

CLIENT SATISFACTION AND COMMUNITY PHARMACY MODEL OF DIFFERENTIATED CARE FOR HIV POSITIVE PATIENTS ON ANTIRETROVIRAL THERAPY IN CALABAR, CROSS RIVER STATE, NIGERIA.

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## Abstract

**Background:** Inadequate client satisfaction due to prolonged client waiting time, Overcrowded health facilities with inadequate human resource, sub-optimal quality of service delivery in health facilities may undermine the goals of antiretroviral therapy (ART).

**Objectives:** The study was aimed at assessing the perception of clients on ART in Cross river state, of the Differentiated care services provided to them at the health facility and Community Pharmacy.

**Method:** A prospective study which assessed the clients' satisfaction of refill services in the health facility and CP over a six months' period prior to and after devolvement from the health facility to the CP. A total of 115 stable adult ART clients who were devolved from the health facility (between October 2016 and March 2017) to continue ART refills in four Community Pharmacies in Calabar, Cross River State participated in the study. The baseline client satisfaction assessment form was administered prior to devolvement to the Community Pharmacy (CP) and 6 months after devolvement. At the CP, they were provided pharmaceutical care, medication adherence monitoring, chronic care screening and monitoring for drug therapy problems. Pre-and post-Intervention data on client satisfaction and analyzed.

**Result:** A total of 20 questions administered to the respondents were analyzed using paired t-test statistics. The overall mean scores for satisfaction with the dispensing environment (27.47-66.26), confidentiality and privacy (32.17-65.21), reduced stigma (30.08-45.56), friendliness of Community pharmacists to clients (29.04-,34.34), communication skills (26.78-36.86) and opportunity for effective feedback (30.43-67.30) was higher for the post intervention when compared to the pre-intervention six (6) months earlier. It was also observed that mean scores for pharmaceutical care (30.78-38.78), adherence to refill pick-ups (25.91-40.52) and the general quality of service delivery at the community pharmacies was higher for the post intervention. The P-value obtained from the paired t-test analysis shows a value <0.05, conferring a significance difference in the post intervention responses.

**Conclusion:** There is an overall greater level of satisfaction and quality of care of services rendered to devolved clients receiving refills in community pharmacies when compared to the services they received at General hospital Calabar and doctor Lawrence Henshaw memorial hospital calabar, ensuring improved continuity of treatment.

**Keywords:** satisfaction, differentiated, care, community.

## Introduction

The UNAIDS in 2014 observed that sustained antiretroviral therapy (ART) is key to the control and eradication of the HIV/AIDS pandemic. There are over 37.7 million persons living with the virus worldwide.[16] In Nigeria, despite several efforts aimed at ensuring epidemic control across the 90:90:90 cascade, it has been observed that about 30% of the 3.2 million people infected with virus were initiated on ART as at 2016. It is expected that HIV positive persons initiated on ART adhere to their medication, continue treatment and are retained in care, this will ensure reduced mortality and a reduction in HIV transmission [2].

In identifying some best practices aimed at improving continuity of treatment for persons living with HIV/AIDS on ART, there is the need for the provision of a complete minimum package of care for the clients, as well as integration of service delivery to further ensure improved treatment outcomes of the clients.[10] In resource-limited settings however, there is increased need to understand the extent of suboptimal continuity of care, and the challenges to retention<sup>3</sup>. Clients on ART who show a higher level of satisfaction to the services been provided by healthcare professionals are more likely to adhere to medication and will be retained on therapy. When clients are not satisfied with the quality of care they may become lost to follow up and may not adhere to their medications. In a study at a tertiary hospital in Sokoto, Nigeria. From the study, it was observed that unlike the unsatisfied clients, satisfaction with service delivery is more likely to result in improved retention rates through adherence to clinic visits and drug pick up[12]. Client satisfaction may also be influenced by varying socio-economic conditions of a locality. A study to observe client satisfaction with waiting time in HIV treatment centers in rural and urban centers in Anambra state observed that there is a higher tendency for clients receiving care in Urban treatment centers to be more satisfied with service delivery than clients enrolled in care and provided treatment in rural areas. [1] Thus, it is essential to address the various economic conditions such as poverty and unemployment. This is to ensure that clients can present for refills and monitoring as scheduled. Hence, aside the service delivery related factors that may affect client satisfaction, external factors such as socio-economic and socio-cultural factors can also influence client satisfaction.

