91.5%) reported being shown courtesy and respect by pharmacist staff, 125 (96.2%) received satisfactory adherence counselling and 126 (96.9%) respondents were satisfied with receiving information on drug therapy.
Conclusion: Differentiated model of care in community pharmacies has provided good patient satisfaction, and quality of care in PLHIV in Rivers State.

INTRODUCTION

The number of people receiving antiretroviral medication (ART) for human immunodeficiency virus (HIV) had risen by roughly a third by 2014, reaching 17.0 million people.[1]This represents 46% of all individuals that require ART, with 2 million more individuals beginning treatment in 2015. [1]

Between 2000 and 2017, the incidence of new HIV infections decreased by 36%, and HIV-related mortality decreased by 38%. During this time, ART helped save 11.4 million lives.[2] The national HIV programs and their partner organizations put in a lot

of work to achieve this. Just 75% of HIV-positive individuals are thought to currently be aware of their status. Globally, 21.7 million HIV-positive people were getting antiretroviral medication (ART) in 2017. [3]

Antiretroviral therapy is now available to all populations and age categories of people living with HIV as a result of the WHO's 2015 recommendation to "treat all" HIV-positive individuals (ART).[4] A new set of objectives starting in 2020 will emphasizes improving access to care with the goal of eradicating the AIDS epidemic by 2030.[3]

A greater influx of patients with HIV-related illnesses seeking healthcare, particularly in hospitals, will put additional strain on health systems already overstretched with non-communicable and communicable diseases and beset by a lack of human, material, and financial resources. As a result, it is urgent to reconsider how ART care is provided. Alternative options, such as devolving to community pharmacies, must be investigated in order to provide tailored services to the growing population of HIV patients. In order to meet their needs and expectations, clients who are not already receiving treatment must have access to ART through a service delivery model that offers them various packages of differentiated care.

Differentiated care is a client-centered approach that streamlines and adjusts HIV services throughout the cascade to reflect the preferences and expectations of different groups of people living with HIV (PLHIV), while minimizing unnecessary costs to the health system.[4] Delivering differentiated ART as a part of differentiated care seeks to increase adherence and viral suppression by raising the standard of care and PLHIV patients' access to medication.[4] Differentiated care models, as advised by the World Health Organization, have prospects to relieve hospital congestion and boost patient retention, particularly in developing nations.

The devolution of stable customers to community pharmacists is a component of the out-of-facility individual model of differentiated ART treatment. These patients have been on ART for at least a year, have a suppressed viral load (1000 copies/ml), and have no opportunistic infections.

Patient happiness is a key element of any successful healthcare service. This is especially important for ART services. Response time of the healthcare system is a measure of care quality from the patient's perspective (HSR). Assessable factors include interpersonal and professional relationships, accessibility, promptness, respect for others, autonomy, counselling and support networks, the standard of basic facilities, and communication.[5]

Patients are satisfied when they believe the services they receive from medical facilities match their requirements and expectations. Clients' service needs and expectations vary depending on their bio-psychosocial backgrounds.

Patient-reported outcomes have drawn some criticism, particularly those that measure "patient satisfaction". It is hypothesized that because patients do not have professional medical training, their feedback is not reliable. Furthermore, it is thought that patient satisfaction surveys actually assess a component of "happiness," which is easily impacted by variables unrelated to medical treatment. Conversely, a Tanzanian study revealed that while provider skills and communication were not substantially related to overall ratings of health care, respect, confidentiality, and promptness were.[6] Patients claimed that variables other than convenience of location influenced their choice of a clinic more than factors like patient volume, service quality, and confidentiality.

