Research Article

Evaluating the Quality and Satisfactory Services on Antiretroviral Therapy at dilla University Referral Hospital, Dilla Town, Snnpr, Ethiopia, 2018g.C -

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ABSTRACT

Background: Despite the fact that Ethiopia is accelerating its antiretroviral therapy program, little is known about the client satisfaction and the quality of antiretroviral therapy services provided at the various health facilities. Providers' perceptions of the quality of antiretroviral therapy services and constraints experienced by providers were low including study area.

Objective: The objective of this study was to determine evaluating the quality and satisfactory services on antiretroviral therapy at Dilla University Referral Hospital.

Methods: The cross-sectional study was conducted with quantitative method. The participant was selected using systematic sampling methods. The data were collected using exist interview and analyzed using Statistical Package for Social Science 20. version. Multivariate logistic regression was used to identify factors affect outcome variables at P-value less than 0.05 with 95 % confidence interval.

Result: A total of 270 respondents were interviewed of whom 144 were females and 126were male and the highest proportion 123 (45.6 %) was between the age 31-60 years. Time spent waiting to be seen by health professional, measures taken to assure confidentiality and time spent to get service and get back were the main reasons reported rating dissatisfaction of clients greater than 20 %. Gender ($p = 0.023$), Marital status ($p = 0.01$), education level ($p = 0.05$), time to arrive and returned ($p = 0.012$) and time spent to be seen by health professional ($p = 0.031$) founded significantly associated with client satisfaction.

Conclusion: clients were found to be relatively moderate level satisfied compared to related studies. Creating awareness of health professionals about the importance of continuous follow up of their clients and providing information about their condition and benefits and adequate counseling on personal habituating mechanisms to satisfy on treatment were recommended.

Keywords: Satisfaction, Associated factors, Antiretroviral therapy clients, Dilla referral hospital

INTRODUCTION

The Human Immune-Deficiency Virus (HIV) has created an enormous challenge worldwide [1]. Since recognition of the disease, HIV has infected close to 71 million people, and more than 30 million have died due to Acquired Immune Deficiency Syndrome (AIDS). More than 66 % of the 40 million plus people living with HIV/AIDS (PLWHA) are in Sub-Saharan Africa, where AIDS is the leading cause of death. Highly Active Antiretroviral Therapy (HAART) was the breakthrough in the world, leading to the reduction of mortality and the improvement of quality of life of PLWHA [2].

Highly Active Antiretroviral Therapy (HAART) was the breakthrough in the world, leading to the reduction of mortality and the improvement of quality of life of PLWHA. Antiretroviral (ARV) drugs also significantly reduced the incidence of HIV transmission from mother to child. Thus Antiretroviral Therapy (ART) has become an integral part of the continuum of HIV care. According to the 2005 projection of Federal Ministry of Health's Fifth report of "AIDS in Ethiopia", the HIV national adult prevalence rate is estimated to be 4.7 %, of which 12.5 % are urban and 3.0 % rural. The cumulative number of people living with HIV/AIDS is about 1.7 million out of which more than 286,200 are cases in need of ART [3].

Currently more than 100 health facilities are providing ART services. Out of which 10 of them are public health facilities found in Addis Ababa. Reports from MOH show that nationally 73540 PLWHA have been ever enrolled, out of them 45595 have been ever started on treatment; of which currently, only 35460 of them are on ART [2,3].

The country's plans to respond to the HIV/AIDS emergency cannot be achieved without adequate focus on improving quality of care or treatment. A consensus is also growing that access to antiretroviral therapy is insufficient to alter the poor health profile of PLWHA and that the quality of ART services may be a key determinant of ART outcomes. Notably, gaps still exist in our knowledge of PLWHA on ART, PLWHA not on ART, and providers' perceptions of the quality of ART services, constraints experienced by providers in the delivery of ART services, the impact of quality of care on ART outcomes, and the perspectives of PLWHA on ART [4].

Hence to fill this gap and in view of the national ART scale up program, assessing the quality of ART services would be timely in identifying obstacles and to recommend possible solutions [5]. Therefore; the aim of this study was to determine evaluating the quality and satisfactory services on antiretroviral therapy and its associated factors at Dilla University Referral Hospital.