Other factors that affect treatment continuity include include; non-disclosure of status due to stigma, discrimination, economic effect of poverty, prolonged waiting time, adverse drug reactions and side effects, high pill burden, depression among others [12]. Other barriers identified include inadequate communication between care giver and client, poor service efficiency and lack of patient incentives also interfere with the quality of care to clients [9]. Furthermore, inadequate awareness due to lack of a common understanding of the principles of ART management among healthcare providers and high rate of drug-drug interactions may also negatively influence satisfaction of clients with service delivery. [15] Thus, “high levels of retention on ART are vital for individual patients, for credibility of programs and for on-going resource and financial support” [5].

Several strategies can be implemented to improve continuity in care and client satisfaction [3]. This includes differentiated service delivery which involves decentralization of ART care like ARV refills to health posts, health centers, community pharmacies, thus, reducing indirect costs for patients particularly in relation to transport to and from clinics, and ensuring facility community service integration. [11] The Community Pharmacists model of differentiated care was implemented across some high burden facilities in Cross river state. This is to ensure a more efficient and effective monitoring of clients on ART, as well as ensuring retention in care of clients on ART, the concept of community pharmacists based differentiated care was introduced in some ART sites with a high burden of clients in the country.

“Differentiated care is a client-centered approach that simplifies and adapts HIV services across the cascade, in ways that both serve the needs of PLHIV and reduce unnecessary burdens on the health system.”[4]. It is a client-centered approach that simplifies and adapts HIV services across the cascade to reflect the preferences and expectations of various groups of people living with HIV (PLHIV) while reducing unnecessary burdens on the health system[7]. Thus, differentiated service delivery (DSD) can assist a health system to allocate scarce resources to where there is the greatest need. Through DSD, retention and viral suppression can be enhanced by optimizing facility and community models of care and drug delivery [17]. Decentralization of ART services have been demonstrated to work effectively in the African countries of Malawi and Uganda.[8] They observed that decentralizing ART services further reduces the demand on patients to attend health facilities for drug pick-ups and clinical assessment, hence, reducing workload burden on health care workers.

Hence, this study was conducted due to the need to review the satisfaction of ART clients for HIV care and treatment services provided at the health facility, general hospital, Calabar, Doctor Lawrence Henshaw memorial hospital and selected community pharmacies where clients were devolved to receive refills. This is more so, as clients receiving care in these facilities have previously identified the challenges to accessing ART to include prolonged waiting time, staff burn out due to high client burden, defaulting for refills due to distance to the health facility. The study objectives include an assessment of the perception of clients on ART in cross river state, of the differentiated care services provided to them at the health facility and community pharmacy. It also aims at documenting lessons learnt, best practices and make recommendations for improve community pharmacy ART refills program in cross river state.

## **Method**

### ***Study design***

The study was a prospective cohort study of stable ART clients who were devolved from two secondary health facilities to continue ART refills services at four Community Pharmacies (CP) in the state. Condition for stability

included staying on ART for at least 1 year, an acceptable viral suppression (>1000 copies/ml) and an acceptable medication adherence counselling. The study assessed clients who are receiving care at DLMH, located in Calabar South, and General Hospital, located in Calabar Municipal. The clients were devolved to the CPs to receive refills for a period of 6 months and then return to the health facility for follow up monitoring. Service provision at the CP is done on a fee for services basis. The facilities serve as hubs to the CPs. The CPs are established private for-profit organizations responsible for ensuring the rational sale and dispensing of drugs and pharmaceutical products to clients in the community. The community Pharmacies include Kaynaan Pharmacy, Joe-manuel pharmacy, Remcare pharmacy and Wessa pharmacy Calabar. The clients were administered the client satisfaction tool prior to devolvement for refill services at the community pharmacy, they were then administered the same tool 6 months after devolvement. Their responses were collated and analyzed.