In a rural sub-district of KwaZulu-Natal, South Africa, HIV and TB patients participated in a patient satisfaction survey. The results revealed characteristics that had a substantial impact on patient satisfaction.7This included a longer waiting period and a lack of respect.[7]

Another cross-sectional descriptive study found an inverse relationship between waiting time at the pharmacy and level of satisfaction among HIV/AIDS patients. This study was conducted to determine how satisfied HIV/AIDS patients were with pharmacy service at Specialist antiretroviral therapy (ART) units in the government hospitals of Addis Ababa, Ethiopia.[8] According to a survey conducted in Abuja, Nigeria, where almost 10% of stable patients on treatment were successfully transferred from eight healthcare facilities to ten community pharmacies, excellent prescription refill and high retention in care with very low loss-to-follow-up were associated with the community pharmacy model.[9] In Lagos, Rivers, Cross River, and Akwa-Ibom States from October 2016 to February 2018, a population-based retrospective analysis of the community pharmacy ART refill program of the United States Agency for International development-funded "Strengthening Integrated Delivery of HIV/AIDS Services" project revealed a very high retention rate of 98% and viral suppression of 99.12%. In a recent study in South Eastern Nigeria, it was discovered that ART duration, regimen, and client age have a substantial impact on refill rates ($P < 0.001$, 0.004 and 0.034 respectively).[10]

In the Community Pharmacy Model of Care, pharmacists take on a more active role in risk assessment and management, other medication-related counselling tasks, and pharmaceutical care and ARV medicine refills. It includes consultations with doctors for check-ups (which is twice a year for stable clients in RSUTH).

It is clinically important to assess how satisfied patients are with health services because happy patients are more likely to build long-lasting relationships with their doctors, which increase adherence, continuity of care, and eventually contribute to better health outcomes.[11] Clients' confidence in the healthcare system and treatment will decline if critical needs are not satisfied.[12] The RSUTH had to devolve clients to community pharmacies due to the heavy burden of PLHIV getting ART, however the level of these clients' satisfaction with the treatments has not been assessed. In light of this, this study aims to determine the degree of PLHIV satisfaction with individualized care and to assess the factors that influence their overall satisfaction.

METHOD

Stable Patients on first line ART regimens from public health facilities are referred to community pharmacies in different locations within the Port Harcourt, Rivers State for prescription refills and treatment maintenance. The patients present back to the RSUTH for follow up every 6 months. The study area was the Rivers State University Teaching Hospital, Port Harcourt, South-South region, Nigeria.

Study population: One hundred and thirty (130) respondents of 18years of age and above, living with HIV/AIDS (PLWHIV) on ART devolved from Rivers State University Teaching Hospital, Port Harcourt to community pharmacies, who came for follow up visit at RSUTH at the time of study were recruited into this study. Exclusion criteria included pregnant women and persons less than 18 years of age.

Study design: This was a cross-sectional descriptive study which lasted for 4 months.

Data collection instruments and procedure: Standardized, structured interviewer-assisted questionnaires were filled by all respondents. Interviewers collected information on socio-demographics and patients' level of satisfaction with various aspects of the community pharmacy services. The main elements of satisfaction of PLWHIV in this study were:

1. Spending enough time with Pharmacists
2. Being shown courtesy and respect by Pharmacist staff
3. Constantly receiving adherence counselling
4. Receiving information on drug therapy.

Ethical approval was obtained from the ethical board of the hospital. Documented informed consent was obtained from each respondent before recruitment and confidentiality was maintained thorough the period.

Statistical analysis: The results obtained were coded and entered into an excel worksheet and analysed using the Statistical package for Social Science version 23 (SPSS 23)for Windows (IBM Corp, Armonk, USA).The results have been expressed using percentages and tables and illustrated with graphs where appropriate. Chi square test was used to test for associations and statistical significance was defined at p value of <0.05.

RESULT

A total number of 130 PLWHIV who received differentiated care at outside pharmacies were studied. Majority of the participants (52.3%) were in the 3rd and 4th decade of life while those in the extremes of age accounted for the minority (3.9% and 5.4% respectively). Of the 130 respondents, women, married persons, and those that had attained tertiary education formed the highest preponderances with 56.2%, 51.5% and 60% respectively. (Table 1)
Over half of the clients-59.2% (77 persons) had been on ART for only 5years or less, 48 persons (36.9%) for 6-10years while 5 (3.8%) had been onART for over 10years.

