

Institutional Factors Influencing Patients' Satisfaction with Prevention of Mother-To-Child Transmission of HIV/AIDS Services in Nyamira County Hospital Kenya

Jane Kerubo Mogambi^{1*}, Chrispine Ochieng Ngwawe², Apollo Odhiambo Maima³

¹Department of Community Health and Development, Great Lakes University of Kisumu (GLUK), Kisumu, Kenya

²Department of Public Health, Maseno University, Kenya

³Department of Community Health and Development, Great Lakes University of Kisumu (GLUK), Kisumu, Kenya.

*Corresponding Author

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ABSTRACT

Background: Patient satisfaction is a very key indicator of quality health care that the service user gives through feedback. It is a very important tool in assessing delivery of quality service in health facilities for continuous improvement of services such as HIV/AIDS. Despite increasing availability and accessibility to free Prevention of Mother to Child HIV Transmission (PMTCT) services there is inadequate information on patient's satisfaction with PMTCT services on exit. This study aimed at understanding the institutional factors that impact patients' satisfaction with prevention of Mother-To-Child Transmission Of HIV/AIDS services in Nyamira County Hospital Kenya.

Methods: Analytical cross-sectional study design was used and 276 at Nyamira County Referral Hospital, Nyamira County, Kenya. Data was collected using administered structured questionnaire, and Focus Group Discussion. Quantitative data analysis was conducted using SPSS version 27.0 and involved univariate and bivariate analysis. Bivariate analysis was done through logistic regression was used to test the significance of the association between the dependent and independent variables ($p < 0.05$). Qualitative data was analysed by thematic content analysis.

Results: Overall satisfaction level of respondents was 54.3%, duration receiving services ($\chi^2=6.480$; $df=2$; $p=0.017$), making scheduled appointments to meet client needs ($\chi^2=4.012$; $df=1$; $p=0.037$), communication with healthcare workers ($\chi^2=6.545$; $df=1$; $p=0.040$), checking and examining clients ($\chi^2=5.033$; $df=4$; $p=0.035$), providers being accepting and non-judgmental ($\chi^2=3.871$ $df=4$; $p=0.024$) were significantly associated with satisfaction of PMTCT services

Conclusions and recommendation: Overall satisfaction level of respondents was 54.3%, County health team and donors should scale up provision of modern medical equipment, expansion of facilities for efficient and effective service delivery, professional (competence) development, reduction in waiting times and improved patient-provider relationships to improve satisfaction with PMTCT services.

Keywords: HIV/AIDS, Prevention of Mother to Child HIV Transmission, Public Health Facilities, Reproductive Age, Child Transmission

INTRODUCTION

The Prevention of Mother to Child Transmission (PMTCT) is a crucial intervention against the global HIV epidemic, particularly for women living with HIV/AIDS. The mission of PMTCT services is to eliminate mother to child transmission (MTCT) of HIV and keep mothers alive by 2015¹. Despite the progress, only 70% of pregnant women globally access PMTCT services that aims to reduce the rate of MTCT to less than 5% and maternal mortality by 50% families². Patient satisfaction in healthcare services ranges between 86%-95% and less than 65% in developing countries. Low patient satisfaction can be a reason for patients not making maximum utilization of services, as satisfied patients are more willing to follow instructions, adhere to treatment, and maintain a continuing relationship with practitioners³.

Globally 740,000 women of reproductive age became HIV positive in 2016, with 73% of these women living in just 23 countries, primarily in sub-Saharan Africa. In 2017, just over half of the 1.8 million children living with HIV were receiving ART². Despite this progress, gaps in HIV services led to 690,000 deaths from HIV-related causes in 2019 and 1.7 million new infections.