METHODS AND MATERIALS

Study design and period

Institutional based cross-section study design was conducted at the Dilla University Referral Hospital in Dill Town Southern Nations, Nationalities, and Peoples Region March 01 to May 30 2018. Dilla Town is located 365 km apart from the South direction of Addis Ababa. It has two government health center and one referral hospital. Currently the hospital provides service for above 2 million catchment population in various wards: namely internal medicine, pediatrics, obstetrics and gynecology, surgery, dentistry, ophthalmology and psychiatry. ART clinic of DURH was inaugurated in 1998 and serving about 40,536 clients on ART and follow up service.

Study Population

The study population consist of all patients on ART services that is receiving ART service at Dilla University Referral Hospital. Patients less than 18 years old and those who were on ARV treatment for less than 3 months were excluded from this study.

Sample Size and Sampling Technique

The required sample size was calculated by using single population proportion 20 % of previous study in Addis Ababa City [6] considering 95 % confidence interval, the margin of error 5 % and 10 % none response rate and final sample size was 270 (PLWA on ART).

A systematic random sampling technique was performed to select

representative sample of clients on ART services based on prepared a numbered list of all the units in the institution (sample frame) numbered from one to N (where N of the size of the population) to get Kth interval then the randomness was ensured using Lottery methods.

Data Collection

Data were collected using face to face structured questionnaire. The questionnaires consist of socio-demographic variables of the participants and questions on variables of client satisfaction. The questionnaire was first prepared in English and then translated into Amharic and local language (Gedeofa). Four trained grade twelve completed youth were recruited as data collectors. The questionnaire was pretested to ensure easily respond of questions by study participants during interview. The interviewed questionnaires were checked for completeness and consistency by principle investigator.

Data Analysis

The raw data were entered, cleaned and analyzed using SPSS (Statistical Package for Social Science) version 20 software. Descriptive statistics were calculated to project with statement and tables. Binary and multivariate logistic regression analyses were used to estimate the presence of statistically significant association between response variable and expel mentor variables. Crude and adjusted odd rations with 95 % CI were analyzed and a P value less than 0.05 was cutoff point considered statistically significant.

Ethical Considerations

The study was approved by Review Committee of Dilla University College of Medicine and Health Science. Permission was also secured from Dilla University Referral Hospital and informed consent was obtained from participants. All participants were informed of their right to refuse at any time and not to write their names to ensure confidentiality.

RESULT

A total of 270 respondents were interviewed of whom 144 (53 %) were females and 126 (47 %) were male. The highest proportion 123 (45.6 %) was within the age group of between 31-60 years. The mean age of interview was 36. More than three-fourth (83.7 %) of respondents were married and Educational level of the respondents comprises from illiterate to degree holders being dominated by 159 (58.9 %) secondary school (grade 9-12). Almost two-third of the client's 182(67.4 %) were living with their family or relative and sixty six (24.4 %) and 78 (28.9 %) of the respondents were on ART treatment for 7-12 and 13-24 months in hospital respectively (Table 1).

Satisfaction of client on ART service

Clients were interviewed about source of information, time spent to arrive in hospital. Accordingly, 188 (69.3 %) of the respondents reported that they heard about ART services in respective hospitals for the first time from health professionals while less than 10 % as source of information from contribution of relatives, mass media, and friends. Relative to time spent to arrive hospital, more than two-third188 (69.3 %) of the respondents took them less than 30 minutes and 82(30.7 %) of them 40 minutes to 1 hours (Table 2).

Based on the above eleven variables, satisfaction summary score was done by assigning

Table 1: Socio demographic characteristics of ART clients in DURH, March-May 2018(n=270).

Variable category	Frequency	%
Gender		
Male	126	46.3
Female	144	53.7
Age group		
<30	77	28.5
31-60	123	45.6
>60	70	25.9
Religion		
Orthodox	122	45.2
Catholic	12	4.4
Protestant	118	43.75
Muslim	12	5.2
Marital Status		
Married	226	83.7
Divorced	31	11.5
Widowed	13	4.8
R/n with the head		
Head/partner	151	55.9
Daughter/son	25	9.3
Brother/Sister	15	5.5
Relative	23	8.5
Alone	56	20.7
Education Level		
Illiterate	34	12.6
Write and read only	10	3.7
Primary school(1-8)	8	3
Secondary school	159	58.9
Completed 12& above	59	21.9
ART duration status		
7-12months	66	24.4
13-24months	78	28.9
25-36months	38	14.1
>36months	88	32.6
Currently Living with		
Family/Relative	182	67.4
Alone	88	32.6