Table 1. Sociodemographic characteristics of the study population

Sociodemographic characteristic	Frequency (%)
Age group	
<20 years	5(3.9)
20-39 years	68(52.3)
40-59 years	50(38.5)
≥60 years	7(5.4)
Sex	
Male	57(43.8)
Female	73(56.2)
Marital status	
Single	48(36.9)
Married	67(51.5)
Widowed/Divorced	15(11.5)
Educational level	
No formal education	4(3.1)
Primary education	8(6.2)
Secondary education	40(30.8)
Tertiary education	78(60.0)

A total of 93.85% participants reported overall satisfaction with the care and services provided by the community pharmacies. (Figure 1).

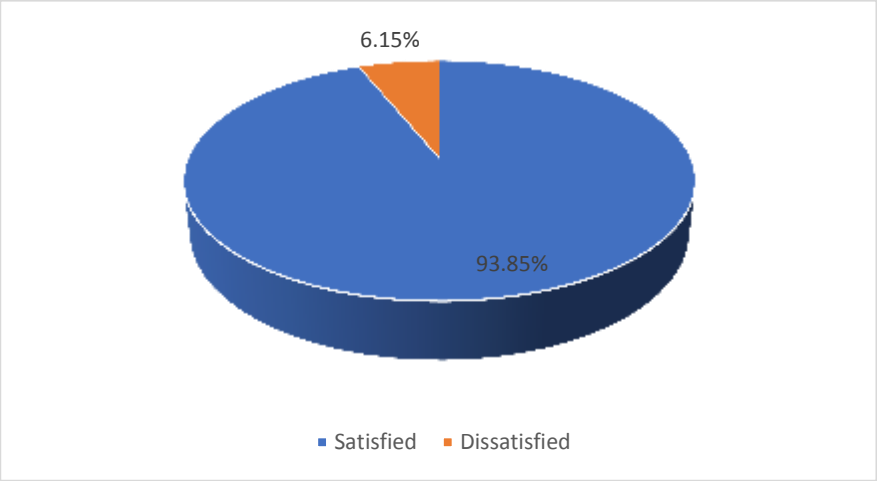

Figure 1. Overall satisfaction of services provided by the community pharmacy

Regarding the various elements of satisfaction assessed, 118(90.8%) persons were satisfied that they spent enough time with the community pharmacists, 119 (91.5%) reported that they were shown courtesy and respect by pharmacist staff, 125(96.2%) received satisfactory continuous adherence counselling and 126 (96.9%) respondents were satisfied with receiving information on drug therapy.

The relationship between patient's characteristics and satisfaction with the various elements of care are illustrated in tables 2 to 5 below.

Table 2. Relationship between patient's characteristics and satisfaction with time spent with the pharmacist

Patient's characteristics	Spends enough time with the pharmacist			χ^2
	Agree n(%)	Disagree n(%)	Total	p value
Age group				
<20 years	4(80.0)	1(20.0)	5	1.566
20-39 years	61(89.7)	7(10.3)	68	0.663
40-59 years	46(92.0)	4(8.0)	50	
≥60 years	7(100.0)	0(100.0)	7	
Total	118(90.8)	12(9.2)	130	
Sex				
Male	50(87.7)	7(12.3)	57	1.127
Female	68(93.2)	5(6.8)	73	0.288
Total	118(90.8)	12(9.2)	130	
Marital status				
Single	41(85.4)	7(14.6)	48	3.417
Married	62(92.5)	5(7.5)	67	0.181
Widowed/Divorced	15(100.0)	0(0.0)	15	
Total	118(90.8)	12(9.2)	130	
Educational level				
No formal education	4(100.0)	0(0.0)	4	0.543
Primary education	7(87.5)	1(12.5)	8	0.909
Secondary education	36(90.0)	4(10.0)	40	
Tertiary education	71(91.0)	7(9.0)	78	
Total	118(90.8)	12(9.2)	130	
Number of years on ART				
1-5years	68(88.3)	9(11.7)	77	1.573
6-10years	45(93.8)	3(6.3)	48	0.456
≥10 years	5(100.0)	0(0.0)	5	
Total	118(90.8)	12(9.2)	130	

Table 3. Relationship between patient's characteristics and satisfaction with the courtesy and respect shown by pharmacy staff