### ***Study Site***

The study is carried out in two ART sites offering comprehensive services; General Hospital in Calabar Municipal and Doctor Lawrence Henshaw Memorial Hospital (DLMH) in Calabar South. Calabar south and Calabar Municipal are local governments in Cross River State, Nigeria.

### ***Study population***

The study population is a cohort of stable ART clients PLWHIV who are receiving ARV refills at the community level between September 2016 and March 2017. The sample frame consists of stable clients receiving ARV refills at the facility and Community Pharmacy

### ***Sample Size***

A total of 115 clients devolved to community pharmacies and receiving refills were involved in the study.

### ***Sampling Technique***

Convenient non-probability method of sampling was used for the study. All the devolved clients were selected.

### ***Instrument of data collection***

Questionnaires were administered to the respondents before devolvement and 6 months after while at the CP. The mean responses of the scores were obtained and the t-statistics was calculated. The p value was then determined to ascertain the level of significance.

### ***Ethical Considerations***

The subjects were briefed on the purpose of the study and their consent was obtained before and after intervention.

## **Results**

Socio-demographic data was tabulated and levels of significance generated following analysis of the responses as depicted below;

### ***Socio-demographic characteristics of participants***

It was observed that most of the participants were between the age of 35-45 years (42.6%), while the least number were between the age of 18-24 years (6.1%).Table 1

**Table 1:** Age of respondents

<b>Age of respondents</b>	<b>Frequency</b>	<b>%</b>
<b>18-24yrs</b>	2	6.10
<b>25-34yrs</b>	28	24.30

<b>35-45yrs</b>	49	42.60
<b>&gt;45yrs</b>	31	31

Most of the participants were females, representing a total of 73%. Table 2

**Table 2:** Gender distribution of respondents

<b>Gender of respondents</b>	<b>Frequency</b>	<b>%</b>
<b>Male</b>	31	27%
<b>Females</b>	84	73%
<b>Others</b>	Nil	Nil

A total of 37% of the participants are civil servants, while only 7% practice fishing. Table 3

**Table 3:** Disaggregation of respondents by occupation type

<b>Occupation type</b>	<b>Frequency</b>	<b>%</b>
<b>Farming</b>	25	25
<b>Fishing</b>	8	8
<b>Driving</b>	26	26
<b>Civil servant</b>	42	42
<b>Trading</b>	12	12
<b>Others</b>	2	2

A total of 50% of the respondents are self-employed, while 36% are employed. Table 4

**Table 4:** Disaggregation of respondents by Employment status

<b>Employment status</b>	<b>Frequency</b>	<b>%</b>
<b>Self employed</b>	58	50
<b>Unemployed</b>	16	14
<b>Employed</b>	41	36

A total of 44% of the respondents are married, while 13% were divorced and 24% are single. Table 5

**Table 5:** Disaggregation of respondents by Marital status

Marital status	Frequency	%
Single	28	24
Married	51	44
Divorced	15	13
Co-habiting	21	18

**Table 6:** Mean response scores of participants and the level of significance

Variable	Pre-intervention/Before development to CP	Post-intervention/After development to CP	t-statistics	p-value
	Mean score	Mean score		
Clients could find their way around the facility with minimal assistance	26.78	36.17	4.410	0.000
Cleanliness of the environment	27.47	66.26	9.80	0.000
friendliness and support to patients by staff on duty	29.04	34.34	5.08	0.000
Timeliness in the provision of services	32.52	78.26	10.520	0.000
Adequacy of service stations and waiting area	34.08	72.17	8.57	0.000
Clients were asked about the status of their health since their last appointment	26.60	40.61	5.979	0.000

