Quality of antiretroviral therapy in public health facilities in Nigeria and perceptions of end users

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Aim This paper describes perceptions of the end users on quality of antiretroviral therapy (ART) in public health facilities in Nigeria.

Background Health care services in Nigeria face challenges of meeting end users’ requirements and expectations for quality ART service provision.

Method A qualitative design was followed. Unstructured focus group discussions were conducted with end users (n = 64) in six locations across the six geopolitical zones of Nigeria.

Results The findings indicate that end users were satisfied with uninterrupted antiretroviral drug supplies, courtesy treatment, volunteerism of support group members and quality counselling services.

Conclusion End users expect effective collaboration between healthcare providers and support group members, to enhance the quality of life of people living with HIV.

Implications for nursing management A best practice guideline for the provision of end user focused ART service provision was developed for nurse managers.

Keywords: antiretroviral therapy, end users, perceptions, quality

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Introduction

Research examining end users’ perceptions of the quality of antiretroviral therapy (ART) service provision (perceived service quality) in public health facilities is limited. Thereby, for decades, end user satisfaction has been viewed as an indicator of quality care that is delivered in healthcare services (Cleary & McNeil 1988, Gill & White 2009). In the past decade in particular, Wouters et al. (2008) and Liu and Wang (2007) reported that end user satisfaction has become an important performance measure and outcome of healthcare.

Previous studies have shown that when end users participate in decisions regarding their care, they are more likely to be satisfied with the care provided (Coulter 2005). Specifically, ART service provision requires high end user involvement in the consumption process, and the traditional healthcare view of technical quality is inadequate to manage this complex process (Gill & White 2009). Additionally, Udoh et al. (2011) lament that satisfied end users are likely to take active roles in their own care, continue using medical care services and stay with a healthcare worker even when there are other choices. In the views of Coulter (2005), end users care more about the quality of their everyday interactions with health professionals and not how technical health services are organised. On the other hand, end users who prefer a more active role are less satisfied when
their healthcare workers do not support their preferences (Beach et al. 2007). However, end users' perceptions of quality of ART in public health facilities in Nigeria is relatively unexplored.

This study sought to explore and describe the perceptions of end users concerning the quality of ART in Nigerian public health facilities to support the development of user focused best practice guidelines for ART. This paper intends to discuss major findings of the study. Other key outcomes such as the developed user focused best practice guidelines for ART and the self-care quality improvement model will be disseminated through a separate paper.

Problem statement

To date, the management of healthcare quality has been the responsibility of the service provider, focusing mainly on the technical provider components. Except for some studies in clinical governance which sought to emphasize the importance of end user perspective, there is comparatively little work investigating end user perceptions of healthcare quality (Gill & White 2009). This notion of healthcare quality negates the healthcare quality system which guarantees the continuum of care, not merely for curative services, but for health promotion as well as prevention of ill-health (Shaikh 2005). Additionally, national guidelines for the provision of end user focused ART that will address quality ART service provision from the perspective of the end user is yet to be developed in Nigeria. As a result, social or cultural factors influence healthcare workers' negative perceptions of ART service provision. In order to solve the problems of suboptimal quality ART service provision from the perspective of the end user, this study sought to answer the broad question: 'What are the perceptions of end users concerning the quality of ART service provision in Nigerian public health facilities?'

Purpose of the research

Results of this study informed the development of end user focused recommendations to nurse managers for delivering quality ART service provision in Nigeria.

Research method

Research setting

This study took place in a natural environment that was in line with Patton’s (2002) stipulation, that qualitative studies are undertaken in a natural setting to be able to put the participants’ experiences into context. The study was conducted in six secondary level public health facilities providing ART, representing the six geopolitical zones of Nigeria. Specific states and corresponding geopolitical zones where the study took place include: Anambra (South-East), Edo (South-South), Federal Capital Territory (North-Central), Lagos (South-West), Sokoto (North-West) and Yobe states (North-East zone).

