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Evaluating Quality of Services in Community Differentiated Service Delivery Model. A case of Kakamega county

Winnie Sarah Owiti^{1,2*}, Kezia Njoroge¹, and Job Mapesa¹

¹ School of Medicine and Health Sciences, Kenya Methodist University, Meru, Kenya and

² National AIDs and STI Control Program, Nairobi, Kenya

*Corresponding author: Winnie Sarah Owiti. Email: winnieowiti@yahoo.com

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Abstract

BACKGROUND

The provision of high-quality services is a prerequisite for the successful implementation of community-differentiated service delivery. The service quality influences the clients' satisfaction, perceived value trust in the model and eventual utilization. Evaluating the quality of services in community differentiated service delivery will inform policymakers of existing quality gaps and in turn, this will assist in formulating strategies that will improve service quality and increase utilization.

METHODOLOGY

This was a cross-sectional study conducted in Kakamega County between September and December 2021 involving 402 participants. using purposive sampling, clients already established on ART were selected and data was collected through a structured questionnaire. Descriptive and inferential statistics were used to analyze data using SPSS version 25.

RESULTS

The results on dimensions of service quality established a high mean score (4.27) related to client literacy and a low score (2.64) on the package of services. There was a moderate positive relationship between client literacy and package of services (0.641) and a strong positive relationship between package of services and competence of the service provider (0.894). On the package of services (79.9%) of participants reported that ART refill and referral services were available, (12.7%) adherence and psychosocial support, 11.7% and 5% viral load sample collection. Regarding quality, the Freidman test ranged from client literacy (7.84), cost of services (7.79), accessibility (5.71), competence of the provider (4/06) and comprehensive package (2.54).

CONCLUSION

The study established a service quality gap in the package of services and the competence of the provider. The package of service provided is not comprehensive enough to address the needs of the clients.

RECOMMENDATION

Policymakers and leaders should re-distribute resources to allow for the training of providers using the differentiated service delivery manual 2023. The dimensions of quality can be reorganized to prioritize the appropriate package of services followed by the competence of lay health providers and lastly client literacy.

Keywords: *Community-Differentiated Service Delivery, Service Quality, Client Literacy, Provider Competence, Public Health*

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Introduction

The quality of health services provided may facilitate or hinder the utilization of

community differentiated service delivery (CDS) [1]. The main standard of CDS is improving health systems efficiency and



providing patient-centred care both of which constitute vital dimensions of quality [2]. Service quality (SQ) and availability affect the ease of access and are related to favourable health outcomes [3] [4]. Access to health services is measured by the ability of an individual to have timely use of health services to achieve the best health outcomes.

In the recent past, health service delivery has undergone much change by decentralizing health service delivery to respond to the growing needs of people living with HIV. For PLHIV accessing health services can be demanding due to its chronic nature and this correlates with increased health care utilization [5] [6]. CDSO responds to increased health service utilization by prioritizing client's needs while at the same time putting into consideration the health system's characteristics [7] [8]. At the community level service provision relies heavily on peer educators also known as lay health workers who are not formally trained. The involvement of peer educators in the operations of CDSO warrants a service quality assessment to ensure that quality is not compromised.

The roles of lay health workers in community differentiated service delivery include refill of antiretroviral therapy, providing adherence counselling, symptoms screening, referral and health education [9] [10]. Clients enrolled in CDSO only visit the facility twice a year after six months for clinic visits and viral load sample collection [11]. Since the contact between the clients and the professional healthcare workers is limited, it becomes appropriate to guarantee that the quality of services provided is standard to curb compromising patient outcomes.

Healthcare services stand out because they carry higher risks due to their impact on health, and patients often rely on healthcare professionals for guidance because they may not fully understand medical matters [12] [13]. Delivery of health services with high quality is

crucial, as it improves the chances of reaching desired health outcomes when the services are accessible, acceptable, effective, appropriate, and equitable [14] [15]. Improved outcomes mean a healthy population that is better disposed to achieve economic development.