A study in Tanzania found that patients who waited more than an hour for PMTCT services had lower satisfaction rates compared to those who spent less time⁴. In Ethiopia, 96.0% of respondents reported satisfaction with their consultation session, while 93.4% and 73.8% felt comfortable with their counsellor's handling and perceived sufficient privacy⁵. In Kenyatta National Hospital, over a third of respondents were dissatisfied with PMTCT services due to inadequate privacy and confidentiality. A Kenyatta National Hospital study found that 29.6% of respondents were dissatisfied with PMTCT services due to long waiting times, delayed investigation results, and make-shift pharmacy services. There was a significant relationship between satisfaction with PMTCT services and waiting time, pharmacy services, children healthcare, HIV screening, adherence counselling, psychosocial support service, and PMTCT information and health education materials^{6,7}. The findings differ from those of a study in Kisumu, Kenya which reported found that 64.2% of HIV patients were satisfied with the privacy, comfort, and confidentiality of counselling sessions⁸. This may be attributed to the fact that the Kisumu study examined the subject more broadly and not that in the specifics of PMTC.

MATERIALS AND METHODS

This was an analytical cross-sectional design using both quantitative methods and qualitative methods among patients attending PMTCT services and Focus Group Discussion respectively from selected health facilities in Nyamira County with the data collection done between January 2021 to April 2021. Systematic random sampling method was used to obtain 276 respondents from the patients attending Nyamira County Hospital. The study included women of reproductive age attending PMTCT services, residing in Nyamira County for more than one year, already enrolled for PMTCT program and consented for the study. Further, it excluded respondents from private ownership and respondents of unsound mind who were known through problems with concentration, speech that are hard to explain and uncharacteristic, peculiar behaviour. Interviewer-administered structured questionnaires were used to collect quantitative data while Focus Group Discussion Guide was used to collect qualitative. Quantitative data was analysed using statistical package for social science (SPSS) version 27.0. Descriptive data was presented using frequencies, percentages, means and standard deviation while inferential statistics used chi-square test to measure association between independent and dependent variables. P values less than 0.05 were considered statistically significant. Qualitative data generated from FGDs inform of notes (responses) from the participant's was cleaned and coded manually based on themes developed from responses (thematic analysis) in accordance with the research objectives and reported in narrative form and additionally used to reinforce quantitative data.

RESULTS

Socio-Demographic Characteristics of study respondents

The respondents age ranged from 16 years to 49 years, the median 31.0 years and the mean age was 32.3 ± 9.7 . The findings showed that 58(21.0%) were between 25-29 years, 26(9.4%) were 45 years and above. Slightly more than half 144 (52.2%) were married with 90(32.6%) never married at the time of the study and more than two-third 187(67.8%) were female. Slightly more than a third 107(38.8%) of respondents had primary education with 40(14.5%) having a tertiary education (Table 1).

Table 1: Socio-Demographic Characteristics of study respondents

Characteristics		Frequency	Percent
Age group <i>Mean=32.34</i> <i>SD=9.7</i>	< 20 years	13	4.7
	20-24 years	52	18.8
	25-29 years	58	21.0
	30-34 years	52	18.8
	35-39 years	37	13.4
	40-44 years	38	13.8
	≥ 45 years	26	9.4
Gender	Female	187	67.8
	Male	89	32.2
Marital status	Single	90	32.6
	Married	144	52.2
	Divorced/separated	30	10.9
	Widow	12	4.3
Level of Education	No formal education	38	13.8
	Primary	107	38.8
	Secondary	91	33.0
	Tertiary	40	14.5

Satisfaction with Different Services

The study revealed various services had higher excellent rates of satisfaction among them including registration and appointment (26.8%), PMTCT of HIV/AIDS counselling services (29.0%), and pharmacy (26.8%). Consultation services (27.9%), adherence counselling services (29.0%), and child health care services (31.2%) had poor rates of satisfaction (Table 2).

Table 2: Satisfaction with Different Services

Services	Poor	Fair	Good	Excellent
	n (%)	n (%)	n (%)	n (%)
Registration and appointment	68(24.6)	74(26.8)	60(21.7)	74(26.8)
Consultation services	77(27.9)	64(23.2)	64(23.2)	71(25.7)
PMTCT of HIV/AIDS counselling services	61(22.1)	63(22.8)	72(26.1)	80(29.0)
Adherence counselling services	80(29.0)	72(26.1)	61(22.1)	63(22.8)
Psychological support services	75(27.2)	59(21.4)	75(27.2)	67(24.3)