Research design

A qualitative, descriptive and explorative research design was used in this study. This research design was preferred for this study because it provided an accurate and real-life situation, experiences and characteristics about the end users participating in this research.

Population and sampling procedure

The population for this study was the end users of ART services in Nigeria who met the following inclusion criteria:

- attending ART in a government designated centre in a public health facility in Nigeria;
- at least 18 years old;
- attending the ART programme for at least 6 months on a continuous basis; and
- willing to provide written consent to participate in the study.

The researcher purposively approached participants who met the eligibility criteria for inclusion in the focus groups, and also gave written informed consent to participate.

Data collection

Data collection was executed in three phases namely, the preparatory phase, conducting the focus groups and leaving the field (Patton 2002). Unstructured focus group interviews were conducted in six groups of 8–12 each (n = 64), in settings that were familiar to the participants. Each focus group lasted for 60–90 min and was conducted in the English language, except in the North East and North West regions, where the focus groups were conducted in the Hausa language and translated into English after transcription.
Data analysis

To address issues of trustworthiness of qualitative research, the researcher used both manual and electronic software methods of data analysis. The framework approach (manual method) as suggested by Pope et al. (2000) was used in this study. The five stages of data analysis used in the framework approach include familiarization, identifying a thematic framework, indexing, charting, mapping and interpretation. Once the themes and sub-themes were identified using the framework approach, the analysis was repeated all over again using the Weft qualitative data analysis (Weft DQA) version 1.0.1 software, to validate the results obtained from the framework approach.

Ethical considerations

Ethical approval to undertake the study was obtained from the Department of Health Studies Ethics and Research Committee, at the University of South Africa (Ethical clearance number: 3675-728-4) and from the National Research Ethics Committee ((NHREC/01/01/2007), Federal Ministry of Health, in Abuja, Nigeria. Participants were assured that they could withdraw from the study or refuse to answer any question(s), which they may be uncomfortable with, with no penalties. Participants were informed that the focus groups would be tape-recorded after they gave permission and the researcher would take notes during the interviews. All participants for this study signed informed consent forms, agreeing to participate in the study.

Findings

Four major themes were identified, namely: ART services that met participants’ requirements; participants’ perceived successes of ART service provision; ART services that participants were disappointed in as they did not meet their requirements; and participants’ suggestions for actions to improve quality of ART service provision. These four themes and their sub-themes as presented in Table 1 were interpreted, and validated using the relevant literature and an adapted chronic care model (CCM) (Wagner et al. 2001) to support the interpretation of the findings.

Art services that met end users’ requirements
(Theme 1)

The following direct quotes from the focus groups address the ART services that met end user’s requirements:

Mentally, end users were happier with themselves owing to receiving supplies:

‘...I am so grateful and happy with the drugs we receive from this facility. I am so happy for all the assistance’.

The collective team approach by healthcare workers (doctors, nurses and counsellors) came to the fore as:

‘...I enjoy the treatment of doctors. The doctors, they are too good, and the nurses, the people they are working. They are too good. I enjoy the hospital because they take care of me. When I came here, I was very lean; I didn’t know I’ll be like this now. So, I enjoy their treatment and the drugs given to us, I enjoyed it’.

Participants demonstrated an understanding of the need to separate persons with highly communicable diseases from others who are vulnerable, as a means of infection prevention and control in health facilities:

‘...there is much measure [for infection prevention and control]. That is why they separated the directly observed treatment short course (DOTS) from other departments. You know TB is airborne disease which anybody can be affected. Is not like HIV which is not airborne disease. The DOTS is far away from other areas. The Diabetes is not airborne, the hypertension is not also airborne, and that is why they now group this people with us to MOPD [medical out patient department]. But that for TB, they separated it far away’.

Time and resources are committed to learn new experiences in order to help people living with HIV/AIDS (PLHIV) maintain their up keep:

‘...at the support group, most of the time we even volunteer ourselves to go and learn some things outside to come and teach them [members] here. Like teaching them how to make soap, most of them learnt how to make soap and are making money from it. Some learnt how to make beads, tie and dye. Some pomade, some jik, tablet soap, all these things’.