Patient's characteristics	Shown courtesy and respect by pharmacy staff			X^2
	Agree n(%)	Disagree n(%)	Total	p value
Age group				
<20 years	4(80.0)	1(20.0)	5	2.899
20-39 years	64(94.1)	4(5.9)	68	0.407
40-59 years	44(88.0)	6(12.0)	50	
≥60 years	7(100.0)	0(0.0)	7	
Total	119(91.5)	11(8.5)	130	
Sex				
Male	50(87.7)	7(12.3)	57	1.912
Female	69(94.5)	4(5.5)	73	0.167
Total	119(91.5)	11(8.5)	130	
Marital status				
Single	45(93.8)	3(6.3)	48	0.784
Married	61(91.0)	6(9.0)	67	0.676
Widowed/Divorced	13(86.7)	2(13.3)	15	
Total	119(91.5)	11(8.5)	130	
Educational level				
No formal education	3(75.0)	1(25.0)	4	4.709
Primary education	6(75.0)	2(25.0)	8	0.194
Secondary education	37(92.5)	3(7.5)	40	
Tertiary education	73(93.6)	5(6.4)	78	
Total	119(91.5)	11(8.5)	130	
Number of years on ART				
1-5years	69(89.6)	8(10.4)	77	2.372
6-10years	46(95.8)	2(4.2)	48	0.305
≥10 years	4(80.0)	1(20.0)	5	
Total	119(91.5)	11(8.5)	130	

Table 4. Relationship between patient's characteristics and satisfaction with continuous adherence counselling

Patient's characteristics	Constantly received adherence counselling			X^2
	Agree n(%)	Disagree n(%)	Total	p value
Age group				
<20 years	5(100.0)	0(0.0)	5	2.782
20-39 years	65(95.6)	3(4.4)	68	0.426
40-59 years	49(98.0)	1(2.0)	50	
≥60 years	6(85.7)	1(14.3)	7	
Total	125(96.2)	5(3.8)	130	
Sex				
Male	53(93.0)	4(7.0)	57	2.761
Female	72(98.6)	1(1.4)	73	0.097
Total	125(96.2)	5(3.8)	130	
Marital status				
Single	46(95.8)	2(4.2)	48	1.076
Married	64(95.5)	3(4.5)	67	0.584
Widowed/Divorced	15(100.0)	0(0.0)	15	
Total	125(96.2)	5(3.8)	130	
Educational level				
No formal education	4(100)	0(0.0)	4	2.271
Primary education	7(87.5)	1(12.5)	8	0.518
Secondary education	38(95.0)	2(5.0)	40	
Tertiary education	76(97.4)	2(2.6)	78	
Total	125(96.2)	5(3.8)	130	
Number of years on ART				
1-5years	74(96.1)	3(3.9)	77	0.214
6-10years	46(95.8)	2(4.2)	48	0.899
≥10 years	5(100.0)	0(0.0)	5	
Total	125(96.2)	5(3.8)	130	

Table 5. Relationship between patient's characteristics and satisfaction with receiving information pertaining to drug therapy

Patient's characteristic	Receives information about drug therapy			χ^2
	Agree n(%)	Disagree n(%)	Total	p value
Age group				
<20 years	5(100.0)	0(0.0)	5	0.982
20-39 years	65(95.6)	3(4.4)	68	0.806
40-59 years	49(98.0)	1(2.0)	50	
≥60 years	7(100.0)	0(0.0)	7	
Total	126(96.9)	4(3.1)	130	
Sex				
Male	55(96.5)	2(3.5)	57	0.063
Female	71(97.3)	2(2.7)	73	0.592
Total	126(96.9)	4(3.1)	130	
Marital status				
Single	47(97.9)	1(2.1)	48	1.076
Married	64(95.5)	3(4.5)	67	0.584
Widowed/Divorced	15(100.0)	0(0.0)	15	
Total	126(96.9)	4(3.1)	130	
Educational level				
No formal education	4(100.0)	0(0.0)	4	2.622
Primary education	7(87.5)	1(12.5)	8	0.454
Secondary education	39(97.5)	1(2.3)	40	
Tertiary education	76(97.4)	2(2.6)	78	
Total	126(96.9)	4(3.1)	130	
Number of years on ART				
1-5years	74(96.1)	3(3.9)	77	0.491
6-10years	47(97.9)	1(2.1)	48	0.782
≥10 years	5(100.0)	0(0.0)	5	
Total	126(96.9)	4(3.1)	130	

Spending enough time with Pharmacist and being shown courtesy and respect by pharmacy staff were the highest parameters (elements) of satisfaction by the younger and middle-aged participants, having its peak in the youngest age group(<20years). The eldest age group (≥60years) reported their best element of satisfaction as constantly being given medication adherence counselling.