values "-1" for those who were dissatisfied, "0" for those who were neutral and "+ 1" for those who were satisfied. The mean and median of the summary score were found to be 9 and 10 respectively. Taking the mean of summary score of satisfaction as cut point, 176 (65.2 %) of the respondents were found to have satisfaction above mean of satisfaction score (that is above 9) and 94 (34.8 %) mean of satisfaction below score (that is 9 and below).

Factors affecting client satisfaction

Logistic regression was carried out to check the effect of potential independent variables on client satisfaction of quality ART service

those variables, which have *p* -value less than 0.25 were applicatin and analyzed for multivariate logistic regression were gender (*p*=0.023), Marital status (*p* =0.01), education level (*p* =0.05), time to arrive& returned (*p* =0.012) and time spent to be seen by health professional (*p* =0.031) founded significantly associated with client satisfaction (Table 3).

DISCUSSION

Clients were relatively satisfied with all variables or aspects of services ranging from satisfaction with the way health professionals examined (59.0 %) to satisfaction with courtesy& respect by health professionals (70.7 %). Moreover 65.2 % of the clients were having the mean satisfaction score. This figure of this findings is much higher when compared with reports by other researchers who assed satisfaction rates of related clients were delivered services, those reported 22 % and 37.2 % in Gondar and the British social attitudes survey of 1990 orderly [7,8]. The discrepancy might have highly exposure of getting information and socio-economic status. On the other hand, researches done in Jimma hospital [9] on satisfaction of service utilizing clients showed 57.1 % of satisfaction which can be considered existed in the same confidence interval levels. Another study conducted in Singapore hospitals has revealed that 40 % of the total number of patients reported service quality was below their expectations [10] this may point out services provided context deference. Measuring satisfaction of ART services might overestimate the satisfaction level. This could be not only due to getting ARV drugs for clients mean as a second chance of life (born twice) but also clients recognize that their options were limited without ART

Table 2: Responses to satisfaction rating of different variables by ART Clients in DURH March-May 2018.

Variables	Satisfaction Rating		
	Satisfied (+1)	Natural(0)	Dissatisfied (-1)
	(# %)	(# %)	(# %)
Time spent waiting to be seen by health prof.	158(59)	36(13.3)	76(28.7)
Queue process to be seen by health prof.	189(70.0)	45(16.7)	36(13.3)
Courtesy& respect by health professionals	191(70.7)	28(10.4)	51(18.9)
The way health professionals examine	187(69.3)	29(10.7)	54(20.0)
Measures taken to assure privacy during examination	190(70.4)	42(15.6)	38(14.1)
Time spent to get service& get back	148(55.0)	60(22.2)	62(22.8)
Satisfaction of clients with availability drugs& supplies	187(69.3)	25(9.3)	58(21.4)
Overall cleanliness& comfort for waiting area, examination room and compound.	189(70.0)	26(9.6)	55(20.4)
Completeness of information given by health prof.	188(69.3)	25(9.3)	57(21.1)
Measures taken to assure confidentiality from providers	159(59)	29(10.7)	82(30.3)
Getting information about registration, exam, lab& dispensing room services	189(70.0)	17(6.3)	64(23.7)

Table 3: Determinants of clients' satisfaction of quality of ART service in DURH, March to May, 2018.