Laboratory services	67(24.3)	77(27.9)	63(22.8)	69(25.0)
Infant and young child screening	65(23.6)	84(30.4)	60(21.7)	67(24.3)
Child health care services	86(31.2)	71(25.7)	59(21.4)	60(21.7)
Prevention of new HIV infections, condom use and supply	69(25.0)	70(25.4)	70(25.4)	67(24.3)
Pharmacy	64(23.2)	69(25.0)	69(25.0)	74(26.8)

Qualitative results indicated that poor satisfaction rates for some services not mostly related to healthcare workers offering the services: “...*The hospital doesn’t have enough staff to be able to offer some services... ..you may find in some days, offering services for 10 patients takes several hours, leading to wastage of time at the facility*” (FGD 1).

“...*You find that due to poor staffing norms and inadequacy of facilities, there long queues which result to more waiting time. I have defaulted severally due to long queues and slow movement...*” (FGD 5).

Health System Infrastructure

On the health system infrastructure, more than half, 59.4%, and 51.1% said PMTCT of HIV/AIDS health workers are competent and the health facility has appropriate infrastructure for PMTCT program. Additionally, 54.3% of respondents said there are unavailability and inadequate supply of relevant resources (Table 3).

Table 3: Health System Infrastructure

Characteristics		Frequency	Percent
Technical competency of PMTCT of HIV/AIDS health workers	Yes	164	59.4
	No	112	40.6
Appropriate infrastructure for PMTCT program	Yes	141	51.1
	No	135	48.9
Availability and adequate supply of relevant resources	Yes	126	45.7
	No	150	54.3

Qualitative findings revealed increasing good will and commitment to improve the PMTCT for HIV/AIDS services and enhance positive customer experiences during service delivery: Trained doctors play very little role informing us on the availability of screening services, the dos and don’ts. Most of the knowledge we have about it is through the competent healthcare workers.

"I have gained a lot from the healthcare workers since I first utilized the services, anything that I don't know, I will get information from the healthcare workers. I frequently visited other health facilities, but they never educated me as they are doing in this facility " (FGD 1).

"I tell you this, the infrastructure here it’s so good, there is privacy. There is no private information that leaks. You check in to your healthcare provider alone, if accompanied, maybe your spouse " (FGD 6).

Level of Satisfaction with Different Services

Overall satisfaction level of respondents was 54.3% with dissatisfaction level at 45.7% (Figure 1).