Leadership of support groups mediate between health authorities and their members:

‘...so I know what is going on there, so I use to come down and calm them down that nobody is sitting there idle, so they should be patient, before 2 o’clock, everybody has dispatched’.
Table 1
Overview of the themes and the sub-themes

<table>
<thead>
<tr>
<th>Theme</th>
<th>ART services that met participants’ requirements</th>
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<tbody>
<tr>
<td>Sub-theme 1.1</td>
<td>Uninterrupted supply of ARV drugs could improve quality of life</td>
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<tr>
<td>Sub-theme 1.2</td>
<td>Courtesy service of doctors, nurses and other health workers serve as source of encouragement for PLHIV</td>
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<tr>
<td>Sub-theme 1.3</td>
<td>Support group volunteers promote infection prevention and control through triage of vulnerable members in the clinic</td>
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<tr>
<td>Sub-theme 1.4</td>
<td>Enthusiasm of support group volunteers to improve the quality of life of members</td>
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<tr>
<td>Sub-theme 1.5</td>
<td>Leadership of support group implement innovative approaches to improve dialogue with health authorities to improve the quality of life of people on ART</td>
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<tr>
<td>Sub-theme 1.6</td>
<td>ART knowledge explosion improves cohesion among PLHIV and raises demand for improved quality of care</td>
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<tr>
<td>Sub-theme 1.7</td>
<td>Volunteer pharmacists improve quality of pharmacy services in ART clinics</td>
</tr>
<tr>
<td>Sub-theme 1.8</td>
<td>Empathizing with the end user while counselling improves the quality of life of the end user</td>
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<tr>
<td>Sub-theme 1.9</td>
<td>Strengthening linkages between support groups and community-based organisations provide opportunities for wrap around services and improves the quality of life of PLHIV</td>
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<th>Theme 2</th>
<th>Participants’ perceived successes in ART service provision</th>
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<tr>
<td>Sub-theme 2.1</td>
<td>Health facilities providing ART services have developed linkages with relevant facilities, to obtain specialized diagnostic services, and accept results arising from such facilities</td>
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<tr>
<td>Sub-theme 2.2</td>
<td>Health facilities continuously improve quality and processes to meet the changing requirement and expectations of end users</td>
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<tr>
<td>Sub-theme 2.3</td>
<td>Health facilities are spacious, clean and attractive, with an adequate infrastructure to meet environmental health standards and the aesthetic needs of end users</td>
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<tr>
<td>Sub-theme 2.4</td>
<td>Health facilities have standardized processes that ensure end users spend the least amount of time seeking health care in the facility</td>
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<tr>
<td>Sub-theme 2.5</td>
<td>Health facilities, communities and individuals have ensured a stigma free environment for PLHIV</td>
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<tr>
<td>Sub-theme 2.6</td>
<td>Lifesaving ART programme is fundamental to the survival of PLHIV, thus, will not experience interruptions</td>
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<tr>
<td>Sub-theme 2.7</td>
<td>Health facilities ensure that any end user who turns up to the health facility benefits from full assessment of his/her current health status; and is counselled on emerging clinical manifestations that need medical attention</td>
</tr>
<tr>
<td>Sub-theme 2.8</td>
<td>Health facilities recognize the essence of PLHIV as volunteers, and design capacity building and motivational programmes to meet both the task requirement and volunteers’ expectations</td>
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<tr>
<td>Sub-theme 2.9</td>
<td>Health facilities recognize that PLHIV love interacting with their peers, and create opportunities for such interaction as part of the continuum of care process</td>
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<tr>
<th>Theme 3</th>
<th>ART services that disappointed participants from meeting their requirements (dissatisfaction)</th>
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<tr>
<td>Sub-theme 3.1</td>
<td>Weak responsiveness to the needs of end users by the health facility leadership, policy and strategy</td>
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<tr>
<td>Sub-theme 3.2</td>
<td>Frequently interrupted laboratory services, related to high equipment down time and commodities stock-out</td>
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<td>Sub-theme 3.3</td>
<td>Perceived increasing incidences of failure to treat end users with courtesy, related to inadequate health workers and staff burnout of the available few</td>
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<tr>
<td>Sub-theme 3.4</td>
<td>Sub-optimal standardisation of health care processes and procedures, with resultant accumulation of bottlenecks along the workflow</td>
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<tr>
<td>Sub-theme 3.5</td>
<td>Perceived increasing trends of inadequacy in ensuring end users emerge from the health facility healthy</td>
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<tr>
<td>Sub-theme 3.6</td>
<td>Inadequate supply and availability of drugs for opportunistic infections and multivitamins</td>
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<tr>
<td>Sub-theme 3.7</td>
<td>Inadequate processes and procedures for managing end users’ complaints</td>
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<th>Theme 4</th>
<th>Participants’ suggestions to improve quality of ART service provision</th>
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<tr>
<td>Sub-theme 4.1</td>
<td>Deploy, train and re-train additional health care workers to meet increasing number and dynamic expectations of end users in ART sites</td>
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<tr>
<td>Sub-theme 4.2</td>
<td>Integrate HIV/AIDS into regular health services, end users encouraged to attend regular clinics</td>
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<tr>
<td>Sub-theme 4.3</td>
<td>Improve supply chain management of laboratory reagents and drugs for opportunistic infections, to ensure availability and use</td>
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<tr>
<td>Sub-theme 4.4</td>
<td>Reduce end user load in the clinic by reducing frequency of health facility visits by stable end users, through dispensing ARVs that will last 3 months per visit</td>
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ART, antiretroviral therapy; PLHIV, people living with HIV/AIDS.