Variables	Satisfaction		95% CI	
	Yes	No	COR	AOR
Sex				
Male	82(65.0)	44(35.0)	1	1
Female	94(65.3)	50(34.7)	2.13(1.52-7.57)*	3.25(1.59-11.32)*
Age group(yrs)				
<30	50(64.9)	27(35.1)	1	1
31-60	80(65.0)	43(35.0)	1.52(1.35-6.32)*	0.56(0.02-2.25)
>60	46(66)	24(34)	3.21(0.23-5.25)	1.36(0.95-4.25)
Marital Status				
Married	147(65.0)	79(35.0)	4.52(2.36-12.25)*	3.26(2.36-9.23)**
Divorced	21(68.0)	10(62.0)	1	1
Widowed	8(61.5)	5(38.5)	2.31(1.96-6.35)*	1.25(0.69-5.25)
Education Level				
Illiterate	22(64.7)	12(35.3)	0.36(0.15-0.93)*	0.23(0.19-0.89)*
Write and read only	7(70.0)	3(30.0)	0.53(0.23-1.69)	0.18(0.36-2.36)
Primary school(1-8)	5(62.5)	3(37.5)	1.23(0.38-6.34)	2.13(0.95-6.54)
Secondary school	103(64.7)	56(35.3)	1	1
Completed 12& above	39(66.1)	20(33.9)	1.59(1.32-13.38)*	1.28(0.67-5.63)
Currently living with				
Family/Relative	118(64.8)	64(35.2)	1	1
Alone	57(64.7)	31(35.3)	4.32(2.65-9.63)*	1.69(0.95-4.37)
Time spent waiting to be seen by health prof.(satisfied)				
Yes	158(79.8)	40(20.2)	1	1
No	18(25.0)	54(80.0)	0.65(0.28-0.98)*	0.25(0.15-0.86)*
Queue process to be seen by health prof.(Satisfied)				
Yes	154(75.1)	51(24.9)	1	1
No	22(33.8)	43(66.2)	0.23(0.017-0.93)*	0.68(0.24-6.32)
Time spent to get service& get back(Satisfied)				
Yes	148(82.2)	32(17.8)	1	1
No	28(31.1)	62(60.9)	0.63(0.32-0.92)*	0.19(0.13-0.84)*
Measures taken to assure confidentiality(Satisfied)				
Yes	159(76.1)	50(23.9)	1	1
NO	17(27.9)	44(72.1)	0.98(0.09-0.86)*	0.56(0.35-7.32)

to prolong survival. This fact may hinder clients to recognize the drawbacks of ART services like lack of completeness of information, privacy, respect and confidentiality. They might be satisfied just only because they received ARV drugs for free, able to prolong their life. Another reason for higher satisfaction rate in this study could be attributed to reluctance of clients to express their dissatisfaction feeling of the services they received since the interview for this study was undertaken at the hospital [8].

A study conducted in Jimma hospital where 63.7 % of the

clients lacked drugs from the hospital pharmacies which is lower compared to this study where 69.3 % of the respondents are satisfied with availability of ARV drug and supplies. This difference could be hospitals for this study offer ARV for free and donor supported. Similarly, many studies have also indicated that patients equate availability of drugs with high quality services, a study conducted in Kenya reported drug availability in health facility had a positive impact on demand for services [11-14].

There are also evidences that suggest health professional and client relationship aspect of satisfaction affect the quality of ART services or outcomes of ARV treatment. Other authors have reported that sources of dissatisfaction with health care include the inadequacy of information dissemination about patients' conditions and treatment [5]. Dissatisfaction due to information provision is also in-line with a report from a similar study conducted in Singapore hospitals where" Doctors should thoroughly explain medical conditions to patients" was rated first among the identified sources for the dissatisfaction of the patients [10].

Adjusted odds ratio of this study also revealed a significant association between education levels. clients who were illiterate their education level were 77 % less likely satisfied compared to in higher education levels. Clients who reported time spent to get service& get back negatively were 81 % less likely satisfied compared to those reported positively. It was consisted with studies conducted other study areas [9,15-18]. Clients who were their gender female and married were more than three times more likely satisfied compared to male clients and those divorced their marital status.

LIMITATION

This study is a cross-sectional and a facility based survey. So it may not show subsequent patterns of satisfaction. It may overestimate findings since data collection was conducted in a single hospital.

CONCLUSION AND RECOMMENDATION

ART clients were found to be relatively moderate level satisfied, perceived a great deal of positive change in their quality of service delivery on ART course. Moreover, this study revealed that, gender, marital status, education level and time spent for waiting and getting services late was predictors of satisfaction of clients.

- Strengthened education to enhance awareness of the community and individuals on HIV/AID

- Creating awareness of health professionals about the importance of continuous follow up of their clients and providing information about their condition and benefits and adequate counseling on personal habituating mechanisms to satisfy on treatment such as cues, memory aids and alarms to solve dissatisfaction of clients before occurred gaps.

- Other researchers should be considered via investigation to mix study design that involved qualitative study.

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