Quality in CDSO is an important component of service delivery that contributes to PLHIV pursuing, utilizing and being retained in care [16]. The quality of CDSO is multidimensional and can be assessed based on two perspectives the technical and functional dimensions [10]. The technical dimension looks at the quality of health services based on the health care professionals while the functional is based on recipients of services [14] [17]. If clients perceive that services are of high quality they are likely to utilize the services and even refer others [18]. For CDSO perceptions and expectations depend on the literacy of the clients, package of services and their interaction with the provider [19]. Client literacy is the knowledge that clients accessing care at a given facility have about CDSO, its operations and its benefits. It also includes knowing the package of services and where they can get the services [7] [20]. A comprehensive package of services is a package that meets the health needs of the clients by providing information, counselling, ART refill, symptom screening, viral load sample collection and adherence counselling. Provider's competency is whereby the lay health providers are competent and provide effective patient-centered care to PLHIV [21].

To maintain and improve the quality of health services it is important to utilize the expectations and perceptions of patients to identify health system weaknesses. Expectation refers to the wants of the patient as far as services are concerned while perception is the client's evaluation of the services' real experience with health service delivery [22]. There is a paucity of data on the assessment of the quality of services provided in the CDSO model among PLHIV.



Little attention has been paid to the quality of services provided in the CDS model yet there is low uptake. The main goal of this study is to evaluate the quality of services offered in CDS based on subthemes of client literacy, package of services and competence of the provider.

Methodology

Study design

This was a descriptive cross-sectional study conducted between September 2021 and December 2021. The study was carried out in high-volume facilities in Kakamega county involving 402 study participants.

Sample size

A sample size of 402 adults living with HIV accessing treatment in a high-volume facility was enrolled. The inclusion criteria were clients well established on treatment who had been on antiretroviral therapy for more than one year and had undetectable viral load.

Sampling technique

Purposive sampling was used to identify clients on ART accessing services from the chosen facility. This technique was used since the researcher was interested in clients already established on treatment. Purposive sampling was used to identify adult clients already on ART, with undetectable viral load, accessing treatment

from the facility and not a pregnant and breastfeeding mother.

Methods and instruments of data collection

A structured questionnaire was developed based on the functional dimension of quality with 20 questions. The questionnaire was pretested on 10 clients from a different facility that was not among those of assessment.

Ethical consideration

This study was done after obtaining ethical approval from the National Council of Science and Technology (Nascosti/P/21/12623), the university ethical review team (KEMU serch/HSM/35/2021) and the county director of health Kakamega County. Informed consent was obtained from participants after explaining the objectives of the study. The right to withdraw from the study whenever they wanted to was respected. An anonymous interview guide was used to protect the identity and confidentiality of the information obtained from the individual participants

Results

Most of the participants were females with up to primary level education who had been on treatment for 4-6 years and belonged to the category of clients. (Table 1).

Table 1:

Relationship between demographic characteristics and quality of differentiated service delivery

		% (n)	Mean (SD)	p-value	T
Gender	Male	48.9 (180)	3.81 (0.42)	0.003	2.99
	Female	51.1 (221)	3.66 (0.56)		
Education level	Up to Primary	229	3.69 (0.51)	0.001	11.9
	Secondary	162	3.82 (0.48)		
	College	10	3.04 (0.71)		
Duration on treatment in years	1-3	13	3.64 (0.19)	0.14	1.71
	4-6	290	3.70 (0.54)		
	7-9	88	3.78(0.52)		
	>10	10	4.04 (0.15)		
Client type	Client	250	3.69 (0.50)	0.22	1.46
	Peer educators	86	3.77 (0.50)		
	Mentor mothers	3	4.14 (0.01)		
	Support group leaders	63	3.80 (0.56)		



The comparison of mean score indicates that male participants had the highest mean score, those with secondary level education, had been on treatment for 7-9 years and were support group leaders.