Cohesion grows among support group members:
‘…there was a nurse…she was tested positive for HIV and at that time, she was conscious and admitted in the hospital. But some of the nurses were showing stigma on her, despite the fact she was a nurse like them. So, I need, I think as support group members…power that they can have access to the people in the hospital. They go round in the hospital, those that are admitted and hear their problems so that that aspect of stigma will be resolved’.

Participants described activities of volunteer pharmacists as user focused:
‘…actually, the pharmacists are doing the real work. They are trying, but there was a time
there was only one Pharmacist, who works just there, before [the authorities] sent volunteer pharmacists to come and assist. [The Pharmacists] will first of all counsel you, show you your drugs, tell you when [to take], ask you questions how have you take it? You tell them and they’ll now correct you and they’ll write on the container. The one of the morning, they’ll now write one in the morning, one in the evening. Then the one at night, they’ll also write one at night. But the problem we are having with some of our PLHIV, they’ll remove the container and throw it outside...those are the first timers. Most of the time, we go there to correct them but for the Pharmacists, they are doing their best'.

Participants expressed confidence in the quality of counselling services in the health facilities:

‘...in fact, their counselling here is good. They tell you the importance of what you are about to start and tell you you shouldn’t stop taking it [the antiretroviral (ARV) drug].’

Linkages with community-based organisations were mentioned by study participants:

‘...there is a manual [referral directory] that contain all the organisations, all those volunteer organisations, and donor organisations...like I myself, there are people that we linked through that manual [directory] and they support us with materials’.

These findings suggest that when an attempt is made to coordinate and integrate ART service provision to focus on the total needs of the end user, some aspects of the whole care process will meet their requirements.

Perceived successes in ART service provision (Theme 2)

It emanated from the focus groups that the participants perceived certain aspects of ART service provision to result in successes once properly harnessed. The following direct quotes from the focus groups are intended to provide emphasis on these findings.

End users perceive that public health facilities should accept lab results from every reputable lab:

‘...if somebody is denied the right of being able for an opportunity to do the routine CD4 count and the person is able to get the CD4 count done in any other site, the doctor should recognize it’.