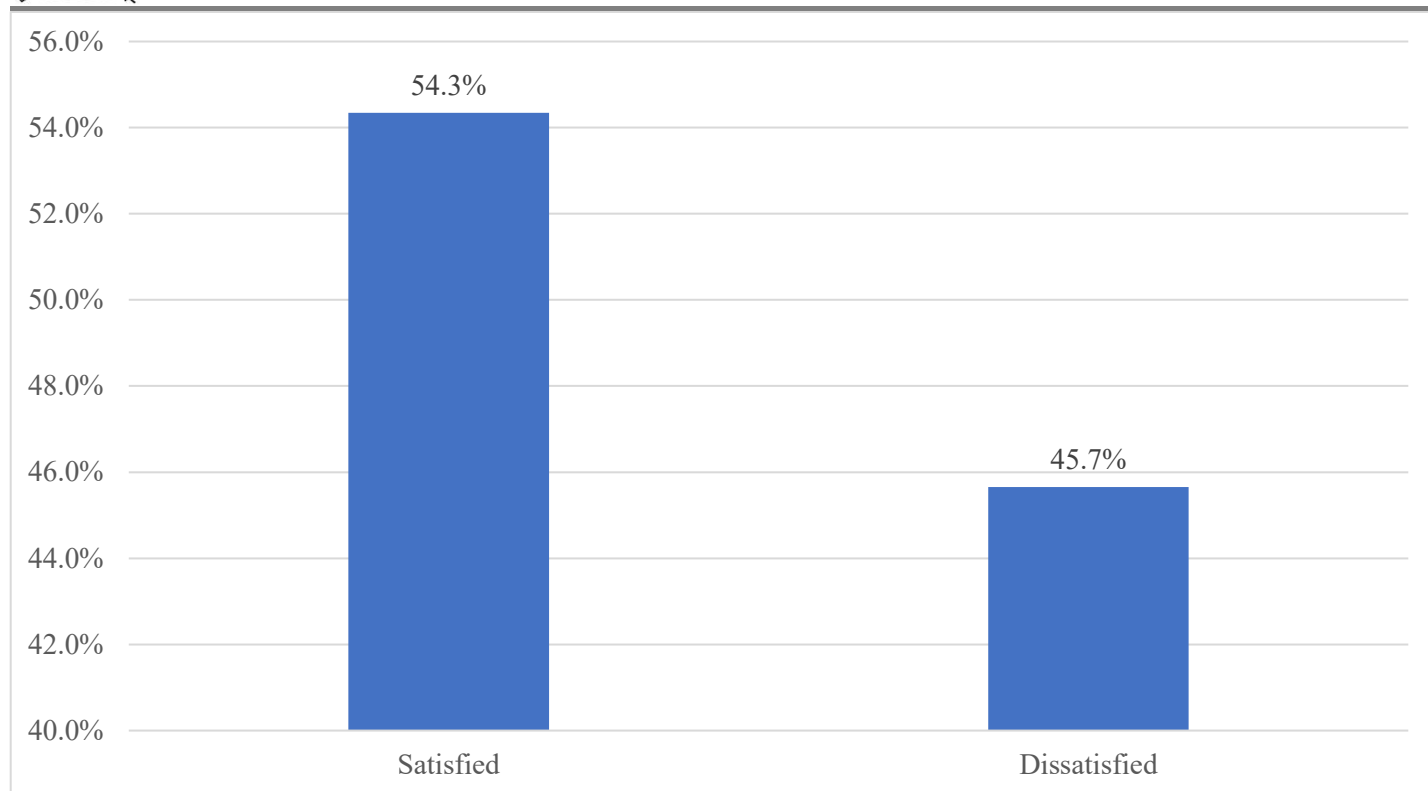


Figure 1: Level of Satisfaction with Different Services

Access to PMTCT of HIV/AIDS Services

Most of respondents 54(56.8%) who were satisfied had been utilizing the services for a period between 1-2 years. There is a statistically significance association between duration receiving PMTCT of HIV/AIDS services and satisfaction with the services at ($\chi^2=6.480$; $df=2$; $p=0.017$). At least 54.7% of respondents hadn't called the clinic to make an appointment and this was significantly associated with satisfaction with PMTCT services ($\chi^2=4.012$; $df=1$; $p=0.037$). There was a statistically significant association between schedule appointment soon enough for respondents needs ($\chi^2=9.444$; $df=1$; $p=0.042$) and 62.7% said that their providers told them how important it was to keep my appointments, additionally, most of respondents were able to get someone on phone to discuss it with on matters concerning PMTCT for HIV/AIDS. These variables were significantly associated with satisfaction with by the PMTCT for HIV/AIDS services offered at the health facility at $\chi^2=6.545$; $df=1$; $p=0.040$ and $\chi^2=5.873$; $df=1$; $p=0.028$ respectively (Table 4).

Table 4: Access to PMTCT of HIV/AIDS Services

Variables		Level of satisfaction		Significance
		Satisfied	Dissatisfied	
Duration receiving PMTCT of HIV/AIDS services	1 year	45(51.7%)	42(48.3%)	$\chi^2=6.480$; $df=2$; $p=0.017$
	1- 2 years	54(56.8%)	41(43.2%)	
	3-5 years	51(54.3%)	43(45.7%)	
Call the clinic to make an appointment	Yes	74(54.0%)	63(46.0%)	$\chi^2=4.012$; $df=1$; $p=0.037$
	No	76(54.7%)	63(45.3%)	
Schedule appointment soon enough for my needs	All the time	23(45.1%)	28(54.9%)	$\chi^2=9.444$; $df=1$; $p=0.042$
	Most times	25(61.0%)	16(39.0%)	
	Sometimes	35(66.0%)	18(34.0%)	