Table 2 indicates that the F-test ranged in the dimension of quality from the highest to the lowest client literacy (7.84), cost of services (7.79), accessibility (5.71), competence (4.06) and comprehensive package (2.54). Table 3 illustrates that there is a moderate positive relationship between client literacy and the package of services (0.641) and a strong positive

relationship between the package of services and the competence of the service provider (0.894). client literacy increases the chances of utilizing the package of services in CSDS thereby increasing the competence. The P-value of .000 indicates a significant relationship between client literacy, the package of services and the competence of the provider. Table 4 indicated that (79.9%) of participants agreed that ART refill and referral services were available, (12.7%) adherence and psychosocial support, 11.7% and 5% viral load sample collection.

Table 2:

Mean and standard deviation of dimensions of service quality of differentiated service delivery

Dimension of quality	Mean (SD)	minimum	Maximum	F test
Client literacy	4.17 (0.60)	2.55	5	7.84
The cost of services is affordable	4.15 (0.84)	1	5	7.79
Accessibility	3.74 (0.83)	1.43	5	5.71
Competence of the Provider	3.23 (0.82)	1	5	4.06
The comprehensive package of services	2.64 (1)	1	1	2.54

Table 3:

Correlation for client literacy, package of services, competence and quality of services

	Client literacy	Package of services	Competence of service provider
Client Literacy	1		
Package of services	.641**	1	
Competence of the provider	.654**	.894**	1

Table 4:

Comprehensiveness of package of services in community differentiated service delivery

Variable	Agree % (n)	Disagree % (n)	Chi-square	p-value
Symptom Screening is done in the community-differentiated service delivery model	11.7%(47)	87.8%(354)	235.035	0.01
ART refill is done in the community differentiated service delivery model	79.9%(322)	19.6%(79)	147.254	0.01
Psychosocial and Adherence support is provided in the community-differentiated service delivery model	12.7%(51)	86.8%(350)	222.945	0.01
Referral is done for clients who cannot be managed in community community-differentiated service delivery model	79.9%(322)	19.6%(79)	147.254	0.01
Viral Load sample Collection is done in the community-differentiated service delivery model	5%(21)	95% (380)	222.945	0.01

N=401; t-test for equality of means: test value =0 (H₀: there is no difference expected between the means, at $\alpha=0.05$, 2-tailed); reject H₀ if p-value $\leq \alpha$, otherwise fail to reject H₀ If p > α



Table 5 indicates a strong correlation between service quality ($r=0.899$) and competence of the provider followed by comprehensiveness of the package of services, client literacy, cost of services and then lastly accessibility.

Discussion

This study evaluated the quality of care in a community-differentiated service delivery model specifically the functional dimension of quality looking at client literacy, the appropriate package of service and the competence of the provider from the client's perspective.

On dimensions of quality, Freidman's test ranked service quality as follows; client literacy, cost of services, accessibility, competence of the provider and comprehensive package of services. The client literacy which had a high correlation with the quality of differentiated service delivery was first. This suggests that PLHIV are aware of CDS and could have been sensitized on the model through health education during their normal clinic days at the waiting area. These findings are similar to [22], who established the client ranked the quality of services based on information received. Quality of services in CDS cannot be achieved without empowering PLHIV about the model and its benefits. Client literacy increases the assertiveness of PLHIV utilizing a community-differentiated service delivery model.

The cost of services was ranked second and related to the findings by [23] who

established that clients were comfortable because the community-differentiated services were delivered at no cost. The authors suggest that participants perceived that the cost of differentiated service delivery was affordable. Referring to [24], the clients reported that they did not incur any cost of services or use transport to travel to the facility. Therefore, clients were satisfied with this dimension of service quality.

The accessibility of services by the clients came third with the majority of clients agreeing that the community-differentiated service delivery was accessible. The percentage of clients who disagreed that services were not accessible could be attributed to clients who due to self-stigma, choose to access services from far away to conceal their identities for fear of being recognised. These findings are in line with [25] [26] and [27] who found that most clients who were struggling with stigma could travel long distances to access services where they were not known.