Improve internal processes to reduce end users’ dissatisfaction with services:

‘...what should be done is simply let the CD4 count machine be made functional [functional]. If it becomes functional [functional], if it starts working well, maybe you have two or three CD4 count machines there. These things shouldn’t be there; you come anytime you are scheduled to. But the issue is if it is not functioning and so people are packed up and told without your CD4 count next appointment, no drug or something of that nature. So if people, and those people [who give gratifications], I am not standing in for them but some of them accessing treatment here come from [far places] and there is no way they could make it to those CD4 count there [as early as possible]’.

Consistent availability of a clean water supply in health facilities:

‘...in terms of infrastructure, water in a hospital is very important. Because that is why like in my hospital, most of the time they lack the toilets. The patient doesn’t have to go too far to urinate or to ease himself, maybe because of that water that is not flushing. They don’t have enough water, so we need water’.

Target process improvement measures in the pharmacy and medical records departments to remove long queues and reduce the end-user waiting time:

‘...if there can be any other place to somebody just go and pick your drug and go back to your house. And the pharmacist even if they can increase the number of people working or dispensing drug there, so that you don’t waste a lot of time. Sometimes you go there and waste a lot of time. You finish with doctors, finish with nurses, go there and waste a lot of time. We want something if you can increase the number of people there or the branches where we can get our drug instead of sitting, sitting, sitting just like that’.

Government’s support for stigma reduction campaigns could reduce stigma:

‘...many people discriminate somebody or PLHIV. It will help a lot [if anti-stigma campaigns are intensified] because even your relation,
if he knows you have HIV, he'll not even like to sit near you any longer. These are very important areas we need government assistance to continue to enlighten people, to let people know that someone living with HIV is not the end of his life. People still believe that may be if you are contacted and have HIV, you don’t have life to live again. Therefore, things like this need constant enlightenment to let people know that contact with HIV is not the end of life’.

End users expressed gratitude to God and healthcare workers for granting them access to the ART programme:

‘…I am so thankful for what you have been doing for us. I don’t want you to stop the drugs, because for us the money is not easy’.

End users insist on having their current health status examined by healthcare workers:

‘…I want to check my weight, they said you are already too fat, don’t break the scale, all this kind of something. Nobody is interested in checking my BP [blood pressure], except when I insisted, ‘I want to check my BP!’ “I want to check my BP!!” …doctor will now be asking me what is wrong with you …all those kind of things. I am expecting such kind of [checking my health status as reason] for… coming for check-up …but most times when we come for check-up, it’s just to pick up our drugs’.

Volunteers could be motivated through capacity building training that will empower them to make some income for themselves:

‘…presently, the volunteer is still a separate issue from trying to give kind of training that will empower the support group members to adequately take care of himself. Because the volunteer just volunteers himself to going to give services to other members of the support group, knowing that he has his own personal problems that needed to be attended to. So, these two problems should be tackled differently. There’s need that there is capacity building training, IGA [income generating activities] and then it should be considered that those volunteers are adequately taken care of by giving them something’.

PLHIV have preference for association and experience sharing with their peers who are also living with HIV:

‘…somebody who is positive will be more at home when handled by a HIV positive person. Somebody wey [that] meet somebody who is HIV positive and say, even me, I am positive myself. Start building… that same person will say are you positive? He’ll say are you truly positive? And say, yes! Because I know, I am an adherence counsellor, so I know people who come in. I know how they feel when I tell them I am also positive. They come down well’.

ART services that participants felt disappointed with as they did not meet their requirements (Theme 3)

This theme relates to ART services that contributed to the dissatisfaction of end users attending public health facilities in Nigeria, which were perceived by end users as having failed to meet their requirements and expectations. Eight sub-themes appeared to relate to this theme, which include: weak responsiveness by health facility leadership, inadequate space and aesthetics, and frequent interruptions in ART laboratory services. Others include inadequate courtesy and mechanisms for managing complaints, sub-optimal standardization of processes and procedures, inadequate measures for ensuring user-safety, and interrupted supplies of drugs for opportunistic infections.