More females (93.2%) agreed to have spent enough time with the pharmacist, shown courtesy and respect (94.5%) and constantly received adherence counselling (98.6%) compared to the males, but this not statistically significant. Almost an equal proportion of males (96.5%) and females (97.3%) agreed that they always received information about their drug therapy and its effects although it was not also statistically significant.

All the widowed/divorced participants (100%) were very satisfied with the time spent with Pharmacists, constantly receiving medication adherence counselling, and getting information about their drug therapy but accounted for the least (86.7%) in being satisfied with courtesy and respect from Pharmacy staff. These differences were however not statistically significant.

All the people with no formal education (100%) agreed to be satisfied with spending enough time with pharmacists, receives information about drug therapy and constantly receives adherence counselling, while they accounted for the least in being satisfied with courtesy and respect from Pharmacy staff (75%). Those that only attained primary education had the least score in agreeing to all the four elements of satisfaction.

The highest proportion of those that were satisfied with the time spent with Pharmacists were from those that have been on ART for more than 10years (100%), while the least were those that have been on ART for less than 5 years (88.3%). Courtesy and Respect from Pharmacy staff was most appreciated (95.8%) by those who had been on ART between 6 to 10 years (95.8%) and appreciated the least by those that have had ART for more than 10 years (80%), but these were not statistically significant. Everyone (100%) who had been on ART for more than 10years were satisfied with both constantly receiving adherence counselling and receiving information about drug therapy.

DISCUSSION

Despite the improved prognosis of PLWHIV/AIDS, retention to care especially in Sub-Saharan Africa continue to be challenging mainly driven by barriers related to access to care from the overburdened hospitals and this has led to the evolvement to differentiated service delivery for our teeming HIV population. In RSUTH, these include multi month scripting, fast track and community Pharmacy drug

pick up. We nonetheless are yet to validate Patients satisfaction with these tools and that has necessitated our study.

This was a cross-sectional descriptive study of 130 stable HIV patients on first line ART who are receiving differentiated care from our facility. A total of 93.85% participants reported overall satisfaction with the care and services provided by the community pharmacies (Figure 1) and this comprised of a predominant female population n (73%) and 78% of people with tertiary education (table 1). Similar outcomes were described by Onyango et al[13]and Makamba et al[14] who reported a level of satisfaction of 99% and 74% respectively. Interestingly, a higher proportion of our participants that have been on ART for more than 10years (100%) were observed to be more satisfied than those that have been on ART for less than 5 years (88.3%).

Furthermore, studies have shown that disrespectful poor patient attitude and abusive behaviour by healthcare providers were leading factors in Patients' disengagement from care.[15,16] This is additionally buttressed by findings from our study where courtesy and respect by Pharmacy staff were the highest elements of satisfaction especially in the younger and middle-aged group. Table 3.

Adherence counselling which could translate to spending quality time with the community Pharmacist and include information on knowledge of HIV disease condition, available treatment options, drug compliance and disease outcomes were also reported in our study as key elements of satisfaction (table 4,5) mirroring a similar report from Kenya.[13]

CONCLUSION

Patients' satisfaction with healthcare providers is highly linked with Patients' retention to care as observed in our study.

Disclosure of conflict of interest

The authors declare no conflict of interest

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Statement of informed consent

A written informed consent was obtained from the proposed study participants before recruitment in accordance with ethical principles

Statement of Ethical approval

Ethical approval was given by the Rivers State University Teaching Hospital's Health Research Ethics Committee (RSUTH/REC/2021052)

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