	Rarely	31(43.7%)	40(56.3%)	
	Never	36(60.0%)	24(40.0%)	
My providers told me how important it was to keep my appointments	All the time	32(62.7%)	19(37.3%)	$\chi^2=6.545$; df=1; p=0.040
	Most times	31(55.4%)	25(44.6%)	
	Sometimes	24(47.1%)	27(52.9%)	
	Rarely	31(45.6%)	37(54.4%)	
	Never	32(64.0%)	18(36.0%)	
I could get someone on phone to discuss it with me	All the time	28(51.9%)	26(48.1%)	$\chi^2=5.873$; df=1; p=0.028
	Most times	25(42.4%)	34(57.6%)	
	Sometimes	34(59.6%)	23(40.4%)	
	Rarely	26(55.3%)	21(44.7%)	
	Never	37(62.7%)	22(37.3%)	

Waiting for the Appointment

On satisfied respondents, about 52.0%, 61.7%, and 63.0% of the respondents reported that the hospital staff were never, rarely and all the time unfriendly to them whenever they visited the clinic respectively. Majority of the respondents (58.6%) indicated that there was availability of HIV-specific education materials for reading at the clinic and about 61% of the respondents indicated they got upset by long waiting at the reception before seeing a health worker. In addition, these variables were not significantly associated with satisfaction of PMTCT for HIV/AIDS services at $\chi^2=5.531$; df=4; p=0.237, $\chi^2=1.286$; df=4; p=0.864, and $\chi^2=2.875$; df=4; p=0.578 respectively (Table 5).

Table 5: Waiting for the Appointment

		Level of satisfaction		Significance
		Satisfied	Dissatisfied	
The staff were unfriendly to me	All the time	34(63.0%)	20(37.0%)	$\chi^2=5.531$; df=4; p=0.237
	Most times	26(50.0%)	26(50.0%)	
	Sometimes	27(45.0%)	33(55.0%)	
	Rarely	37(61.7%)	23(38.3%)	
	Never	26(52.0%)	24(48.0%)	
Educational materials were available for me to read	All the time	34(58.6%)	24(41.4%)	$\chi^2=1.286$; df=4; p=0.864
	Most times	30(54.5%)	25(45.5%)	
	Sometimes	26(48.1%)	28(51.9%)	
	Rarely	27(55.1%)	22(44.9%)	
	Never	33(55.0%)	27(45.0%)	
I was upset by how long I had to wait for my appointment	All the time	34(60.7%)	22(39.3%)	$\chi^2=2.875$; df=4; p=0.578
	Most times	29(52.7%)	26(47.3%)	
	Sometimes	27(46.6%)	31(53.4%)	
	Rarely	31(53.4%)	27(46.6%)	
	Never	29(59.2%)	20(40.8%)	

DISCUSSION

The study revealed various services had higher excellent rates of satisfaction among them including registration and appointment, PMTCT of HIV/AIDS counselling services, and pharmacy. Consultation services, adherence counselling services, and child health care services had poor rates of satisfaction. This finding contradicts a study by Ochan et al.⁹ found that there was generally a low patient satisfaction in the different health facilities and different services in Uganda where a big imbalance of power between PMTCT providers and potential users of PMTCT services still existed. This may be related to the fact that Uganda was still grappling with how to improve utilization of health services to improve the quality of life among its people. Evidence from a study by Syombua¹⁰ showed that registration, appointments and PMTCT of HIV/AIDS counselling services were rated higher by the respondents who were seeking services in the facility. This is consistent with findings by Nwabueze et.al¹¹ who found out that 60% of respondents were satisfied by the services provided at the pharmacy. However, this is inconsistent with findings of a research done in Addis Ababa which revealed that patients were least satisfied by the time they wait to get pharmacy services¹². However, a study conducted in Dar es Salaam, Tanzania showed that majority of HIV/AIDS patients were comfortable with waiting time for getting pharmacy services¹³. This may be associated with the culture of “no hurry in Tanzania” that widely embraced in the country

This study found that the overall satisfaction with PMTCT services was 54.3%. These findings agree with other study conducted by Okafoagu, et al.¹⁴ to assess clients satisfaction with anti-retroviral therapy services in a tertiary hospital in Sokoto, Nigeria. The overall rate of patient satisfaction in this study was similar compared to a study from South Africa and Tanzania that showed high overall patient satisfaction with HIV/AIDS services to be 57.2% and 56.9% respectively^{4,12}. It is however, lower than a study conducted in Kenya where majority of the patients ranked overall satisfaction high with a mean of 5 on a five-point Likert scale⁷.