The following direct quotes from the focus groups are intended to provide emphasis on these findings:

Participants perceive that changes in health facility leadership might have contributed to weak responsiveness to their demands:

‘…most of the challenges we started having is that they transferred all the doctors and [MD] who recognized the support group. So, immediately these people gone, we started having problems. Even our current [MD] now, he doesn’t recognize support group…’

End users in the health facilities are overcrowded beyond the space originally provided for ART services:

‘…most of the time, the patients are many. At times the seat is not enough. At times, they’ll hang around, because the more we register them, the more the place is becoming too small. So there are times when you come here and actually there’s very limited space to sit, even with all these chairs’.
Equipment breakdown and laboratory reagent stockouts formed common causes of interruptions in ART laboratory services:

‘...there are sometimes we come here to do CD4 count. So many times, we come, no facilities to do the test. Still, they don’t allow somebody to do the test outside. Sometimes, some people like I, came here more than 5 times …for some of us, we don’t always have time’.

End users face experiences of discrimination, intimidation and being scolded by healthcare workers:

‘…the nurses they call matron or something like that, the way they shout on people having this virus. It is as if you are no more a living person. They are not even telling us that there will still be life. That is why I always ask …may be they don’t know how someone in this problem feels… In fact, they are very harsh. …They’ll be shouting at you, that’s my own experience, these are not even exaggeration or saying they say’.

End users come out as early as 05.00 hours in the morning and spend long hours in the health facility, waiting to access ART services:

‘…on clinic days, you have an appointment, you leave your house as early as 5.30 am, before you go back to your house it will be around 4 pm. So, if there can be any other place to just go to and pick up drugs and go back home. We want something if you can increase the number of people working there or the branches where we can get our drugs instead of sitting, sitting, sitting just like that’.

Participants perceive that quality ART service provision is increasingly deteriorating with the increasing number of new enrollments:

‘...they don’t do us BP, because they say we are too many. Before [under the previous leadership] they do us everything. They start from vital signs, then weight, they do you BP, then, before you’ll start seeing doctor. Since this new people [leadership] came …there’s nothing like that. They only do us weight. Then I requested and said, this thing is very important because somebody’s BP may rise he’ll not know, how will he know? They said that we are many, so they’ll not be doing it’.

Health facilities experience outages of opportunistic infections (OIs) and sometimes, second line ARVs:

‘...we get our ARVs each time we come for it. We only encounter challenges with drugs for OIs, which are usually out of stock. Sometimes we also experience stock out of second line ARVs’.

End users have complaints to file against healthcare workers, but are unaware of the procedures for doing so, or the processes for complaints management:

‘...at a point, after waiting [to be tested in the lab] for so much hour, some of them will be asked to [go and] come again. It is not obtainable outside Nigeria that is being done here. Sometimes I use to hear that there are certain mistakes that the doctor will do and the patient will sue that doctor, but that cannot happen here. I have heard cases of a doctor throwing away patient’s folder probably because he was annoyed because they know that nothing will happen. And if, just like my sister said, I wish to know if she is denied of the right to collect her drug on appointment day, what does she do? Or what [will happen to] that person who refused [the drug]’.

Participants’ suggestions for improving end users’ requirements for quality ART service provision

Participants’ suggestions for improving end users’ requirements and expectations for quality ART service provision was one of the major themes that emerged during data analysis. Four sub-themes appeared to relate to this theme, which include: health care workers training and re-training, service integration, commodities logistics and supply chain management and strategies to reduce end user overload in the clinic. The following direct quotes from the focus groups are intended to provide emphasis on the findings.

The need for healthcare workers was highlighted to address the needs of the community:

‘...we need to increase the nurses and the doctors, because of the higher rate of clients. The hospital management need to increase nurses and doctors to meet the increasing demand for services’.