Most of the study participants disagreed on the package of services, they were dissatisfied with the services offered at CDS. The package of services was not comprehensive which revealed a service gap. The Differentiated Service Delivery Operational Manual 2023 has outlined core services to be offered in CARGs. These services include ART refill, screening for opportunistic infections using five cardinal signs, adherence counselling, referral and psychosocial support [28] [29]. In this study, most participants agreed on ART refill and referral.

Table 5:

Correlation between service quality in community differentiated service delivery and its dimension

	1	2	3	4	4	5	6
1 Client literacy	1						
2 Cost of services		.434**	1				
3 Competence of the provider		.435**	.280**	1			
4 Accessibility		.005	.000	.604	1		
5 The comprehensiveness of the package of services		.349**	.399**	.565**	.579**	1	
6 Quality of services		.654**	.899**	.641**	.274**	.894**	1

Method: Pearson correlation; **. Correlation is significant at the 0.01 level (2-tailed); Significance for all was .000 less than the p-value or 0.01 and 0.05; N=401



There was a significant relationship between the competence of the provider and the package of services, since peer educators offered service yet lacked formal training. Training the peer educators would enable them to offer a comprehensive package of services.

These findings are similar to [30] [18] [31] and [8], with most clients having indicated that they did not receive all services, particularly opportunistic infection screening, in the CDS model, leading them to prefer receiving care at the facility where a clinician was available. A related study by [32] [33, 7] identified poor quality of services offered was related to inappropriate services, they established that the package of services was inappropriate as it lacked referral and linkage services and patient-centred communication [34] [35].

There was a significant and negative correlation between all the variables and quality of services meaning client literacy, cost of services, competence package of services and accessibility led to a negative perception of the quality of services. The same relationship was established by [36] [21] [37] [38] that clients who had more information about health services perceived the services to be of high quality. Quality community differentiated service delivery cannot be provided without a clear understanding of the community differentiated services delivery model [6] [39] [40] [18]. This needs to start with the training of the lay health providers on how to form a community-differentiated service delivery.

Strength and Limitation

This is the first study to evaluate the quality of community-differentiated service delivery. The results of this study will go a long way in informing policymakers of the quality of services in community differentiated service delivery and act as a guideline for continuous quality improvement.

While this study focused on the quality of services in community differentiated services it

failed to focus on all dimensions of service quality. Evaluating all dimensions of service quality will provide added information on which to base the policies.

This study evaluated the package of services within HIV care treatment and support but failed to look at services within HIV prevention.

Conclusion

The findings in this study indicate that the greatest service gap was the lack of a comprehensive package of services. This dimension indicates that essential services recommended in the differentiated service delivery operational manual 2023 were lacking in community differentiated service delivery. Lack of a comprehensive package means poor quality of services. This failure in service quality could be the reason for the low uptake of the community-differentiated service delivery among PLHIV.

The negative service quality gap in dimensions of community differentiated service delivery can be used by policymakers as a guide to planning and redistribution of resources. The five dimensions can be reclassified into three priority groups for resource reallocation and managerial attempts to reduce quality gaps so that a comprehensive package will be the first followed by the competence of the provider and client literacy.

The findings of the study provide important guidance for policymakers in planning and allocating resources for the review of the package of services. Policymakers should prioritize the allocation of resources towards training lay health providers to offer a comprehensive package of services, increasing technical assistance visits at the community level, and implementing treatment literacy sessions to enhance client confidence in utilizing community models. Future studies should investigate underlying factors affecting the competency of



health workers in providing community-differentiated service delivery.

Authors information

- First Author – Owiti Winnie Sarah, BScN, MSChSM, HDCCP, Kenya Methodist University and National AIDS and STI Control Program. Email address: woawinja2@gmail.com.
- Second Author-Dr Kezia Njoroge, PHD, Kenya Methodist University, kezia305@yahoo.com
- Dr. Job Mapesa PHD, Kenya Methodist University, job.mapesa@kemu.ac.ke
- Correspondence Author – Owiti Winnie Sarah, BScN, MSChSM, HDCCP, Kenya Methodist University and National AIDS and STI Control Program, woawinja2@gmail.com.

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