<b>Client felt comfortable asking questions to the staff they met on duty</b>	26.78	55.47	3.066	0.003
<b>Clients had sufficient time and opportunity to discuss their concerns in private</b>	30.43	67.30	8.029	0.000
<b>Client could ask questions related to adherence to drug use and side effects</b>	25.91	40.52	3.651	0.000
<b>The care providers listened to clients concerns and provided adequate information</b>	26.26	37.56	5.901	0.000
<b>Simplicity of language used for communication</b>	26.78	36.86	5.487	0.000
<b>Clients were provided with encouragement about positive living with their condition</b>	26.95	40.86	5.715	0.000
<b>Clients did not feel stigmatized during receiving care/treatment services</b>	30.08	45.56	5.294	0.000
<b>Clients will gladly recommend the health facility to others</b>	30.26	44.17	4.844	0.000
<b>Clients were encouraged to join a support group in the community</b>	32.17	63.13	8.483	0.000
<b>Clients were provided with all required drugs (ARVs, TB drugs and Cotrim) for free</b>	26.95	34.43	3.098	0.002
<b>Clients were given an appointment date and asked if it was convenient for them</b>	27.82	70.08	12.165	0.000
<b>Confidentiality and privacy were assured</b>	32.17	65.21	7.363	0.000
<b>Clients were satisfied with the quality of service</b>	30.78	38.78	3.036	0.003
<b>Clients received satisfactory answers to all their questions</b>	26.60	39.30	5.734	0.000

After devolvement to the CP, the clients were provided with ART refills as well as care and support services. The CPs maintain adequate records of the clients and provide care and support services such as blood pressure, Nutrition and Sexually transmitted infections (STI) monitoring.

## Discussions

From the results, it is observed that most of the participant were females which may have had an influence on the nature of responses provided. This may be related to the proportion of clients on ART in the state being female and is in tandem with the Nigeria AIDS Impact survey which estimates that 46.2% of the individuals with HIV/AIDS in the country are females.<sup>[13]</sup> Also, it was observed that most of the respondents on ART are between the age of 35-45yrs. The NAIIS survey also estimates that most of the prevalence of HIV/AIDS is highest between the age grade 15-49 and this forms majority of the clients in care at the facility.<sup>[13]</sup> It was also observed that most of the participants have some form of employment, which may have influenced their responses. This may have influenced their ease of acceptance of Differentiated care delivery-CPARP model of care, which requires that clients devolved to receive refills in the Community Pharmacies pay a token for each refill.

From the analysis. It is seen that most of the clients believe that since devolvement to the community pharmacies, their privacy has been ensured, as well as confidentiality. A higher mean value in the post intervention group affirmed that the clients preferred to discuss personal issues with the health care provider at the pharmacy. Also, there was a higher mean value in the post intervention group for clients who said they had now overcome stigma. This is because they can access care even on weekends at their own time without concerns on been seen by others. There was also a higher response in the post intervention group for indices related to reduction in waiting time to receive care, since at the CP, they are prioritized for refills, and are provided services in a timely manner. Other indices that had higher post intervention values include greater friendliness provided at the CP compared to the health facility, with a higher number of the respondents affirming that some facility staff may appear hostile to them due to stress, burn out and heavy workload. These were also part of the stimulus for introduction of differentiated care in the Nigeria health care system. There was also higher post intervention mean values for the level of feedback and communication strategies utilized by the community pharmacies as compared to the hospital staff. This is because the pharmacists in the community give them sufficient time to express themselves when given advice on drug use, including the side effects of the drugs. From the analysis of the indices of client satisfaction and quality of care, a P-value obtained from the paired t-test analysis shows a value <0.05, conferring a level of significance. This infer that there is significant difference in the post and pre intervention satisfaction rates for clients on ART who are devolved to CPs for differentiated service delivery. The pre intervention being the satisfaction rate while receiving care at the health facility.

## Conclusion

From the study, there is a higher level of satisfaction with services rendered to devolved clients at the community pharmacies than hospitals. Clients experience reduced waiting time, better communication, less stigma, increased confidentiality, better adherence to refill visits, better environment, and a general sense of satisfaction with the quality of services rendered.

## Recommendations

There is need to optimize the devolvement of client from hub facilities with a high client load to receive refills at selected community pharmacies. This is to ensure a decongestion of the high-volume facilities and to improve the quality-of-service delivery to all category of clients. It is also essential for community pharmacists to continue to ensure high quality of services for clients devolved to receive ARV refills at their premises.

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## Conflict of Interest

The authors hereby declare that there is no conflict of interest about this study.

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