End users of ART services should attend regular clinics, throughout the week:

‘...Let the clinic days be from Monday to Friday, now they only do three times a week. If the
Clinic day is held from Monday to Friday, it will help in addressing some of these problems [of congestion of patients and long waiting time on clinic days].

Resolve laboratory reagent stockout by addressing logistics challenges centrally, at the national level:

‘...if reagents at the central [national] level can be sorted out, the [reagent stock out issues] will be Ok [resolved].’

Dispense drugs that will last at least 3 months, during end user refill visits:

‘[Appropriate authorities] should look into giving 3 months drugs, now we have it 2 monthly. If they give 3 months, I think it’ll equally help.’

Discussion

The findings on ‘ART services that met end users’ requirements’ (Theme 1) confirms the importance of the principle of the chronic care model (CCM) which supports an integrated and coordinated care process that is user focused (Singh & Ham 2006, Wielawski 2006, Minkman et al. 2007, Wakefield et al. 2007). Minkman et al. (2007) elucidate that in order to achieve ART service provision that meet end users’ requirement and expectation, ART service provision must demonstrate links between the health facility, community and the end users, which are characteristic features of the CCM. Creel et al. (2002) corroborate that high-quality services ensure that end users receive the care that they deserve. Furthermore, providing better services at reasonable cost attracts more end users, increases the use of health services and reduces the number of medical complications. Several previous impact studies have shown that improving the quality of health services increase health service uptake (Creel et al. 2002).

The findings on ‘perceived successes in ART service provision’ (Theme 2) indicated that end users perceived that health facilities providing ART services should be linked to other specialized health and related services, implement continuous quality/process improvement (CQI/CPI), including ensuring adequate aesthetics in the health facility. Other perceptions of end users include timeliness of ART services, stigma reduction and ensuring uninterrupted supplies of ARVs. End users also expect regular health assessment and counselling, and recognition of PLHIV volunteer and support group activities by the health facilities.

Based on the multidimensional requirements arising from this study, only an integrated quality management model such as the CCM can address end user requirements. Creel et al. (2002) note that quality of care is a multi-dimensional issue that may be measured constantly but differently, depending on end users’ priorities. In the present study, the researcher examined the end users’ expectations as their priorities, although they may be influenced by social and cultural concerns, and place significant emphasis on the human aspects of care. Hasin et al. (2001) suggest that the main factors, which affect end user satisfaction, are: doctor, drug, diagnosis, duration, distance, affordability and prompt service provision. Adding to the fact that these are the factors that comprise the healthcare quality system, and the higher the efficiency of the quality system, the more will be the satisfaction of end users. In this study, additional factors were identified to affect end user satisfaction, as discussed above.

The findings on ‘ART services indicate the disappointment of participants with regards to meeting their requirements’ (Theme 3). Gaioso and Mishima (2007) note that dissatisfaction in their own study, was predominated in terms of environment and organisational accessibility, impairing care longitudinality and continuity. Medeiros et al. (2010) indicate a poor health facility infrastructure (physical area) as a factor of dissatisfaction among end users.

Regmi and Madison (2010) report that dissatisfaction was expressed regarding some aspects of their study, namely, delivery of care, especially, the lack of privacy and confidentiality and the absence of a support person from the patient’s own family. These factors were highly regarded by the end users as necessary for their satisfaction with overall healthcare services (Regmi & Madison 2010). Wouters et al. (2008) report that overall, dissatisfaction with waiting times seems to have been the most important predictor of discontent among end users receiving ART.

Failure to engage with the end users’ agenda can lead to misunderstandings, dissatisfaction and poor health outcomes (Coulter 2005). Coulter (2010) reveals that not being properly informed about their illnesses and the options for treatment are the most common causes of end user dissatisfaction. Similarly, Nakhaee and Mirahmadiadeh (2005) espouse that the provision of insufficient information regarding other healthcare services caused dissatisfactions among the end users.