In this study, being able to call the clinics to make an appointment had association with patient’s satisfaction with the healthcare provided. Most of those satisfied had not called to make appointment. A study by Ogunsanwo¹² indicated that when the experiences of the care provider match with the expectation of the patient, the latter scored high level of satisfaction. In the study the clients mostly came expecting to find health workers to serve them and sure enough they found them. This contributed to them being satisfied. The patients need not call for appointment as the services are always available for them. HIV/AIDS patient’s satisfaction was influenced by accessibility in that patients reported being satisfied with healthcare because they easily got the care whenever they needed it.

Schedule appointment soon enough to meet clients’ needs was associated with satisfaction of PMTCT services. Similarly, providers communication on keeping appointments ($\chi^2=6.545$; $df=1$; $p=0.040$) and discussing with client through the phone on the hour on need ($\chi^2=5.873$; $df=1$; $p=0.028$) were significantly associated with satisfaction of PMTCT services. Communication plays a key role in PMTCT services delivery especially among HIV nursing mothers and partners who need to keenly adhere to PMTCT policy guidelines in order to prevent mother to child transmission during infant and young child feeding. Abebe et al.¹⁵ and Ochan et al.⁹ found that regular appointments allow for the identification of quality gaps, reinforcement of core values and provision of information for advocacy, benchmarking and change management. Communication is an interaction, where information is imparted from various parts of the organization to staff within the organization, to the communities being served and to other stakeholders and policy makers. This improves the client satisfaction; health care providers are expected to be sincere in helping patients solve their problems.

However, in many instances, staff not responsive enough in identifying and attending to patients. This was coupled by poor provider-client communication especially explanation of health conditions, diagnosis and treatment in a clear and understandable way. Staff attitude, commitment and sensitivity to patients’ issues is essential for patients to develop effective and friendly relationship with service providers¹⁶. Patient satisfaction with the perceived quality of service has been linked to the subjective feeling of the customers in relation to their experiences during production and consumption of the service products. Explaining and communicating provider intentions and interventional outcomes such as explaining diagnosis and treatment plans, their purposes and

outcomes has a positive effect on customer perceptions. This requires service providers to create a good rapport that makes patients feel comfortable and confident with the process.

Study Limitation

Study was undertaken during the COVID-19 pandemic thus achieving a low turnout amongst patients seeking PMTCT services. To cure this, the researcher extended the period of study to achieve sufficient numbers. The researcher also encountered difficulties in combining data collection and employment responsibility. To this effect, the trained research assistants filled the gap. Further, the researcher had no control over the sincerity of the respondents in giving accurate and reliable responses due to self-reporting. To mitigate for this, the researcher triangulated the quantitative results with the qualitative findings for deeper insights

Conclusions from the study

This study reported an overall satisfaction level was 54.3% with various services having higher excellent rates of satisfaction among them registration and appointment, PMTCT of HIV/AIDS counselling services, and pharmacy. Consultation services, adherence counselling services, and child health care services had poor rates of satisfaction. The study revealed that the following factors were significantly associated with satisfaction of PMTCT services; age, gender, duration receiving services, making scheduled appointments to meet client needs, communication with healthcare workers, checking and examining clients, providers being accepting and non-judgmental, providers' knowledge of the newest development in PMTCT, quality of service and developed adherence plans.

Recommendation from the Study

The study recommends that ministry of health should work closer with the county health team and other partners to scale up quality of service. This should be done through the provision of modern medical equipment, expansion of facilities for efficient and effective service delivery, professional (competence) development, reduction in waiting times and improved patient-provider relationships to improve health satisfaction with PMTCT services. There is also a need for refresher trainings and sensitization on emerging issues and patients' management to enable health teams deliver services more efficiently.

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Declarations

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