In Theme 4, participants made ‘suggestions for improving end users’ requirements for quality ART
service provision’. Antiretroviral therapy service provision requires high end user involvement in the consumption process, and the traditional healthcare view of technical quality is inadequate to manage this complex process (Gill & White 2009). More importantly, Gill and White (2009) argue that effective healthcare provision relies on the co-contributions of and attention given to end users in the service delivery process.

**Implications for nursing management**

The implications for nursing management are discussed with reference to community resources, delivery system design, self-management support, decision support and the clinical information system as outlined in the theoretical framework of the CCM.

The manager of a facility should implement the CCM in practice. First, ART services that meet ‘end users’ requirements should be established’ and the design of the delivery system should ensure an uninterrupted supply of antiretroviral drugs at all times. Self-management support should be emphasized by actively engaging health service users in their care and empathizing with the health service user while counselling and providing ART services.

A major role of the nurse manager is to encourage health service users to voluntarily collaborate and participate in activities leading to improving the quality of life of other health service users attending ART services. Within the health care facility, collaboration between stakeholders should be facilitated. Relationships between the leadership of support groups of PLHIV and the health facility management should be promoted. With regards to support in decision-making processes, the nurse manager should investigate the possibility of institutionalizing the use of members of the support groups of PLHIV to serve as volunteers in ART services. Furthermore, the clinical information system should be operational to improve pharmacy documentation and practices.

Second, the manager should demonstrate an ‘understanding of health service users’ requirements and expectations for ART’. The delivery system designed should ensure an integrated space for the provision of ART to meet aesthetic and environmental standards in the facility and uninterrupted access to ART and full medical examination/assessment at all times. For the clinical information system, the nurse manager should invest in standardizing processes that ensures that health service users spend the least amount of time seeking health care in the facility. Self-management support could be understanding that health service users are capable of making decisions regarding their care, and can actually carry out some basic care themselves as well as care for their fellow health service users. Support in the decision-making process in the facility could be established by strengthening linkages and networks for expert consultation with other health facilities. With regards to community resources, partnerships between the government, communities, civil society groups and individuals should be promoted and strengthened.

Third, the nurse manager plays a pivotal role in ‘addressing ART services that failed to meet health service users’ requirements and expectations’. The delivery system designed should reduce health service user overload and make the ART clinic attractive to health service users. Self-management support could be through ensuring that health service users are empowered and treated with courtesy. This could be established through conducting a workflow and workload analysis of the ART clinic to determine workstations requiring additional manpower/capacity. Decisions will be supported if health facility leadership recognizes that health service users are the reasons for their existence in the health facility. This could enhance the establishment of a clinical information system to continuously measure, report on and improve the quality of ART from the perspectives of health service users.

Community resources are important and a system of complaints management to improve quality of ART should be strengthened. It is essential that the socio-cultural values of the host community and health service users’ perceptions of the role of the health system is well understood. The health care facility should make provisions to develop and train staff to use standard operating procedures for all commonly recurring processes.

**Conclusion**

The perceptions of end users concerning the quality of ART in Nigerian public health facilities, focused on the ART services that met participants’ requirements, participants’ perceived successes in ART service provision, ART services that participants were disappointed in as they did not meet their requirements and participants’ suggestions to improve quality of ART service provision. According to the views of the participants, only selected areas of ART services met their requirements and expectations.

Recommendations for the nurse manager were described, based on Wagner’s chronic care model.
(2001) which was used as a framework for this study. This new body of knowledge could be used by nurse managers and health care workers in Nigerian public health facilities to improve health service user focused ART.

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**Ethical approval**

Ethical approval to undertake the study was obtained from the Department of Health Studies Ethics and Research Committee, at the University of South Africa (Ethical clearance number: 3675-728-4) and from the National Research Ethics Committee (NHREC/01/01/2007), Federal Ministry of Health, in Abuja, Nigeria.

**References**


